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[1] Includes 7 patents withdrawn.
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LIST OF PATENTEES

This list includes reissue patentees

Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Errata

Previous Edition

In the "Index of Patents," vol. 1962, p. 180, under "Chemetals Corp." strike out "Baer, Robert A., Slattery, and Tripp. 3,030,494." and "Bevarly, Henry W. 3,019,110.," and insert the same under "Chemetron Corp.," same p. 180.

In the "Index of Patents," vol. 1962, p. 784, under "P-M Associates" strike out "Castel, Jacques H., and Edwards. 3,068,400.," and "Janssen, Hermann. 3,068,401." and insert the same under "PGAC Development Co.," same p. 784.

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Able, Edward T., to B. K. Sweeney Mfg. Co. Torque wrench. 3,076,362, 2-5-63, Cl. 81—52.4.
Abolins, Andrew: *See*—
Levitt, Semond, Hindin, and Abolins. 3,112,040.
Abos, Ralph L., and B. H. Hadley. Diaphragm valve. 3,083,941, 4-2-63, Cl. 251—46.
Abplanalp, Hans, Jr. Brake for coffin-lowering apparatus. 3,095,066, 6-25-63, Cl. 188—97.
Abplanalp, Robert H. Method of and apparatus for dispensing aerosol materials. 3,113,698, 12-10-63, Cl. 222—1.
Abplanalp, Robert H., and J. R. Focht, to Precision Valve Corp. Valve buttons for pressurized dispensers and dies for making the same. 3,083,917, 4-2-63, Cl. 239—468.
Abplanalp, Robert H., and J. R. Focht, to Precision Valve Corp. Valve buttons for pressurized dispensers and dies for making the same. 3,083,918, 4-2-63, Cl. 239—468.
Abraham, Bernard M., to United States of America, Atomic Energy Commission. Tritium production by neutron-irradiation of aluminum-lithium alloys. 3,100,184, 8-6-63, Cl. 204—154.2.
Abraham, Edward D., to The Osborn Mfg. Co. Blow and squeeze molding machine and method of molding. 3,089,206, 5-14-63, Cl. 22—36.
Abraham, Edward P.: *See*—
Florey, Howard W., Abraham, Newton, Burton, Kelly, Hale, and Miller. 3,094,527.
Abraham, Edward P., and G. G. F. Newton, to National Research Development Corp. Cephalosporin C. 3,093,638, 6-11-63, Cl. 260—243.
Abraham, George. Multistable circuit employing devices in cascade connection to produce a composite voltage-current characteristic with a plurality of negative resistance regions. 3,089,039, 5-7-63, Cl. 307—88.5.
Abraham, Leonard G., to Bell Telephone Laboratories, Inc. Line protection in radio relay systems. 3,072,748, 1-8-63, Cl. 179—15.
Abraham, Lothar: *See*—
Harman, Cameron G., and Abraham. 3,071,455.
Abramitis, Walter W.: *See*—
Reck, Richard A., Abramitis, and Wilhemy. 3,097,088.
Abramo, John G.: *See*—
Garner, Albert Y., Chapin, and Abramo. 3,075,011.
Abramo, John G., to Monsanto Chemical Co. Polymers of hydroxyalkyl vinylbenzyl ethers. 3,079,369, 2-26-63, Cl. 260—89.3.
Abramo, John G., to Monsanto Chemical Co. Vinyl aromatic oxymethyl oxy compounds. 3,100,804, 8-13-63, Cl. 260—611.
Abramo, John G., and E. C. Chapin, to Monsanto Chemical Co. Alkylene-aromatic-acetamides. 3,073,862, 1-15-63, Cl. 260—558.
Abramo, John G., and E. C. Chapin, to Monsanto Chemical Co. Beta-cyano alkylbenzyl alcohols. 3,074,995, 1-22-63, Cl. 260—465.
Abramo, John G., and E. C. Chapin, to Monsanto' Chemical Co. Copolymers of vinylbenzyl alcohol with vinyl compound. 3,093,622, 6-11-63, Cl. 260—85.5.
Abramo, John G., and E. C. Chapin, to Monsanto Chemical Co. Alpha-cyanoalkyl-aromatic-methyl compounds and their production. 3,093,676, 6-11-63, Cl. 260—465.
Abramopoulos, John. Combined positive displacement engine and positive displacement rotary compressor apparatus. 3,101,888, 8-27-63, Cl. 230—22.
Abramowicz, Maurice S. Lubricant dispenser for attachment to a sewing machine. 3,109,398, 11-5-63, Cl. 112—218.
Abramowitz, William L.: *See*—
Tatel, Howard E. 3,091,764.
Tatel, Howard E. 3,091,765.
Abramowski, Hans J., to Khoury Bros., Inc. Furniture fastening device. 3,114,460, 12-17-63, Cl. 211—134.
Abrams, Daniel, and A. Vachitis, to Gulton Industries, Inc. Potentiometer correction circuit. 3,106,686, 10-8-63, Cl. 330—87.
Abrams, Harry J.: *See*—
Robert, Roland W., Rosa, Algazi, and Abrams. 3,080,486.
Abrams, Herbert C. Power cylinder and control unit. 3,106,870, 10-15-63, Cl. 91—26.
Abrams, Jack, to The Concepts Co. Locking device for shopping carts. 3,090,470, 5-21-63, Cl. 188—110.
Abrams, Philip J.: *See*—
Negola, Carmine R., and Abrams. 3,101,688.
Abrams, Ralph, to Cable Electric Products, Inc. Time lag fuses. 3,089,012, 5-7-63, Cl. 200—123.
Abrams, Ralph, to Cable Electric Products, Inc. Night light with swivel electrical connector. 3,092,695, 6-4-63, Cl. 200—51.
Abrams, Ryman, to Thomases & Co. Brief case fastener. 3,078,896, 2-26-63, Cl. 150—1.6.
Abrams, Victor R. Winter front for automotive radiators. 3,095,147, 6-25-63, Cl. 236—35.2.
Abramson, Abraham, to Raylite Electric Corp. Decorative simulated Christmas tree constructions. 3,115,435, 12-24-63, Cl. 161—24.
Abramson, Bernard: *See*—
Silson, John E., Meshberg, and Abramson. 3,107,670.
Abramson, Bernard, N. L. Grief, and J. E. Silson, to Revlon, Inc. Aerosol composition. 3,095,355, 6-25-63, Cl. 167—54.
Abramson, Elmer D., to Central States Paper & Bag Co. Closure bag for shot-holes. 3,106,159, 10-8-63, Cl. 102—30.

Abramson, Nathan. Bolted open-web structural assemblies. 3,106,995, 10–15–63, Cl. 189—37.

Abramson, Norman M., to International Business Machines Corp. Single error correcting system utilizing maximum length shift register sequences. 3,114,130, 12–10–63, Cl. 340—146.1.

Abt, Walter, to Afico S.A. Method of making a dredger. 3,084,396, 4–9–63, Cl. 18—55.

Acas International Ltd.: *See*—
Ueno, Fumio, and Horiuchi. 3,087,813.

Accessory Products Co.: *See*—
Starr, Clifford R. 3,078,110.

Acciarri, Jerry A.: *See*—
Foster, Charles V., and Acciarri. 3,104,251.

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Klein, Peter M., and Murray. 3,078,853.

Accountius, Oliver E., to Chilean Nitrate Sales Corp. Oil purification process. 3,097,157, 7–9–63, Cl. 208—182.

Accumulateurs Fixes et de Traction (Societe Anonyme), Societe des: *See*—
Herold, Rodolphe A. 3,108,910.
Stanimirovitch, Dpuchan. 3,108,909.

Accumulatoren Fabrik A.G.: *See*—
Dickfeldt, Siegfried, and Dieberg. 3,076,860.
Friese, Karl-Hermann, Justl, and Winsel. 3,073,697.
Grüneberg, Gerhard, Jung, and Spengler. 3,082,282.
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Accumulatorenfabrik Sonnenschein G.m.b.H.: *See*—
Eberts, Klaus. 3,113,255.
Wunsche, Erich. 3,081,368.

Accurate Products Co., Inc.: *See*—
Roby, Robert L. 3,090,404.

Ace Electronics Associates, Inc.: *See*—
Dole, Fred E. 3,090,025.

Ace Engineering Co.: *See*—
Smith, Gus T. 3,095,718.

Ace Fastener Corp.: *See*—
Ruskin, Henry. 3,083,367.

Ace Glass Inc.: *See*—
De Woody, Charles M. 3,093,359.
De Woody, Charles M., Pearce, Mueller, and Egizi. 3,092,704.

Ace Tank and Heater Co.: *See*—
McClanahan, Bernard E. 3,109,414.

Ace Tool Engineering Co., Inc.: *See*—
Coy, Homer E. 3,091,143.

Acetylene Cylinder Corp.: *See*—
Muller, Nathan W., and Long. 3,077,708.

Acheson Industries, Inc.: *See*—
Hunter, Frank M. 3,099,578.

Achilich, John H., to United States of America, Navy. Instrument lighting device. 3,077,855, 2–19–63, Cl. 116—129.

Achorn, Glenwood B., Jr., E. R. Bokesch, E. R. Dapper, R. W. Lebherz, Jr., J. L. Schwab, J. R. E. Smith, A. J. Rawson, and S. N. Metcalfe, Jr. Process for culturing organisms. 3,075,888, 1–29–63, Cl. 195—127.

Achterberg, Arthur C., and M. B. Lucker, to Auto Specialties Mfg. Co. Lifting jack. 3,110,475, 11–12–63, Cl. 254—109.

Achtmeyer, George E., and F. M. Potter, to Sperry Rand Corp. Winding apparatus for dynamo electric machines. 3,104,070, 9–17–63, Cl. 242—1.1.

Acidos Grasos Limitada: *See*—
Clocchetti, John. 3,106,577.

Acieries de Pompey, Societe des: *See*—
Dhénain, Paul. 3,076,642.

Acitelli, Mario A., and G. E. Blair, to Bausch & Lomb Inc. Radiation dosimetry and plastic compositions therefor. 3,102,197, 8–27–63, Cl. 250—83.

Ackaret, Robert L., to Phillips Petroleum Co. Hot runner for molding machine. 3,095,604, 7–2–63, Cl. 18—5.

Ackell, Joseph J., H. L. Paulding, and R. T. Yu, to Dow Jones & Co., Inc. Control system for line casting machines. 3,074,537, 1–22–63, Cl. 199—23.

Acker, Donald S., and D. C. Blomstrom to E. I. du Pont de Nemours and Co. Derivatives of 1,4-bismethylene cyclohexane and 1,4-bismethylene cyclohexadiene and process of preparation. 3,115,506, 12–24–63, Cl. 260—396.

Acker Drill Co., Inc.: *See*—
Acker, William L. 3,076,245.

Acker, Ellsworth G., and M. G. Sanchez, to W. R. Grace & Co. Process for preparing fine size silica. 3,081,154, 3–12–63, 23—182.

Acker, William L., to Acker Drill Co., Inc. Automatic chucking device for drill pipe. 3,076,245, 2–5–63, Cl. 24—263.

Ackerman, Arthur. Apparatus for skiving abrasive bands for formation of abrasive belts therefrom. 3,090,167, 5–21–63, Cl. 51—34.

Ackerman, Carl A.: *See*—
Frantz, Frederick H., and Ackerman. 3,081,737.

Ackerman, Dolletta. Cosmetic applicator. 3,081,769, 3–19–63, Cl. 128—65.

Ackerman, Dolletta M., to Pharma-Craft Corp. Liquid dispenser and applicator. Re. 25,380, 5–7–63, Cl. 15—572.

Ackerman, Joseph F., and E. C. Haskell, to Interchemical Corp. Method of packaging beverages and containers therefor. 3,087,824, 4–30–63, Cl. 99—182.

Ackerman, Lionel D. Coffee brewing element. 3,089,405, 5–14–63, Cl. 99—308.

Ackerman, Mary C.: *See*—
Sipos, Walter. 3,108,391.

Ackerman, Nathan. Hydropneumatic feed device. 3,107,581, 10–22–63, Cl. 91—275.

Ackermann, Franz, M. Duennenberger, and A. E. Siegrist, to Ciba Ltd. Certain benzoxazole-2-acrylic acids. 3,076,812, 2–5–63, Cl. 260—307.

Ackermann, Guenter R., to The Atlantic Refining Co. Method for the production of isoprene. 3,105,857, 10–1–63, Cl. 260—681.

Ackles, Robert N., to A. M. Stackhouse. Process for foaming panels in situ. 3,090,078, 5–21–63, Cl. 18—59.

Ackles, Virgil E. Tumbling machine. 2,102,052, 8–27–63, Cl. 118—19.

Ackroyd, Frederick O.: *See*—
Croft, Arthur, Goff, and Ackroyd. 3,107,492.

Acla-Werke Aktiengesellschaft: *See*—
Reichel, Siegmund. 3,094,793.

Acloque, Paul, to Compagnie de Saint-Gobain. Heat treatment of glass and product. 3,107,196, 10–15–63, Cl. 161—164.

Acloque, Paul H., to Compagnie de Saint-Gobain. Apparatus for the optical determination of stresses. 3,082,664, 3–26–63, Cl. 88—14.

Acme Air Appliance Co., Inc.: *See*—
Schmid, Paul F., and Muller. 3,078,864.
Schmid, Paul F., and Muller. 3,083,882.

Acme-Hamilton Mfg. Corp., The: *See*—
Kahn, Marvin M. 3,082,441.

Acme Highway Products Corp.: *See*—
Crone, Alfred P. 3,089,395.

Acme Homes Metal Works, Inc.: *See*—
Duncan, William J. 3,097,614.

Acme Juicer Mfg. Co.: *See*—
Moline, Douglas F. 3,083,606.

Acme-Lite Mfg. Co.: *See*—
Spadaro, Giorgio I. 3,071,423.
Spadaro, Giorgio I. 3,075,069.

Acme Manifolding Co., Inc.: *See*—
Bohmert, William J. 3,107,929.

Acme Steel Co.: *See*—
Anderson, Douglas O., and Hall. 3,081,813.
Burnett, Thomas H. 3,099,356.
Burnett, Thomas H. 3,102,733.
Cliff, George J., Parshall, and Braun. 3,095,678.
Crim, Elmo P. 3,110,033.
Fullerton, Thomas J., and Schroeder. 3,076,641.
Hall, Marchand B., Staron, and Hager. 3,101,663.
Knoebel, Alfred J., and Hall. 3,080,148.
Novy, Albert F., Coleman, and Wilson. 3,081,537.
Schimkus, Kurt E. 3,076,734.
Schroeder, William. 3,106,297.
Wilson, Allen B. 3,084,428.
Wilson, Allen B. 3,109,350.
Wilson, Allen B., Novy, and Coleman. 3,110,079.
Ziegler, Walter H. 3,102,564.

Acme Visible Records, Inc.: *See*—
Fuller, James L., and Loyd. 3,084,007.
Reed, Walden E. 3,106,208.
Wood, Hamilton L. 3,108,841.

Acomb, Byron H.: *See*—
Anthes, Clifford C., Acomb, and Heer. 3,095,921.

Aconsky, Leonard: *See*—
Heath, Thomas D., and Aconsky. 3,102,092.

Acosta, Allan J., to The Task Corp. Flow control mechanism. 3,111,142, 11–19–63, Cl. 138—46.

Acosta, Jorge A. Chance controlled game board. 3,111,320, 11–19–63, Cl. 273—135.

Acosta, Jose: *See*—
Clifford, Arthur F. 3,108,451.

Acoustica Associates, Inc.: *See*—
Church, Donald R., and Da Rold. 3,101,422.
Junger, Miguel C. 3,100,994.
Junger, Miguel C. 3,111,595.
Kompanek, Harry W. 3,101,421.
Rich, Stanley R. Re. 25,433.
Rich, Stanley R. 3,072,805.
Rich, Stanley R. 3,080,752.
Rich, Stanley R. 3,101,419.
Smith, Preston W., Jr., and Junger. 3,113,456.

Acoustron Corp.: *See*—
Caldwell, Stephen A., Jr. 3,098,307.

Acres, Alexander D. Devices for the holding and driving of screws or like fasteners. 3,115,168, 12–24–63, Cl. 145—50.

Acrometal Products, Inc.: *See*—
Bieber, Frederick J., and Steinback. Re. 25,390.
Carroll, Robert L. 3,093,331.
Carroll, Robert L., and Steinback. 3,101,911.
Harris, Edward H. 3,078,055.
Harris, Edward H. 3,106,386.

Acs, Katherine and P. Exercise device comprising portable handles. 3,115,338, 12–24–63, Cl. 272—57.

Acs, Peter: *See*—
Acs, Katherine and P. 3,115,338.

Acton, Daniel D.: *See*—
Foss, George J., and Acton. 3,071,275.
Foss, George J., and Acton. 3,077,280.
Stover, Harry E., and Acton. 3,095,104.

Acton, Frank J., and P. Kaye, to International Staple and Machine Co. Apparatus for centering cartons. 3,102,627, 9–3–63, Cl. 198—29.

Acton Laboratories, Inc.: *See*—
Alger, Robert G. 3,112,222.
Forrest, John W. 3,105,371.
Frissora, Joseph R., and King. 3,080,770.
Pihl, George E. 3,096,480.

Acton, Russel D. Hydraulic power devices. 3,106,063, 10–8–63, Cl. 60—52.

Actor, Phillip J., R. W. Semar, and J. F. Pagano, to Olin Mathieson Chemical Corp. Composition for combatting coccidiosis and method of using same. 3,087,856, 4–30–63, Cl. 167—53.1.

Adachi, Jun: *See*—
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Adachi, Tadatoshi: *See*—
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Adage, Inc.: *See*—
Hagan, Thomas G., and Young. 3,076,956.
Young, Frink M., and Hagan. 3,074,029.

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Lepine, Louis T., and Adair. 3,084,653.
Lepine, Louis T., and Adair. 3,107,640.

Adair, John D., to American Meter Co., Inc. Gas meter prover. 3,101,605, 8–27–63, Cl. 73—3.

Adair, Paul F.: *See*—
Novak, Emil J., and Adair. 3,076,912.

Adam, Eva: *See*—
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Adam, Hermann, to Anker-Phoenix Nahmaschinen AG. Round-bobbin case for sewing machines. 3,087,447, 4–30–63, Cl. 112—231.

Adam, Howard W., to International Minerals & Chemical Corp. Wet beneficiating of phosphate ores. 3,099,620, 7–30–63, Cl. 209—12.

Adam, John N., Jr.: *See*—
Brown, James R., Adam, and Whitney. 3,107,204.

Adam, Robert G. Collapsible tow hitch. 3,103,706, 10–1–63, Cl. 280—491.

Adamant Laboratories (Proprietary) Ltd.: *See*—
Custers, Jan F. H., Dyer, Senior, and Wedepohl. 3,082,477.

Adamek, Eduard G.: *See*—
Gaver, Kenneth M., Adamek, and Fink. 3,111,416.

Adamek, Karl-Heinz, to Suddeutsche Kuhlerfabrik Julius Fr. Behr. Diesel electric locomotive with brake resistances and associated ventilator cooling. 3,079,509, 2–26–63, Cl. 290—3.

Adams, Albert: *See*—
Brunner, George M., Hauck, and Adams. 3,079,227.

Adams, Albert H.: *See*—
Glnaven, Marvin E., and Adams. 3,085,623.

Adams, Albert H., to General Electric Co. Electrical bus conductor. 3,096,131, 7–2–63, Cl. 339—22.

Adams, Alfred B., E. Farkas, F. J. Mardulier, and D. L. Shanklin, to W. R. Grace & Co. Cement grinding aid and pack set inhibitor. 3,094,425, 6–18–63, Cl. 106—90.

Adams, Arthur A., J. J. Arval, L. J. Bartson, C. A. Dudzinski, H. C. Grant, and G. M. McAnulty, to Ford Motor Co. Nodular iron production. 3,113,019, 12–3–63, Cl. 75—130.

Adams, Arthur R., to Adams Rite Mfg. Co. Escutcheon mounted lock actuator handle. 3,104,906, 9–24–63, Cl. 292—336.3.

Adams, Bert N.: *See*—
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Adams, Campbell V., to Vulcan Iron Works Inc. Power hammer. 3,096,831, 7–9–63, Cl. 173—127.

Adams, Cecil E., to American Brake Shoe Co. Fluid pressure energy translating devices. 3,076,414, 2–5–63, Cl. 103—136.

Adams, Cecil E., to American Brake Shoe Co. Dual direction relief or sequence type valve. 3,090,398, 5–21–63, Cl. 137—491.

Adams, Cecil E., to American Brake Shoe Co. Rotary vane hydraulic power unit. 3,102,494, 9–3–63, Cl. 103—136.

Adams, Charles R., to Pierce Trailer & Equipment Co. Braking arrangement for a trailer dolly. 3,101,959, 8–27–63, Cl. 280—432.

Adams, Clarence R., to Boeing Airplane Co. High load hydrostatic bearing. 3,101,224, 8–20–63, Cl. 308—122.

Adams, Clarence R., to The Boeing Co. Fluid bearings. 3,112,140, 11–26–63, Cl. 308—122.

Adams, Clark E.: *See*—
Corbett, Luke W., Adams, and Hamner. 3,087,887.
Kimberlin, Charles N., Jr., Mattox, and Adams. 3,093,575.

Adams, Dennis A. W., and A. K. Sarker, to Hickson & Welch Ltd. Stilbyl-acenaphthenotriazole brighteners. 3,101,333, 8–20–63, Cl. 260—240.

Adams, Dustin S., to E. I. du Pont de Nemours and Co. Textile. 3,102,323, 9–3–63, Cl. 28—82.

Adams, Dustin S., to E. I. du Pont de Nemours and Co. Nubby yarns. 3,115,437, 12–24–63, Cl. 28—81.

Adams, Elmer C., to Reynolds Oil Well Pumps, Inc. Fluid pump construction. 3,109,384, 11–5–63, Cl. 103—179.

Adams, Elmer L.: *See*—
Rex, Raymond H., and Adams. 3,092,440.

Adams, Elmer L., to Owens-Illinois Glass Co. Screwless extruder with multiple speed rotating disc. 3,079,635, 3–5–63, Cl. 18—12.

Adams, Elmer L., to Owens-Illinois Glass Co. Elimination of neck flash on blown plastic articles. 3,080,614, 3–12–63, Cl. 18—55.

Adams, Elmer L., to Owens-Illinois Glass Co. Plastic accumulator. 3,089,192, 5–14–63, Cl. 18—30.

Adams, Elmer L., R. O. Zelgler, and R. H. Rex, to Owens-Illinois Glass Co. Method for driving a conventional extruder by means of a hydraulic motor. 3,114,595, 12–17–63, Cl. 18—55.

Adams Engineering Co.: *See*—
Bridgewater, Thomas E. 3,074,657.

Adams, Ernest C., Jr., and J. A. Peterson, to Miles Laboratories, Inc. Stable blood detecting composition. 3,092,463, 6–4–63, Cl. 23—253.

Adams, Ernest C., Jr., and J. A. Peterson to Miles Laboratories, Inc. Blood detecting composition. 3,092,464, 6–4–63, Cl. 23—253.

Adams, Ernest C., Jr., and R. R. Smeby, to Miles Laboratories, Inc. Diagnostic test device for blood sugar. 3,092,465, 6–4–63, Cl. 23—253.

Adams, Ernest P., to Crown Zellerbach Corp. Carton end closure. 3,104,795, 9–24–63, Cl. 229—39.

Adams, Franklin L.: *See*—
Wiley, William C., Goodrich, and Adams. 3,080,750.

Adams, Frederick G., to Minneapolis-Honeywell Regulator Co. Control apparatus. 3,101,432, 8–20–63, Cl. 317—13.

Adams, George L. Casting splasher. 3,076,284, 2–5–63, Cl. 43—43.1.

Adams, George L., to The Salem Tool Co. Stepper-type tramming support for mining equipment. 3,114,425, 12–17–63, Cl. 180—8.

Adams, George L., and C. T. Govin, to The Salem Tool Co. Lump producing head for coal augering. 3,074,703, 1–22–63, Cl. 262—26.

Adams, George L., and C. T. Govin, to The Salem Tool Co. Auger mining machine. 3,091,439, 5–28–63, Cl. 262—26.

Adams, George L., and C. T. Govin, to The Salem Tool Co. Machines for simultaneously drilling and inserting pipe lines. 3,107,741, 10–22–63, Cl. 175—122.

Adams, George M., to Union Carbide Corp. Ink comprising a methacrylate polymer and a nitroalkane solvent and vinyl chloride polymer printed therewith. 3,091,545, 5–28–63, Cl. 117—38.

Adams, George R.: *See*—
Lang, Albert P., and Adams. 3,071,223.

Adams, George R., and T. R. Cleary, to Sperry Rand Corp. Electroluminescent mark sensing. 3,092,726, 6–4–63, Cl. 250—219.

Adams, Harold E., to Nash Engineering Co. Booster pumps. 3,080,823, 3–12–63, Cl. 103—113.

Adams, Harold E., to Nash Engineering Co. Pumping means for distillation unit. 3,102,083, 8–27–63, Cl. 202—52.

Adams, Harold E., to Nash Engineering Co. Combined booster pump and centrifugal separator. 3,102,491, 9–3–63, Cl. 103—113.

Adams, Harold P.: *See*—
Smoot, Charles H., Berger, Adams, and Swanson. 3,115,778.

Adams, Harold R. H., to The British Oxygen Co. Ltd. Die casting and moulding machine. 3,093,871, 6–18–63, Cl. 22—68.

Adams, Howard R.: *See*—
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Evans, Bruce M., and Adams. 3,107,291.

Adams, Inc.: *See*—
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Adams, Jack B. Traction attachments for tractors and trucks. 3,093,423, 6–11–63, Cl. 305—56.

Adams, James E., to The Bishop and Babcock. Spacer fastener. 3,110,373, 11–12–63, Cl. 189—36.

Adams, James H. Resistance welding apparatus. 3,076,086, 1–29–63, Cl. 219—78.

Adams, James M.: *See*—
Thomas, Horace F., and Adams. 3,089,683.

Adams, John D. Liquid dispensing device and method. 3,107,031, 10–15–63, Cl. 222—1.

Adams, John E. Stop combination control system for organs. 3,103,141, 9–10–63, Cl. 84—343.

Adams, John M., J. E. Cummings, W. F. Dalton, and F. C. Gaudet, to International Business Machines Corp. Frame member. 3,085,664, 4–16–63, Cl. 189—34.

Adams, John N.: *See*—
Kelly, Stanley, Schumann, and Adams. 3,089,922.

Adams, John R., to Rank Precision Industries Ltd., trading as Taylor, Taylor & Hobson. Gauging devices for circular size. 3,074,176, 1–22–63, Cl. 33—178.

Adams, John W.: *See*—
Worman, Martin, and Adams. 3,106,875.

Adams, Leland D., Jr., to Survival Equipment Corp. Inflatable escape slide. 3,092,232, 6–4–63, Cl. 193—25.

Adams, Leland J., to Walt Disney Productions. Panoramic motion picture projection apparatus. 3,107,577, 10–22–63, Cl. 88—16.6.

Adams, Loyd W.: *See*—
Alleman, Carl E., and Adams. 3,113,437.

Adams, Milton R.: *See*—
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Adams, Paul R., R. S. Bovitz, G. B. Speen, and F. F. Hall, to International Telephone and Telegraph Corp. Accelerometer. 3,073,168, 1–15–63, Cl. 73—517.

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Adams, Robert T., to International Telephone and Telegraph Corp. Gyroscope. 3,080,762, 3–12–63, Cl. 74—5.

Adams, Ronald A. C. Process for electrolytically graining aluminum lithographic plates. 3,073,765, 1–15–63, Cl. 204—141.

Adams, Rudolph R. Machine for uniting rod ends. 3,086,573, 4–23–63, Cl. 153—1.

Adams, Stuart L., and G. V. Niesen, to Joseph E. Seagram & Sons, Inc. Honey beverage and process for making it. 3,100,705, 8–13–63, Cl. 99—29.

Adams, Stuart L., and G. V. Niesen, to Joseph E. Seagram & Sons, Inc. Beverage from honey and process for making it. 3,100,706, 8–13–63, Cl. 99—29.

Adams, Warren E. Catamenial device. 3,102,541, 9–3–63, Cl. 128—285.

Adams, Wayne W., to Frontier Mfg. Co. Telephone alarm device. 3,095,478, 6–25–63, Cl. 179—5.

Adams, William M., to United States of America, Atomic Energy Commission. Nuclear reactor apparatus for earth penetration. 3,115,194, 12–24–63, Cl. 175—11.

Adamski, Adolph A., to General Dynamics Corp. Clickless listening and ringing key. 3,071,657, 1–1–63, Cl. 200—1.

Adamsky, Robert F., and C. F. Cline, to The Carborundum Co. Hard, refractory crystalline materials. 3,108,886, 10–29–63, Cl. 106—55.

Adamson, Arthur P., to General Electric Co. Measuring device and method. 3,080,876, 3–12–63, Cl. 139—9.

Adamson, Arthur P., to General Electric Co. Rocket motor employing a plug type nozzle. 3,112,611, 12–3–63, Cl. 60—35.6.

Adamson, Arthur P., and K. Berman, to General Electric Co. Rocket motor. 3,112,612, 12–3–63, Cl. 60—35.6.

Adamson, Arthur P., and H. E. Gerlaugh, to General Electric Co. Thrust vectoring and modulating device. 3,112,616, 12–3–63, Cl. 60—35.54.

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Adamson, Floyd E., to Westinghouse Electric Corp. Arc welding gun. 3,093,728, 6–11–63, Cl. 219—130.

Adamson, Floyd E., and R. R. Giler, to Westinghouse Electric Corp. Arc-welding apparatus. 3,082,317, 3–19–63, Cl. 219—130.

Adamson, Robert A. Electrically heated soldering irons. 3,093,723, 6–11–63, Cl. 219—26.

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Addie, Albert N., to General Motors Corp. Turbocharged free piston power package unit. 3,112,607, 12–3–63, Cl. 60—13.

Addie, Albert N., and B. M. Gallagher, to General Motors Corp. Compressor mechanism for internal combustion engines and the like. 3,077,751, 2–19–63, Cl. 60—13.

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Adelman, Barnet R., and H. T. Lawrence, to United Aircraft Corp. Solid propellant rocket. 3,088,273, 5–7–63, Cl. 60—35.6.

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Adelman, Robert L., to E. I. du Pont de Nemours and Co. Nonwoven fabrics bonded with interpolymer and process of preparing same. 3,081,197, 3–12–63, Cl. 117—140.

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Adkins, John S. Slip ring apparatus for signal transfer. 3,095,252, 6–25–63, Cl. 339—5.

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Adler, Robert, to Zenith Radio Corp. Superregenerative remote control receiver. 3,072,887, 1–8–63, Cl. 340—171.

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Agosti, Bruno, and P. Orlandi. Spray gun. 3,074,651, 1–22–63, Cl. 239—304.

Agostini, Giulio C.: *See*—
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Ayers, Joseph W. 3,093,605.
Ayers, Joseph W. 3,093,606.
Ayers, Joseph W. 3,093,607.
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Aguilar, Gilbert E. Vehicle cushion arrangement. 3,097,881, 7–16–63, Cl. 296—66.

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Ahern, William B., and D. L. Orloff, to Oscar Mayer & Co., Inc. Positive stop mechanism. 3,077,968, 2–19–63, Cl. 192—148.

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Persson, Karl R. 3,112,854.

Ahlen, Karl G., to Svenska Rotor Maskiner Aktiebolag. Power plants comprising hydraulic torque converters. 3,104,560, 9–24–63, Cl. 74—688.

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Ahlgren, Axel W., to Amerock Corp. Magnetic catch. 3,078,114, 2–19–63, Cl. 292—251.5.

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Ahlgren, Axel W., to Amerock Corp. Sash lock. 3,103,713, 9–17–63, Cl. 20—52.

Ahlgren, Axel W., to Amerock Corp. Operator for swinging window sashes. 3,114,542, 12–17–63, Cl. 268—109.

Ahlport, Brodie: *See*—
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Ahlstedt, Gunnar L., to Mooch Domsjo Aktiebolag. Wood seasoning plants. 3,074,180, 1–22–63, Cl. 34—213.

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Aiken, Thomas W., Jr. Safety power brush type lawnmower. 3,091,905, 6–4–63, Cl. 56—25.4.

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Aiken, William R., to Kaiser Industries Corp. Selective sampling device utilizing coincident gating of source pulses with reinforced-reflected delay line pulses. 3,105,197, 9–24–63, Cl. 328—154.

Aiki, Shigeo. Control cam mechanism. 3,103,823, 9–17–63, Cl. 74—54.

Aileo, Jackson A., to Gentex Corp. Survival kit container. 3,072,285, 1–8–63, Cl. 220—44.

Ailen, Jackson A., to L. P. Frieder. Helmet with vent in visor cover. 3,110,034, 11–12–63, Cl. 2—6.

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Simpkins, Gideon M. 3,091,358.

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Cadley, John L. 3,102,317.

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Airmatic Systems Corp.: *See*—
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Doelp, Louis C., Jr. 3,092,454.
Donovan, Joseph J., and Weiss. 3,081,259.
Erner, William E. 3,073,827.
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Akin, George A., to Eastman Kodak Co. Furnace connecting apparatus. 3,075,753, 1–29–63, Cl. 261—119.

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Albers, Gus A., and E. B. Williams, Jr., to A and B Metal Mfg. Co., Inc. Jet nozzle. 3,111,179, 11–19–63, Cl. 175—393.

Albers, Tennis. Cow washing device. 3,108,574, 10–29–63, Cl. 119—159.

Albers Schoenberg, Ernst, to Indiana General Corp. Ferrite for memory core. 3,110,676, 11–12–63, Cl. 252—62.5.

Albersheim, Walter J., to United States of America, Army. Twin target resolver. 3,089,136, 5–7–63, Cl. 343—16.

Albert Air Conveyor Corp.: *See*—
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Albert, Charles G., to Minerals Chemicals Philipp Corp. Smoking composition containing alumina and smoking unit containing same. 3,076,728, 2–5–63, Cl. 131—17.

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Albert, Felix, to Siemens & Halske Aktiengesellschaft. Socket contact for printed circuits and the like. 3,114,586, 12–17–63, Cl. 339—17.

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Albert, Harry E., to The Firestone Tire & Rubber Co. Reaction products of a sulfur chloride and N,N'-dialkylphenylenediamines. 3,100,765, 8–13–63, Cl. 260—132.

Albert, James L. Baseball practice device. 3,086,775, 4–23–63, Cl. 273—26.

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Albert, Willard S., to Westinghouse Electric Corp. Semiconductor fault detecting trip circuit. 3,110,856, 11–12–63, Cl. 321—14.

Alberti, Paul: *See*—
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Alberts, Sydney S. Maternity garment. 3,080,869, 3–12–63, Cl. 128—542.

Alberts, Thomas W., to The Sharples Corp. Process for the recovery of protein solids from animal fat. 3,078,165, 2–19–63, Cl. 99—18.

Albertson, Charles P., and W. E. Strittmatter, to Grumman Aircraft Engineering Corp. Method for testing fluids for particle contamination. 3,093,998, 6–18–63, Cl. 73—61.

Albertson & Co., Inc.: *See*—
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Albertson, Jonathan Y., L. H. Lange, L. E. Lord, R. Schempp, and J. W. Steck, to FMC Corp. Box-wrapping system for loose-wrap work. 3,086,428, 4–23–63, Cl. 93—54.

Albertson, Noel F., to Sterling Drug Inc. Esters of benzyloxycarbonylaminocyanoacetic acid and process. 3,102,132, 8–27–63, Cl. 260—465.

Albertson, William C., Jr., to Erie Mop and Wringer Co. Mop. 3,090,059, 5–21–63, Cl. 15—119.

Albertson, William C., Jr., to The Mosaic Tile Co. Method and apparatus for sorting objects by size. 3,106,293, 10–8–63, Cl. 209—91.

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Albrecht, Alexander J., to Brunswick Corp. Bowling ball return. 3,108,806, 10–29–63, Cl. 273—49.

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Albrecht, Donald. Hand held powered rotary self cleaning brush with suction means. 3,079,627, 3–5–63, Cl. 15—344.

Albrecht, Hans J., and F. E. Allen, to Casco Products Corp. Heat-resistant flash chamber coatings and method for applying same. 3,101,561, 8–27–63, Cl. 38—77.

Albrecht, Harold J., to Radio Corp. of America. Electron tube grid and method of making. 3,101,100, 8–20–63, Cl. 140—71.5.

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Albrecht, Joseph A. Recessed wall cabinet. 3,095,249, 6–25–63, Cl. 312—242.

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Albrecht, Ransom C., and E. G. Heyl, to Crown Cork & Seal Co., Inc. Impact extrusion process for making collapsible tubes and preform for use therein. 3,074,115, 1–22–63, Cl. 18—55.

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Albright, Henry J., to The Vendo Co. Article ejection mechanism for vending machines. 3,102,663, 9–3–63, Cl. 221—275.

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Albright, James C., E. W. Sutton, D. J. Timko, and B. F. Bohor, to Continental Oil Co. Electrical well logging device. 3,075,142, 1–22–63, Cl. 324—1.

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Albright, John R., to Roper Hydraulics, Inc. Apparatus for extruding plastic materials. 3,105,268, 10–1–63, Cl. 18—12.

Albright, John W., and E. E. Bianco, to General Electric Co. Bus duct connection. 3,096,391, 7–2–63, Cl. 174—18.

Albright, William R., and H. F. Szczepanski. Layout gauge. 3,096,586, 7–9–63, Cl. 33—26.

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Zenitz, Bernard L., and Albro. 3,082,208.
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Alburger, James R. Apparatus for the measurement of fluorescent tracer sensitivity. 3,107,298, 10–15–63, Cl. 250—71.

Alburn, Harvey E., to American Home Products Corp. Alginic acid methyl ester sulfates, preparation and molecular weight fractionation thereof. 3,115,488, 12–24–63, Cl. 260—209.6.

Alcalde, Raul. Can stamping machine. 3,071,068, 1–1–63, Cl. 101—44.

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Alcaro, Francis A. Flexible coupling and method of manufacture. 3,071,942, 1–8–63, Cl. 64—15.

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Alder, James E., and Pecina, to Abbott Laboratories. Polypropylene film package. 3,107,784, 10–22–63, Cl. 206—63.2.

Alderfer, Sterling W. Fastener for adjacent surfaces. 3,102,314, 9–3–63, Cl. 24—204.

Alderfer, Sterling W. Magnetically adherent resilient articles. 3,111,728, 11–26–63, Cl. 20—69.

Alderfer, Sterling W. Process for making magnetic faced foam articles. 3,112,163, 11–26–63, Cl. 18—59.

Alderman, Frank E., and N. D. Whitman, Jr. Expansion joint unit and method of installing the same. 3,073,065, 1–15–63, Cl. 50—80.

Alderman, Harry M., to Burlington Rerailers, Inc. Railroad car replacer. 3,112,711, 12–3–63, Cl. 104—272.

Alderman, Robert E., to The Singer Mfg. Co. Rotary solenoid actuated switches. 3,097,278, 7–9–63, Cl. 200—105.

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Aldous, Arnold V., to The Automatic Electrical Control Co. Ltd. Rotary cams and electric switches incorporating such cams. 3,104,298, 9–17–63, Cl. 200—153.

Aldredge, Howard D. and R. L., to Container Service Co. Material handling device. 3,085,702, 4–16–63, Cl. 214—302.

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Aldrich, Adelbert, R. Schwarz, Jr., and W. H. Gottschalk, to Falcon Plastic Products. Plastic ware for scientific use. 3,097,070, 7–9–63, Cl. 23—253.

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Aldrin, Henry W., and A. A. H. Johnson, to Aktiebolaget Bofors. Suspension device for a track-laying vehicle. 3,111,182, 11–19–63, Cl. 180—9.54.

Aleks, Vytant, to The Brearley Co. Portable standup type bathroom scale. 3,101,804, 8–27–63, Cl. 177—239.

Aler, Richard P. Convertible wheel traction aid. 3,089,528, 5–14–63, Cl. 152—216.

Aler, Richard P. Wheel traction aid. 3,089,529, 5–14–63, Cl. 152—216.

Alessio, Louis F. Inflatable plumber's test plug with drain. 3,091,259, 5–28–63, Cl. 138—90.

Alessio, Sergio, to Scam Instrument Corp. Annunciator system. 3,112,475, 11–26–63, Cl. 340—226.

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Alexander, Ben, and J. F. Sullivan, to International Telephone and Telegraph Corp. Storage device. 3,104,377, 9–17–63, Cl. 340—173.2.

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Alexander, Charles F., Jr., to Klekhaefer Corp. Outboard propulsion unit exhaust system. 3,092,185, 6–4–63, Cl. 170—135.71.

Alexander, Charles L., to Socony Mobil Oil Co., Inc. Recording of well logging data. 3,076,518, 2–5–63, Cl. 181—.5.

Alexander, Charles K. Hydraulic power steering apparatus. 3,084,945, 4–9–63, Cl. 277—47.

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Alexander, Frank M., and W. H. Canter, Jr., to Industrial Nucleonics Corp. Sheet profile gauging and recording system. 3,108,844, 10–29–63, Cl. 346—46.

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Alexander, Guy B., and P. C. Yates, to E. I. du Pont de Nemours and Co. Process for producing a dispersion of an oxide in a metal. 3,082,084, 3–19–63, Cl. 75—206.

Alexander, Guy B., and P. C. Yates, to E. I. du Pont de Nemours and Co. Process for dispersing a refractory metal oxide in another metal. 3,085,876, 4–16–63, Cl. 75—206.

Alexander, Guy B., and W. H. Pasfield, to E. I. du Pont de Nemours and Co. Iron group metals having submicron particles of refractory oxides uniformly dispersed therein. 3,087,234, 4–30–63, Cl. 29—182.5.

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Alexander, James G., P. W. Wagner, and N. L. Bean, to Morris Bean & Co. Molding composition and method. 3,074,802, 1–22–63, Cl. 106—38.3.

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Alfieri, Giuseppe, to Fabbrica Italiana Magneti Marelli S.p.A. Pneumatic device to brake or unbrake a trailer. 3,097,020, 7–9–63, Cl. 303—29.

Alfieri, Giuseppe, to Fabbrica Italiana Magneti Marelli S.p.A. Pressure regulator for compressed air installations for motor vehicles. 3,105,517, 10–1–63, Cl. 137—540.

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Alfille, Lucien, to Commissariat a l'Energie Atomique. Nuclear reactor duct structure. 3,090,743, 5–21–63, Cl. 204—193.2.

Alford, Andrew. Island antenna for installation on aircraft. 3,086,204, 4–16–63, Cl. 343—708.

Alford, Andrew. Coaxial choke coupler. 3,089,105, 5–7–63, Cl. 333—73.

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Allan, Arthur R.: *See*—
Self, Richard E., and Allan. 3,088,442.

Allan, Charles G., to J. M. and S. G. Taylor. Mailbox. 3,106,-335, 10–8–63, Cl. 232—17.

Allan, David: *See*—
Polevtseff, Boris, Allan, and Childs. 3,109,767.

Allan, Earl E.: *See*—
Cabble, George M., Jr., and Allan. 3,088,557.

Allan, Lionel V., to Imperial Chemical Industries Ltd. Improved free-flowing coated antimalarial salts in particulate form. 3,082,154, 3–19–63, Cl. 167—82.

Allan, Ronald S.: *See*—
Menkart, John H., and Allan. 3,072,635.

Allan, William J.: *See*—
Hubacker, Earl F., James, and Allan. 3,113,438.

Allander, Claes, and S. Wallin, to Svenska Flaktfabriken Aktiebolaget. Guiding air-borne webs. 3,070,901, 1–1–63, Cl. 34—156.

Allander, Claes, B. Lanne, and S. Wallin, to Aktiebolaget Svenska Flaktfabriken. Threading web material. 3,085,-346, 4–16–63, Cl. 34—10.

Allard, Eugene R.: *See*—
Eolkin, Dave, and Allard. 3,115,433.

Allard, Gerard A., to General Electric Co. Constant current source. 3,114,872, 12–17–63, Cl. 323—4.

Allard, Ingrid J. C.: *See*—
Karlstrom, Karl A. S., and Ostberg. 3,081,980.
Karlstrom, Karl A. S., and Östberg. 3,104,868.

Allard Instrument Corp.: *See*—
Skrobisch, Alfred. 3,096,594.

Allard, Pierre J.-M. T. Retractable unloader. 3,091,353, 5–28–63, Cl. 214—89.

Allard, Pierre J.-M. T., to Societe Francaise de Construction de Bennes Automatiques Benoto. Boring apparatus whose opening is adjustable. 3,113,629, 12–10–63, Cl. 175—238.

Allardt, Ernst W., and A. M. De Stephen, to The Babcock & Wilcox Co. Weld inspection device support and manipulator. 3,077,768, 2–19–63, Cl. 73—67.8.

Allaria, Eugenio, to Fabbrica Italiana Magneti Marelli S.p.A. Emergency hand control device for the raising and lowering of automobile door windows. 3,103,830, 9–17–63, Cl. 74—625.

Allbaugh, Harold V. Method of making composite musical instrument strings. 3,099,595, 7–30–63, Cl. 156—172.

Allbright-Nell Co., The: *See*—
Gillman, Harold K. 3,106,744.

Alldritt, Lawrence L. Roof ventilator. 3,101,662, 8–27–63, Cl. 98—43.

Allegheny Ludlum Steel Corp.: *See*—
Bills, Floyd T. 3,099,853.
Borneman, Paul R. 3,077,397.
Dunn, Robert F., and Baechtel. 3,092,679.
Dyrkacz, Wasil W., Hastings, and Pitler. 3,097,092.
Graf, Richard R. 3,111,430.
Knepshield, Leroy H. 3,080,783.
Laine, Edward A. 3,087,505.
Laine, Edward A. 3,091,844.

Allegrette, Joseph W., to General American Transportation Corp. Railway tank car dome platforms. 3,084,638, 4–9–63, Cl. 105—358.

Allegretti, Albert J.: *See*—
Allegretti, Joseph A. and A. J. 3,086,596.

Allegretti, Joseph A. and A. J. Lawn trimmer and edger. 3,086,596, 4–23–63, Cl. 172—15.

Allegrini, Aldo P.: *See*—
Malone, Thomas S., and Allegrini. 3,079,333.

Allegrini, Aldo P., and T. A. Cecil, to Minerals & Chemicals Phillpp Corp. Sugar refining adsorbent. 3,098,045, 7–16–63, Cl. 252—455.

Alleman, Carl E., and L. W. Adams, to Phillips Petroleum Co. Water removal from refrigeration units. 3,113,437, 12–10–63, Cl. 62—85.

Alleman, Ray S., J. D. Baker, W. S. Daniel, and R. C. Struthers, to Electro Sonic Industries, Inc. Activation of ferroelectric elements. 3,108,211, 10–22–63, Cl. 317—262.

Allemang, Denman K.: *See*—
Dukes, John R., and Allemang. 3,087,061.

Allen, Albert: *See*—
Bowditch, Hoel L., and Allen. 3,080,561.
Bowditch, Hoel L., and Allen. 3,105,508.

Allen, Albert, and J. H. Ewing, to The Foxboro Co. Pneumatic pressure rectifier. 3,111,959, 11–26–63, Cl. 137—251.

Allen, Anneke S.: *See*—
Allen, Donald R. and A. S. 3,079,324.

Allen, Arthur C., J. P. Magerl, B. J. Sadoff, Jr., and H. P. Wertheimer, to Stewart-Warner Corp. Speed governing systems. 3,089,501, 5–14–63, Cl. 137—53.

Allen, Benjamin C., M. W. Mote, and A. M. Sabroff, to United Aircraft Corp. Method of making foamed metal. 3,087,-807, 4–30–63, Cl. 75—20.

Allen-Bradley Co.: *See*—
Boysen, Gerd C. 3,096,416.
Buduy, Bernard R. 3,105,209.
Ford, David E., Jr., and Hudson. 3,081,427.
Moser, Joseph R., and Struger. 3,114,870.
Schlicke, Heinz M., Rey, and Weidmann. 3,093,803.
Walters, Robert E. 3,096,415.

Allen, Bruce B.: *See*—
Laughlin, Kenneth C., and Allen. 3,071,807.

Allen, Charles F. H., and B. D. Wilson, to Eastman Kodak Co. Bis-pyrazoles as antifogants for photographic silver halide emulsions. 3,106,467, 10–8–63, Cl. 96—109.

Allen, Charles M., R. C. Geiger, and D. A. Meeker, to The Hobart Mfg. Co. Drain and inlet hose arrangement for dishwasher. 3,092,134, 6–4–63, Cl. 137—355.17.

Allen, Chester, Jr., and F. Berkloo, to A. O. Smith Corp. Strip winding apparatus. 3,099,190, 7–30–63, Cl. 93—80.

Allen, Clarence B.: *See*—
Grobe, Ralph E., and Allen. 3,077,629.

Allen, Clayton H., and G. Kürtze, to Bolt Beranek and Newman Inc. Apparatus for silencing vibrational energy. 3,113,635, 12–10–63, Cl. 181—42.

Allen, Clifford W., and H. A. Knight, to Westinghouse Air Brake Co. Electro-pneumatic translator. 3,072,147, 1–8–63, Cl. 137—597.

Allen, David S.: *See*—
Whitley, Stanley, and Allen. 3,079,203.
Whitley, Stanley, and Allen. 3,082,009.

Allen, Donald R., to The Dow Chemical Co. Dehydration of inorganic fluoride hydrates with liquid hydrogen fluoride. 3,096,150, 7–2–63, Cl. 23—14.5.

Allen, Donald R. and A. S., to The Dow Chemical Co. Apparatus for production of uranium. 3,079,324, 2–26–63, Cl. 204—246.

Allen, Edward A.: *See*—
Healy, Francis P., and Allen. 3,075,413.

Allen, Edward L., and J. A. Moore, to Ingersoll-Rand Co. Wire cutting and insulation stripping device. 3,103,837, 9–17–63, Cl. 81—9.5.

Allen, Edward M., and F. E. Benner, Jr., to Pittsburgh Plate Glass Co. Process for producing titanium oxide pigments. 3,105,742, 10–1–63, Cl. 23—202.

Allen, Edwin L. Eyeball replacement buried muscle cone motility implant body with post-surgical conformer prosthesis. 3,070,808, 1–1–63, Cl. 3—13.

Allen, Elmer A. New porphyrinic and chlorophyllic compositions and process therefor. 3,102,891, 9–3–63, Cl. 260—314.

Allen, Elvy W. Vial holder. 3,072,362, 1–8–63, Cl. 243—35.

Allen, Ernest L.: *See*—
Charlton, George H., and Allen. 3,076,622.

Allen, Frank M., F. C. Archer, and W. S. Shira, to Barber-Greene Co. Rotary impact crusher. 3,096,035, 7–2–63, Cl. 241—32.

Allen, Frederick E.: *See*—
Albrecht, Hans J., and Allen. 3,101,561.

Allen, George, and D. M. Venison, to Matthew Hall & Co. Ltd. Sprinkler alarm valve. 3,098,527, 7–23–63, Cl. 169—19.

Allen, George H. Sealing arrangement. 3,097,855, 7–16–63, Cl. 277—188.

Allen, George J.: *See*—
Matuszak, Alfred H., Allen, and Metro. 3,090,753.

Allen, George R., Jr.: *See*—
Bernstein, Seymour, and Allen. 3,111,516.

Allen, Gerald L.: *See*—
Harvey, George W., and Allen. 3,108,325.
Pyle, Robert J., and Allen. 3,073,717.

Allen, Gordon H., ⅓ to J. L. Tremper and ⅓ to G. B. Smith. Locating elements of construction beneath the surface of earth soils. 3,115,861, 12–31–63, Cl. 116—114.

Allen, Gordon S. J., D. H. Mawby, and D. C. Gresham, to Crosfield Electronics Ltd. Flying spot scanner color printer with color correction. 3,096,394, 7-2-63, Cl. 178—5.2.

Allen, Gordon S. J., D. H. Mawby, and D. C. Gresham, to Crosfield Electronics Ltd. Colour printer with colour correction. 3,110,761, 11-12-63, Cl. 178—5.2.

Allen & Hanburys Ltd.: *See*—
Groom, Walter. 3,086,550.
Wilkinson, George R., and Peacock. 3,086,837.

Allen-Harper, Inc.: *See*—
Allen, Kenneth M., and Harper. 3,080,961.

Allen, Harry E.: *See*—
Williams, Philip B., Allen, and Hohmann. 3,073,916.

Allen, Harvey G., to Westinghouse Electric Corp. Centrifugal pump. 3,077,131, 2-12-63, Cl. 103—87.

Allen, Herbert, to Rockwell Mfg. Co. Gate. 3,071,342, 1-1-63, Cl. 251—171.

Allen, Herbert, to Cameron Iron Works, Inc. Lubricated valve. 3,080,883, 3-12-63, Cl. 137—246.13.

Allen, Herbert, to Cameron Iron Works, Inc. Through conduit type valve apparatus. 3,95,007, 6-25-63, Cl. 137—330.

Allen, Herbert, to Cameron Iron Works, Inc. Ram type valve apparatus. 3,102,709, 9-3-63, Cl. 251—1.

Allen, Herbert, and M. R. Jones, to Cameron Iron Works, Inc. Wellhead equipment for suspending multiple tubing strings. 3,097,869, 7-16-63, Cl. 285—137.

Allen, Herman C., to Bird & Son, Inc. Pallet and support station useful in pallets and the like. 3,115,105, 12-24-63, Cl. 108—56.

Allen, Howard G., to Bostitch, Inc. Staple. 3,078,533, 2-26-63, Cl. 24—30.5.

Allen Industries, Inc.: *See*—
White, Marion M. 3,102,835.

Allen Iron & Steel Co., The: *See*—
Cassel, Harrison H. 3,072,262.
Cassel, Harrison H., and Stoddart. 3,095,975.
Cassel, Harrison H., and Turnicky. 3,086,659.

Allen, James F.: *See*—
Stange, Hugo, and Allen. 3,086,985.

Allen, James F., and H. K. Latourette, to FMC Corp. Novel chlorinated ethyl sulfones. 3,094,455, 6-18-63, Cl. 167—22.

Allen, James M., and B. Katz, to Empsco Co. Packaging machine. 3,106,049, 10-8-63, Cl. 53—177.

Allen, John D., to Fawick Corp. Power steering device with symmetrical valving. 3,114,242, 12-17-63, Cl. 60—54.5.

Allen, John D., to Fawick Corp. Demand type flow divider. 3,114,380, 12-17-63, Cl. 137—101.

Allen, John E. Self lighting cigarette. 3,080,870, 3-12-63, Cl. 131—7.

Allen, John G., Jr., and T. W. Rees, to Bell Aerospace Corp. Cryogenic storage and insulation means. 3,104,758, 9-24-63, Cl. 206—6.

Allen, John W., to The Budd Co. Electromagnetic testing apparatus using an eccentrically mounted annular test coil whose axis is rotated about the workplece axis. 3,110,860, 11-12-63, Cl. 324—37.

Allen, John W., to Stanray Corp. Cask construction for radioactive material. 3,113,215, 12-3-63, Cl. 250—108.

Allen, Joseph A., to Preway, Inc. Circulating hot air furnace. 3,090,374, 5-21-63, Cl. 126—110.

Allen, Joseph B.: *See*—
Lee, William F., and Allen. 3,106,356.

Allen, Joseph C., to Texaco Inc. Oil well treatment to overcome water coning. 3,093,192, 6-11-63, Cl. 166—21.

Allen, Joseph C., and H. E. Hall, Jr., to The Texas Co. Radioactive well logging. 3,100,259, 8-6-63, Cl. 250—43.5.

Allen, Kenneth C., to The Hobart Mfg. Co. Weighing scales. 3,071,318, 1-1-63, Cl. 235—58.

Allen, Kenneth C., to The Hobart Mfg. Co. Computing scale. 3,084,754, 4-9-63, Cl. 177—210.

Allen, Kenneth C., to The Hobard Mfg. Co. Automatic conveyor and weighing scale system. 3,085,640, 4-16-63, Cl. 177—3.

Allen, Kenneth C. to The Hobart Mfg. Co. Weighing scales. 3,095,054, 6-25-63, Cl. 177—3.

Allen, Kenneth C., to The Hobart Mfg. Co. Recording scale. 3,104,806, 9-24-63, Cl. 235—58.

Allen, Kenneth C., to The Hobart Mfg. Co. Scale comprising a multiplier for using a precomputed table and fractional multiplication. 3,109,091, 10-29-63, Cl. 235—161.

Allen, Kenneth M., and C. H. Harper, to Allen-Harper, Inc. Reversing vibrating conveyor. 3,080,961, 3-12-63, Cl. 198—220.

Allen, Louis B.: *See*—
Stein, Sidney J., and Allen. 3,107,197.

Allen, Malcolm H., H. A. Ballnski, C. E. Garton, S. E. Hubbard, and I. D. Olson, to Structural Clay Products Research Foundation. Multi-story mason's corner pole and accessories therefor. 3,101,184, 8-20-63, Cl. 248—222.

Allen, Milton J., to Ciba Corp. Certain 2(4-halophenyl) 3-pyridylbutane-diols. 3,098,077, 7-16-63, Cl. 260—297.

Allen, Naomi R.: *See*—
Allen, Philip S. 3,077,190.

Allen, Oliver L., to Electrolux Corp. Flexible conduits. 3,082,289, 3-19-63, Cl. 174—47.

Allen, Oliver L., J. T. Ferraris, W. P. Ritzau, and W. P. Vermeulen, to Electrolux Corp. Vacuum cleaner nozzles. 3,108,310, 10-29-63, Cl. 15—356.

Allen, Philip H., and B. J. Chromy. Registers. 3,104,316, 9-17-63, Cl. 235—160.

Allen, Philip J. Device for independent control of ellipticity and orientation of polarized electromagnetic waves. 3,089,-104, 5-7-63, Cl. 333—11.

Allen, Philip J. Polarization modulation apparatus. 3,092,-828, 6-4-63, Cl. 343—5.

Allen, Philip J. Polarimeter. 3,093,825, 6-11-63, Cl. 343—100.

Allen, Philip J., to United States of America, Navy. Waveguide feed with septum for directional antenna. 3,109,996, 11-5-63, Cl. 333—6.

Allen, Philip S., deceased · N. B. Allen, executrix. Solar water heating apparatus. 3,077,190, 2-12-63, Cl. 126—271.

Allen, Ralph G., Jr. Trajectory guide. 3,086,705, 4-23-63, Cl. 235—61.5.

Allen, Richard E., and G. M. Deegan, to Corning Glass Works. Solid delay line improvements. 3,111,741, 11-26-63, Cl. 29—25.35.

Allen, Richard E., and A. Herczog, to Corning Glass Works. Transparent high dielectric constant material, method and electroluminescent device. 3,114,066, 12-10-63, Cl. 313—108.

Allen, Robert C., Jr., and L. J. Mitter, to General Motors Corp. Latching means for french doors. 3,091,232, 5-28-63, Cl. 126—190.

Allen, Robert D. Sewage treating device. 3,116,347, 12-31-63, Cl. 261—26.

Allen, Robert E. Shooting vest. 3,105,241, 10-1-63, Cl. 2—94.

Allen, Robert L., to Georgia Tech Research Institute. Fluid pressure responsive control mechanism. 3,073,348, 1-15-63, Cl. 137—785.

Allen, Robert L., to Georgia Tech Research Institute. Fuel injection system. 3,077,872, 2-19-63, Cl. 123—140.

Allen, Robert L., to Georgia Tech Research Institute. Variable volume fluid distributor. 3,079,948, 3-5-63, Cl. 137—568.

Allen, Robert L., to Lever Brothers Ltd. Method of filling containers. 3,103,089, 9-10-63, Cl. 53—37.

Allen, Robert L., to Georgia Tech Research Institute. Fuel injection nozzle. 3,105,640, 10-1-63, Cl. 239—453.

Allen, Robert M., and R. J. Walton, to Pittsburgh Plate Glass Co. Calcium chloride manufacture. 3,071,816, 1-8-63, Cl. 18—47.5.

Allen, Robert R., R. J. Bell, and R. B. Donohue, Jr., to Anderson, Clayton & Co. Shortening and agent therefor. 3,097,-098, 7-9-63, Cl. 99—123.

Allen, Robert T. Vertical coin counting tube. 3,071,243, 1-1-63, Cl. 206—84.

Allen, Scott E., to Swingspout Measure Co. Swingspout dispenser. 3,097,674, 7-16-63, Cl. 141—366.

Allen, Stratford B. Luminous display device. 3,080,474, 3-5-63, Cl. 240—10.1.

Allen, Theodore L., Jr., to Varian Associates. Magnetometer apparatus. 3,090,002, 5-14-63, Cl. 324—.5.

Allen, Thomas C., Jr.: *See*—
Lukes, George E., and Allen. 3,085,045.

Allen, Thomas R.: *See*—
Moss, Hoyle G., Schwartz, and Allen. 3,110,182.

Allen, W. D., Mfg. Co.: *See*—
Macleod, Keith, and Wendt. 3,083,750.

Allen, William M.: *See*—
Dalve, Johannes A., Reif, and Allen. 3,106,884.

Allen, William R. Puppet and actuating means therefor. 3,091,890, 6-4-63, Cl. 46—126.

Allenbach, Roy E. Timer for clinical thermometer. 3,111,-004, 11-19-63, Cl. 58—144.

Aller, Edmund R., to General American Transportation Corp. Railway hopper cars. 3,088,776, 5-7-63, Cl. 302—52.

Aller, Edmund R., to General American Transportation Corp. Apparatus for storing granular material. 3,088,777, 5-7-63, Cl. 302—52.

Aller, Edmund R., to General American Transportation Corp. Railway hopper cars for transporting granular material. 3,088,778, 5-7-63, Cl. 302—52.

Aller, Willis F., and R. L. Esken, to The Sheffield Corp. Assembly apparatus. 3,079,678, 3-5-63, Cl. 29—201.

Allers, William D., and L. J. Jenkins. Apparatus for forming prestressed concrete sheets. 3,084,910, 4-9-63, Cl. 254—77.

Alles, Edwin H. Mute and reflector for musical wind instruments. 3,099,183, 7-30-63, Cl. 84—400.

Alles & Fisher, Inc.: *See*—
Rosenberg, Sheldon. 3,085,581.

Allewelt, Arthur L., to Rohm & Haas Co. Modified spinning solutions, methods for producing fibers and films, and filmy products produced therefrom. 3,093,446, 6-11-63, Cl. 18—54.

Alley, John M. Mail box and signal. 3,093,302, 6-11-63, Cl. 232—35.

Alley, Lewis F.: *See*—
Miller, Jack M., Long, Rapp, and Alley. 3,108,318.

Alley, Thomas R. Circulating valve. 3,094,307, 6-18-63, Cl. 251—297.

Allgauer Maschinenbau G.m.b.H.: *See*—
Lacus, Hans. 3,075,341.
Recher, Werner. 3,084,500.

Allgeier, Edwin A.: *See*—
Feldman, Julian, Saffer, and Allgeier. 3,088,982.

Allgeuer, Kurt, and F. Weinrotter, to Osterreichische Stickstoffwerke Aktiengesellschaft. Free-flowing, storage stable granular or pelletized urea. 3,112,343, 11-26-63, Cl. 260—555.

Allgeyer, Guy H., to Owens-Illinois Glass Co. Apparatus for handling glassware articles. 3,072,240, 1-8-63, Cl. 198—30.

Allgeyer, Guy H., to Owens-Illinois Glass Co. Method for handling glassware articles. 3,095,082, 6-25-68, Cl. 198—30.

Alliance Machine Co., The: *See*—
Harry, Robert J. 3,104,016.

Alliance Mfg. Co., The, Division of Consolidated Electronics Industries Corp.: *See*—
Schneider, Emmor V. 3,101,950.

Allie, Julius: *See*—
Wills, Marvin, and Allie. 3,094,263.

Allied Chemical Corp.: *See*—
Agahigian, Harry, and Woolf. 3,081,358.
Anello, Louis G., and Woolf. 3,074,781.
Anello, Louis G., and Woolf. 3,107,979.
Apostle, Basil G., Papero, and Snider. 3,109,835.
Atkins, Irving, and Ellins. 3,105,620.
Benscher, Howard W., Geary, and Morris. 3,087,851.
Carlson, Emery J., and Gilbert. 3,081,345.
Cawthon, Thomas M., Nee, and Richmond. 3,072,633.
Cheng, Chao-Shing, and Spaunburgh. 3,080,357.
Cosby, John N., and Klasen. 3,074,923.
Duggan, Raymond J., Murray, and Winstrom. 3,076,810.
Farbish, Alfred B. 3,111,069.
Farkas, Adalbert, and Szonyi. 3,113,964.
Fedoruk, John C. 3,079,230.
Fleysher, Maurice H. 3,073,849.
Fleysher, Maurice H., and Richards. 3,074,958.
Fleysher, Maurice H., and Richards. 3,091,618.
Formani, Robert L. 3,093,641.
Formalni, Robert L., and Brakebill. 3,113,966.
Funkhouser, Garland B. 3,088,819.
Grossmann, Samuel W. 3,072,721.
Grossmann, Samuel W. 3,103,457.
Hoare, Robert C. 3,076,821.
Joris, George G., and Oser. 3,111,544.
Koch, Stanley D., and Greenfield. 3,079,363.
Kranz, Frederick H. 3,079,271.
Kranz, Frederick H., and Tewksbury. 3,096,189.
Kuzma, Stephen, and Singer. 3,084,824.
Kuzma, Stephen, and Stuger. 3,103,278.
Larner, Bernard. 3,110,881.
Lauder, William B., and Hartford. 3,095,266.
Lind, Charles J., and Sogn. 3,086,063.
Little, Edwin D., and Poon. 3,088,948.
Little, Edwin D., and Poon. 3,108,115.
Logan, Bruce G., and Sabia. Re. 25,467.
Lundgren, Donald G., and Krikszens. 3,087,777.
MacGregor, Rob R. 3,097,147.
MacKinnon, Bernard R. 3,071,815.
McGraw, Woodrow W. 3,079,201.
Moore, William P., and MacGregor. 3,087,970.
Moore, William P., Jr., and Elliott. 3,105,741.
Papero, Patrick V., Jr., and Morter. 3,113,120.
Papero, Patrick V., Jr., Snider, and Duggan. 3,090,773.
Richmond, Henry H. 3,081,291.
Ross, Stanley E. 3,103,448.
Smith, Joseph A., and Gilliam. 3,114,624.
Smith, Joseph A., and Waters. 3,109,728.
Smith, Joseph A., and Young. 3,091,523.
Sogn, Allen W., and Graff. 3,078,317.
Spilker, Clarence W. 3,096,226.
Taub, Bernard. 3,078,301.
Thorsell, Richard S., and Pietrusza. 3,083,686.
Townend, Robert V., Trout, and Wilkalis. 3,100,681.
Walter, Charles R., Jr., and Lloyd. 3,098,017.
Waters, Charles E., and Hibbitts. 3,092,486.
Waters, Charles E., and Wells. 3,096,168.
Wethly, Frans. 3,099,229.
Wintzer, Herman C. 3,114,415.

Allied Chemical & Dye Corp.: *See*—
Donegan, Joseph W. 3,079,730.

Allied Control Co., Inc.: *See*—
Horman, John H. 3,109,077.
Oakman, Albert S., and Sakatos. 3,073,934.

Allied Instructional Developments, Inc.: *See*—
Doschek, Antony Z. 3,101,810.

Allied Plastics Co.: *See*—
Crane, Walton B. 3,109,579.

Allied Products Corp.: *See*—
Newcomb, John F. 3,106,122.
Reece, William F. 3,106,120.

Allied Record Mfg. Co.: *See*—
Goulet, Fernand, and Salzman. 3,112,523.
Salzman, Samuel. 3,072,519.

Allied Research Products, Inc.: *See*—
Leenders, Peter, and Creutz. 3,084,112.

Allied Textile Printers, Inc.: *See*—
Haber, Hymaa. 3,099,514.

Allied Thermal Corp.: *See*—
Person, Ernest H. 3,107,597.

Allimann, Georges, to Ateliers de Carspach. Drilling-head for the sinking of shafts, galleries and the like. Re. 25,-470, 11-5-63, Cl. 262—7.

Allimann, Georges, to Ateliers de Carspach. Rotary drum type cutting device for machines used in mines, quarries and work-sites. 3,074,792, 1-22-63, Cl. 262—26.

Allimann, Georges, to Ateliers de Carspach. Drilling machine for cutting non-circular gallery. 3,108,788, 10-29-63, Cl. 262—7.

Allinder, William C.: *See*—
Ayers, George W., and Allinder. 3,076,039.

Allinikov, Sidney, and F. W. Forbes. High temperature resistant viewing device. 3,103,712, 9-17-63, Cl. 20—40.

Allis-Chalmers Mfg. Co.: *See*—
Andersen, Wilhelm A., and Wagner. 3,075,112.
Bade, Erich. 3,110,751.
Bagnall, Larry O. 3,098,509.
Baude, John. 3,091,939.
Baude, John. 3,092,731.
Baude, John. 3,109,340.
Baude, John. 3,113,218.
Baude, John. 3,116,440.
Baude, John. 3,116,465.
Baude, John, and Lorenz. 3,087,106.
Baxa, Edward H. 3,110,483.
Bedell, Edward L., Jr. 3,104,168.
Bellinger, Thaddeus F. 3,090,898.
Brohaugh, Paul D. 3,093,789.
Carlin, Robert, Cannon, and Soeteber. 3,083,781.
Codita, James B. 3,088,760.
Denker, Chester H. 3,080,003.
Dwyer, John J., Jr., and Lane. 3,075,061.
Ferguson, Rector C. 3,108,419.
Fiedler, Bruce H. 3,072,165.
Gieskieng, David H. 3,075,756.
Goodwin, Edwin C., Jr. 3,072,763.
Hamilton, William I. 3,107,483.
Harrer, Paul H. 3,091,072.
Harrer, Paul H., and Shannon. 3,115,737.
Hayden, Stanley P., and Sheets. 3,105,816.
Helming, Bernd, and Schultz. 3,084,878.
Herr, Charles H., Jr. 3,104,538.
Hipp, Allen J. 3,110,622.
Hoffmann, Jack H. 3,099,760.
Huff, James R., and Haworth. 3,107,978.
Jacobsen, Julius E. 3,109,975.
Keith, Percy A. 3,082,590.
Koch, George P. 3,080,026.
Koenig, Eldo C. 3,071,972.
Lambert, Richard H., and Krombos. 3,083,271.
Lipe, Bruce R., and Schroeder. 3,079,865.
Malick, Franklin S. 3,104,350.
Mydels, John W., and Hurt. 3,106,252.
Nielsen, Charles W. 3,100,865.
Odell, Robert C. 3,108,415.
Patterson, Warren R. 3,078,051.
Peek, Henry L., and Timmerman. 3,105,126.
Ramrath, Joseph M. 3,076,080.
Rockwell, Harvey W. 3,103,752.
Rogers, Howard H. 3,071,852.
Schick, Frederick A. 3,105,581.
Schick, Frederick A., and Schwab. 3,098,549.
Schroeder, Earle E. 3,073,247.
Schroeder, Earle E. 3,101,671.
Schroeder, Robert J. 3,093,917.
Schwab, Charles L. 3,098,550.
Tanke, Willard H. 3,111,351.
Varga, Henry J., Haig, and Kirch. 3,088,031.
Waddell, John S. 3,101,221.
Wochner, Joseph J. 3,101,138.
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Allis, Louis, Co., The: *See*—
Hansen, Hans R. A. 3,092,766.
Hansen, Hans R. A. 3,114,850.
Hansen, Hans R. A., and Karlson. 3,093,779.
Robinson, Russell I. 3,088,042.
Wilkerson, Alan W. 3,108,214.
Wilkerson, Alan W., and Hansen. 3,084,268.
Zweifel, Charles H., Rundel, and Van Schaack. 3,078,-406.

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Meek, Paul D., Snyder, Allison, and Grimes. 3,100,763.

Allison, John R., to Leflingwell Chemical Co. Sabadilla seed insecticide. 3,078,211, 2-19-63, Cl. 167—24.

Allison, Leslie R., to Westinghouse Air Brake Co. Locomotive remote control system. 3,096,056, 7-2-63, Cl. 246—187.

Allison, Robert W., to Caral Packaging Machinery, Inc. Box forming machine. 3,091,995, 6-4-63, Cl. 93—53.

Allison, Thomas K. Doctor blade and holder. 3,085,275, 4-16-63, Cl. 15—236.

Allison, Thomas K. Machine for honing doctor blades. 3,099,-111, 7-30-63, Cl. 51—3.

Allison, Thomas K. Doctor blade grinding machine. 3,114,-989, 12-24-63, Cl. 51—105.

Allman, William T., Jr., C. W. Joseph, and R. G. Higgins, Jr., to Celanese Corp. of America. Bulked non-wovens. 3,100,-328, 8-13-63, Cl. 28—76.

Allmand, Walter C. Constant output drive. 3,074,289, 1-22-63, Cl. 74—230.17.

Allmänna Svenska Elektriska Aktiebolaget: *See*—
Agerman, Erik. 3,080,131.
Dahl, Madsen. 3,089,834.
Dahle, Orvar, and Berggren. 3,093,999.
Forwald, Haakon. 3,087,035.
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Allmänna Svenska Elektriska Aktiebolaget: *See*—Continued
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Lundblad, Erik. 3,096,544.
Madsen, Kristian D. 3,072,354.
Myklebust, Roger. 3,108,241.
Nilsson, Erland. 3,093,648.
Nilsson, Erland. 3,094,648.
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Gellar, Charles A. 3,108,014.
Mager, Louis. 3,086,902.
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Alloyd Research Corp.: *See*—
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Schetky, Laurence M. 3,086,284.
Spacil, Henry S. 3,091,689.

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Storchelm, Samuel. 3,108,871.

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Allsop, Ivor J. Skiers' tow seat. 3,110,268, 11–12–63, Cl. 104—173.

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Rudolph, Nathan H., and Crutchett. 3,082,023.

Allswede, Keith A.: *See*—
Ruh, Robert P., Davis, and Allswede. 3,092,458.

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Marsov, Serguei V. 3,082,295.
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Pastor, Gerardo. 3,086,301.

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Allyn, Harold D.: *See*—
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Allyn, Harold D. Breech bolt firearm with movable forearm and action bars. 3,075,313, 1–29–63, Cl. 42—71.

Allyn, Harold D. Firing mechanism with variable contact sear notch. 3,079,718, 3–5–63, Cl. 42—69.

Almashy, George. Educational game apparatus. 3,100,643, 8–13–63, Cl. 273—119.

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Schmid, Heinrich. 3,084,580.

Almeida, Louis B.: *See*—
Sarmento, Frank, and Almeida. 3,093,270.

Alménn, Bengt S. O., to Sandvikens Jernverks Aktiebolag. Tool holder. Re. 25,461, 10–15–63, Cl. 29—96.

Alménn, Bengt S. O., to Sandvikens Jernverks Aktiebolag. Milling cutter having cutting insert reference means. 3,083,442, 4–2–63, Cl. 29—105.

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Almgren, Louis E. Water skis. 3,096,530, 7–9–63, Cl. 9—310.

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Almor Corp.: *See*—
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Almquist, Vernon C., to Armour and Co. Method for treating poultry. 3,103,697, 9–17–63, Cl. 17—45.

Almvide, Sven L., to Original-Odhner, Aktiebolaget. Registers for adding machines, bookkeeping machines and other calculating machines. 3,078,038, 2–19–63, Cl. 235—137.

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Alper, Ralph H., and R. E. Biehl, to Curtiss-Wright Corp. Prefilled liquid rocket engine. 3,091,081, 5–28–63, Cl. 60—35.6.

Alpers, Frederick C., to United States of America, Navy. System for synchronization and range measurement with a semiactive-to-active radar guided missile. 3,074,062, 1–15–63, Cl. 343—13.

Alpers, Frederick C., to United States of America, Navy. Split signal tracking circuit. 3,078,456, 2–19–63, Cl. 343—7.3.

Alpers, Frederick C., F. S. Atchison, and W. A. Yates, to United States of America, Navy. Control system for homing guided missile. 3,093,821, 6–11–63, Cl. 343—7.

Alperstein, Abraham A. Cluster bomb. 3,111,086, 11–19–63, Cl. 102—7.2.

Alpert, Marshall B., to National Lead Co. Electrolytic production of titanium metal. 3,114,685, 12–17–63, Cl. 204—64.

Alpert, Norman, J. M. Caffrey, Jr., H. J. Watson, and H. E. Vermillion, to Texaco Inc. Alkylation of ferrocene. 3,100,216, 8–6–63, Cl. 260—439.

Alpha Molykote Corp., The: *See*—
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Alsabrook, Charles M., to Texas Instruments Inc. Ultrasonic surveyor's distance measuring instrument. 3,076,519, 2–5–63, Cl. 181—5.

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Alspaugh, Melvin L. Floating anti-fouling sinker and chum dispenser. 3,084,471, 4–9–63, Cl. 43—44.99.

Alster, Frank G.: *See*—
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Alston, Otis R., to Swift Spinning Mills, Inc. Process and apparatus for carding cotton fibers. 3,097,399, 7–16–63, Cl. 19—98.

Alston, Paul W. Cane sugar processing. 3,113,043, 12–3–63, Cl. 127—48.

Alston, Paul W. Sugar beet processing. 3,113,044, 12–3–63, Cl. 127—48.

Alston, Paul W. Purification of cane juice by liming with gentle stirring. 3,113,045, 12–3–63, Cl. 127—50.

Alswang, Ralph. Theatrical procedure and setting for creating dissolve illusions. 3,084,933, 4–9–63, Cl. 272—10.

Alswang, Ralph. Theatrical procedure and stage setting therefor. 3,085,799, 4–16–63, Cl. 272—10.

Alsys, Clarence M., to Standard Oil Co. Pump quenching of polymer solvent mixtures. 3,070,835, 1–1–63, Cl. 18—1.

Alsys, Clarence M., to E. I. du Pont de Nemours and Co. Shaped polymeric articles. 3,079,312, 2–26–63, Cl. 204—154.

Alt, Ernst: *See*—
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Alt, Gerhard H., and G. R. Wilder, to Monsanto Chemical Co. Oxygen-containing heterocyclomethyl dihydroquinolinyl ethers. 3,083,180, 3–26–63, Cl. 260—45.8

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Lau, Erich. 3,084,798.

Altenpohl, Dietrich, to Aluminium-Walzwerke Singer G.m.b.H. Method and apparatus for producing dielectric layer on the surface of an aluminum foil. 3,074,857, 1–22–63, Cl. 204—28.

Altenschopfer, Theodor, H. Spes, and L. Vornehm, to Wacker-Chemie G.m.b.H. Process for reacting gases with fluids. 3,111,548, 11–19–63, Cl. 260—684.

Alter, Fritz. Valve. 3,101,189, 8–20–63, Cl. 251—187.

Alter, Harvey, to The Gillette Co. Razor blade having a coating of a cured solid hydrocarbon polymer on its cutting edge. 3,071,858, 1–8–63, Cl. 30—351.

Alter, Samuel. Damper regulator. 3,073,564, 1–15–63, Cl. 251—112.

Alterman, Francis J., to General Mills, Inc. Reeling system for recording tape. 3,078,056, 2–19–63, Cl. 242—55.12.

Alterman, Michael E., and E. A. Irland, to Bell Telephone Laboratories, Inc. Telephone line scanning circuit. 3,073,907, 1–15–63, Cl. 179—8.

Altermann, Francis J., to General Mills, Inc. Terrain clearance system. 3,086,200, 4–16–63, Cl. 343—5.

Altermatt, Hans, to Ciba Ltd. Process for coloring high melting organic spinning masses with colored polycyclic aromatic hydrocarbons or halogen hydrocarbons. 3,104,233, 9–17–63, Cl. 260—37.

Althens, Herbert E., H. C. French, and F. A. Reece, deceased (by F. A. Reece, Jr., J. B. Reece, and W. D. Brooks, Jr., co-executors), to The Reece Corp. Foot treadles. 3,103,905, 9–17–63, Cl. 112—219.

Altherr, Jacob J. Automatic brake for telescoping carts. 3,095,211, 6–25–63, Cl. 280—33.99.

Altherr, Russell G., to American Steel Foundries. Mechanical and fluid pressure actuated brake arrangement. 3,084,767, 4–9–63, Cl. 188—106.

Althouse, William S., Jr., and H. H. Fisher, Jr., to Baker Oil Tools, Inc. Apparatus for multiple zone well production. 3,083,768, 4–2–63, Cl. 166—114.

Althouse, William S., Jr., and J. D. Keithahn, to Baker Oil Tools, Inc. Subsurface well tool control mechanism. 3,115,189, 12–24–63, Cl. 166—240.

Altice, Maryland V., V. H. Waldin, and W. C. Taylor, to E. I. du Pont de Nemours and Co. Traverse winding apparatus. 3,074,286, 1–22–63, Cl. 74—59.

Altice, Maryland V., and V. H. Waldin, to E. I. du Pont de Nemours and Co. Yarn traverse mechanism. 3,086,722, 4–23–63, Cl. 242—43.

Altice, Maryland V., and V. H. Waldin, to E. I. du Pont de Nemours and Co. Windup chuck. 3,112,082, 11–26–63, Cl. 242—46.5.

Altieri, James V., Jr., to United Aircraft Corp. Special technique for casting impeller blade passages. 3,096,548, 7–9–63, Cl. 22—193.

Altman, Bernard, and P. Stiller, to Still-Man Mfg. Corp. Hinged electrical heater for oven top. 3,076,886, 2–5–63, Cl. 219—37.

Altman, Hugo A. Re-edging machine. 3,087,048, 4–23–63, Cl. 219—125.

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Alto Co.: *See*—
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Lecrone, Dale S., and Grossi. 3,080,079.

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Altree, Arthur F., S. Bass, and M. Goldsholl, to Kimberly-Clark Corp. Carton for cellulosic product. 3,090,483, 5–21–63, Cl. 206—57.

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Altscher, Siegfried, and T. F. Groll, Jr., to Nopco Chemical Co. Emulsifier mixture. 3,071,550, 1–1–63, Cl. 252—354.

Altshuler, Morton W., and D. E. Franklin. Cake dolly. 3,074,609, 1–22–63, Cl. 229—1.5.

Altson, Ralph, to General Motors Corp. Antifriction bearing. 3,091,500, 5–28–63, Cl. 308—217.

Altwicker, Elmar R., and A. B. Garrett, to Olin Mathieson Chemical Corp. Production of pentaborane (9)-alkylene oxide reaction products. 3,106,582, 10–8–63, Cl. 260—606.5.

Altwicker, Elmar R., E. A. Wellmuenster, A. B. Garrett, and S. W. Harris, to Olin Mathieson Chemical Corp. Preparation of alkylated decaborane. 3,109,030, 10–29–63, Cl. 260—606.5.

Aluise, Robert R., C. W. Webb, and H. E. Violette, to United States of America, Navy. Method of handling stores. 3,088,612, 5–7–63, Cl. 214—152.

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Aluma-Rail Inc.: *See*—
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Aluminium-Industrie-Aktien-Gesellschaft: *See*—
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Aluminum Burial Vaults of America, Inc.: *See*—
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Aluminum Co. of America: *See*—
Anderson, William A. 3,098,724.
Binger, Wayne W., and Ponchel. 3,074,824.
Binger, Wayne W., and Vandenburgh. 3,089,466.
Brown, Robert H. 3,086,369.
Dunbar, James A., and Von Stocker. 3,100,337.
Cochran, William C. 3,114,660.
Coppelt, Vern L. 3,105,400.
Fisher, James C., Clark, and Lee. 3,081,871.
Foster, Luther M., and Long. 3,113,879.
Gitzen, Walter H. 3,092,452.
Gitzen, Walter H. 3,092,453.
Hayes, Peter R. 3,073,471.
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Honnert, Quentin E. 3,089,593.
Hunter, Matthew S., and Franz. 3,084,080.
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Nelson, David G. 3,085,324.
Rawlins, Charles B. 3,110,757.
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Rolles, Rolf. 3,085,890.
Schneck, Kenneth H. 3,113,052.
Stillwagon, James E. 3,084,128.
Stonebrook, Edward E. 3,092,744.
Terrill, James R., and Richards. 3,083,452.
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Aluminum Laboratories Ltd.: *See*—
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Parker, Leslie K. 3,091,332.

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Alvarez, Luis W., to Radiation Counter Laboratories, Inc. X-ray spectroscopic system comprising plural sources, filters, fluorescent radiators, and comparative detectors. 3,114,832, 12–17–63, Cl. 250—51.5.

Alvarez-Calderón, Alberto. Aerodynamic system and apparatus. 3,092,354, 6–4–63, Cl. 244—10.

Alvarez de Toledo, Fernando, to Owens-Corning Fiberglas Corp. Apparatus for forming mineral fibers. 3,082,615, 3–26–63, Cl. 65—12.

Alven Enterprises, Inc.: *See*—
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Alverson, Earl E., to Southeastern Metals Co. Tube support and clamp for punching machines. 3,099,182, 7–30–63, Cl. 83—383.

Alvey-Ferguson Co., The: *See*—
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Alvik, Harold. Digging machine. 3,097,703, 7–16–63, Cl. 172—43.

Alvis, James F., and J. V. Young, Jr., to Ling-Temco Vought, Inc. Protective means. 3,082,611, 3–26–63, Cl. 62—217.

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Goodell, Murel G., Appelt, and Davis. 3,092,041.
Hagen, Glenn E., and Beck. 3,080,548.

Alwac International, Inc.: *See*—
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Alyanak, Edward J., and W. H. Eiszner, Jr., to The Bendix Corp. Fluid pump. 3,085,512, 4–16–63, Cl. 103—49.

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Amala, Raymond S., to General Motors Corp. Method of casting apertured articles. 3,108,341, 10–29–63, Cl. 22—193.

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Beer, Henri B. 3,098,802.

Amalgamated Dental Co. Ltd., The: *See*—
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Duffield, Joseph F. 3,114,792.

Amann, Charles A., J. S. Collman, R. W. Haushalter, J. M. Ricketts, W. A. Turunen, and P. T. Vickers, to General Motors Corp. Regenerative gas turbine. 3,095,700, 7–2–63, Cl. 60—39.2.

Amann, Charles A., and J. W. Scheel, to General Motors Corp. High speed land transportation system and vehicle therefor. 3,096,728, 7–9–63, Cl. 104—134.

Amann, Gustav W.: *See*—
Pirrie, Norman D., Amann, and Woolgar. 3,075,591.

Amann, Gustav W., and R. J. Woolgar, to Economic Foundations Ltd. Earth boring under-reaming tool. 3,112,802, 12–3–63, Cl. 175—285.

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Amason, Myron P., to Douglas Aircraft Co., Inc. Lightning arrestor for radomes. Re. 25,417, 7–16–63, Cl. 244—1.

Amato, Anthony J. Educational device. 3,084,589, 4–9–63, Cl. 84—470.

Amato, Justin C. Methods and apparatus for packaging. 3,110,995, 11–19–63, Cl. 53—180.

Amberg, Stephen W., and F. S. Landers, to Lily-Tulip Cup Corp. Vented container closure lids. 3,083,861, 4–2–63, Cl. 220—44.

Amberg, Walter E. Centrifugal liquid pump. 3,107,625, 10–22–63, Cl. 103—103.

Ambli, Andrew. Mud flap stabilizer. 3,091,478, 5–28–63. Cl. 280—154.5.

Amborski, Leonard E., and C. J. Mighton, to E. I. du Pont de Nemours and Co. Laminates prepared with Werner complex coating on an aluminum layer. 3,107,198, 10–15–63, Cl. 161—213.

Ambrette, Conrad and Paul, deceased (J. Ambrette, executrix), to Ambrette Machinery Corp. Apparatus for continuously preparing and extruding plastic compositions. 3,114,933, 12–24–63, Cl. 18—12.

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Ambrette Machinery Corp.: *See*—
Ambrette, Conrad and P. 3,114,933.

Ambrette, Paul: *See*—
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Ambrogi, Alfred, to Capital Business Machines Corp. Nesting-collating machine. 3,071,369, 1–1–63, Cl. 270—55.

Ambrose, Frederick S., to Galis Electric & Machine Co. Materials separating apparatus and drive mechanism therefor. 3,075,644, 1–29–63, Cl. 209—503.

Ambrose, Henry A., and C. E. Trautman, to Gulf Research & Development Co. Process of improving the wear properties of a mineral and fatty oil lubricant mixture by radiation. 3,100,185, 8–6–63, Cl. 204—162.

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Clifford, Richard P., and Ambrosio. 3,088,072.

Ambuehl, Harold R., and J. J. Lowman. Continuous pulping process for the production of paper products. 3,081,218, 3–12–63, Cl. 162—19.

Amburgey, Jake N., Jr. Portable ice chest. 3,106,074, 10–8–63, Cl. 62—464.

Amchem Products, Inc.: *See*—
Douty, Alfred. 3,075,143.
Douty, Alfred, and Buczkowski. 3,095,121.
Gardner, George S., and Faigen. 3,071,590.
Gardner, George S., Manson, and Hayman. 3,094,490.
Otto, George F. 3,076,733.
Raman, Harvey P., and McLane. 3,100,226.
Reinhold, Earl R. 3,101,286.
Reinhold, Earl R. 3,109,757.
Schneider, George. 3,079,288.
Thirsk, James H. 3,098,775.

Amchem S.A.: *See*—
Macha, Willibald, and El Ghandour. 3,093,556.

Amco Engineering Co.: *See*—
Anderson, Edwin V., Mack, and Friberg. 3,087,768.

Amend, Donald F. Picnic table and workbench conversion. 3,101,061, 8–20–63, Cl. 108—11.

Ament, Alphous L., and P. P. Rupp. Side delivery manure spreader. 3,075,776, 1–29–63, Cl. 275—4.

Ament, Weston H. Spinning reel. 3,107,876, 10–22–63, Cl. 242—84.21.

Amer, Kenneth B., S. B. Chris, and C. C. Boswell, Jr., to Hughes Tool Co., Aircraft Division. Rotor blade for rotary-winged aircraft. 3,096,826, 7–9–63, Cl. 170—135.4.

Amerace Corp.: *See*—
Fleming, Robert S. 3,094,707.

American Agricultural Chemical Co., The: *See*—
Clark, George. 3,089,752.

American Air Filter Co., Inc.: *See*—
Baker, Forrest G. 3,098,603.
Beckner, Ralph. 3,092,533.
Baustian, Gordon N. 3,098,637.
Copenhefer, John E. 3,097,710.
Getzin, Allan R. 3,100,557.
Getzin, Allan R. 3,107,990.
Getzin, Allan R. 3,111,489.
Greene, Earnest J., and Millman. 3,098,731.
Hagendoorn, Willem J. 3,093,401.
Hagendoorn, Willem J., and Smith. 3,099,547.
Holmes, Gifford I. 3,087,412.
McKenna, Frederic W. 3,096,817.
Nutting, Arthur. 3,075,334.
Millman, William V., and Greene. 3,102,654.
O'Dell, Leonard J., and Westlin. 3,074,218.
Palmore, Robert A. 3,114,616.
Revell, Alan E. 3,075,333.
Robson, Aubrey H. 3,076,604.
Schlarb, James A. 3,072,513.
Smith, Tom R. 3,092,478.
Westlin, Karl L. 3,071,916.
Westlin, Karl L. 3,104,961.

American Allsafe Co., Inc.: *See*—
Sterne, Willard F. 3,089,146.

American Auto-Felt Corp.: *See*—
Hoagland, William W., and Bolen. 3,087,171.

American Baler Co., The: *See*—
Englund, Lawrence P. 3,086,456.
Seltzer, Robert E. 3,109,362.

American Bank Note Co.: *See*—
Guertin, Clifford D. 3,088,841.

American Beryllium Co., Inc.: *See*—
Quartullo, Orphens F. 3,115,676.

American Biltrite Rubber Co., Inc.: *See*—
Wisotzky, Reuben. 3,098,262.

American Bosch Arma Corp.: *See*—
Aglns, George. 3,083,666.
Bishop, Ronald L. 3,082,631.
Chmura, Theodore S. 3,096,716.
Curriston, Loren E. 3,107,540.
Ensign, Roy F. 3,081,160.
Foss, Clifton T., and Giba. 3,080,514.
Kritz, Jack. 3,085,167.
Kritz, Jack. 3,114,848.
Lally, Vincent E. 3,109,607.
Magasiny, Irving P., and Finkel. 3,111,634.
Miner, Richard Y., and Bock. 3,113,203.
Mundo, Charles J., Jr. 3,114,267.
Reich, William J., Jr., and Ward. 3,101,069.
Tarasevich, Michael. 3,093,760.
Tellerman, Jacob, and Zaretsky. 3,091,737.
Waldron, Claude F. 3,095,597.

American Box Corp.: *See*—
Hamilton, Joseph P. 3,102,674.

American Brake Shoe Co.: *See*—
Adams, Cecil E. 3,076,414.

American Brake Shoe Co.: *See*—Continued
Adams, Cecil E. 3,090,398.
Adams, Cecil E. 3,102,494.
Arrasmith, Grant H. 3,077,957.
Atchley, Raymond D. 3,094,796.
Avery, Howard S., and Chapin. 3,075,838.
Beetle, Robert H., and Larson. 3,078,160.
Caslow, Joseph H. 3,107,688.
Cox, Isaac E. Re. 25,330.
Davin, Joseph. 3,102,493.
Devaney, John L., Jr. 3,096,057.
Hipple, George M. 3,080,508.
Hoyer, Llewellyn E., and Gorcyca. 3,090,660.
Hoyer, Llewellyn E., Wilson, and Gorcyca. 3,090,658.
Huntress, Howard B. 3,074,152.
Pesce, Gabriel V. 3,108,544.
Ratkowski, Thomas A. 3,107,445.
Renick, Wendell E. 3,093,892.
Smith, Frank W., Gilbert, and Sewell. 3,092,595.
Smith, Harry A., Jr. 3,104,838.
Watson, John W. 3,082,319.
Wilson, Rosser L., Hoyer, and Cox. 3,090,659.

American Can Co.: *See*—
Aldington, Elmer T. 3,109,575.
Baselt, Frederick C. 3,077,409.
Brandt, Roger. 3,108,850.
Brownold, Charles R. 3,107,191.
Bruschini, Albert, and Sheninger. 3,104,045.
Carew, Herman, and Kinney. 3,079,683.
Carew, Herman and Kinney. 3,080,078.
Carew, Herman, and Kinney. 3,115,991.
Corrinet, Andrew L. 3,080,088.
Corrinet, Andrew L. 3,110,121.
Dobens, William L. 3,102,193.
Eddy, Charles L. 3,099,114.
Elam, William B. 3,108,516.
Fredette, Joseph H. 3,075,673.
Fredette, Joseph H. 3,115,272.
Gerbino, Anthony J. 3,081,017.
Gordon, James H. 3,100,366.
Gotsch, Lenard P., and Wobbe. 3,077,171.
Grover, Victor T., Jakob, Kluesener, and Borkmann. 3,111,874.
Hall, Joseph M. 3,081,018.
Hansen, Harold M. 3,104,032.
Hartford, Charles H. 3,084,578.
Hein, Matthew E. 3,099,370.
Hein, Matthew E. 3,112,846.
Hein, Matthew E., and Fourier. 3,087,823.
Hoag, Lehman E., and Wendricks. 3,113,899.
Honkanen, Arvid. 3,099,045.
Hovland, Howard N. 3,094,265.
Hovland, Howard N. 3,115,293.
Jannett, Frederick J. 3,108,782.
Kamm, Gilbert G. 3,087,871.
Knipp, William C. 3,109,577.
Kuchenbecker, Morris W. 3,073,503.
Kuchenbecker, Morris W. 3,078,768.
Kuchenbecker, Morris W. 3,079,059.
Kuchenbecker, Morris W. 3,080,965.
Kuchenbecker, Morris W. 3,080,966.
Kuchenbecker, Morris W. 3,081,016.
Kuchenbecker, Morris W. 3,097,574.
Kuchenbecker, Morris W. 3,107,038.
Lehmann, Karl F. 3,106,231.
Makowski, Alexander G. 3,078,517.
Makowski, Alexander G. 3,091,000.
Makowski, Alexander G. 3,097,423.
Makowski, Alexander G. 3,107,829.
Makowski, Alexander G., Blood, and Wathen. 3,097,593.
Meagher, Fred L. 3,113,710.
Metzler, Charles L., and Wark. 3,099,377.
Meyers, George L. 3,085,736.
Meyers, George L. 3,097,785.
Meyers, George L. 3,108,735.
Neuberger, Roger B. 3,087,722.
Newcomb, Francis B., and Fitzsimmons. 3,082,904.
Peterson, Stanley A. 3,114,644.
Pottle, Ralph K. 3,087,393.
Pottle, Ralph K. 3,094,026.
Pottle, Ralph K. 3,113,410.
Quinche, Albert. 3,101,850.
Schroeder, George O. 3,099,378.
Schultz, Robert S. 3,073,485.
Schultz, Robert S. and Grimsley. 3,106,742.
Schulz, Charles M. 3,098,552.
Skowronski, George V. 3,078,028.
Skowronski, George V. 3,078,171.
Skowronski, George V. 3,111,255.
Socke, John E. 3,080,782.
Stohr, Edalene. 3,071,475.
Taggart, Robert E., and Becher. 3,114,226.
Taylor, William E. 3,113,668.
Wendricks, Roland N., and Weygant. 3,099,442.
Witmer, Clarence L. 3,097,780.
Zundel, Arthur P. 3,113,542.

American Carbide Co.: *See*—
Phillips, William H., Jr. 3,109,663.

American Cast Iron Pipe Co.: *See*—
Phelps, Edwin H. 3,110,944.

American Cement Corp.: *See*—
Harris, Philip H. 3,097,955.

American Chain & Cable Co., Inc.: *See*—
Bratz, Otto J. 3,110,193.
Coffey, Ralph J. 3,096,612.
Coffey, Ralph J., and Rudaciile. 3,104,008.
Seymour, Harvey W. 3,091,217.
Seymour, Harvey W. 3,115,121.

American Chicle Co.: *See*—
Bilotti, Anthony G., and Hainer. 3,075,884.
Vanderwal, Sjouke. 3,110,416.

American Coleman Co., The: *See*—
Yadon, Donald E. 3,078,943.
Yadon, Donald E., and Nohle. 3,075,599.

American Colloid Co.: *See*—
Clem, Arthur G. 3,079,334.
Clem, Arthur G., and Lee. 3,079,335.

American Cyanamid Co.: *See*—
Allman, David E. 3,113,957.
Allman, David E., and Young. 3,081,352.
Anderson, George W., and McGregor. 3,095,408.
Arlt, Herbert G., Jr. 3,084,092.
Backlund, Gerald R., and Terenzi. 3,090,761.
Ball, Edwin L., and Vitucci. 3,098,696.
Barber, William A. 3,078,149.
Beachem, Michael T., and Shaw. 3,084,195.
Berkelhammer, Gerald, Wagner, and Magee. 3,102,885.
Bernstein, Seymour, and Allen. 3,111,516.
Bernstein, Seymour, and Heller. 3,086,031.
Boldizar, Leslie. 3,082,190.
Boldizar, Leslie, and Pounds. 3,082,180.
Bonvicino, Guido E. 3,072,648.
Booth, Robert B. 3,086,653.
Bowkley, Herbert L., and Merryweather. 3,097,121.
Boyle, Richard J., Susi, and Milionis. 3,079,366.
Brown, Frank, and Prichard. 3,091,935.
Brownfield, Robert B., and Krieger. 3,087,927.
Buckler, Sheldon A., and Epstein. 3,116,334.
Burris, William A. 3,091,617.
Cantrall, Edward W., Littell, Bernstein, and Gordon. 3,094,541.
Colgan, Joseph D., and Fife. 3,090,767.
Conger, Joseph C., Sr., Robinson, and Kelly. 3,114,726.
Cooper, Murray S., and Di Benedetto. 3,098,016.
Cooper, Murray S., Taylor, and Place. 3,074,403.
Cosela, Anthony T. 3,114,784.
Curran, William V., and Angier. 3,071,587.
Day, Nancy, and Epstein. 3,116,314.
D'Errico, Michael J., and Timney. 3,096,289.
Divine, Ralph D. 3,098,866.
Doerschuk, Albert P., Bitler, and Petty. 3,105,016.
Dudyak, Michael. 3,097,161.
Ellenbogen, Leon. 3,102,844.
Feldman, Louis I., Holmlund, and Barbacci. 3,087,864.
Feldman, Louis I., Holmlund, and Barbacci. 3,091,575.
Feldman, Louis I., Rigler, Holmlund, and Nielsen. 3,091,576.
Fluck, Linton A. 3,087,905.
Frank, Simon, and Wehner. 3,105,773.
Fugate, Wesley O., and McClenachan. 3,093,629.
Fujita, Yoshimasa, Okazaki, and Kuratani. 3,101,245.
Furman, Frank M., Hardy, and Thelin. 3,109,027.
Gadekar, Shreekrishna M., Vaughan, and Davis. 3,092,633.
Gallagher, James D., Cummings, Lipchuck, and Stokey. 3,098,009.
Gaul, Richard J., and Fremuth. 3,115,515.
Gentile, Anthony J. 3,114,651.
Gloeske, Elmer W. 3,079,331.
Goldman, Leon, Marsico, and Anderson. 3,082,203.
Grayson, Martin. 3,074,994.
Grayson, Martin, and Keough. 3,116,317.
Greif, Martin. 3,078,216.
Growich, John A., Jr., and Deduck. 3,092,556.
Haldeman, Robert G., and Castellion. 3,102,151.
Haldeman, Robert G., Morin, and Matsuda. 3,075,013.
Hanlon, Joseph F. 3,081,479.
Hochenblelkner, Ingenuin, and Peters. 3,102,884.
Hedley, Norman, and Tabachnick. 3,110,666.
Heller, Milton, and Bernstein. 3,080,361.
Hensley, William L. 3,114,727.
Hoffenberg, David S. 3,113,147.
Hoffman, Joseph A., and Bowkley. 3,097,120.
Hoffmann, Arthur K., and Henderson. 3,113,973.
Holmlund, Chester E., Blank, and Evans. 3,071,516.
Holmlund, Chester E., Feldman, Evans, Bernstein, and Pusza. 3,071,580.
House, Ronald R., Rassweiler, and Schmitt. 3,086,961.
Innes, William B., and Mordach. 3,094,394.
Kennerly, George W., Hoffenberg, and Gleckler. 3,097,195.
Kennerly, George W., Hoffenberg, and Noland. 3,092,613.
Kocay, Witold R., and Preece. 3,104,938.
Kolodny, Edwin R. 3,089,542.
Kruppa, William J. 3,094,467.
Kuck, Julius A., and Bourdelais. 3,084,031.
Lamb, Glentworth. 3,116,326.
Lamb, Glentworth, and Voynick. 3,073,739.
Leins, Richard W., and Osban. 3,083,073.
Leto, Joseph R., and Fiene. 3,076,016.
Lewis, Charles E. 3,100,766.
Lewis, Charles E. 3,114,588.
Long, Robert S., Lacey, and Kourtz. 3,072,454.
Lowery, James A. 3,113,103.

American Cyanamid Co.: *See*—Continued
Lundberg, Lennart A. 3,079,368.
Lundberg, Lennart A., Schlegel, and Carpenter. 3,091,936.
Luttinger, Lionel B. 3,098,843.
Macqueen, Kenneth E. B. 3,094,399.
Malley, Thomas J., Cosway, and Giddings. 3,101,999.
Malley, Thomas J., and De Lapp. 3,073,677.
Malley, Thomas J., De Lapp, Giddings, and Cosway. 3,102,000.
Malley, Thomas J., Schindler, and Pennell. 3,086,845.
Mallison, William C. Re. 25,395.
McCormick, Jerry R. D., and Gardner. 3,074,975.
Meriwether, Lewis S. 3,113,945.
Milionis, Jerry P., and Hardy. 3,072,585.
Miller, Bernard, and Forbes. 3,091,614.
Miller, Bernard, and O'Leary. 3,113,958.
Miller, Mary L. 3,088,939.
Miller, Mary L. 3,098,060.
Mogensen, Allan O., and Stevens. 3,089,748.
Moore, Sewell T. 3,077,430.
Murray, John A., and Sifford. 3,076,541.
Nelson, Earl W., and Crossley. 3,092,456.
Nyquist, Arthur S., and Myers. 3,096,208.
Oldham, Wilbur N., Granito, and Kerfoot. 3,114,930.
Osban, William R. 3,101,563.
Pare, Philip J. 3,073,859.
Pare, Philip J. 3,088,967.
Pellon, Joseph J., and Deichert. 3,108,991.
Peters, Grace A. 3,079,427.
Petropoulos, John C., and Madison. 3,102,135.
Pierce, Elliot S., Slowata, and O'Brien. 3,089,778.
Piersma, Henry D. 3,080,760.
Ponson, Lloyd J., and Becker. 3,095,615.
Potter, Allen G., Jr. 3,079,439.
Pruess, Louis M., Feldman, and Rigler. 3,116,219.
Rapoport, Lorence, and Stephens. 3,086,835.
Rauhut, Michael M. 3,116,315.
Rauhut, Michael M. 3,116,316.
Rauhut, Michael M., and Currier. 3,074,999.
Rauhut, Michael M., and Semsel. 3,099,684.
Rauhut, Michael M., and Semsel. 3,099,690.
Rauhut, Michael M., and Semsel. 3,099,691.
Rauhut, Michael M., and Semsel. 3,100,799.
Reynolds, Walter F., Jr., and Woodberry. 3,076,740.
Robbins, Woodrow W. 3,086,831.
Rolland, Calvin C., and Duncan. 3,109,856.
Roth, Philip B., and Hallows. 3,072,534.
Sandhage, Ellsworth R., and Marlow. 3,073,087.
Saunders, Kenneth W., and Bikales. 3,097,956.
Savides, Christos. 3,093,616.
Scalera, Mario, and Brody. 3,116,293.
Scanley, Clyde S. 3,113,837.
Scanley, Clyde S., and Siegele. 3,093,654.
Scanley, Clyde S., Siegele, and Webb. 3,088,931.
Schaefer, Fred C., and Castellion. 3,074,957.
Schaub, Robert E., and Weiss. 3,074,932.
Schaub, Robert E., and Weiss. 3,091,609.
Scott, Edward F., and Greene. 3,095,256.
Sedlak, John A. 3,075,002.
Segro, Nicholas R., Moore, and Daniel. 3,081,143.
Semb, Joseph, Bonvicino, and Hardy. 3,072,649.
Semb, Joseph, and Vaughan. 3,072,650.
Shaw, John T. 3,093,645.
Shaw, John T., Gross, and Madison. 3,082,118.
Sheehan, Gerard M., and Lawhorne. 3,086,877.
Shepherd, Robert G., and Redin. 3,116,312.
Sherr, Allan E. 3,082,227.
Sherr, Allan E., and Roshal. 3,072,494.
Sheers, Edward H. 3,113,857.
Siegele, Frederick H. 3,072,569.
Skay, Carl E. 3,079,228.
Slocum, Donald W. 3,111,541.
Smith, James B., Seichter, and Adler. 3,102,548.
Smolin, Edwin M., and O'Connor. 3,074,985.
Song, John, and Cohen. 3,092,631.
Spitzer, Penn F., Jr., and Aagaard. 3,073,664.
Stephens, James R. 3,084,191.
Strong, Allen K. 3,105,600.
Suen, Tzeng J., and Burgess. 3,107,227.
Taylor, Arthur S., and Konazewski. 3,076,365.
Thorson, Ralph E., Goldman, Wallace, and Lanzilotti. 3,081,224.
Tomenfelk, Andrew S., Willson, and Vogel. 3,085,940.
Tomenfelk, Andrew S., Willson, and Vogel. 3,085,941.
Tonelli, George, and Smith. 3,080,288.
Valentine, William. 3,085,944.
Van Loo, William J., Jr. 3,079,279.
Van Loo, William J., Jr., and Cooke. 3,094,371.
Van Loo, William J., Jr., Lineken, and O'Brien. 3,084,071.
Van Loo, William J., Jr., and Salsbury. 3,087,837.
Wasserman, Max. 3,111,786.
Welcher, Richard P. 3,105,096.
Welcher, Richard P., Johnson, and Wystrach. 3,094,545.
Whately, Walter R., and Sheehan. 3,076,719.
Wilkinson, Raymond G., and Fields. 3,092,653.
Wilkinson, Raymond G., and Kende. 3,102,914.
Wilson, Abraham, Van Loo, and Cowen. 3,105,500.
Wishman, Marvin. 3,083,071.
Wohnsiedler, Henry P. 3,081,278.
Wohnsiedler, Henry P., and Ammondson. 3,108,029.

American Cyanamid Co.: *See*—Continued
Wohnsiedler, Henry P., and Hunt. 3,081,277.
Wright, William B., Jr., Goldstein, and Brabander. 3,116,286.
Wright, William B., Jr., and Hardy. 3,072,701.
Yuille, Ernest C. 3,112,265.

American Cystoscope Makers, Inc.: *See*—
Hett, John H. 3,081,767.
Hett, John H. 3,089,484.
Hett, John H. 3,100,482.

American Desk Mfg. Co.: *See*—
Williams, Herbert E. 3,098,677.

American District Telegraph Co.: *See*—
McDonough, Vincent T., Pearson, and Evans. 3,074,053.
Pearson, Howard. 3,074,054.

American Doll & Toy Corp.: *See*—
Beebe, Herbert R. 3,099,895.
Wolf, Harley L. 3,078,095.

American Drill Bushing Co.: *See*—
Stein, Philip A. 3,099,079.

American Electronics, Inc.: *See*—
Hohmann, Albert. 3,103,983.
Lilienstein, Manfred, and Schaefer. 3,101,439.
Shefke, Robert A. 3,096,863.

American Enka Corp.: *See*—
Bijl, Peter. 3,072,998.
Fritzemeier, Harke, and Leijser. 3,073,003.
Gonsalves, Conrad J., and Leijser. 3,073,000.
Krasny, John F. 3,082,122.
Lindsley, Charles H. 3,073,682.
Mathis, William C., Jr. 3,088,792.
Meerdink, Anton F. G. 3,081,593.
Meerdink, Anton F. G. 3,111,364.
Van Bergeijk, Jan, and Bakker. 3,111,367.
Walker, Bernard F. 3,082,057.

American Fabrics Co., The: *See*—
Bahlo, Klaus W. 3,087,322.

American Fastener Corp.: *See*—
Smith, Alfred L., and J. E. and W. R. Gohring. 3,076,970.

American Flange & Mfg. Co. Inc.: *See*—
Bee, Carl R. 3,101,878.
Daw, Donald G. 3,076,989.
Ericson, Swen H. 3,084,826.
Wheaton, Herbert F. 3,098,579.

American Frame Co.: *See*—
Day, Robert L., and Williams. 3,107,759.

American Gilsonite Co.: *See*—
Dorius, Carl B., Jones, and Morse. 3,074,807.
Jones, George M. 3,093,500.

American Guard It Mfg. Co.: *See*—
Jaffe, Max L. 3,115,959.

American Hardware Corp., The: *See*—
Baker, Arthur R., and Hennessy. 3,070,987.
Doll, Frank A., and McLean. 3,111,748.
Gerlach, John R. 3,077,100.
Morrison, David, Jr. 3,078,705.
Rutishauser, Donald E. 3,115,019.

American Home Products Corp.: *See*—
Alburn, Harvey E. 3,115,488.
Bruce, William F., Muehlmann, and Glassman. 3,081,229.
Crafa, Arthur S. 3,091,875.
Davis, Martin A. 3,074,939.
Davis, Martin A. 3,084,162.
Davis, Martin A. 3,091,630.
Davis, Martin A. 3,094,528.
Davis, Martin A. 3,104,239.
Davis, Martin A., and Winthrop. 3,071,584.
Davis, Martin A., and Winthrop. 3,074,953.
Davis, Martin A., and Winthrop. 3,104,256.
Deghenghi, Romano. 3,093,663.
Kantor, Martin L., and Tubis. 3,100,772.
Mayron, David. 3,074,852.
Mennen, Frederick C. 3,110,233.
Mitchell, Peter W. D. 3,102,124.
Osdene, Thomas S. 3,104,242.
Trace, James C., and Edds. 3,111,457.
Winthrop, Stanley O., and Davis. 3,084,155.

American Hospital Supply Corp.: *See*—
Belch, Frank R., Whitney, and Whitton. 3,074,540.
Burrell, Basil S. 3,085,679.
Hampton, William C. 3,073,357.
Hampton, William C. 3,091,957.
Howerton, Hugh K. 3,092,722.
Howerton, Hugh K. 3,105,442.
Moore, Francis C., and Nicely. 3,077,307.
Ohlheiser, Carlton E. 3,077,105.
Whitney, William G. 3,074,451.
Whitton, Aldean W., Jr. 3,106,774.
Whitton, Aldean W., Jr. 3,111,240.

American Iron & Machine Works Co., Inc.: *See*—
Rodgers, Otis N., Olson, and Wheeler. 3,092,139.
Von Rosenberg, Edgar L. 3,074,767.

American Latex Products Corp.: *See*—
Christie, Clowes M. 3,100,676.

American Lava Corp.: *See*—
Breedlove, James G. 3,095,321.

American Licorice Co.: *See*—
Fischer, Charles R. 3,083,809.

American Locker Co., Inc.: *See*—
Stackhouse, Wells F. 3,077,970.

American Machine & Foundry Co.: *See*—
Bell, Arthur. 3,113,576.
Benith, Benedict R. 3,096,802.
Bilowz, Walter. 3,083,017.
Blewitt, Roy E., Jr. 3,082,001.
Blewitt, Roy E., Jr. 3,113,774.
Congelli, Henry C., and Jones. 3,111,316
Cranmore, John J. 3,082,876.
Davidson, Joseph W. 3,074,415.
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Edwards, James H. 3,103,659.
Eissmann, Oswald E. 3,084,697.
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Fried, George. 3,107,917.
Gamberini, Goffredo. 3,089,732.
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Goff, Charles E. 3,103,087.
Gruss, George A., McKean, and Zelters. 3,098,653.
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Hoglund, John R. 3,107,817.
Holloway, Robert L. 3,103,358.
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Horton, John L., Conrad, and McCormick. 3,116,136.
Kabak, Daniel M. 3,090,914.
Marasso, Fred D., and Rademacher. 3,106,048.
Martin, Harold W. 3,098,655.
McArthur, Colin S. 3,074,413.
McRoskey, John W., and L. H. 3,111,785.
Merritt, Henry B., Geitz, and Nellen. 3,101,722.
Milenkovic, Veljko. 3,071,984.
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Philipps, Virgil J. 3,106,383.
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Soussaloff, Dimitri G., Codel, Descovich, and Davis. 3,090,915.
Speyer, Edward M. 3,082,325.
Talbert, John E. 3,099,382.
Waite, Fred L. 3,075,326.
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Yufer, Morton G. 3,073,944.
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American Machine and Metals, Inc.: *See*—
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American Maize Products Co.: *See*—
Bravos, George T., and Evans. 3,078,187.
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American Mfg. Co., Inc.: *See*—
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Gallaway, Norris W. 3,075,467.
Lott, John E. 3,109,313.

American Massage Sales and Mfg. Corp.: *See*—
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American Mat Corp.: *See*—
Brock, Kenneth E. 3,093,870.

American Messer Corp.: *See*—
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American Metal Climax, Inc.: *See*—
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American Meter Co., Inc.: *See*—
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American Motors Corp.: *See*—
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Gerhardt, Andrew H., and Yanik. 3,086,380.
Herbon, Leroy J. 3,090,291.
Nadeau, Donald P. 3,111,339.
Potter, David V. 3,087,582.
Tischler, Henry J. 3,079,199.

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Bosack, Irwin A. 3,116,093.
Carpenter, Earl S., Chace, and Derr. 3,074,117.
Crandon, Harry D. 3,093,447.
Dalgler, Franklin A. 3,104,929.
Dalton, Ernest T. 3,093,939.
Hicks, John W., Jr., and Bazinet. 3,104,191.
Hovey, Richard J. 3,104,176.
Jacobson, Carl H. 3,089,143.
Kapany, Narinder S., and Capellaro. 3,088,297.
Kavanagh, Arthur J., and Padykula. 3,084,694.
Richards, Oscar W. 3,091,235.
Richards, Oscar W. 3,101,411.
Spahl, Charles R. 3,081,734.
Whitney, Donald B. 3,109,696.
Wrigglesworth, Norman A., and Moore. 3,089,942.

American Photocopy Equipment Co.: *See*—
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Sugarman, Meyer L., Jr. 3,088,386.

American Pipe and Construction Co.: *See*—
Butler, Adolf G. 3,078,818.
Conrad, Bert. 3,089,191.
Gay, John A. 3,074,139.
Olmstad, Burl B. 3,072,172.
Olmstad, Burl B. 3,092,056.
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American Planter Co.: *See*—
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American Playground Device Co.: *See*—
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American Potash & Chemical Corp.: *See*—
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Bloom, Murray, and Washburn. 3,096,370.
Boone, James L. 3,071,440.
Boone, James L. 3,109,710.
Boone, James L. 3,110,565.
Burg, Anton B. 3,071,552.
Burg, Anton B., and Wagner. 3,071,553.
Cohen, Stanley L., and Beam. 3,112,193.
Gale, William A. 3,102,784.
Garrett, Donald E., Week, Marsh, and Foster. 3,111,383.
May, Frank H. 3,083,225.
Schmitt, Leo C. 3,109,705.
Silvernail, Walter L. 3,097,083.
Stern, David R. 3,095,698.
Stern, David R., Lynds, and Washburn. 3,092,652.
Wagner, Ross I. 3,086,053.
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Washburn, Robert M., and Baldwin. 3,112,331.
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Budde, James C., and Noakes. 3,094,139.
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Dillman, Earnest J. 3,073,350.
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Gee, Leroy J. 3,103,641.
Gee, Leroy J. 3,116,168.
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Heller, Kenneth G. 3,097,818.
Honsinger, Philip G. 3,077,903.
Hulett, Henry R., Snyder, and Elliott. 3,110,812.
Huston, William D. 3,091,725.
Landis, Harvey. 3,072,085.
Marchi, Vito V. 3,074,596.
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Matthews, Robert J., and Gee. 3,083,721.
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Miksch, Russell S. 3,091,417.
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Nelden, Richard M. 3,096,620.
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American Sterilizer Co.: *See*—
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American Sugar Refining Co., The: *See*—
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Bush, Freeman. 3,098,767.

American Sumatra Tobacco Corp.: *See*—
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American Tank and Steel Corp.: *See*—
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American Tansul Co.: *See*—
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American Technical Machinery Co., Inc.: *See*—
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American Telephone and Telegraph Co.: *See*—
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Desnoes, Arnold B., Fullerton, and Shea. 3,101,393.
Dunning, Sanford F. 3,111,561.
Fisher, Richard G. 3,099,718.
Fulwiler, Edward R., Hayes, Masucci, and Wilson. 3,115,552.
Higson, George E., Jr. 3,105,883.
Meyer, William C. 3,105,882.
Plyer, Roger A. 3,115,551.
Reter, George A. 3,082,299.

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Weiss, Gerhart. 3,086,476.

American Thermocatalytic Corp. Inc.: *See*—
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American Tobacco Co., The: *See*—
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American Tool Engineering, Inc.: *See*—
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American Totalisator Co. Division of Universal Controls, Inc.: *See*—
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American Viscose Corp.: *See*—
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Battista, Orlando A., Fleck and Neumann. 3,111,513.
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Haley, Harold A. 3,085,764.
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Koppehele, Hugo P. 3,078,504.
Marley, Robert G. 3,086,252.
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Moody, Jack C., and Panther. 3,104,580.
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Rosser, Charles M., and Glinski. 3,091,554.
Talbot, James E., and Blatt. 3,099,314.
Till, Derek E., and Wade. 3,073,735.
Welch, Irvin H., Jr. 3,089,747.
Wyckoff, Harold W., Oneal, and Starr. 3,104,937.
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Henley, Paul E. 3,086,509.
American Welding and Engineering Co., Inc.: *See*—
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Amerline Corp.: *See*—
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Amero, Harold E. Portable, foldable, self-heating skillet. 3,080,861, 3–12–63, Cl. 126—38.
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Ahlgren, Axel W. 3,103,351.
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Ahlgren, Axel W. 3,114,452.
Dargene, Carl J. 3,090,662.
Linderoth, Roger S. 3,083,045.
Amery, George B., to Jersey Production Research Co. Seismic date presentation method and system. 3,081,332, 4–2–63, Cl. 340—15.5.
Ames, Irving, and R. L. Christensen, to International Business Machines Corp. Vacuum method. 3,085,739, 4–16–63, Cl. 230—69.
Ames, O., Co.: *See*—
Eads, Harold O. 3,086,812.
Ames, Oliver C., R. L. Jaeschke, and E. J. Lackl, to Eaton Mfg. Co. Transistorized magnetic amplifier control for electromagnetic coupling. 3,073,977, 1–15–63, Cl. 310—94.
Ames, Robert G., ½ to S. Ames, ⅛ to Mrs. K. W. Berryman, ⅛ to Mrs. L. W. Rosebrook, and ⅛ to G. W. Williams III. Mastic applying tool. 3,070,827, 1–1–63, Cl. 15—555.
Ames, Robert G., to Ames Taping Tool Systems Mfg. Co. Broadknife. 3,078,491, 2–26–63, Cl. 15—236.
Ames, Robert G., to Ames Taping Tool Systems Mfg. Co. Mastic-feeding tool with compressible mastic-holding compartment. 3,103,033, 9–10–63, Cl. 15—555.
Ames, Robert G., to Ames Taping Tool Systems Mfg. Co. Ceiling wiper for embedding tape and for removing excess mastic from wallboard joints. 3,104,410, 9–24–63, Cl. 15—104.8.
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Amiard, Gaston, R. Heymes, and T. Van Thuong, to Roussel-UCLAF S.A. 18-nor-cortisone intermediates and preparation thereof. 3,081,300, 3–12–63, Cl. 260—239.55.
Amiard, Gaston, V. Torelli, and J. Cerede, to Roussel-UCLAF, S.A. Process of preparation of β-methasone. 3,104,246, 9–17–63, Cl. 260—397.45.
Amiard, Gaston, R. Goffinet, and L. Velluz, to Roussel-UCLAF, S.A. Process for the preparation of 16-keto-18-nor steroids. 3,109,008, 10–29–63, Cl. 260—397.3.
Amici, Charles. Building blocks. 3,080,674, 3–12–63, Cl. 46—25.
Amick, James A., and G. W. Cullen, to Radio Corp. of America. Semiconductor devices. 3,097,977, 7–16–63, Cl. 148—6.14.
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Amirault, Maxime, and P. Destoumieux. Assembling a flange on a hub, particularly in the manufacture of pump turbines. 3,096,570, 7–9–63, Cl. 29—156.8.
Amistadi, E Henry. Subcaliber howitzer trainer. 3,088,225, 5–7–63, Cl. 35—25.
Ammann, Alphons, to Kaspar Winkler & Co. Inhaber Dr. F. Schenker-Winkler. Methods for the manufacture of mortar and concrete. 3,082,106, 3–19–63, Cl. 106—98.
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Ammerman, Charles R., to HRB-Singer, Inc. Communication system using circular polarization. 3,093,824, 6–11–63, Cl. 343—100.
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Ammerman, George E., and J. F. Benko, to Edwin L. Wiegand Co. Electric heater assembly and method. 3,072,775, 1–8–63, Cl. 219—37.
Ammon, Johannes H., D. C. Braddy, and G. W. Kessler, to The Babcock & Wilcox Co. Vapor generating unit. 3,071,119, 1–1–63, Cl. 122—34.
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Ammons, Walter D. Air conditioning apparatus for yachts and the like. 3,111,013, 11–19–63, Cl. 62—419.
Amodei, Juan J., to Radio Corp. of America. Circuit, including positive and negative resistance active elements, which exhibits reduced hysteresis. 3,105,913, 10–1–63, Cl. 307—88.5.
Amorosi, Alfred, and J. J. Morabito, to Atomic Power Development Associates, Inc. Heat exchanger. 3,090,433, 5–21–63, Cl. 165—32.
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Soderquist, Frederick J., Stickelmeyer, and Amos. 3,091,651.
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Barry, Leonard D. 3,099,709.
Bounsall, Norman F. 3,084,215.
Brenner, Bernard M. 3,109,604.
Brown, Daniel L. 3,093,588.
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Amsel, Francis E., W. B. Sharav, and F. T. Stanchus, to Union Carbide Corp. Magnetic flux gas shielded metal arc welding. 3,097,979, 7–16–63, Cl. 148—26.
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Frushour, Russel E., Costello, Farekas, and Irish. 3,095,672.
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Woodburn, James, Jr. 3,090,090.
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Krause, James N. 3,113,873.
Anaconda American Brass Co.: *See*—
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Nichols, Lyman B. 3,073,351.
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Ruckwardt, Kurt F., McDonald, and Mahoney. 3,095,363.
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Eich, Edward D., and Feick. 3,094,583.
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Fouse, Frederick Z., and Kidwell. 3,098,565.
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Andela, Hessel, to North American Philips Co., Inc. Bi-directional step-by-step relay. 3,112,377, 11–26–63, Cl. 200—11.
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Andersen, Carl P., J. C. Richardson, and V. E. First, to Union Carbide Corp. Method of assembling a bundle of coils in a heat exchange device. 3,083,447, 4–2–63, Cl. 29—157.3.

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Andersen, Donald E., and K. L. Seligman, to E. I. du Pont de Nemours and Co. Elastomeric blends of chloroprene polymers and polymers of 2,3-dichloro-1,3-butadiene. 3,079,365, 2–26–63, Cl. 260—45.5.
Andersen, Donald L., to General Mills, Inc. Process for corrosion inhibition. 3,079,221, 2–26–63, Cl. 21—2.7.
Andersen, Donald L., and J. B. Thielen, to General Mills, Inc. Method for control of paraffin deposition. 3,102,859, 9–3–63, Cl. 252—8.3.
Andersen, Harold W. Automatic mooring catch. 3,083,676, 4–2–63, Cl. 114—230.
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Andersen, Holger C., and A. J. Haley, to Engelhard Industries, Inc. Process for the oxidation of nitric oxide. 3,079,232, 2–26–63, Cl. 23—157.
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Andersen, Howard M., and R. E. Buckholdt, to Solas Corp. of America. Furnace seal. 3,110,484, 11–12–63, Cl. 263—40.
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Andersen, Johan M., and J. H. Dockstader, to Duplicon Co. Means for attaching plates to tools. 3,104,574, 9–24–63, Cl. 83—167.
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Andersen, Peter B., to Massey-Ferguson Ltd. Combine control system. 3,073,099, 1–15–63, Cl. 56—20.
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Anderson, Andrew W., to Scandia Packaging Machinery Co. Cigar packaging machines. 3,103,772, 9–17–63, Cl. 53—192.
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Anderson, Dewey L., and W. H. Woods. Nut harvesting machine. 3,105,344, 10–1–63, Cl. 56—328.
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Anderson, Dewey L., and W. H. Woods. Nut harvesting machine. 3,105,347, 10–1–63, Cl. 56—329.
Anderson, Donal M. Process of making ornamental candles. 3,072,970, 1–15–63, Cl. 18—58.
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Anderson, Dwight A., and C. Gretz, to L. H. Mellin, Inc. Replaceable crayon pencil mechanism. 3,115,118, 12–24–63, Cl. 120—18.
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Anderson, Edgar F. Front wheel turn indicator. 3,103,909, 9–17–63, Cl. 116—31.
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Anderson, Fred N., to Cherry Electrical Products Corp. Snap action switch. 3,098,904, 7–23–63, Cl. 200—67.
Anderson, Fred N., to Cherry Electrical Products Corp. Snap-action switch. 3,098,905, 7–23–63, Cl. 200—67.
Anderson, Fred N., and W. L. Cherry, Jr., to Cherry Electrical Products Corp. Electric snap-action switch. 3,073,923, 1–15–63, Cl. 200—67.
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Anderson, Gerald R., and J. Royce, to FMC Corp. Fruit halving apparatus. 3,099,303, 7–30–63, Cl. 146—72.
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Anderson, Harlan V., to Rap Industries, Inc. Overwrap material and method of making same. 3,075,864, 1–29–63, Cl. 154—46.8.
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Anderson, Harold C., to Litton Systems, Inc. Measuring process. 3,098,225, 7–16–63, Cl. 343—12.
Anderson, Harry M., to Beatty Bros. Ltd. Mast construction. 3,112,015, 11–26–63, Cl. 189—13.
Anderson, Henry K. Power apparatus. 3,111,870, 11–26–63, Cl. 81—9.3.
Anderson, Herbert R., Jr., to Phillips Petroleum Co. Composite propellants containing a carbon-alkali metal burning rate catalyst. 3,098,777, 7–23–63, Cl. 149—19.
Anderson, Herbert R., Jr., to Phillips Petroleum Co. Promotion of high energy radiation effects in polymeric materials. 3,098,808, 7–23–63, Cl. 204—162.
Anderson, Herbert R., Jr., to Phillips Petroleum Co. Rubber products resistant to radiation damage. 3,112,291, 11–26–63, Cl. 260—45.8.
Anderson, Howard A. : *See*—
Yonkers, Robert A., Herring and Anderson. 3,079,626.
Anderson, Howard A., to Bissell, Inc. Convertible retractible sponge mop. 3,076,216, 2–5–63, Cl. 15—116.
Anderson, Howard W. Lock-joint chair. 3,082,037, 3–19–63, Cl. 297—440.
Anderson, Howard W., to The Kaydon Engineering Corp. Recirculating roller bearing. 3,111,350, 11–19–63, Cl. 308—6.
Anderson, Hubert J., to Automatic Welding Co. Welding apparatus. 3,109,921, 11–5–63, Cl. 219—125.
Anderson, James, to Anderson, Boyes & Co. Ltd. Centrifugal friction clutches. 3,102,622, 9–3–63, Cl. 192—103.
Anderson, James A., to Breneman-Hartshorn, Inc. Pulley hanger. 3,092,172, 6–4–63, Cl. 160—133.
Anderson, James A., J. A. Ash, and S. S. Bushnell, Jr., to Breneman-Hartshorn, Inc. Bearing for window shade roller. 3,098,286, 7–23–63, Cl. 29—149.5.
Anderson, James A., and J. J. Jungbauer, to Minnesota Mining and Mfg. Co. Method of constructing a reinforced resin, cone-shaped structure and product. 3,115,271, 12–24–63, Cl. 154—43.
Anderson, James D., to Burndy Corp. Indenting tool. 3,109,333, 11–5–63, Cl. 81—15.
Anderson, James K. Apparatus for adjusting printing web tension. 3,087,663, 4–30–63, Cl. 226—44.
Anderson, Jerome C. Boat conversion structure for motor cars. 3,076,325, 2–5–63, Cl. 115—5.
Anderson, John A., to The Procter & Gamble Co. Sarcosinate shampoo. 3,085,067, 4–9–63, Cl. 252—153.
Anderson, John C., to Sohio Petroleum Co. Process for combining seismic information. 3,109,156, 10–29–63, Cl. 340—15.5.
Anderson, John E., to Minneapolis-Honeywell Regulator Co. Acceleration sensing means. 3,111,850, 11–26–63, Cl. 73—517.
Anderson, John F. : *See*—
Brown, Harold P., Walters, and Anderson. 3,100,760.
Anderson, John L. : *See*—
Thiele, Edward G., and Anderson. 3,107,788.
Anderson, John L., to International Business Machines Corp. Cryogenic memory system. 3,086,197, 4–16–63, Cl. 340—173.1.
Anderson, John L., to International Business Machines Corp. Superconductive circuits controlled by superconductive persistant current loops. 3,093,748, 6–11–63, Cl. 307—88.5.
Anderson, John L., to International Business Machines Corp. Superconductive ring circuit. 3,111,650, 11–19–63, Cl. 340—173.1.
Anderson, John L., and J. G. Everhart, to McGraw-Edison Co. Method of making polyphase transformers. 3,101,525, 8–27–63, Cl. 29—155.57.
Anderson, John M. Plastic coated metal cable strap or staple. 3,085,129, 4–9–63, Cl. 174—159.
Anderson, John M., to General Electric Co. Low noise electron beam plasma amplifier. 3,099,768, 7–30–63, Cl. 315—5.39.
Anderson, John P., and O. E. Drummond, to The Bendix Corp. Flow-regulating valve. 3,112,764, 12–3–63, Cl. 137—504.
Anderson, John R., to Union Carbide Corp. Separation of ethylene carbonate from admixture with ethylene glycol. 3,074,962, 1–22–63, Cl. 260—340.2.
Anderson, John R., to Heppenstall Co. Tongs. 3,076,674, 2–5–63, Cl. 294—103.
Anderson, John R., to The National Cash Register Co. Memory devices. 3,079,591, 2–26–63, Cl. 340—173.2.
Anderson, John R., to Curtiss-Wright Corp. Seal construction for rotary combustion engine. 3,102,518, 9–3–63, Cl. 123—8.
Anderson, John W. : *See*—
Barker, Jerry C., and Anderson. 3,088,296.
Anderson, John W. Fluid dispenser. 3,072,298, 1–8–63, Cl. 222—184.
Anderson, John W. Windshield wiper blade. 3,076,993, 2–12–63, Cl. 15—250.42.
Anderson, John W. Universal replacement mirror. 3,081,672, 3–19–63, Cl. 88—98.
Anderson, John W. Windshield wiper arm. 3,082,026, 3–19–63, Cl. 287—53.
Anderson, John W. Wind-driven display device. 3,090,142, 5–21–63, Cl. 40—39.
Anderson, Karl A., to Controls Co. of America. Mixing apparatus. 3,072,462, 1–8–63, Cl. 23—252.
Anderson, Karl A., to Controls Co. of America. Molding apparatus for encapsulating a coil. 3,084,390, 4–9–63, Cl. 18—36.
Anderson, Karl A., to Controls Co. of America. De-aeration apparatus. 3,112,191, 11–26–63, Cl. 55—194.
Anderson, Kenneth A., and E. G. Seggebruch, to Ametek, Inc. Filter detector. 3,077,988, 2–19–63, Cl. 210—86.

Anderson Laboratories, Inc.: *See*—
Anderson, Bazeel B., Bailey, and Ash. 3,074,982.

Anderson, Lawrence A., to Eastman Kodak Co. Process of preparing gun acacia pharmaceutical vehicle. 3,099,602, 7–30–63, Cl. 167—81.

Anderson, Leonard A. Lift for cows. 3,085,553, 4–16–63, Cl. 119—100.

Anderson, Leonard H.: *See*—
Duncan, Richard A., Bolles, Adachi, and Anderson. 3,103,091.

Anderson, Lloyd R. Hinge. 3,082,474, 3–26–63, Cl. 16—167.

Anderson, Lloyd W.: *See*—
Schaftener, Stuart P., and Anderson. 3,093,150.

Anderson, Lyle V., and A. W. Younkes, to Blaw-Knox Co. Strip winder. 3,087,688, 4–30–63, Cl. 242—56.

Anderson, Lynn T., and E. G. Crane, Jr., to Bell Telephone Laboratories, Inc. Automatic telephone switching system. 3,102,930, 9–3–63, Cl. 179—26.

Anderson, Martin. Process for preparing thermostable thermoplastic compositions comprising polyphenylenes. 3,082,177, 3–19–63, Cl. 260—2.

Anderson, Marvin E., to Everett Piano Co. Tone generation system. 3,084,583, 4–9–63, Cl. 84—1.16.

Anderson, Maynard E., E. R. Plasko, J. Sokoly, and M. W. Polkinghorn, to American Radiator & Standard Sanitary Corp. Washing machine control and components used therein. 3,112,630, 12–3–63, Cl. 68—12.

Anderson, Melvin R., and A. K. Goetz, to Westinghouse Electric Corp. Luminaire. 3,107,062, 10–15–63, Cl. 240—25.

Anderson, Mitchell. Low tire indicating device. 3,096,410, 7–2–63, Cl. 200—61.24.

Anderson, Nelson E., and W. J. Greene, to Air Reduction Co., Inc. Arc welding. 3,071,680, 1–1–63, Cl. 219—131.

Anderson, Norman A. Rotatable structure. 3,078,522, 2–26–63, Cl. 20—1.

Anderson, Norman C., to Infrared Industries, Inc. Photoconductive cell. 3,076,949, 2–5–63, Cl. 338—18.

Anderson, Norman G., to United States of America, Atomic Energy Commission. Particle separation method. 3,075,694, 1–29–63, Cl. 233—40.

Anderson, Olof O. Portable cooler with universal suspension assembly for refrigeration unit. 3,109,299, 11–5–63, Cl. 62—448.

Anderson, Patricia T.: *See*—
Johnson, Robert A., and Anderson. 3,084,046.

Anderson, Paul E., and T. H. Gill, to United States of America, Army. Telescopic sight mount. 3,094,786, 6–25–63, Cl. 33—50.

Anderson, Pelham H., Jr.: *See*—
Wheeler, James D., and Anderson. 3,091,819
Wheeler, James D., and Anderson. 3,115,685.

Anderson, Peter B.: *See*—
Pratt, John M., and Anderson. 3,080,071.

Anderson, Peter B. Cultivator shank spring mounting. 3,084,749, 4–9–63, Cl. 172—268.

Anderson, Ralph F.: *See*—
Anderson, Swan F. and R. F., and Sorensen. 3,103,959

Anderson, Ralph F., and E. A. Kremeyer, said Kremeyer assor. to said Anderson. Method and apparatus for sealing containers. 3,112,587, 12–3–63, Cl. 53—39.

Anderson, Ralph P., to The Cleveland Crane & Engineering Co., Crane. 3,111,228, 11–19–63, Cl. 212—130.

Anderson, Raymond A., to Stewart-Warner Corp. Transfer mechanism. 3,095,081, 6–25–63, Cl. 198—24.

Anderson, Raymond Q., to Dahlstrom Mfg. Corp. Metal cabinet framework and panel structure. 3,110,535, 11–12–63, Cl. 312—350.

Anderson, Reed M., and A. A. Buccitti, to Consolidated Electronics Industries Corp. Step drive mechanism and escapement. 3,103,121, 9–10–63, Cl. 74—1.5.

Anderson, Richard L., to International Business Machines Corp. Radiant energy responsive semiconductor device. 3,082,283, 3–19–63, Cl. 136—89.

Anderson, Richard L., J. C. Marinace, and G. A. Silvey, to International Business Machines Corp. Semiconductor body formation. 3,072,507, 1–8–63, Cl. 148—33.

Anderson, Richard P., to United States of America, Navy. Electric angle checking gage. 3,098,305, 7–23–63, Cl. 33—174.

Anderson, Richard W., E. F. Smart, and G. Miale, to Westinghouse Electric Corp. Grid making machine. 3,106,943, 10–15–63, Cl. 140—71.5.

Anderson, Robert A.: *See*—
Chaney, Davis R., and Anderson. 3,089,601.

Anderson, Robert B.: *See*—
Tarrant, James H., and Anderson. 3,074,341.

Anderson, Robert E., to Texas Instruments Inc. High frequency germanium transistor. 3,084,078, 4–2–63, Cl. 148—1.5.

Anderson, Robert E., and W. R. Runyan, to Texas Instruments Inc. Improved grown junction transistor and method of making same. 3,079,287, 2–26–63, Cl. 148—1.5.

Anderson, Robert E. D., to Bell Telephone Laboratories, Inc. Transistor regulators. 3,109,982, 11–5–63, Cl. 323—22.

Anderson, Robert I., and D. K. Sewell, to Brunswick Corp. Rotary bowling ball lift mechanism with overrunning clutch for handling rapidly returned balls. 3,109,648, 11–5–63, Cl. 273—49.

Anderson, Robert I., and D. K. Sewell, to Brunswick Corp. Bowling ball lift mechanism. 3,109,649, 11–5–63, Cl. 273—49.

Anderson, Robert J. Washing machine and process of washing therewith. 3,087,776, 4–30–63, Cl. 8—159.

Anderson, Robert M.: *See*—
Way, William E., and Anderson. 3,110,401.

Anderson, Robert M., and B. B. Dees, to United Carbon Co., Inc (Maryland). Article transfer arrangement. 3,073,429, 1–15–63, Cl. 198—20.

Anderson, Robert P., to General Electric Co. Intercondensation of tetrahydrofuran with organohalosilanes. 3,083,219, 3–26–63, Cl. 260—448.8.

Anderson, Roger A., and R. T. Swann, to United States of America, National Aeronautics and Space Administration. Sandwich panel construction. 3,090,212, 5–21–63, Cl. 62—467.

Anderson, Roy E., to General Electric Co. Radiation inversion device and flaw detector embodying same. 3,106,643 10–8–63, Cl. 250—219.

Anderson, Roy E., to General Electric Co. Automatic incremental metering. 3,114,900, 12–17–63, Cl. 340—182.

Anderson, Roy N., to C. Kenner, and W. C. Ewers. Trash cutter for a pump. 3,096,718, 7–9–63, Cl. 103—111.

Anderson, Roy N. Traveling sprinkler. 3,104,821, 9–24–63, Cl. 239—179.

Anderson, Roy N., to C. Kenner, and W. C. Ewers. Traveling dam 3,108,440, 10–29–63, Cl. 61—29.

Anderson, Russell. Toilet bowl disinfectant injector. 3,084,350, 4–9–63, Cl. 4—225.

Anderson, Russell W. Hair tapering clippers. 3,099,086, 7–30–63, Cl. 30—212.

Anderson, Stanley F., to International Business Machines Corp. Error checking system for a parallel adder. 3,078,039, 2–19–63, Cl. 235—153.

Anderson, Swan P., and R. F., and R. P. Sorensen; said Sorensen and said S. F. Anderson assors. of ¾ to said R. F. Anderson and ¼ to V. Spencer. Filling machine. 3,103,959, 9–17–63, Cl. 141—131.

Anderson, Theodore H., and R. H. Harrington, to International Business Machines Corp. Apparatus for stacking cut forms at high speed. 3,092,380, 6–4–63, Cl. 271—71.

Anderson Tool & Stamping Co.: *See*—
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Anderson, Vernal A., to Ford Motor Co. Full power brake valve. 3,099,500, 7–30–63, Cl. 303—49.

Anderson, Victor F., and R. G. Jobe, to Shell Oil Co. Centrifugal pumps. 3,091,182, 5–28–63, Cl. 103—103.

Anderson, Wallace A., W. C. Brunner, C. L. Hornberger, and E. W. Stanley, to Armstrong Cork Co. Rotary offset gravure printing press. 3,099,956, 8–6–63, Cl. 101—154.

Anderson, Warner H., to Channel Master Corp. Television antenna having multi-band elements. Re. 25,437, 8–27–63, Cl. 343—802.

Anderson, Weston A., to Varian Associates. Gyromagnetic resonance methods and apparatus. 3,085,195, 4–9–63, Cl. 324—.5.

Anderson, Weston A., J. T. Arnold, and F. Bloch; said Anderson and said Arnold assors. to Varian Associates. Gyromagnetic method and apparatus. 3,075,156, 1–22–63, Cl. 331—94.

Anderson, Weston A., and J. N. Shoolery, to Varian Associates. Gyromagnetic resonance method and apparatus. 3,091,732, 5–28–63, Cl. 324—.5.

Anderson, William A., to Aluminum Co. of America. Aluminous metal article. 3,098,724, 7–23–63, Cl. 29—195.

Anderson, William J. Toggle type window lock. 3,109,675, 11–5–63, Cl. 292—109.

Anderson, William S., to Shell Oil Co. Lubricating compositions. 3,105,819, 10–1–63, Cl. 252—49.9.

Anderson, William T., to The Do All Co. Carbide tipped saw blade. 3,110,952, 11–19–63, Cl. 29—95.

Andersson, Birger A. V., and B. R. Berglof, to Svenska Aeroplan Aktiebolaget. Air-oil shock absorber especially adapted for ground vehicles. 3,077,345, 2–12–63, Cl. 267—64.

Andersson, Bror G. Devices for cooling the condenser of a cooling plant. 3,099,915, 8–6–63, Cl. 62—305.

Andersson, Gustav: *See*—
Collin, Lars T., Andersson, and Olsson. 3,080,705.

Andersson, Gustav T., and G. O. Engman, to Bofors, Aktiebolaget. Loading rack for ammunition cartridges. 3,109,344, 11–5–63, Cl. 89—34

Andersson, Per E.: *See*—
Björkman, Anders E. G., and Andersson. 3,083,077.

Andersson-Sason, Carl E. S., to Electrolux, Aktiebolaget. Vacuum cleaner. 3,089,177, 5–14–63, Cl. 15—323.

Anderton Springs Ltd.: *See*—
Maude, Stanley M. 3,082,886.

Anderton, Walter C., to General Aniline & Film Corp. Multiple slide changer for automatic slide projector. Re. 25,327, 2–5–63, Cl. 40—79.

Andis Clipper Co.: *See*—
Andis, Mathew. 3,108,583.
Andis, Mathew. 3,093,902.
Andis, Matthew G. 3,101,535.

Andis, Mathew, to Andis Clipper Co. Hair clipper shear blade assembly. 3,093,902, 6–18–63, Cl. 30—223.

Andis, Mathew, to Andis Clipper Co. Projectile launcher. 3,108,583, 10–29–63, Cl. 124—22.

Andis, Matthew G., to Andis Clipper Co. Blade assembly with lateral extensions. 3,101,535, 8–27–63, Cl. 30—29.5.

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Higuchi, Kozo, Tsuyuguchi, Osa, Ando, and Yonemoto. 3,114,625.

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Ando, Seiichi, to Riken Plastic Engineering Co., Ltd. Soldering gun. 3,112,722, 12–3–63, Cl. 113—94.

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Kodama, Shinjiro, Komiyama, Mori, and Ando. 3,077,441.

Ando, Tokuo: *See*—
Nobuoka, Soichiro, Ando, and Hayama. 3,081,264.

Andrasevitz, Frank, 49% to M. Saavedra, and 5% to J. I. Franko. Compressor structure. 3,081,931, 3–19–63, Cl. 230—44.

Andre, Arlee A.: *See*—
Bates, Charles J., and Andre. 3,089,773.

André Fantasies, Inc.: *See*—
Gettinger, Lillian. 3,105,242.

André, Gustave: *See*—
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André, Henri G., to Yardney International Corp. **Electrode assembly for electric batteries or accumulators.** 3,075,032, 1–22–63, Cl. 136—6.

André, Henri G., to Yardney International Corp. Alkaline battery and electrode therefor. 3,082,279, 3–19–63, Cl. 136—34.

André, Joseph G. E., and J. M. D. Rech, to Sud-Aviation Societe National de Constructions, Aeronautiques. Thrust reverses for jet engines. 3,097,484, 7–16–63, Cl. 60—35.54.

Andre, Robert T., and J. H. Edley, to J & L Engineering Co., Inc. Sugar-cane loader and ditcher combination. 3,071,265, 1–1–63, Cl. 214—138.

Andreades, Sam, to E. I. du Pont de Nemours and Co. Selected fluoroalkyl thioperoxides and their preparation. 3,081,350, 3–12–63, Cl. 260—607.

Andrene, Erhard C., to Baumgartner Papiers S.A. **Gas filter.** 3,075,337, 1–29–63, Cl. 55—446.

Andreas, Holger, O. Klump, and T. Menzel, to Deutsche Advance Produktion G.m.b.H. Preparation of dibenzyltin dichlorides. 3,080,408, 3–5–63, Cl. 260—429.7.

Andreasen, Aage C. H. Conduit tractor. 3,089,434, 5–14–63, Cl. 104—138.

Andreasson, Donald C.: *See*—
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Andregg, Ernest R., to Bell Telephone Laboratories, Inc. Data record. 3,114,036, 12–10–63, Cl. 235—61.12.

Andregg, Ernest R., M. S. Hawley, and W. Pferd, to Bell Telephone Laboratories, Inc. Telephone pay station. 3,116,370, 12–31–63, Cl. 179—6.3.

Andre-Matic Machinery Co.: *See*—
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Andren, Bertil T., and F. J. Hooven, to Ford Motor Co. Leaf spring mounting. 3,111,309, 11–19–63, Cl. 267—52.

Andreoletti, Patrizio, to AU. RO S.r.l. Truck conveyor for transporting bulky articles, especially motor vehicles. 3,080,959, 3–12–63, Cl. 198—108.

Andres, James R., and J. F. Garrison, to PneumoDynamics Corp. Multiple instrument viewing device. 3,106,128, 10–8–63, Cl. 88—24.

Andres, Lloyd J., to Rauland-Borg Corp. Record player tone arm 3,083,971, 4–2–63, Cl. 274—10.

Andres, Lloyd J., to American Sumatra Tobacco Corp. Coin accumulator. 3,108,672, 10–29–63, Cl. 194—57.

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Andres, William A., and J. F. Miller, to Washington Scientific Industries, Inc. Tapping spindle construction for use in multiple spindle tapping machines. 3,113,329, 12–10–63, Cl. 10—129.

Andresen, Gilbert J. C., to The Goodyear Tire & Rubber Co. Fuel storage system. 3,102,972, 9–3–63, Cl. 317—2.

Andresen, John H., Jr.: *See*—
Sharko, Sam, Salem, and Andresen. 3,089,331.

Andresen, John H., Jr., to Kollsman Instrument Corp. Rapid response pressure instrument. 3,100,999, 8–20–63, Cl. 73—407.

Andresen, John H., Jr., to J. F. Baier. Solenoid actuated control valve. 3,116,047, 12–31–63, Cl. 251—123.

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Buehler, Fritz A., and Andres. 3,108,962.
Gee, Paul Y. C., and Andress. 3,115,483.

Andress, Harry J., Jr., to Socony Mobil Oil Co., Inc. Fuel oil composition. 3,089,761, 5–14–63, Cl. 44—63.

Andress, Harry J., Jr., and P. Y. C. Gee, to Socony Mobil Oil Co., Inc. **Stabilized distillate fuel oil.** 3,095,286, 6–25–63, Cl. 44—71.

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Scheldorf, Marvel W. 3,083,364.

Andrew, Eugene A.: *See*—
Cook, Ralph L., and Andrew. 3,094,741.

Andrew, Gustav M., to North American Aviation, Inc. Angle of attack and sideslip indicator. 3,082,622, 3–26–63, Cl. 73—180.

Andrew, Herbert F., to Imperial Chemical Industries Ltd. Monoazo dyes contalning a cyanuric chloride substitute. 3,084,152, 4–2–63, Cl. 260—153.

Andrew, Herbert F., and V. D. Poole, to Imperial Chemical Industries Ltd. Process for dyeing textiles with dyestuffs containing pyrimidine ring. 3,097,910, 7–16–63, Cl. 8—54.2.

Andrew, Vaughan L., to Duplex Mfg. Co. Pump control pressure switch with automatic air supply system. 3,094,073, 6–18–63, Cl. 103—6.

Andrews, Alvadore M. Lantern. 3,086,106, 4–16–63, Cl 240—51.11.

Andrews, Alvadore M. Rear window deflector for automobiles. 3,097,882, 7–16–63, Cl. 296—91.

Andrews, Alvin J., and L. W. Pollock, to Phillips Petroleum Co. Apparatus and process for drying particulate solids. 3,102,795, 9–3–63, Cl. 34—33.

Andrews, Bernard R., Jr., and P. Goodrich. Radiant heat cloth drier. 3,079,703, 3–5–63, Cl. 34—87.

Andrews, Bethlehem K., to United States of America, Agriculture. Process for producing wrinkle resistant cellulosic textile materials. 3,072,456, 1–8–63, Cl. 8—116.3.

Andrews, Bethlehem K., to United States of America, Agriculture. Methylolated alloxan. 3,105,075, 9–24–63, Cl. 260—251.

Andrews, Boley A., and H. R. Craven, to The Vendo Co. Vending apparatus having a plurality of compartments. 3,102,761, 9–3–63, Cl. 312—35.

Andrews, Dallas R., to Radio Corp. of America. Tape transport mechanism. 3,092,296, 6–4–63, Cl. 226—49.

Andrews, Dallas R., to Radio Corp. of America. Magnetic recording and reproducing apparatus. 3,093,334, 6–11–63, Cl. 242—55.12.

Andrews, Dallas R., and J. B. Kelly, to Radio Corp. of America. Coupling mechanism. 3,093,984, 6–18–63, Cl. 64—29.

Andrews, Earl T.: *See*—
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Andrews, Glenn E., and G. Feick II, to Anaconda Wire and Cable Co. Liquid-insulated electric cables. 3,083,257, 3–26–63, Cl. 174—14.

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Andrews, Hugh H., to Scovill Mfg. Co. Pocket construction. 3,091,773, 6–4–63, Cl. 2—247.

Andrews, John D.: *See*—
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Andrews, Louis J., to Paul K. Guillow, Inc. Kite. 3,076,626, 2–5–63, Cl. 244—154.

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Perry, Kenneth R., and Andrews. 3,101,708.

Andrews, Paul L.: *See*—
Speas, Clarence J., and Andrews. 3,104,497.

Andrews, Ray, and F. M. Moore, to B. F. Drakenfeld & Co., Inc. Silicone-coated frit used in decorating glassware. 3,099,569, 7–30–63, Cl. 106—49.

Andrews, Richard A.: *See*—
Alexander, Bruce, Andrews, and James. 3,103,239.

Andrews, Richard A., to Citrus Equipment Corp. Pineapple juice extraction machine. 3,095,805, 7–2–63, Cl. 100—97.

Andrews, William R. Friction driven steplessly variable speed gearing. 3,115,044, 12–24–63, Cl. 74—200.

Andrews, Zenas B., to United States of America, Navy. Pneumatic heat transfer type air damper. 3,097,838, 7–16–63, Cl. 267—1.

Andrews, Zenas B., C. R. Brown, and W. T. Price, to United States of America, Navy. Missile launcher. 3,089,389, 5–14–63, Cl. 89—1.7.

Andrisani, Samuel. Animal toilet garment. 3,090,356, 5–21–63, Cl. 119—95.

Androssov, Pavel I.: *See*—
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Andrus, Julius J., to Azoplate Corp. Screen process printing frame having means for removing staples therefrom. 3,115,093, 12–24–63, Cl. 101—127.1.

Andrus, Orrin E., to A. O. Smith Corp. Process and apparatus for reducing the applied potential requirement of a hydrogen charging cell. 3,080,304, 3–5–63. Cl. 204—129.

Andrus, Orrin E., to A. O. Smith Corp. Continuous decontamination of the hydrogen acquiring surface of a palladium diaphragm used for the transfer of atomic hydrogen. 3,113,080, 12–3–63, Cl. 204—73.

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Rosen, Leo. 3,112,724.

Anello, Louis G., and C. Woolf, to Allied Chemical Corp. Manufacture of thionyl fluoride. 3,074,781, 1–22–63, Cl. 23—203.

Anello, Louis G., and C. Woolf, to Allied Chemical Corp. Manufacture of sulfuryl fluoride. 3,107,979, 10–22–63, Cl. 23—203.

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Phillips, Leonard R., Waeldner, Palmquist, and Barlow. 3,084,711.

Anetsberger Brothers, Inc.: *See*—
Anetsberger, Frank A. 3,115,236.
Anetsberger, Frank A., Winterfeldt, and Stuhl. 3,115,084.
Levine, John E. 3,086,418.

Anetsberger, Frank A., to Anetsberger Brothers, Inc. Dough piece separator. 3,115,236, 12–24–63, Cl. 198—34.

Anetsberger, Frank A., I. J. Winterfeldt, and A. H. Stuhl, to Anetsberger Brothers, Inc. Fried food production equipment. 3,115,084, 12–24–63, Cl. 99—403.

Aneul Chemical Co.: *See*—
Guise, Arthur B., and Forrester. 3,092,183.

Anfinsen Plastic Moulding, Inc.: *See*—
Wickman, Charles E. 3,113,706.

Anfinson, Mervin P. Silage distributor. 3,079,017, 2–26–63, Cl. 214—17.

Angelica, Nicholas J., to United States of America, Army. Eccentric eyepiece for a firearm rear sight. 3,100,936, 8–20–63, Cl. 33—58.

Angell, James W. Spring suspension for vehicles. 3,107,104, 10–15–63, Cl. 280—124.

Angelo, Alfred, Inc.: *See*—
Piccione, Edythe V. 3,078,468.

Angelo, Rudolph J., to E. I. du Pont de Nemours and Co. Electrically conductive polymeric compositions. 3,073,785, 1–15–63, Cl. 252—519.

Angelucci, Thomas L.: *See*—
Soffa, Albert, and Angelucci. 3,083,291.

Angenieux, Pierre. Mechanism for controlling the axial displacements of optical elements. 3,090,282, 5–21–63, Cl. 88—57.

Anger, Ernest G., to Square D Co. Electric control circuits. 3,088,064, 4–30–63, Cl. 320—1.

Angerman, Albert H., to E. I. du Pont de Nemours and Co. Method for improving the whiteness of tio-pigment material minutely contaminated with carbonaceous matter. 3,107,150, 10–15–63, Cl. 23—202.

Angermeyer, Louis C., to Wagner Electric Corp. Electrical induction apparatus. 3,106,690, 10–8–63, Cl. 336—70.

Angier, Robert B.: *See*—
Curran, William V., and Angier. 3,071,587.

Angioletti, Attilio, to Pirelli S.p.A. Elastic draft pressure roller for spinning machines. 3,078,519, 2–26–63, Cl. 19—258.

Angioletti, Attilio, to Pirelli S.p.A. Apparatus for producing rubber gloves. 3,093,866, 6–18–63, Cl. 18—42.

Angle, Robert L. Egg washer. 3,097,382, 7–16–63, Cl. 15—3.13.

Angleys, Paul: *See*—
Armand, Charles, and Angleys. 3,107,704.

Anglo Paper Products Ltd.: *See*—
Taylor, Geoffrey I., Logan, and Mardon. 3,079,990.

Anglo-Transvaal Consolidated Investment Co. Ltd.: *See*—
Legge, Denis L., and Lipworth. 3,092,447.

Angst, William E., to United States Steel Corp. Coil handling apparatus. 3,077,317, 2–12–63, Cl. 242—79.

Angus, Ernest T., and D. F. Walker, to Ferranti, Ltd. Brushless D.-C. motor with permanent magnet rotor. 3,096,467, 7–2–63, Cl. 318—138.

Angus, George, & Co. Ltd.: *See*—
Balkin, Mark, and Turner. 3,092,895.

Angus, Leonard J., to A. Kimball Co. Record sorting machines. 3,105,814, 10–1–63, Cl. 209—110.

Anheuser-Busch, Inc.: *See*—
Chatten, Victor H. 3,106,289.
Sumner, Robert J., Hardwick, Seeley, and Ziegler. 3,089,774.

Aniforms, Inc.: *See*—
Bunin, Morey. 3,070,920.

Animal Trap Co. of America: *See*—
Lehn, John U. 3,106,036.

Anjac Mfg. Co.: *See*—
Banner, Joseph. 3,090,084.

Anke, Klaus, K. Ertel, F. Frohr, C. Kessler, I. Pritsching, and G. Sinn to Siemens-Schuckertwerke Aktiengesellschaft. Digital control apparatus. 3,093,781, 6–11–63, Cl. 318—162.

Anker-Phoenix Nahmaschinen AG: *See*—
Adam, Herman. 3,087,447.
Engel, Wolfgang. 3,075,483.
Engel, Wolfgang. 3,104,638.
Engel, Wolfgang. 3,108,555.
Theenhausen, Heinrich, and Siebrasse. 3,083,657.

Ankerwerk Gebruder Goller: *See*—
Goller, Herbert. 3,101,512.

Anker-Werke Aktiengesellschaft: *See*—
Becker, Gerhard. Re. 25,431.
Becker, Gerhard. 3,076,595.
Becker, Gerhard, Hecker, Lührmann, and Bruno. 3,072,053.

Ankney, Robert W.: *See*—
Wormser, Eric S., Ankney, and Hurschman. 3,075,675.

Ankney, Robert W. Dispensing spout for metallic containers. 3,115,284, 12–24–63, Cl. 222—566.

Ankrum, Russell C.: *See*—
Kinnear, Harold L., and Ankrum. 3,107,864.

Anley, Donald M.: *See*—
Morley, Frederick W. W., Anley, and Torrance. 3,108,434.

Annand, Robert R.: *See*—
Hackerman, Norman, and Annand. 3,091,591.

Annen, James E., and C. T. Colgren, to KVP Sutherland Paper Co. Egg carton set-up machine. 3,109,348, 11–5–63, Cl. 93—37.

Anner, Georg: *See*—
Jeger, Oskar, Arigoni, Wettstein, Anner, Heusler, Meystre, Wieland, and Kalvoda. 3,092,625.
Meystre, Charles, Wettstein, Anner, Heusler, and Wieland. 3,098,070.
Wettstein, Albert, Anner, Heusler, Kalvoda, and Ueberwasser. 3,077,482.
Wettstein, Albert, Anner, Kalvoda, and Meystre. 3,092,627.
Wettstein, Albert, Anner, and Kebrle. 3,081,297.
Wettstein, Albert, Anner, Meystre, Wieland, Ehmann, Heusler, Hunger, and Kebrle. 3,098,085.

Annett, Donald L.: *See*—
Kauffman, Ivan L., and Annett. 3,085,480.

Anning, John T.: *See*—
Chamberlain, Cyril J., and Anning. 3,101,902.

Annis, Richard R., to John Oster Mfg. Co. Variable pitch fan for small motors. 3,074,489, 1–22–63, Cl. 170—160.5.

Anniss, Charles H., T. A. Kestell, and E. Tipper, to United Shoe Machinery Corp. Machines for applying pressure to shoe bottoms. 3,095,589, 7–2–63, Cl. 12—33.

Anocut Engineering Co.: *See*—
Graham, John W. 3,103,482.

Anolick, Eugene S., to General Electric Co. Process for coating and annealing grain oriented silicon steels. 3,106,496, 10–8–63, Cl. 148—112.

Anonsen, Sheldon L., to Product Development Corp. Foldable brushes. 3,086,236, 4–23–63, Cl. 15—203.

Anrig, Robert M., to The Ohio Brass Co. Tractor cable tensioner. 3,104,791, 9–24–63, Cl. 226—172.

Anritsu Denpa Kogyo Kabushiki Kaisha: *See*—
Ueno, Isaburo. 3,112,358.

Anscherlik, Arnost, to Vyzkumny ustav energeticky. Automatic pipette. 3,085,717, 4–16–63, Cl. 222—109.

Anschutz & Co. G.m.b.H.: *See*—
Ehrich, Hans, and Lassig. 3,099,094.

Anschutz, Reynold G., to The Pipe Machinery Co. Unidirectional feed and chucking apparatus for transferring and chucking elongated articles for machining. 3,108,699, 10–29–63, Cl. 214—1.

Ansel, Richard M., to Chemetron Corp. Method and apparatus for shearing welded rail joints. 3,081,673, 3–19–63, Cl. 90—24.

Ansell, George E., K. R. Bullock, and S. Sortland, to Anaconda Wire and Cable Co. Compound applicator for cable core. 3,085,388, 4–16–63, Cl. 57—7.

Anselm, Hans, and J. Smidt, to Consortium fur Elektrochemische Industrie G.m.b.H. Process for separating epichlorhydrin from mixtures. 3,077,440, 2–12–63, Cl. 202—42.

Anselmi, Virginio. Apparatus for the projection of liquids. 3,079,091, 2–26–63, Cl. 239—221.

Ansems, Alfonsus J. P.: *See*—
Schoenmakers, Hendrikus, Kruithof, and Ansems. 3,078,694.

Ansley, Arthur C., to Arthur Ansley Mfg. Co. Eyelet. 3,103,547, 9–10–63, Cl. 174—68.5.

Ansley, Arthur, Mfg. Co.: *See*—
Ansley, Arthur C. 3,103,547.

Anslow, Winston K., to Glaxo Group Ltd. DEAE substituted balsa wood ion-exchange materials. 3,095,410, 6–25–63, Cl. 260—231.

Anson, Arthur H. Highball stirrer. 3,109,634, 11–5–63, Cl. 259—144.

Anstalt Europaische Handelsgesellschaft: *See*—
Hagelin, Boris C. W., and Sturzinger. 3,083,263.
Nyberg, Sture. 3,093,714.

Anstalt fur die Entwicklung von Erfindungen und gewerblichen Anwendungen ENERGA: *See*—
Brandt, Edgar W. 3,085,509.
Brandt, Edgar W. 3,105,440.
Brandt, Edgar W. 3,106,893.

Anstalt für Montage-Technik: *See*—
Hiltl, Martin. 3,105,238.
Hiltl, Martin. 3,112,487.

Anstalt fur Technische Entwicklung und Verwertung: *See*—
Roussos, Georges. 3,095,618.

Anstett, Raymond M., to Colgate-Palmolive Co. Detergent bar. 3,076,766, 2–5–63, Cl. 252—117.

Anstrom, Jerome C., H. L. Carlisle, and H. I. Covey, to North American Aviation, Inc. Adjustable engine mount. 3,085,773, 4–16–63, Cl. 248—5.

Ansul Chemical Co.: *See*—
Berg, Alfred V. 3,085,424.
Downham, Roy E. 3,105,458.
Newland, Paul W., Sr. 3,109,593.
Warnock, William R. 3,090,749.
Zellner, Robert J. 3,088,522.

Antargaz Societe Anonyme de Distribution de Gaz Liquides de Petrole: *See*—
Lhéranit, Jean A. D. 3,107,721.

Antargaz Societe Anonyme de Distribution de Liquides de Petrole: *See*—
Van Swinderen, Jean. 3,107,720.

Antczak, Edmund J.: *See*—
Deppeler, John H., Jr., and Antczak. 3,091,825.

Anthes, Clifford C., to Union Carbide Corp. Cutting torch. 3,078,913, 2–26–63, Cl. 158—27.4.

Anthes, Clifford C., B. H. Acomb, and M. Heer, Jr., to Union Carbide Corp. Blowpipe. 3,095,921, 7–2–63, Cl. 158—27.4.

Anthes Force Oiler Co.: *See*—
Tolbert, William P., Sr. 3,108,510.

Anthes, John A.: *See*—
Koontz, Victor F., and Anthes. 3,092,473.

Anthes, John A., to Dravo Corp. Sintering apparatus. 3,080,157, 3–5–63, Cl. 266—21.

Anthony, Benjamin F.: *See*—
Charman, Walter M., Jr., and Anthony. 3,106,001.

Anthony, C. E.: *See*—
Sanderson, Hansel S. 3,093,202.

Anthony Co.: *See*—
Novotney, Frank A. 3,112,833.
Novotney, Frank A. 3,113,684.

Anthony, George H.: *See*—
Williams, Ernest J., and Anthony. 3,093,956.

Anthony Mfg. Corp.: *See*—
Coffey, Jule H., and Sharp. 3,088,677.

Anthony, Myron L., to Scully-Anthony Corp. Machine tools. 3,102,009, 9–3–63, Cl. 340—324.

Anthony, Stewart H. Game. 3,084,941, 4–9–63, Cl. 273—176.

Anthony, William C.: *See*—
Merrill, Speeter E., and Anthony. 3,076,814.

Anthony, William E. Practice mortar shell and fuse assembly. 3,094,934, 6–25–63, Cl. 102—41.

Antich, Paul J. Paint masking shade. 3,101,775, 8–27–63, Cl. 160—23.

Antler, Morton, to Ethyl Corp. Lubricant compositions. 3,077,451, 2–12–63, Cl. 252—46.4.

Antognini, Joe: *See*—
Tilles, Harry, and Antognini. 3,078,155.
Tilles, Harry, and Antognini. 3,101,263.

Antolini, Henry S. Combination attachment for earth moving tractors. 3,115,261, 12–24–63, Cl. 214—620.

Anton, Evan J. Cigarette package with an ejector strip for each cigarette. 3,108,711, 10–29–63, Cl. 221—92.

Antonazzi, Mario, T. J. Driscoll, B. Snyder, and M. Woluiczyk, to The Bendix Corp. Double tube manometer to calibrate pressure sensing instruments. 3,107,515, 10–22–63, Cl. 73—4.

Antoncich, Frank M. Ink drier. 3,085,143, 4–9–63, Cl. 219—19.

Antonelli, Aquilino C. Coffee percolator. 3,078,785, 2–26–63, Cl. 99—310.

Antonidis, John E., and W. Edmundson, Jr., to General Motors Corp. Starting apparatus. 3,071,013, 1–1–63, Cl. 74—7.

Antonius, Anthony J., ½ to L. L. Pierpont. Self closing container. 3,110,335, 11–12–63, Cl. 150—42.

Antonsen, Donald H., to Sun Oil Co. Preparation of olefin polymers. 3,108,145, 10–22–63, Cl. 260—683.15.

Antonsen, Donald H., A. H. Gleason, M. H. Paulson, Jr., and W. L. Van Nostrand, Jr., to Esso Research and Engineering Co. Polymer coatings containing a tertiary tridecanoic acid. 3,088,839, 5–7–63, Cl. 106—287.

Antonsen, Donald H., and A. Hahn, Jr., to Sun Oil Co. Removal of catalyst from olefin polymerization products. 3,090,777, 5–21–63, Cl. 260—93.7.

Antonsen, Donald H., and A. E. Hirschler, to Sun Oil Co. Preparing of long chain alkyl aromatic hydrocarbons. 3,104,267, 9–17–63, Cl. 260—671.

Antonsen, Randolph: *See*—
Belknap, Louis S., Bernstein, and Antonsen. 3,078,148.

Antonsson Avery AB: *See*—
Forsberg, Karl V. 3,093,201.

Antonucci, Camillo: *See*—
Pizzarotti, Pietro, Antonucci, and Leoncini. 3,071,049.

Antonucci, Carmine J., to Potter Instrument Co., Inc. High speed printer cooling system. 3,086,457, 4–23–63, Cl. 101—93.

Antoszewski, Walter J., to Owens-Illinois Glass Co. Bottle gauging apparatus. 3,073,034, 1–15–63, Cl. 33—174.

Antrecht, Siegfried: *See*—
Lohest, Hans, Antrecht, and Becker. 3,075,342.

Antrim, Doron S., N. G. Kling, and V. A. Gill, to The Weatherhead Co. Check valve. 3,097,666, 7–16–63, Cl. 137—515.5.

Antrim Molding Co., Inc.: *See*—
Caughey, Robert A. 3,078,506.

Antritter, Werner, to Kienzle Apparate G.m.b.H. Electrical speed measuring and recording devices. 3,111,597, 11–19–63, Cl. 310—97.

Antz, Hans M., to Bergedorfer Eisenwerk A.G. Centrifuge rotor with discharge nozzles and mixing device. 3,108,952, 10–29–63, Cl. 233—14.

Anzai, Taro: *See*—
Nishiyama, Shizuo, Takagi, Anzai, and Haga. 3,114,654.

Anzenberger, Joseph F.: *See*—
Feltham, Robert D., Anzenberger, and Carriel. 3,088,959.

Aoki, Akira. Automatic level control system for product sliver weight. 3,083,175, 5–7–63, Cl. 19—240.

Aoki, Koichi: *See*—
Ohashi, Saichiro, Aoki, and Nitta. 3,111,888.

Aoki, Kunio, to Daiwa Boseki Kabushiki Kaisha. Apparatus for opening, carding and cleaning fibrous materials. 3,077,641, 2–19–63, Cl. 19—105.

Aoki, Ryohei: *See*—
Motosaki, Shinichi, Tsunoda, Aoki, Okumura, Kondo, Muramatsu, Momose, and Tamagawa. 3,111,459.

Aoki, Shigeru: *See*—
Sensui, Nobuo, Aoki, and Yoshikawa. 3,086,614.

Aoki, Suehiro. Supply circuit for a pair of hot cathode fluorescent discharge lamps. 3,112,427, 11–26–63, Cl. 315—97.

Aoyagi, Toshio: *See*—
Kobayashi, Akira, Aoyagi, and Ishihara. 3,106,357.

Aoyama, Kozo, to Ashi Kasei Kogyo Kabushiki Kaisha. Producing metallic magnesium from a magnesium oxide containing material. 3,114,627, 12–17–63, Cl. 75—67.

Apel, Francis N.: *See*—
Conte, Louis B., Jr., and Apel. 3,081,313.
Conte, Louis B., Jr., and Apel. 3,098,099.

Apel, Konstantin, to Elesta Ltd., Electronic Control Apparatus. Apparatus for counting electric impulses comprising a bistable multivibrator and a glow discharge counting tube having a plurality of cold cathodes. 3,114,075, 12–10–63. Cl. 315—84.6.

Apellaniz, Jose A.: *See*—
Morrison, Albert R., and Apellaniz. 3,096,161.

Apex Fibre-Glass Products, Inc.: *See*—
Wiltshire, Arthur J. 3,114,665.

Apex Paper Box Co.: *See*—
Riley, Thomas, Zaas, Gaser, and Strmac. 3,084,882.

Apgar, James W., to United States of America, Army. Quick release mechanism. 3,109,303, 11–5–63, Cl. 73—12.

Apgar, John M., to Bell Telephone Laboratories, Inc. Broadband coupling to comb-structure. 3,074,023, 1–15–63, Cl. 330—4.

Apicella, Andrew, to Bristol-Myers Co. Product display package. 3,108,684, 10–29–63, Cl. 206—45.31.

Apichell, Ralph. Hose guide. 3,072,384, 1–8–63, Cl. 254—190.

Aplan, Frank F., to Union Carbide Corp. Slime control in heavy-media ore separation. 3,098,035, 7–16–63, Cl. 209—5.

Aplin & Barrett Ltd.: *See*—
Hall, Ronald H. 3,093,551.

Apostle, Basil G., P. V. Papero, Jr., and O. E. Snider, to Allied Chemical Corp. Process for producing ultrahigh viscosity polycaprolactam. 3,109,835, 11–5–63, Cl. 260—78.

Apostoleris, Theodore G., to Ford Motor Co. Dynamoelectric machine. 3,087,081, 4–23–63, Cl. 310—239.

Apparatefabrik A.G.: *See*—
Horak, Heinz. 3,086,560.

Apparel Patent Co. Inc.: *See*—
Clyne, Joseph. 3,076,198.

Appel, Gerhard H., to Appel Process, Ltd. Feeding mechanism for forming machines. 3,073,190, 1–15–63, Cl. 78—98.

Appel, Gerhard H., to Appel Process, Ltd. Forging machines. 3,084,771, 4–9–63, Cl. 78—21.

Appel, Gerhard H., and E. Tlaker, to Appel Process, Ltd. Machine for working on workpieces. 3,087,361, 4–30–63, Cl. 78—21.

Appel Process, Ltd.: *See*—
Appel, Gerhard H. 3,073,190.
Appel, Gerhard H. 3,084,571.
Appel, Gerhard H., and Tlaker. 3,087,361.

Appel, Theodore B., Jr., and H. C. Roberts, to Koehring Co. Batcher control mechanism. 3,085,641, 4–16–63, Cl. 177—103.

Appeldorn, Roger H., to Minnesota Mining and Mfg. Co. Copy-sheet and method for producing copies of graphic originals in the form of positive projection transparencies. 3,111,584, 11–19–63, Cl. 250—65.1.

Appelgren, Anders M. E.: *See*—
Borglin, Nils A., and Appelgren. 3,082,811.
Borglin, Nils A., and Appelgren. 3,112,237.

Appelgren, James W.: *See*—
Bashor, Nelson P., and Appelgren. 3,091,704.

Appelman, Melvin: *See*—
Biermann, Earl E., and Appelman. 3,106,132.

Appelt, Weldon F.: *See*—
Goodell, Murel G., Appelt, and Davis. 3,090,326.
Goodell, Murel G., Appelt, and Davis. 3,092,041.

Appelt, Weldon F., and F. A. Davis. Monorail vehicle. 3,115,848, 12–31–63, Cl. 105—145.

Applebaum, Sidney P., to General Electric Co. Electronic scanning of circular arrays. 3,076,193, 1–29–63, Cl. 343—118.

Appleby, Paul E., to The Goodyear Tire & Rubber Co. Tire building machine. 3,077,917, 2–19–63, Cl. 156—416.

Appleby, Paul E., to The Goodyear Tire & Rubber Co. Method of and apparatus for building tires. 3,078,204, 2–19–63, Cl. 156—132.

Applegate, Robert D. Portable continuous drier. 3,097,934, 7–16–63, Cl. 34—55.

Appleman, Gabriel: *See*—
Odenwald, William, Appleman, and Hardy. 3,080,285.

Appleton, Arthur I. Method of making a sealed electrical box. 3,075,487, 1–29–63, Cl. 113—120.

Appleton, Arthur I. Cable connector having a deformable portion therein. 3,079,182, 2–26–63, Cl. 285—348.

Appleton, Arthur I. Bar hanger box clamp. 3,080,084, 3–5–63, Cl. 220—3.9.

Appleton, Arthur I. Fold-up outlet box with reinforced corners. 3,083,856, 4–2–63, Cl. 220—3.2.

Appleton, Arthur I. Clamp assembly for electrical boxes and the like. 3,084,958, 4–9–63, Cl. 285—189.

Appleton Electric Co.: *See*—
Lang, John J., Oman, and Cronin. 3,090,259.

Appleton Machine Co., The: *See*—
Doven, Eugene. 3,096,039.
Doven, Eugene, and Lenke. 3,104,072.

Appleton Mills: *See*—
Mizell, Louis R. 3,075,274.
Mizell, Louis R., and Tewksbury. 3,094,763.
Soltis, John A. 3,087,846.

Appleton, Norman J., to General Precision, Inc. Barometric pressure transducer. 3,098,388, 7–23–63, Cl. 73—384.

Appleton, Norman J., to General Precision, Inc. Digital force transducer. 3,101,001, 8–20–63, Cl. 73—503.

Appleton Wire Works Corp.: *See*—
Clark, Herbert H. 3,098,735.

Applied Arts Corp.: *See*—
Robbins, James D., Kosch, and Uzarski. 3,110,415.
Whitman, John H. 3,095,958.
Whitman, John H. 3,101,140.

Applied Developments, Inc.: *See*—
Stelling, Walter R., Jr. 3,099,118.

Applied Physics Corp.: *See*—
Cary, Henry H. 3,098,408.

Applied Power Industries, Inc.: *See*—
Hunnicutt, Wayne. 3,079,900.
Luedicke, Alexander H., Jr. 3,095,651.
McGee, Hugh T. 3,115,751.
Watson, John R. 3,113,432.

Applied Radiation Corp.: *See*—
Gordon, Hayden S., Marker, and Post. 3,070,873.

Applied Research Laboratories, Inc.: *See*—
Jones, James L. 3,116,415.
Wittry, David B. 3,107,297.

Apted, James E.: *See*—
Oliver, George F. N., and Apted. 3,076,108.

Aqua'Lonics, Inc.: *See*—
Schulte, Joseph A. 3,091,583.

Aqua-Marine Mfg. Ltd.: *See*—
Faul, Thomas L. 3,112,726.

Aqua Matic Inc.: *See*—
Whitlock, Robert A. 3,071,150.
Whitlock, Robert A., and Johnson. 3,109,454.

Aquariums Inc.: *See*—
Willinger, Allan H. 3,107,289.
Willinger, Allan H. 3,107,290.

Aqua-Serv Engineers, Inc.: *See*—
Jennings, Charles E. 3,085,975.

Aqua-Trac Corp.: *See*—
Prosser, Harold L. 3,108,564.

Aquatron Engineering Corp.: *See*—
Green, William G. 3,095,365.

Aqueous Patents, Inc.: *See*—
Dunn, Lyman D. 3,088,643.

Aquilino, Joseph J. Apparatus for drilling holes in ladder stringers. 3,073,187, 1–15–63, Cl. 77—62.

Aquilion, Charles A., to Ark-Les Switch Corp. Lever switch. 3,076,874, 2–5–63, Cl. 200—6.

Aquilion, Charles A., to Ark-Les Switch Corp. Crimping apparatus. 3,091,276, 5–28–63, Cl. 153—1.

Aquino, Salvatore A., and J. J. O'Connor. Multiple compartment box and blank. 3,082,929, 3–26–63, Cl. 229—27.

Arabian American Oil Co.: *See*—
Irvine, Robert L. 3,088,987.

Arabian, Karekin G., to Shell Oil Co. Gloss stable paraffin wax compositions. 3,105,767, 10–1–63, Cl. 106—270.

Aragon, Julio C.: *See*—
Martinuzzi, Enzo A., and Aragon. 3,112,347.

Aral, Mamouri, to Sankyo Co., Ltd. New antibiotics azalomycin B and F and a process for the production thereof. 3,076,746, 2–5–63, Cl. 167—65.

Arak, Henry M. Aquarium pump. 3,082,935, 3–26–63, Cl. 230—172.

Araki, Ryozo: *See*—
Hayasaka, Toshio, Masuzawa, Araki, and Tajima. 3,092,693.

Araki, Toyoshige: *See*—
Nakazawa, Koiti, Shibata, Higashide, Kanzaki, Yamamoto, Miyake, Hitomi, Horii, Yamaguchi, Araki, Tsuchiya, Oka, and Imai. 3,089,827.
Tatsuoka, Sueo, Kanazawa, Araki, Nakazawa, Miyake, Hitomi, Ueyanagi, Shibata, Hiraiwa, Tsuchiya, Iwasaki, and Yamaguchi. 3,112,341.

Arando Industrial y Commercial Sociedad Anonima: *See*—
Medrano, Evaristo R. 3,114,281.

Arapahoe Chemicals, Inc.: *See*—
Hultquist, Martin E. 3,083,227.

Arata, Yoshiaki, T. Uno, and T. Nakamura, to Shin-Meiwa Kogyo Kabushiki Kaisha. Plasma arc torch. 3,082,314, 3–19–63, Cl. 219—75.

Arata, Yoshiaki, and M. Yamazoe, to Shinko Seiki Kabushiki Kaisha. High vacuum valve. 3,110,319, 11–12–63, Cl. 137—340.

Arbiter, William, to United States of America, Atomic Energy Commission. Dispersion hardening of uranium metal. 3,073,698, 1–15–63, Cl. 75—212.

Arbogast, John C., to California Crematorium. Corner construction for concrete crematory niche. 3,076,292, 2–5–63, Cl. 50—92.

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Brodzs, Nikolajs T. 3,081,534.
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Bulson, Walter T. 3,090,699.
Butterworth, Richard, and Parker. 3,094,508.
Culp, Charles R. 3,086,248.
Feigley, David A., Jr., and Ray. 3,093,609.
Gard, George E. 3,088,713.
Glasbrenner, Stanley N. 3,080,082.
Hall, Wade E., and Poshkus. 3,088,925.
Holly, Richard B. 3,097,990.
Hornberger, Clarence L. 3,098,436.
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McKee, Allan W., Jr. 3,101,241.
Miller, Charles M., Jr., and Roy. 3,100,577.
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Armstrong, Henry P. Windows. 3,080,023, 3-5-63, Cl. 189—64.
Armstrong, Henry P., to Armstrong Patents Ltd. Multiple glass pane glazing unit and method of fabrication. 3,105,274, 10-1-63, Cl. 20—56.6.
Armstrong, Homer T., T. Maarleveld, and K. P. O'Kelly, to United States of America, Navy. High-temperature probe assembly. 3,086,396, 4-23-63, Cl. 73—212.
Armstrong, James F., to ACF Industries, Inc. Fuel injection system. 3,074,652, 1-22-63, Cl. 239—533.
Armstrong, John C., to Consolidated Electronics Industries Corp. Wound resistor. 3,101,466, 8-20-63, Cl. 338—273.
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Rollitt, John. 3,114,328.
Armstrong Patents Ltd.: *See*—
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Armstrong, Phillip N., and M. T. Endo, to Magnavox Co. Card processing apparatus. 3,081,939, 3-19-63, Cl. 235—61.11.
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Wise, Ralph M. 3,109,337.
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Armstrong, Victor O. Stabilizing system for a helicopter. 3,100,610, 8-13-63, Cl. 244—17.25.
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Armstrong, Wilfred H., to Her Majesty the Queen in right of Canada, as represented by the Minister of National Defence. Tandem fairing. 3,092,067, 6-4-63, Cl. 114—235.
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Arnaud, Jacques, to Compagnie General de Telegraphie Sans Fil. Delay line structure for travelling wave amplifier tube consisting of strapped-together rings interleaved with strapped-together cylinders. 3,102,960, 9-3-63, Cl. 315—39.3.
Arnaud, Jacques, and B. Epsztein, to Compagnie General de Telegraphie Sans Fil. Delay line for travelling wave tubes. 3,086,180, 4-16-63, Cl. 33—31.
Arnaud, Robert, to Compagnie de Saint-Gobain. Glass cutting apparatus. 3,108,380, 10-29-63, Cl. 33—32.
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Arneson, Edwin L., to Federal Paper Board Co., Inc. Article carrier. 3,084,831, 4-9-63, Cl. 220—113.
Arneson, Edwin L., to Federal Paper Board Co., Inc. Hinged cover carton. 3,090,540, 5-21-63, Cl. 229—44.
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Arneth, August P., Jr., to International Business Machines Corp. Signaling system. 3,114,894, 12-17-63, Cl. 340—146.1.
Arnett, Frank L. Automatic safety latch. 3,109,669, 11-5-63, Cl. 280—434.
Arnett, Leslie, and W. G. Freise, to United Coffee Corp. Percolator. 3,086,447, 4-23-63, Cl. 99—295.
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Arnold, Francis T., E. A. Kniffin, S. S. Brewster, Jr., and G. B. Crouse, to Peerless Photo Products, Inc. Photocopy machine. 3,107,596, 10-22-63, Cl. 95—89.
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Vegors, Stanley H., and Arnold. 3,111,881.
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Arnold, Henry M. Fluid cooled double acting pistons for high temperature engines. 3,076,440, 2-5-63, Cl. 121—1.
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Arnold, Herbert, E. Kuhas, and N. Brock, to Asta-Werke Aktiengesellschaft. Hypnotic composition comprising barbituric acid derivatives, and N,N-disubstituted-β-aminoisopropyl-(P-chloro-α-methyl-benzhydryl)-ethers. 3,102,072, 8-27-63, Cl. 167—52.
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Arnold, Melvin R., to Chemetron Corp. Selective hydrogenation procedure and catalyst therefor. 3,098,882, 7-23-63, Cl. 260—677.
Arnold, Melvin R., D. O. McCarthy, and E. K. Dienes, to Chemetron Corp. Hydrodesulfurization catalyst and the method of manufacture. 3,075,915, 1-29-63, Cl. 208—216.
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Carlisle, James V., and Arnold. 3,111,771.
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Arnott, Hugh. Pet drinking fountain. 3,112,733, 12-3-63, Cl. 119—77.
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Aronson, Ben J., deceased, by A. Aronson, administratrix, 4.75% to H. Aronson and 4.75% to G. Aronson. Method and mechanism for cape cutting and feeding. 3,084,839, 4-9-63, Cl. 225—2.
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Fujisaki, Yoshisato, and Ohfuka. 3,080,209.
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Hino, Kumao, Yokogawa, Asaka, and Okada. 3,111,437.
Asakawa, Yukichi. Method and apparatus for the improved combustion of fuels. 3,087,472, 4–30–63, Cl. 123—1.
Asaki Optical Industry Co., Ltd.: *See*—
Matsumoto, Saburo. 3,091,161.
Asakura, Hiroshi: *See*—
Okamura, Seizo, Muroi, Asakura, and Chimura. 3,111,370.
Asamaki, Tatsuo, to Nippon Electric Co., Ltd. Ionization vacuum gauge. 3,109,136, 10–29–63, Cl. 324—33.
Asami, Taiichi. Fractionating column for Kjeldahl apparatus and the like. 3,103,471, 9–10–63, Cl. 202—190.
Asanabe, Sizuo: *See*—
Sasaki, Yozo, Asanabe, and Shinoda. 3,072,733.
Asano, Kosuke: *See*—
Watanabe, Koichi, Asano, and Hara. 3,100,322.
Asaro, Vito, and H. J. Tischler, to Young Spring & Wire Corp. Seat construction. 3,071,367, 1–1–63, Cl. 267—107.
Asars, Juris A., to Westinghouse Electric Corp. Electroluminescent-ferroelectric-photoconductive display device. 3,107,314, 10–15–63, Cl. 315—151.
Asbest- und Gummiwerke Martin Markel K.G.: *See*—
Langer, Fritz. 3,097,668.
Asbrink & Co., Aktiebolaget: *See*—
Oberg, John L. 3,105,991.
Ashury, Ray W. Inclined fitting with thread providing flat engagement with box wall. 3,083,990, 4–2–63, Cl. 285—161.
Aschauer, George R., to Twin Disc Clutch Co. Friction plate clutch. 3,072,235, 1–8–63, Cl. 192—99.
Aschermann, Wilfried, to North American Philips Co., Inc. Circuit arrangement comprising two successive valve amplifying stages. 3,092,785, 6–4–63, Cl. 330—178.
Aschoff, Willis A. High vacuum pump. 3,112,869, 12–3–63, Cl. 230—205.
Aschwanden, Paul, to Mettler's Fr., Sohne, Aktiengesellschaft. Brake device for the reels of thread-working machines. 3,092,341, 6–4–63, Cl. 242—36.
Ascoli, Enzo, to Paillard S.A. Electromechanical arrangement controlling a movable part in at least two directions. 3,087,772, 4–30–63, Cl. 346—140.
Ascot Gas Water Heaters Ltd.: *See*—
Radley, Stewart A., and Wolfenden. 3,099,312.
Aseptic Therma Indicator Co.: *See*—
Huyck, Willard M., and Romito. 3,093,242.
Huyck, Willard M., and Romito. 3,098,751.
Ash, Eric A., to International Standard Electric Corp. Electric wave generators. 3,090,886, 5–21–63, Cl. 315—3.6.
Ash, Jacob A.: *See*—
Anderson, James A., Ash, and Bushnell. 3,098,286.
Ash, James C.: *See*—
Anderson, Bazeel B., Bailey, and Ash. 3,074,982.
Ash, Michael E., to Arthur Guiness Son and Co. (Park Royal) Lt. Perforated disc restrictor means for use in dispensing fermented liquors. 3,084,718, 4–9–63, Cl. 138—40.
Ash, Stanley P., to The New Britain Machine Co. Pattern control attachment for machine tool. 3,077,864, 2–19–63, Cl. 121—45.
Ashbrook, Charles S., Jr.: *See*—
White, Theodore Z., and Ashbrook. 3,077,927.
Wing, Wilson G., and Ashbrook. 3,115,329.
Ashbrook, Clifford L. Oil well shooting projectile and method. 3,072,054, 1–8–63, Cl. 102—21.

Ashbrook, Clifford L., and W. G. Wing. Gas inertia controller. 3,115,060, 12–24–63, Cl. 89—14.
Ashby, Eugene C., to Ethyl Corp. Process for the preparation of amine-borane complexes. 3,094,562, 6–18–63, Cl. 260—583.
Ashby, Eugene C., W. E. Foster, J. R. Mangham, and T. H. Pearson, to Ethyl Corp. Process for preparation of organoboron compounds. 3,106,560, 10–8–63, Cl. 260—290.
Ashby, Frederick R.: *See*—
Ettore, Harold V., and Ashby. 3,077,359.
Ashby Metal Forming Corp.: *See*—
Brown, Carl D. 3,075,811.
Ashby, Ralph E. Poultry waterer valve and trough bracket combined. 3,108,573, 10–29–63, Cl. 119—81.
Ashby, William C., W. W. Bunting, Jr., R. Meagher, T. L. Nelson, and K. G. Swayne, to E. I. du Pont de Nemours and Co. Improved yarn handling sucker gun. 3,094,262, 6–18–63, Cl. 226—97.
Ashcraft, William D., to North American Aviation, Inc. Detector having desired waveform detected within specified amplitude range and as function of time. 3,095,541, 6–25–63, Cl. 328—115.
Ashenfarb, Samuel. Heat exchange system and heating element therefor. 3,105,136, 9–24–63, Cl. 219—34.
Asher, Max W., to Screw Conveyor Corp. Conveyor chain holddown means. 3,111,217, 11–19–63, Cl. 198—174.
Asher, Robert H. Lamp shade. 3,075,074, 1–22–63, Cl. 240—108.
Asher, Sidney, to Pages, Inc. Orthodontic torquing method and apparatus. 3,087,245, 4–30–63, Cl. 32—14.
Asher, Thomas M., to Hyland Laboratories. Diagnostic reagent container. 3,107,805, 10–22–63, Cl. 215—1.
Ashford, Ernest, to Johnsen & Jorgensen Ltd. Fixture for stretch severing of glass tubes. 3,105,753, 10–1–63, Cl. 65—283.
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Hoshino, Toshio, Ashida, and Mukaiyama. 3,078,240.
Ashikaga, Yoshitaro: *See*—
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Ashinuma, Kanichi: *See*—
Takahashi, Noboru, and Ashinuma. 3,090,864.
Ashkin, Arthur, to Bell Telephone Laboratories, Inc. Parametric amplifier. 3,085,207, 4–9–63, Cl. 330—4.7.
Ashkin, Arthur, to Bell Telephone Laboratories, Inc. Parametric electron beam device. 3,101,449, 8–20–63, Cl. 330—4.7.
Ashland Oil & Refining Co.: *See*—
Barclay, Gerald M. 3,108,982.
Barclay, Gerald M. 3,108,983.
Forrester, Robert A. 3,113,119.
Gammuon, William H., and Hoertz. 3,075,022.
Way, William E., and Anderson. 3,110,401.
Ashley, Albert H.: *See*—
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Ashley, Carlyle M., to Carrier Corp. Method and apparatus for rendering saline water potable. 3,073,131, 1–15–63, Cl. 62—58.
Ashley, Carlyle M., and C. M. Bosworth, to Carrier Corp. Separation systems. 3,070,969, 1–1–63, Cl. 62—58.
Ashley, Eugene, to General Electric Co. Recoil mechanism. 3,114,291, 12–17–63, Cl. 89—42.
Ashley, James R., and C. M. Veronda, to Sperry Rand Corp. Depressed potential operation of electron beam tubes. 3,098,979, 7–23–63, Cl. 330—44.
Ashley, Paul R., and D. D. Laing, to Calumet & Hecla, Inc. Catalytic automotive exhaust converter. 3,100,140, 8–6–63, Cl. 23—288.
Ashley, Robert B., to General Electric Co. Transistor vertical deflection circuit. 3,098,171, 7–16–63, Cl. 315—27.
Ashmead, Lloyd R., to Richards-Wilcox Mfg. Co. Cushioned retarder. 3,085,659, 4–16–63, Cl. 188—42.
Ashton, Albert A., to The Youngstown Sheet and Tube Co. Plastic tower. 3,100,555, 8–13–63, Cl. 189—19.
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Horne, Donald S., Ashton, and Kepkay. 3,108,703.
Weber, Wilbert D., and Ashton. 3,105,496.
Ashwill, Richard E., to Air Products and Chemicals, Inc. Hydrodesulfurization of catalytically cracked gas oil. 3,115,455, 12–24–63, Cl. 208—93.
Ashwood, Peter F., to Power Jets (Research and Development) Ltd. Discharge nozzles for propulsive jets. 3,109,284, 11–5–63, Cl. 60—35.6.
Ashworth, Bonnie A. Mop. 3,077,627, 2–19–63, Cl. 15—228.
Ashworth, Fred, to Associated Electrical Industries (Manchester) Ltd. Manufacture of printed electrical circuits. 3,115,423, 12–24–63, Cl. 117—212.
Ashworth, Norman I. Apparatus for preparing surfaces for receiving coats of paint. 3,103,084, 9–10–63, Cl. 51—8.
Ashworth, William J., to Artnell Co. Paper end indicator for typewriters. 3,091,321, 5–28–63, Cl. 197—189.
Asire, George F. Lubricating system. 3,097,722, 7–16–63, Cl. 184—105.
Askania-Werke A.G.: *See*—
Hildebrand, Klaus. 3,107,270.
Aske, Charles B., Jr., to Gar Wood Industries, Inc. Tire trim-wheel trim construction. 3,078,125, 2–19–63, Cl. 307—37.
Askew, William J., Sr. Tool for removing caulking. 3,110,054, 11–12–63, Cl. 15—236.
Askinazy, Leo. Hemming and crimping die. 3,071,176, 1–1–63, Cl. 153—12.
Askins, William J., to The Frank G. Hough Co. Motor vehicle transmission controls. 3,090,473, 5–21–63, Cl. 192—13.
Asnes, Floyd, to Namm & Singer, Inc. Button feeding apparatus. 3,089,443, 5–14–63, Cl. 112—110.
Aspeek, Reginald J. Engine starting power tool. 3,071,126, 1–1–63, Cl. 123—179.
Aspergren, Brooke D.: *See*—
Heinzelman, Richard V., and Aspergren. 3,092,636.
Moffett, Robert B., and Aspergren. 3,078,275.
Aspergren, Brooke D., R. B. Moffett, and M. E. Speeter, to The Upjohn Co. Preparation of amides of 4-tertiary aminolower 4-alkylbutyric acids. 3,072,722, 1–8–63, Cl. 260—558.
Aspergren, Brooke D., and R. V. Heinzelman, to The Upjohn Co. Therapeutic 1-(1,2-diphenylethyl)pyrrolidine for the management of depression. 3,083,139, 3–26–63, Cl. 167—65.
Aspey, Wayne S., and B. P. Baker, deceased (by The Mellon National Bank and Trust Co., executor), to Westinghouse Electric Corp. Circuit interrupter with pressure-generating and interrupting contacts in insulating interrupting tube. 3,110,791, 11–12–63, Cl. 200—145.
Aspinwall, Robert H., to General Motors Corp. Turbine wheel. 3,090,597, 5–21–63, Cl. 253—39.
Asplund, Arne J. A. Continuous disc type press. 3,086,453, 4–23–63, Cl. 100—106.
Asplund, Arne J. A. Continuously operating press apparatus. 3,086,454, 4–23–63, Cl. 100—121.
Aspro-Nicholas Ltd.: *See*—
James, John W., and Wiggins. 3,101,336.
Asquith, William, Ltd.: *See*—
Johnson, Alfred. 3,090,348.
Asrican, Manfred, to International Teaching Machine Corp. Teaching aid apparatus. 3,090,137, 5–21–63, Cl. 35—35.
Assalini, Giuseppe, to Rohm & Haas Co. Process for crystallizing sugar from solution. 3,074,819, 1–22–63, Cl. 127—46.
Assalini, Giuseppe, to Rohm & Haas Co. Filtration process. 3,078,188, 2–19–63, Cl. 127—55.
Assalini, Giuseppe, to Rohm & Haas Co. Process for purifying sugar. 3,097,114, 7–9–63, Cl. 127—46.
Asselin, Maurice: *See*—
Greffe, André, Asselin, and Grandjacques. 3,096,550.
Associated Electrical Industries Ltd.: *See*—
Beeson, Eric J. G., Stanyon, and Capp. 3,100,168.
Boyle, John A., and Garnett. 3,076,634.
Cartwright, John C., and Hicks. 3,078,346.
Choudhury, Shafi-Uddin A. 3,091,727.
Colquhoun, John. 3,106,944.
Crocker, Norman J. 3,087,450.
Ebdon, Denis K. 3,098,293.
Gray, Cyril. 3,107,311.
Jackson, Thomas, and McPherson. 3,094,477.
King, Daniel L., and Hitch. 3,100,244.
Lock, Tom. 3,088,084.
Matthews, John J. 3,105,171.
McPherson, Alexander. 3,109,530.
Miller, George B. 3,076,058.
Mynall, Dennis J. 3,090,908.
Mynall, Dennis J. 3,103,614.
Newman, Ronald C., Wakefield, and Rouse. 3,074,146.
Pearson, Norman E. H. 3,096,459.
Pepworth, Frederick J. 3,075,110.
Saraga, Wolja. 3,112,463.
Smith, Sydney F. 3,102,934.
Tabberer, George, and Wallace. 3,095,705.
Warman, Bloomfield J. 3,099,757.
Warman, Bloomfield J. 3,105,116.
Waterton, Frank. 3,102,968.
Watson, Wilfred H., and Blood. 3,071,946.
Associated Electrical Industries (Manchester) Ltd.: *See*—
Ashworth, Fred. 3,115,423.
Atkinson, Denzil M. 3,105,294.
Chasmar, Reginald P., and Cohen. 3,097,296.
Darlington, William H., Dean, and Fulton. 3,106,067.
Davies, David R. 3,071,529.
Miller, Alan D. 3,093,772.
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Shand, George, and Atkinson. 3,090,032.
Stratton, Robert. 3,114,070.
Associated Electrical Industries (Woolrich) Ltd.: *See*—
Foot, George H., and Flood. 3,084,222.
Lane, Clayton A., and John. 3,113,596.
Lane, Clayton A., and Kay. 3,071,031.
Roxburgh, Albert, Leigh, and Fellerman. 3,079,534.
Stallworthy, Frank A., and Drake. 3,072,747.
Warman, Bloomfield J. 3,105,961.
Warman, Bloomfield J. 3,111,659.
Warman, Bloomfield J., and Deller. 3,075,183.
Warman, Bloomfield J., and Deller. 3,075,184.
Warman, Bloomfield J., and Deller. 3,085,162.
Associated Electrical Industries (Rugby) Ltd.: *See*—
Mortlock, Joseph R., Wilkinson, and Richardson. 3,099,775.
Olds, Geoffrey C. E., and Harris. 3,072,478.
Associated Electrical Industries (Rugby) Ltd. (formerly known as British Thomson-Houston Co., Ltd.): *See*—
Olds, Geoffrey C. E. 3,071,462.
Associated Fisheries and Foods (Fleetwood) Ltd.: *See*—
Martin, John. 3,110,926.

Associated Lead Manufacturers Ltd.: *See*—
Olby, John K. 3,109,704.
Associated Match Companies, Inc.: *See*—
Nack, Arthur. 3,107,781.
Associated Patentees, Inc.: *See*—
Grimm, Eric. 3,094,767.
Associated Pulp and Paper Mills Ltd.: *See*—
Sloman, Arthur R. 3,097,987.
Associated Spring Corp.: *See*—
Jackson, Osie E. 3,082,665.
Johnson, William R. 3,105,606.
Smith, Hartley P. 3,104,923.
Asplund, Arne J. A., and H. F. Scholz, to Aktiebolaget Defibrator. Method for production of furfural. 3,115,504, 12–24–63, Cl. 260—347.9.
Asplundh, Lester, to Asplundh Tree Expert Co. Lifting apparatus for electric-line construction or maintenance workers. 3,108,656, 10–29–63, Cl. 182—2.
Asplundh Tree Expert Co.: *See*—
Asplundh, Lester. 3,108,656.
Asquith, Harold M.: *See*—
Luftman, Alvin S., Asquith, and Buckbee. 3,114,907.
Ast, Walter. Combined cigarette and match box. 3,115,241, 12–24–63, Cl. 206—48.
Asta-Werke Aktiengesellschaft: *See*—
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Asta-Werke Aktiengesellschaft Chemische Fabrik: *See*—
Arnold, Herbert, Brock, and Bourseaux. 3,074,992.
Astatic Corp., The: *See*—
Cvetko, Henry J. 3,075,054.
Johnson, Donald E. 3,088,741.
Asten, William P., to Melpar, Inc. Tuning forks. 3,106,124, 10–8–63, Cl. 84—457.
Astheimer, Robert W.: *See*—
Lowenstein, Mark G., and Astheimer. 3,096,650.
McHenry, Thomas F., and Astheimer. 3,084,253.
Ziolkowski, Adrian J., Falbel, Astheimer, and Leftwich. 3,083,611.
Astheimer, Robert W., to United States of America, Army. Nipkow scanner. 3,072,740, 1–8–63, Cl. 178—7.1.
Astheimer, Robert W., to Barnes Engineering Co. Photosensitive image motion detector. 3,090,869, 5–21–63, Cl. 250—203.
Astheimer, Robert W., and M. M. Merlen, to Barnes Engineering Co. Infrared comparison micrometer. 3,097,298, 7–9–63, Cl. 250—83.3.
Astleford, John J., Jr.: *See*—
Leonard, Merrill G., and Astleford. 3,073,993.
Aston, Horace. Weighing machines. 3,082,835, 3–26–63, Cl. 177—169.
Astra Apotekarnes Kemiska Fabriker, Aktiebolaget: *See*—
Dahlbom, Johan R., Lofgren, Tegner, Wiedling, and Truant. 3,108,997.
Jarnhall, Bertil. 3,092,278.
Lundgren, Rudolf A. I., Com, and Järnhäll. 3,075,528.
Sjogren, Bertil K. F., Lindvall, Helwinkel, and Hogberg 3,097,131.
Wikander, Erik L., and Dahlinder. 3,098,481.
Astra Corp.: *See*—
Boissevain, Matthijs G. J. 3,100,352.
Astravac Corp.: *See*—
Miller, Richard H. 3,084,032.
Astro Dynamics, Inc.: *See*—
Katz, Leonhard. 3,087,083.
Katz, Leonhard. 3,101,114.
Astro Science Corp.: *See*—
Groff, James C. 3,090,210.
Astro-Space Laboratories, Inc.: *See*—
Rothe, Wilhelm E. 3,076,452.
Astrosonics, Inc.: *See*—
Soloff, Robert S. 3,081,946.
Soloff, Robert S. 3,107,647.
Astrosystems Inc.: *See*—
Strauss, Robert F., and Wiech. 3,107,488.
Aszalos, Adorian, to National Starch and Chemical Corp. Phosphonium starch ethers. 3,077,469, 2–12–63, Cl. 260—233.3.
Aszkenas, Max. Watch strap for belts. 3,115,288, 12–24–63, Cl. 224—5.
Atadan, Erdem M., and F. D. Marsh, to E. I. du Pont de Nemours and Co. Process for the production of dinitrogen fluoride and nitrosyl fluoride. 3,085,862, 4–16–63, Cl. 23—203.
Ataka, Takeshi: *See*—
Yanagi, Akio, Furukawa, Ataka, and Kubota. 3,111,891.
Atanasoff, John V., to Aerojet-General Corp. Sack handling apparatus. 3,115,965, 12–31–63, Cl. 198—54.
Atcheson, John W., to FMC Corp. Animal feeder. 3,102,511, 9–3–63, Cl. 119—53.
Atchison, Fred S.: *See*—
Alpers, Frederick C., Atchison, and Yates. 3,093,821.
Atchison, Leonard W., to General Electric Co. Automatic controls for room air conditioning unit. 3,070,972, 1–1–63, Cl. 62—180.
Atchison, Leonard W., to General Electric Co. Air conditioning apparatus having reheat means. 3,105,366, 10–1–63, Cl. 62—173.
Atchison, Leonard W., to General Electric Co. Rotary compressor injection cooling arrangement. 3,111,820, 11–26–63, Cl. 62—505.
Atchley, Raymond D., to American Brake Shoe Co. Apparatus for controlling the attitude of tractor mounted equipment. 3,094,796, 6–25–63, Cl. 37—156.
Ateliani, Edmond J., to The Emerson Electric Mfg. Co. Automatic braking mechanism. 3,108,669, 10–29–63, Cl. 192—8.
Ateliers d'Aviation Lou's Breguet, Societe Anonyme des: *See*—
Labussiere, Andre J. 3,096,043.
Ateliers de Carspach: *See*—
Allimann, Georges. Re. 25,470.
Allimann, Georges. 3,074,702.
Ateliers de Construction Emile D'Hooge S.P.R.L.: *See*—
D'Hooge, Emile. 3,083,273.
D'Hooge, Emile. 3,085,416.
Ateliers de Construction Mecaniques C. & A. Holweg, S.a.r.l., Les: *See*—
Entzminger, Auguste. 3,114,299.
Ateliers de Construction Schwartz-Hautmont, Societe Anonyme des: *See*—
Schwartz, Jean L. 3,089,540.
Schwartz, Jean L. 3,097,688.
Ateliers de Constructions Electriques de Charleroi: *See*—
Delevoy, Victor, and Cassalette. 3,086,097.
Delevoy, Victor, and Cassalette. 3,086,098.
Delguste, Paul. 3,098,891.
Fagel, Roger. 3,107,304.
Fagel, Roger. 3,116,420.
Goffaux, Raoul. 3,072,828.
Lafosse, Andre, and Bozzini. 3,085,181.
Ateliers de Constructions Mecaniques de Vevey S.A.: *See*—
Raeber, Victor. 3,076,442.
Ateliers de Poclain-Bataille & Fils, Societe a responsabilite limitee dite: *See*—
Bataille, Claude. 3,092,085.
Atherton, Robert R., to United States of America, Navy. Push-pull parallel operating circuit for power transmission devices. 3,096,486, 7–2–63, Cl. 330—14.
Atherton, Robert R., and J. P. Staples, to United States of America, Navy. Voltage controlled ramp and pulse generator. 3,114,114, 12–10–63, Cl. 331—111.
Athey Producta Corp.: *See*—
Kling, Robert W. 3,071,414.
Atkin, Leonard, to Stonco Electric Products Co. Lamp holder. 3,075,168, 1–22–63, Cl. 339—180.
Atkin, Leonard, to Stonco Electric Products Co. Lamp receptacle. 3,086,104, 4–16–63, Cl. 240—3.
Atkin, Rupert L., to Kelsey-Hayes Co. Wheel and cover assembly. 3,081,133, 3–12–63, Cl. 301—37.
Atkins, Carl E., J. E. Caulfield, and R. L. Ziolkowski, to Tung-Sol Electric Inc. Touch controlled electric alarm clock. 3,081,594, 3–19–63, Cl. 58—50.
Atkins, Don C., Jr., and R. V. Edds, to Purex Corp., Ltd. Protective coating compositions for etching formed from chloroprene polymer, carbon black and phenol-aldehyde resin, and metal substrate coated therewith. 3,079,352, 2–26–63, Cl. 260—3.5.
Atkins, Earle R., Jr., P. W. Fischer, and P. G. Nahin, to Union Oil Co. of California. Electrically conductive oil-base drilling fluids. 3,111,491, 11–19–63, Cl. 252—8.5.
Atkins, Harold J.: *See*—
Fairclough, John H., and Atkins. 3,083,134.
Atkins, Irving, and E. H. Ellins, to Allied Chemical Corp. Flow controller. 3,105,620, 10–1–63, Cl. 222—342.
Atkins, John H. C., to Baker Perkins Holding Ltd. Apparatus for arranging articles into spaced batches. 3,115,237, 12–24–63, Cl. 198—34.
Atkins, John H. C., and R. W. Fuller, to Baker Perkins Inc. Continuous weigh feeder. 3,110,419, 11–12–63, Cl. 222—55.
Atkins, Joseph C. Record storage holder and rack. 3,100,671, 8–13–63, Cl. 312—14.
Atkins, Lyle D., and W. E. Holmgreen, Jr., to Warning Lites Co., Inc. Continuous combustion signal lamp. 3,078,365, 2–19–63, Cl. 240—11.
Atkins, Lyle D., and W. E. Holmgreen, Jr., to Warning Lites Co., Inc. Combustion controlled flasher lamp. 3,096,027, 7–2–63, Cl. 240—11.
Atkins, Lyle D., W. E. Holmgreen, Jr., and E. E. Anderson, to Warning Lites Co., Inc. Fuel control device for flasher lamps. 3,114,251, 12–17–63, Cl. 67—111.
Atkins, Thomas L., and J. H. Robertson. Beverage bottle cleaning machine. 3,082,777, 3–26–63, Cl. 134—158.
Atkinson, Denzil M. Beryllium brazing. 3,083,451, 4–2–63, Cl. 29—487.
Atkinson, Denzil M., to Associated Electrical Industries (Manchester) Ltd. Beryllium brazing. 3,105,294, 10–1–63, Cl. 29—488.
Atkinson, Duane E. Spraying apparatus. 3,074,649, 1–22–63, Cl. 239—165.
Atkinson, Duane E. Acoustic level sensing system. 3,079,596, 2–26–63, Cl. 340—244.
Atkinson, George G.: *See*—
Shand, George, and Atkinson. 3,090,032.
Atkinson, Gerald O., W. H. Cline, Jr., and R. A. Cunningham, to Hughes Tool Co. Bearing seal. 3,075,781, 1–29–63, Cl. 277—83.
Atkinson, Guy F., Co.: *See*—
Ferguson, John E., and Richards. 3,095,988.
Frey, Max, Hamreus, and Smith. 3,071,296.
Spencer, Donald B. 3,082,454.
Atkinson, Ralph L., to Johnson & Johnson. Tapered sanitary napkin. 3,084,692, 4–9–63, Cl. 128—290.
Atkinson, Ralph L., to Johnson & Johnson. Absorbent product. 3,093,546, 6–11–63, Cl. 167—84.

Atkinson, Raymond A.: *See*—
Jenkins, Albert S., and Atkinson. 3,089,686.
Atkinson, Richard C., to Crompton & Knowles Corp. Fabric shredding apparatus. 3,108,330, 10–29–63, Cl. 19—83.
Atkinson, Richard L., to Atkinson's Agricultural Appliances Ltd. Bearing races. 3,080,731, 3–12–63, Cl. 64—4.
Atkinson, Richard L., to Atkinson's Agricultural Appliances Ltd. Machinery guards. 3,091,101, 5–28–63, Cl. 64—4.
Atkinson, Richard L., to Atkinson's Agricultural Appliances Ltd. Bearing assemblies. 3,113,816, 12–10–63, Cl. 308—236.
Atkinson, Robert G.: *See*—
Berger, Donald E., and Atkinson. 3,078,265.
Atkinson, Robert G., and J. W. Loy, to Phillips Petroleum Co. Cokeless smelting of ore. 3,072,474, 1–8–63, Cl. 75—11.
Atkinson, Truman L., to T. L. Atkinson, Jr. Bed rail. 3,080,577, 3–12–63, Cl. 5—331.
Atkinson, Truman L., Jr.: *See*—
Atkinson, Truman L. 3,080,577.
Atkinson, Wallace E., to Long Mfg. Co., Inc. Snapbolt lock. 3,071,956, 1–8–63, Cl. 70—75.
Atkinson, Wallace E., to Long Mfg. Co., Inc. Latch and lock mechanism. 3,103,114, 9–10–63, Cl. 70—71.
Atkinson, Wallace E., to Long Mfg. Co., Inc. Bag frame catch lock. 3,103,115, 9–10–63, Cl. 70—71.
Atkinson, Wallace E., to Long Mfg. Co., Inc. Handle fastening mounts for receptacle handles. 3,103,268, 9–10–63, Cl. 190—58.
Atkinson's Agricultural Appliances Ltd.: *See*—
Atkinson, Richard L. 3,080,731.
Atkinson, Richard L. 3,091,101.
Atkinson, Richard L. 3,113,816.
Atlantic Casting and Engineering Corp.: *See*—
Poe, Alfred P. 3,114,948.
Atlantic Electronics Corp.: *See*—
Hansen, Maurice H. 3,107,963.
Atlantic Machine Tool Works, Inc.: *See*—
Budney, Michael P., H. S., and T. W., and Saczawa. 3,083,594.
Budney, Michael P., H. S., and T. W., and Saczawa. 3,086,409.
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Atlantic Products Corp.: *See*—
Kish, Michael, Jr. 3,099,975.
Atlantic Refining Co., The: *See*—
Ackermann, Guenter R. 3,105,857.
Dunlap, Henry F., and Kern. 3,109,275.
Dyes, Alvin B. 3,096,821.
Fowle, Merrill J., Harin, and Masologites. 3,085,070.
Hariu, Oscar H. 3,101,380.
Hartung, Harold A., and Barkis. 3,108,070.
Kern, Loyd R. 3,075,581.
Leum, Leonard N., Connor, Rothrock, and Shipley. 3,073,675.
Neltzel, Edwin B. 3,078,947.
Pitts, Paul M., Jr., and Rieve. 3,097,925.
Russell, Donald H., and Karrash. 3,108,092.
Sauer, Richard W. 3,113,167.
Wood, John P., Gillett, Neltzel, and Godbey. 3,113,265.
Woodbridge, Joseph E., and Lawrence. 3,110,724.
Wyant, Reece E. 3,079,332.
Atlantic Research Corp.: *See*—
Britt, Horace J. 3,084,220.
Britt, James E. 3,106,608.
Burton, Joe M. 3,113,894.
De Fries, Myron G., Macri, Rice, Madden, and Robinson. 3,108,433.
Henderson, Charles B., and Burton. 3,073,120.
Henderson, Charles B., and Burton. 3,087,306.
Johnson, Kenneth D., Talton, and Spraggins. 3,091,437.
O'Donnell, Thomas J. 3,104,523.
O'Donnell, Thomas J. 3,107,620.
Rice, Millard L., and O'Donnell. 3,104,613.
Rumbel, Keith E., Burton, and Sullivan. 3,082,659.
Rumbel, Keith E., and Cohen. 3,109,374.
Rumbel, Keith E., and Scurlock. 3,109,375.
Rumbel, Keith E., Scurlock, and Friedman. 3,107,187.
Scurlock, Arch C. 3,095,334.
Scurlock, Arch C. 3,115,004.
Scurlock, Arch C., Rumbel, and Friedman. 3,092,959.
Scurlock, Arch C., Rumbel, and Friedman. 3,092,968.
Scurlock, Arch C., Rumbel, and Rice. 3,107,186.
Silver, Bernard. 3,097,481.
Stewart, William D., and Thomas. 3,075,926.
Stewart, William D., and Thomas. 3,075,930.
Walker, John B. 3,084,600.
Webster, Roland C., and Kirchoff. 3,084,599.
Webster, Roland C., Roberts, and Rice. 3,101,052.
Webster, Roland C., Specbler, and Emerson. 3,089,388.
Well, Lester L., and Hewes. 3,074,831.
Atlas Chemical Industries, Inc.: *See*—
Baer, Byron N., Brandner, and Le Maistre. 3,077,375.
Ball, Thomas Z., and Trevorrow. 3,111,438.
Carter, Phyllis J. 3,090,727.
Hales, Ralph A., Le Maistre, and Orth. 3,071,599.
Young, Aubrey A. 3,096,242.
Atlas Copco Aktiebolag: *See*—
Af Rosenschold, John R. M., and Graf. 3,092,980.
Johansson, Axel G. 3,076,266.
Larcen, Jan A. 3,085,638.
Löwler, Erik, and Akerman. 3,105,630.
Atlas Corp.: *See*—
Guarnaschelli, Stephen. 3,098,115.
Guarnaschelli, Stephen. 3,107,107.
Scudieri, William A. 3,096,876.
Atlas Crankshaft Corp.: *See*—
Barkley, Charles G. and Beesley. 3,101,165.
Atlas Engineering Co., Inc.: *See*—
Spinks, James M. 3,111,621.
Atlas Equipment (London) Ltd.: *See*—
Kreisky, Kurt, Hurtz, and Frobeen. 3,071,087.
Atlas General Industries, Inc.: *See*—
Baker, Thomas R., and Posen. 3,089,698.
Banks, William H., and Poole. 3,093,290.
Burke, Thomas F. 3,097,576.
Hoyrup, Sigurd J., and Pagendarm. 3,085,479.
Pagendarm, Richard V. 3,089,393.
Atlas, Leon M., and D. C. Schell, to Basic Inc. Dolomitic refractory. 3,074,806, 1–22–63, Cl. 106—58.
Atlas Novelty Co., Inc.: *See*—
Lesser, Jack, and Halber. 3,088,234.
Atlas Pacific Engineering Co.: *See*—
Gaddini, Norman E. 3,101,831.
Loveland, Malcolm W. 3,115,171.
Loveland, Malcolm W. 3,115,174.
Loveland, Malcolm W. 3,115,175.
Atlas-Werke Aktiengesellschaft: *See*—
Brünnée, Kurt. 3,115,591.
Kletz, Hans, and Schloen. 3,094,681.
Thaeter, Hans. 3,106,300.
Atliers de Carspach: *See*—
Allimann, Georges. 3,108,788.
Atols, John S. Adjustable angle device and work holder. 3,099,093, 7–30–63, Cl. 33—174.
Atomenergi, Aktiebolaget: *See*—
Hyden, Anders L. F. 3,097,972.
Atomic Energy of Canada Ltd.: *See*—
Bayly, John G. 3,087,143.
Charlesworth, Donald H. 3,085,961.
Gaasenbeek, Johannus L. 3,115,571.
Morgan, William W., Mathers, and Hart. 3,092,446.
Tunnicliffe, Philip R. 3,086,929.
Whittaker, Stanley J. 3,085,962.
Wolfe, William A., and Pease. 3,106,520.
Atomic Power Development Associates, Inc.: *See*—
Amorosi, Alfred, and Morabito. 3,090,433.
Atsumi, Katsuya. Automatic stop mechanism for tape recorders and the like. 3,102,698, 9–3–63, Cl. 242—55.12.
Attanasio, Emil T., and D. N. Thompson. Smoke eradicator for trash burning building. 3,087,443, 4–30–63, Cl. 110—18.
Atterbury, John C., Jr.: *See*—
Garner, Claude M., and Atterbury. 3,090,423.
Atteridg, Paul T., to M. W. Kellogg Co. Method for cracking high boiling hydrocarbons. 3,092,568, 6–4–63, Cl. 208—113.
Attrezzature e Dispositivi per Annunzi Reclamistiel-A.D.A.R.: *See*—
Reali, Rodolfo. 3,080,668.
Attwood, Charles W. Wall panel and process of assembling same. 3,075,621, 1–29–63, Cl. 189—34.
Attwood, Charles W. Screens. 3,083,761, 4–2–63, Cl. 160—136.
Attwood Corp.: *See*—
Finkl, Charles W., and Carlson. 3,084,543.
Attwood, Edmund, to Labofina. Uninflammable hydraulic fluids. 3,074,889, 1–22–63, Cl. 252—78.
Attwood Statistics Ltd.: *See*—
Jones, Kenneth. 3,093,795.
Attwood, Warren R. Structural connector. 3,075,622, 1–29–63, Cl. 189—36.
Attwood, Warren R. Building construction element. 3,094,197, 6–18–63, Cl. 189—34.
Attwood, Warren R. Shelf bracket and clips. 3,097,822, 7–16–63, Cl. 248—250.
Atuk Corp.: *See*—
Evans, Chauncey R. 3,073,203.
Evans, Chauncey R. 3,080,785.
Evans, Chauncey R. 3,105,569.
Atun, Nathan, to Simmonds Precision Products, Inc. Volumetric gage for conductive liquids. 3,114,262, 12–17–63, Cl. 73—304.
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Atvidabergs Industrier, Aktiebolaget: *See*—
Stemme, Nils G. E. 3,106,889.
Stemme, Nils G. E., and Wahlstrom. 3,080,552.
Wahlstrom, Sven E. 3,094,689.
Atwater, Julian G.: *See*—
Steiner, Charles S., and Atwater. 3,095,120.
Atwater, Norman W., to G. D. Searle & Co. 17-oxygenated 6-oxaandrostan-7-ones and derivatives thereof. 3,080,380, 3–5–63, Cl. 260—343.2.
Atwater, William M. Loom stopping device. 3,083,740, 4–2–63, Cl. 139—338.
Atwell, Harry N. Car top boat loader and unloader. 3,072,274, 1–8–63, Cl. 214—450.
Atwood, George E., and C. H. Curtis, to Duval Sulphur & Potash Co. Method of recovering molybdenite. 3,102,854, 9–3–63, Cl. 209—4.
Atwood, Hyatt B., to Herr Mfg. Co., Inc. Lubricating means for spinning rings. 3,112,603, 12–3–63, Cl. 57—120.

Atwood, Mark T.: *See*—
McClaflin, Gifford G., and Atwood. 3,093,691.

Atwood, Mark T., G. G. McClaflin, and A. Shadan, to Continental Oil Co. Process for the preparation of 2-methyl-1-butene and trialkylaluminum compounds. 3,080,411, 3–5–63, Cl. 260—448.

Atwood & Morrill Co.: *See*—
Rose, Alexander V. 3,106,220.

Atwood, Rawson, and C. C. L'Allemand. Anti-sloughing bobbin. 3,095,161, 6–25–63, Cl. 242—159.

Atwood, Rawson, and C. C. L'Allemand. Slip sleeve textile bobbin. 3,107,067, 10–15–63, Cl. 242—118.32.

Atwood, Seth G., K. B. Kittle, R. E. Slattery, and R. W. Simpson, to Automatic Canteen Co. of America. Adjustable cup dispenser. 3,071,292, 1–1–63, Cl. 221—223.

Atwood Vacuum Machine Co.: *See*—
Johnson, Agnar. 3,111,704.
McCleary, Roy E. 3,108,838.

Au, Tin-Yam, to E. I. du Pont de Nemours and Co. Method of continuous treatment of as-spun birefringent polyamide filaments. 3,090,997, 5–28–63, Cl. 18—48.

Auberger, Walter. Counter mechanism. 3,085,745, 4–16–63, Cl. 235—94.

Aubert, Michel, and R. Roche, to Commissariat a l'Energie Atomique. Supports for combustible elements in atomic piles or reactors having vertical channels. 3,085,965, 4–16–63, Cl. 204—193.2.

Aubert, Michel, S. Foglia, and R. Roche, to Commissariat a l'Energie Atomique. System for supporting nuclear fuel in atomic reactors. 3,100,743, 8–13–63, Cl. 204—193.2.

Aubert, Michel C., to Frame S.A. Dish-washing machine having a rotary wobble spraying apparatus driven by a moment of momentum. 3,091,400, 5–28–63, Cl. 239—261.

Aubert, Roger, and M. Blaise, to Compagnie Generale de Telegraphie Sans Fil. Frequency modulated radio links with superregenerative repeaters. 3,082,376, 3–19–63, Cl. 325—7.

Auburn Machine Works, Inc.: *See*—
George, Warren E., and McIninch. 3,104,481.

Auburn Rubber Co., Inc.: *See*—
Ferriot, Joseph V. 3,102,363.

Aucktor, Erich, to Lohr & Bromkamp G.m.b.H. Pivot joint assembly. 3,076,323, 2–5–63, Cl. 64—21.

Audet, Henry J., D. J. Dwinell, K. James, and D. L. Kingston, to Sylvania Electric Products Inc. Process and apparatus for coating rods. 3,109,751, 11–5–63, Cl. 117—113.

Audin, Anthony L. Head rests for dental chairs and the like. 3,098,128, 7–16–63, Cl. 179—146.

Audley Engineering Co. Ltd.: *See*—
Floyd, Terence J. 3,090,594.
Leach, Edward B. 3,079,750.

Auer, Frederick G., and M. Sorkin, to Champlain Co., Inc. Multiple correction registration system for multicolor printing press. 3,102,471, 9–3–63, Cl. 101—181.

Auer, Heinr., Muhlenwerke K.G.a.A.: *See*—
Neidhardt, Karl. 3,095,074.

Auer, J. F., Inc.: *See*—
Jackson, Merlon L., Merlin, and Cameron. 3,106,026.

Auer, John H., Jr.: *See*—
Kendall, Hugh C., and Auer. 3,085,201.
Kendall, Hugh C., Auer, Bolton, and Frielinghaus. 3,110,008.

Auer, John H., Jr., to General Signal Corp. Ultrasonic vehicle detection system. 3,098,213, 7–16–63, Cl. 340—38.

Auer, John H., Jr., to General Signal Corp. Telemetering system. 3,114,891, 12–17–63, Cl. 340—22.

Auer, Laszlo. Lacquers for wood finishing with improved filling power. 3,087,835, 4–30–63, Cl. 117—73.

Auerswald, Wilhelm, and J. Elbl. Method of preparing a plasma protein solution free of active hepatitis virus and product produced thereby. 3,100,737, 8–13–63, Cl. 167—74.

Aufhauser, Fred E.: *See*—
Miles, John R. 3,088,369.

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Auger, Joseph, and L. J. Bisson, to Hartford Tape & Label Inc. Tape and label dispenser. 3,107,814, 10–22–63, Cl. 221—73.

Augsburg-Nurnberg A.G. Maschinenfabrik: *See*—
Brockel, Ernst. 3,074,128.
Meurer, Siegfried. 3,078,672.
Meurer, Siegfried. 3,085,557.
Meurer, Siegfried. 3,107,658.

Augunas, Algis G.: *See*—
Arlauskas, Alfonsas, Augunas, and Lohr. 3,081,973.

August, Ingeborg: *See*—
August, Paul and I. 3,104,869.

August, Pablo. Rotary piston in internal combustion engine with two-stage compression. 3,073,118, 1–15–63, Cl. 60—39.61.

August, Pablo. Machine capable of operating as compressor and pump. 3,116,012, 12–31–63, Cl. 230—207.

August, Paul and I. Mixers. 3,104,869, 9–24–63, Cl. 259—178.

August Thyssen-Hutte Aktiengesellschaft: *See*—
Pollmann, Adolf. 3,093,211.
Pollmann, Adolf. 3,111,197.
Pollmann, Adolf. 3,114,435.

Augusta-Zunder Feuerzeugfabrik Mayer & Co.: *See*—
Gladitz, Walter J., and Todtenhofer. 3,077,759.

Augustin, Alex, to A. & W. Products Co., Inc. Pencil compass. 3,082,533, 3–26–63, Cl. 33—27.

Augustine, Carroll F., V. J. McHenry, and J. Cheal, to The Bendix Corp. Phase shift apparatus. 3,081,440, 3–12–63, Cl. 333—31.

Augustine, Carroll F., V. J. McHenry, and J. Cheal, to The Bendix Corp. Phase shift apparatus adjustable by movement of dielectric slug. 3,092,793, 6–4–63, Cl. 333—31.

Aul, Robert J.: *See*—
Stevens, Edward P., and Aul. 3,082,903.

Aulabaugh, William E. Muzzle brake. 3,114,289, 12–17–63, Cl. 89—14.

Auld, John A., to Erie Strayer Co. Cement mixing plant. 3,090,501, 5–21–63, Cl. 214—2.

Auld, Samuel H., Jr., and W. P. Lear, to Motorola, Inc. System for controlling an aircraft from a magnetic sensor. 3,079,107, 2–26–63, Cl. 244—77.

Aulner, Albert W. Combination vise grip and C-clamp. 3,092,378, 6–4–63, Cl. 269—143.

Aulson, John W.: *See*—
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Aulson Tanning Machinery Co., The: *See*—
Cohen, Jerome M., and Aulson. 3,077,673.

Ault, Lawrence H., and L. Salisbury, to Dow Corning Corp. Siloxane coating method and article obtained therefrom. 3,076,726, 2–5–63, Cl. 117—155.

Aumick, Kenneth D.: *See*—
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Aumuller, Walter, G. Korger, H. Ruschig, and and H. Wagner, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Novel sulfonyl-ureas. 3,097,240, 7–9–63, Cl. 260—553.

Aunspach, Dale E., and P. L. Grabenbauer, to Fisher Governor Co. Packing box constructions. 3,087,735, 4–30–63, Cl. 277—59.

Auradynamics, Inc.: *See*—
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Auricoste, Jean, to Societe d'Electronique et d'Antomatisme. Magnetic core binary counters. 3,072,891, 1–8–63, Cl. 340—174.

Auricoste, Jean, to Societe d'Electronique et d'Automatisme. Magnetic core system supplies. 3,075,182, 1–22–63, Cl. 340—174.

Auricoste, Jean, to Societe d'Electronique et d'Automatisme. Load feeding devices. 3,082,410, 3–19–63, Cl. 340—174.

Aurora Corp. of Illinois: *See*—
Broadwell, Robert J. 3,107,695.
Broadwell, Robert J. 3,112,769.
Hastings, Robert M., Vickerman, and Broadwell. 3,107,694
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Zarybnicky, Edward J. 3,104,697.

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Ausenda, Carlo, R. D. D'Epinoix, R. Castellini, and G. Orsolato, to Compagnia Italiana Forme Acciaio. Fabrication system. 3,094,028, 6–18–63, Cl. 83—71.

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Austad, Alfred W. Vegetable and fruit juice extracting machine. 3,086,570, 4–23–63, Cl. 146—76.

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Austin, Charles L., and C. A. Lotspeich, to Mitchell Camera Corp. Camera adapted for manual support. 3,078,757, 2–26–63, Cl. 88—16.

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Selferth, Oscar E., Austin, and Snyder. 3,086,869.

Austin, Harry W., to Mine Safety Appliances Co. Protective headgear. 3,083,371, 4–2–63, Cl. 2—3.

Austin, Harry W., to Mine Safety Appliances Co. Helmet shell suspension with adjustable height sweat band. 3,092,837, 6–11–63, Cl. 2—3.

Austin, James M., G. F. Garvin, and W. Karr-Ake, to Southwest Industrial Products, Inc. Stone facer. 3,078,295, 1–15–63, Cl. 125—6.

Austin, John J. Float-controlled valve for poultry-watering apparatus and the like. 3,091,253, 5–28–63, Cl. 137—418.

Austin, Kenneth A., and W. O'Connor, to Avco Corp. Auxiliary power drive mechanism for a gas turbine engine. 3,100,378, 8–13–63, Cl. 60—39.16.

Austin Motor Co. Ltd., The: *See*—
Griffiths, Frank, Waldron, and Rajan. 3,112,987.
Page, Graham D. 3,086,364.
Page, Graham D. 3,090,394.

Austin, Oliver K., to Phillips Petroleum Co. Interlocked system for pelleting and pellet drying operations. 3,071,803, 1–8–63, Cl. 18—1.

Austin, Oliver K., to Phillips Petroleum Co. Control of carbon black feed oil preheat. 3,095,273, 6–25–63, Cl. 23—209.6.

Austin, Peter: *See*—
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Austin, R. E., & Son: *See*—
Austin, Raymond E. 3,109,647.

Austin, Raymond E., to R. E. Austin & Son. Basketball net. 3,109,647, 11–5–63, Cl. 273—1.5.

Austin, Robert J., J. F. Grutsch, and R. C. Mallatt, to Standard Oil Co. Oxygenation apparatus. 3,101,321, 8–20–63, Cl. 210—151.

Austin, Theodore D., to United States of America, Navy. Desensitization of liquid explosives. 3,116,188, 12–31–63, Cl. 149—88.

Austin, Walter H., Jr., and W. F. Frey, to United States of America, Army. Ejector mechanism for artillery guns. 3,110,220, 11–12–63, Cl. 89—21.

Austin, William B. System for handling flimsy carbon sheets. 3,088,730, 5–7–63, Cl. 270—58.

Austin, William E., F. A. Levin, and T. H. Binaski, to The Nestle-Le Mur Co. Urea-fatty alcohol adduct dyeing composition and hair dyeing therewith. 3,098,013, 7–16–63, Cl. 167—88.

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Thomas, Thomas R. 3,074,510.
Thomas, Thomas R. 3,075,615.
Thomas, Thomas R. 3,076,526.
Thomas, Thomas R. 3,078,959.
Thomas, Thomas R. 3,079,867.
Thomas, Thomas R. 3,080,016.
Thomas, Thomas R. 3,084,762.
Thomas, Thomas R. 3,084,763.
Thomas, Thomas R. 3,085,653.
Thomas, Thomas R. 3,086,616.
Thomas, Thomas R. 3,086,617.
Thomas, Thomas R. 3,091,306.
Thomas, Thomas R. 3,096,023.
Thomas, Thomas R. 3,106,346.
Thomas, Thomas R. 3,113,638.

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Glaze, John W., Jr. 3,096,006.

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Automatic Braiding Co. (Nottingham) Ltd.: *See*—
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Lynam, John E. 3,114,193.

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Cohen, Irwin A. 3,092,700.
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Licata, Leonard. 3,098,899.
Linder, Kenneth C. 3,109,987.
Lomax, Clarence E. 3,087,017.
Lomax, Clarence E. 3,087,023.
Lord, John M., and Koppensteiner. 3,106,626.
Lychyk, George S. 3,109,903.
McCreary, Harold J. 3,092,737.
McCreary, Harold J. 3,096,402.
Parsons, Neil E. 3,092,702.
Rolley, Emunds A. 3,092,690.
Shuba, Joseph P. 3,109,990.
Spjeldnes, Kare K. 3,106,615.
Stoehr, Rudolph O., and David. 3,106,614.
Stoffels, Robert E. 3,076,056.
Totz, Robert C. 3,102,259.
Zerwic, Joseph E. 3,106,669.

Automatic Electrical Control Co. Ltd., The: *See*—
Aldous, Arnold V. 3,104,298.

Automatic Metal Products Corp.: *See*—
Kell, Robert A. 3,107,135.

Automatic Poultry Feeder Co.: *See*—
Carpenter, Elmer B. 3,099,981.

Automatic Radio Mfg. Co., Inc.: *See*—
Housman, Robert W. 3,076,936.

Automatic Records, Inc.: *See*—
Rosen, Jack R. 3,113,905.
Schunk, Henry F., and Welty. 3,084,854.

Automatic Switch Co.: *See*—
Forte, Frank M. 3,103,337.
Spinelli, Frank P., and Nolt. 3,087,031.

Automatic Tape Control, Inc.: *See*—
Moulic, William E., Jr. 3,084,226.

Automatic Telephone & Electric Co. Ltd.: *See*—
Corner, Arthur C. 3,115,553.
Greenaway, John F., Halton, Marwing, and Hemmings. 3,113,182.
Marwing, Kenneth G., Greenaway, and Milton. 3,107,271.

Automatic Timing and Controls, Inc.: *See*—
Rossi, Dominick J. 3,081,384.

Automatic Welding Co.: *See*—
Anderson, Hubert J. 3,109,921.
King, Milton E. 3,109,918.
King, Milton E. 3,109,920.
Mattson, Everett L. 3,109,919.

Automation Gages, Inc.: *See*—
Polidor, Edward C. 3,113,807.

Automation Industries, Inc.: *See*—
McClure, Charles G. 3,107,521.
Sansom, Raymond E. 3,106,839.
Stebbins, Larry O. 3,105,380.
Stebbins, Larry O., and Sato. 3,114,258.

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Automation Machines and Equipment Co., Inc.: *See*—
Farnsworth, Le Moyne E. 3,108,715.

Automation Products, Inc.: *See*—
Agnew, Bobby G., and Banks. 3,075,466.
Banks, William B. 3,100,390.

Automation Products, Inc. Electric motor control system. 3,075,466, 1–29–63. Cl. 103—25.

Automotive Products Co. Ltd.: *See*—
Bland, Albert N., and Davies. 3,083,804.
Choulings, Leslie C. 3,109,518.
Jakeways, Frederick T. 3,085,663.
Osborne, Duncan W. 3,113,466.
Packer, Mervyn B., Prestidge, Rodway, and Parnell. 3,093,422.

Autophon Aktiengesellschaft: *See*—
Tschuml, Otto. 3,089,919.
Zschokke, Diethelm. 3,105,879.

Auto-Solar Co., The: *See*—
Chafin, James M., and Wright. 3,083,385.
Wright, John G., Chafin, and Wynn. 3,112,056.
Wright, John G., and Smith. 3,083,368.

Autosonics Inc.: *See*—
Rand, Burton. 3,071,953.
Rand, Burton. 3,073,323.
Rand, Burton. 3,078,701.
Rand, Burton. 3,078,860.
Rand, Burton. 3,106,925.
Rand, Burton. 3,106,928.

Auto-Test, Inc.: *See*—
Mansfield, Ralph. 3,100,391.
Mansfield, Ralph. 3,100,988.

Auto-View Welding Helmet Co.: *See*—
Crozat, Donald F., and Hackbarth. 3,086,213.
Hill, Lloyd L. 3,086,212.

Autrionic Corp.: *See*—
Naugle, Reginald B. 3,108,743.
Auyang, Raymond P.: *See*—
Durbeck, Robert C., and Auyang. 3,078,022.
Auzins, Raimunds: *See*—
De Jong, Sijtze, and Auzins. 3,083,783.
Avakian, Arra S.: *See*—
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Avallone, Eugene A., and R. M. Staff, to Eastern Rolling Mills, Inc. Bearings. 3,076,524, 2-5-63, Cl. 184—7
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Austin, Kenneth A., and O'Connor. 3,100,378.
Brass, Edward A. 3,100,405.
Bruck, George. 3,072,845.
Carson, Robert E., and Jonson. 3,095,540.
Collins, James T. 3,112,451.
Colwill, Herbert W., and Schenking. 3,076,654.
Domeisen, Karl A. 3,081,623.
Harbage, Robert P., Vaughan, and Crown. 3,103,777.
Jensen, Gerald A., Kakatsakis, and Sciola. 3,082,846.
Kohll, Lemley J. 3,103,116.
Kuecken, John A. 3,111,668.
Kuecken, John A. 3,113,309.
Kuecken, John A. 3,114,147.
Laszo, Tibor S. 3,093,503.
Lynn, George A. 3,106,678.
Martin, Louis H., and Lucas. 3,084,334.
Midkiff, James C. 3,108,225.
Morr, Ralph V., Fuhrwerk, Fent, and Crown. 3,103,778.
Plogstedt, Allen E., and Bradmiller. 3,110,851.
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Pope, Ira T. 3,110,004.
Raney, Russell R., and Stott. 3,075,340.
Roberts, Glaness B., Gunyon, and Schulze. 3,110,314.
Rosa, Richard J. 3,091,709.
Rosa, Richard J. 3,099,131.
Rose, Frank L., and Subilia. 3,075,199.
Salmon, David F., and Zinn. 3,083,010.
Schipper, Robert J., and Coddington. 3,097,261.
Schulze, Herman H. 3,090,388.
Standing, Arthur F. 3,113,310.
Stott, Ted, Groeneveld, and Gunyon. 3,108,417.
Tomaszek, Edward P., and Cuny. 3,106,100.
Wiant, Herman R. 3,073,759.
Wiant, Herman R. 3,112,388.
Wiant, Herman R. 3,112,389.
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Zoerner, James R. 3,088,174.
Avco Corp., Lycoming Division: *See*—
Moellmann, Heinz F. 3,083,531.
Moellmann, Heinz F. 3,093,969.
Avco Mfg. Corp.: *See*—
Bussard, Emmery J. H. 3,078,420.
Campion, Harold H. 3,076,101.
Cohen, Jerome B. 3,082,521.
Nelson, Bruce K. 3,083,340.
Plogstedt, Allen E., and Bradmiller. 3,078,379.
Vasilos, Thomas, and Wagner. 3,116,137.
Avco Mfg. Corp., Lycoming Division: *See*—
Franz, Anselm. 3,088,278.
Avedikian, Souren Z. Production of copper isocinchomeronate and isocinchomeronic acid. 3,081,307, 3-12-63, Cl. 260—270.
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Freedman, Harold P. 3,071,767.
Vielle, Eugene E., and Wiersma. 3,113,145.
Vielle, Eugene E., and Wiersma. 3,114,145.
Wiersma, Rudolf A., and Freedman. 3,114,146.
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Skwierinski, Albion. 3,094,430.
Aven, Manuel, and R. M. Potter, to General Electric Co. Process for providing improved maintenance to electroluminescent phosphors. 3,080,325, 3-5-63, Cl. 252—301.6.
Aven, Walter. Calendar reminder and dispensing device. 3,099,352, 7-30-63, Cl. 206—78.
Avera, Trent W., and J. A. Cunningham, to Crose-United Corp. Mandrel for pipe bending machines. 3,109,477, 11-5-63, Cl. 153—63.
Averbach, Benjamin L., to The Alloyd Corp. Process of coating vitreous filaments. 3,083,550, 4-2-63, Cl. 65—3.
Averbach, Benjamin L., to Weinschel Engineering Co. Inc. Low temperature coefficient alloy. 3,114,662, 12-17-63, Cl. 148—142.
Averette, Thomas P. Sheep foot tamper. 3,099,191, 7-30-63, Cl. 94—48.
Averill, Eugene F., to Titus Mfg. Corp. Fire safety damper units. 3,076,469, 2-5-63, Cl. 137—74.
Averill, Eugene F., to Titus Mfg. Corp. Air distribution devices and grilles. 3,087,410, 4-30-63, Cl. 98—114.
Averill, Eugene F., and H. E. Straub, to Titus Mfg. Corp. Antismudging air diffusers. 3,087,407, 4-30-63, Cl. 98—40.
Avery, Clarence L., to Woodward Governor Co. Governor system. 3,112,406, 11-26-63, Cl. 290—40.
Avery, Fred J., to Materials Transportation Co. Carton clamp for lift trucks. 3,115,262, 12-24-63, Cl. 214—654.
Avery-Hardoll Ltd.: *See*—
Wilson, Frederick E. J. 3,089,615.
Wilson, Frederick E. J. 3,089,616.
Wilson, Frederick E. J. 3,089,617.
Wilson, Frederick E. J. 3,095,741.
Avery, Harold T., to Minneapolis-Honeywell Regulator Co. Rotating wing aircraft. 3,081,966, 3-19-63, Cl. 244—17.13.
Avery, Howard S., and H. J. Chapin, to American Brake Shoe Co. Manganese steel. 3,075,838, 1-29-63, Cl. 75—123.
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Morse, Hugh B. 3,071,905.
Morse, Hugh B. 3,109,081.
Avery, Julian M., to Ethyl Corp. Metallic magnesium via electrolytic amalgamation. 3,074,861, 1-22-63, Cl. 204—124.
Avery, Phillip J. Hay baling apparatus. 3,110,145, 11-12-63, Cl. 56—1.
Avery, Robert W., to International Business Machines Corp. Form-reading and information-converting apparatus. 3,114,035, 12-10-63, Cl. 235—61.11.
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Chilton, John M. 3,076,515.
Chilton, John M. 3,104,727.
Chilton, John M. 3,106,979.
Avery, William F., and R. W. Alexis, to Union Carbide Corp. Hydrogen recovery. 3,111,387, 11-19-63, Cl. 23—212.
Averyt, Robert W., S. Gardner, and D. A. Harrison, to International Business Machines Corp. Controlled, regenerative feedback transmission gate with shunting capacitor and inhibiting bias for prompt operation. 3,079,511, 2-26-63, Cl. 307—88.5.
Aves, Fred J. Curb signal device. 3,089,455, 5-14-63, Cl. 116—28.
Avien, Inc.: *See*—
De Graffenried, Albert L., and Goff. 3,111,577.
Howell, Harvey L., and Ruhfel. 3,110,914.
Kadlec, Ladislav. 3,074,060.
Avila, Lawrence H. Outdoor cooking unit. 3,094,113, 6-18-63, Cl. 126—30.
Avinor, Michael, to North American Philips Co., Inc. Infrared phosphors using vanadium as an activator. 3,109,818, 11-5-63, Cl. 252—301.6.
Avins, Jack, to Radio Corp. of America. Stereophonic sound receiver system. 3,080,453, 3-5-63, Cl. 179—15.
Avins, Jack, to Radio Corp. of America. Desired frequency coupling circuit having undesired frequency cancellation trap located at voltage null point for desired frequency. 3,114,889, 12-17-63, Cl. 333—76.
Avins, Jack, and B. Fisher, to Radio Corp. of America. Interstage network using cancellation trap as effectively untuned coupling between resonant circuits. 3,103,554, 9-10-63, Cl. 178—5.8.
Avir Research Corp.: *See*—
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Avon India Rubber Co. Ltd., The: *See*—
Day, Richard J. 3,082,882.
Avril, Arthur C., to A & T Development Corp. Bag closing machine. 3,097,461, 7-16-63, Cl. 53—137.
Avro Aircraft Ltd.: *See*—
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Avtron Mfg. Inc.: *See*—
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Haner, Lambert, and Dolan. 3,108,207.
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Axelrod, Martin S., and D. E. Rosenheim, to International Business Machines Corp. Matched negative resistance pair having critical inductance in series effecting slight instability. 3,096,450, 7-2-63, Cl. 307—88.5.
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Garrigus, Walter E., and Axelrod. 3,073,213.
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Heath, Carlos M., and Axelson. 3,082,318.
Axelson, Eskil A. A. Electrical paint heater. 3,096,426, 7-2-63, Cl. 219—38.
Axelson, Eskil A. A., and L. A. G. Gyllinder, to Svenska Maskinaktiebolaget Greiff. Spray painting gun for electrostatic spray painting. 3,111,266, 11-19-63, Cl. 239—15.
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Reardon, John J., and Axelson. 3,105,331.
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Walles, Wilhelm E., Tousignant, and Axelson. 3,097,048.
Axelsson, Nils R., and S. G. Wretemark, to Telefonaktiebolaget LM Ericsson. Arrangement for induction heating. 3,103,571, 9-10-63, Cl. 219—10.61.
Axer, Heinrich J., to Schiess Aktiengesellschaft. Cutter head. 3,077,025, 2-12-63, Cl. 29—105.
Axhelm, Ivey W. Build-up and hard surfacing machine. 3,075,067, 1-22-63, Cl. 219—76.
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Axtell, Clive S., to Bausch & Lomb Inc. Magnetic brake assembly. 3,071,212, 1-1-63, Cl. 188—165.
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Axtell, Willard G., to Shwayder Brothers, Inc. Presses. 3,094,743, 6-25-63, Cl. 18—16.
Axthammer, Ludwig, to Fichtel & Sachs A.G. Hydropneumatic spring element. 3,094,317, 6-18-63, Cl. 267—64.
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Ayala, Michael: *See*—
Peto, Howard B., and Ayala. 3,070,944.
Ayer, Donald E., to The Upjohn Co. Chlorination and fluorination of cyclohexiimide, and compounds produced thereby. 3,105,078, 9-24-63, Cl. 260—281.
Ayer, Donald R., J. L. Butler, and R. L. Williston, to Sanders Associates, Inc. Variable transmission line coupler. 3,095,-544, 6-25-63, Cl. 333—10.
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Ayers, Buell O., to Phillips Petroleum Co. Chromatographic separation process. 3,111,025, 11-19-63, Cl. 73—23.
Ayers, David T., Jr., to Kelsey-Hayes Co. Fluid pressure motor mechanism. 3,076,441, 2-5-63, Cl. 121—38.
Ayers, David T., Jr., to Kelsey-Hayes Co. Fluid pressure motor mechanism. 3,093,120, 6-11-63, Cl. 121—38.
Ayers, David T., Jr., to Kelsey-Hayes Co. Power brake for motor vehicles. 3,115,067, 12-24-63, Cl. 91—391.
Ayers, Earl D., to Burroughs Corp. Method and means for modulating a magnetron beam tube. 3,101,429, 8-20-63, Cl. 315—80.
Ayers, Edgar H., to Clark Equipment Co. Electric reversing switch mechanism with mechanical interlock. 3,112,380, 11-26-63, Cl. 200—50.
Ayers, George W., to The Pure Oil Co. Odor-free naphthas. 3,080,314, 3-5-63, Cl. 208—289.
Ayers, George W., to The Pure Oil Co. Process for removing metal contaminants from petroleum oil. 3,105,038, 9-24-63, Cl. 208—251.
Ayers, George W., and W. A. Krewer, to The Pure Oil Co. Method of preparing odorless naphthas. 3,073,776, 1-15-63, Cl. 208—289.
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Ayers, George W., and W. A. Krewer, to The Pure Oil Co. Process for the reduction of the free acidity in mineral lubricating oils. 3,083,156, 3-26-63, Cl. 208—263.
Ayers, George W., and W. A. Krewer, to The Pure Oil Co. Method of preparing petroleum fractions of improved odor using 6-lactones. 3,091,585, 5-28-63, Cl. 208—199.
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Ayers, Joseph W., to Agrashell, Inc. Compositions comprising lignocellulosic extender and oxidized extracted lignin and adhesive solution containing same. 3,093,604, 6-11-63, Cl. 260—17.2.
Ayers, Joseph W., to Agrashell, Inc. Laminating glue solutions and extender compositions therefor and process for preparing same. 3,093,605, 6-11-63, Cl. 260—17.2.
Ayers, Joseph W., to Agrashell, Inc. Extender compositions and synthetic resin glue solutions containing the same. 3,093,606, 6-11-63, Cl. 260—17.2.
Ayers, Joseph W., to Agrashell, Inc. Plywood adhesive solutions and extender compositions therefor. 3,093,607, 6-11-63, Cl. 260—17.2.
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Aykanian, Ardashus A., to Monsanto Chemical Co. Blow extrusion apparatus. 3,079,636, 3-5-63, Cl. 18—14
Aylesworth, Robert D., B. R. Krabacher, R. G. Kadesch, and N. O. V. Sonntag, to Emery Industries, Inc. Esters of structurally stabilized acids. 3,074,981, 1-22-63, Cl. 260—410.6.
Ayling, Robert W., to Westinghouse Electric Corp. Hermetic compressors having horizontal crankshafts. 3,080,106, 3-5-63, Cl. 230—206.
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Aymar, Robert H., to SCM Corp. Mechanical binary adder. 3,116,014, 12-31-63, Cl. 235—61.
Ayoub, Michael A., to Waters Mfg., Inc. Potentiometer. 3,099,811, 7-30-63, Cl. 338—174.
Ayrapaa, Teuvo P., to A. Kabi. Enzyme purification. 3,098,-015, 7-16-63, Cl. 195—66.
Ayres, Arthur U., to The Sharples Corp. Improvement in centrifuge rotors. 3,075,695, 1-29-63, Cl. 233—46.
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Ayres, Harry V., to Eaton Mfg. Co. Hydraulic valve lifter mechanism. 3,090,367, 5-21-63, Cl. 123—90.
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Ayroldi, Giuseppe. Non dazzling lights for motorcars. 3,088,-023, 4-30-63, Cl. 240—41.1.
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Gaetani, Ermanno. 3,089,868.
Gaetani, Ermanno. 3,090,780.
Gaetani, Ermanno. 3,092,616.
Gaetani, Ermanno. 3,096,140.
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Klüpfel, Kurt-Walter, Stumpf, Behmenburg, Wilhelm, and Tomanek. 3,097,095.
Neugebauer, Wilhelm, and Endermann. 3,106,465.
Neugebauer, Wilhelm, Tomanek, and Behmenburg. 3,112,-197.
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Azzolari, Guido, to Societe Anonyme Fabrique Nationale d'Armes de Guerre. Control and braking device for pin-carrying drums of circular knitting machines and the like. 3,086,378, 4-23-63, Cl. 66—50.
Azzolari, Guido, to Societe Anonyme Fabrique National d'Armes de Guerre. Control device for the selectors of circular knitting and like machines. 3,103,801, 9-17-63, Cl. 66—50.
Azzolari, Guido, to Fabrique National d'Armes de Guerre, Societe Anonyme. Manual and automatic device for the displacement of the drive belts, more particularly for hosiery or similar machines. 3,108,486, 10-29-63, Cl. 74—242.
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Scott, Lyle B., and Riordan. 3,101,117.
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BMW Triebwerkbau Gesellschaft m.b.H.: *See*—
Deinhardt, Hans. 3,078,667.
Deinhardt, Hans, Muessig, and Prestel. 3,115,011.
Werner, Reinhold. 3,078,670.
BSR Ltd.: *See*—
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Lane, Norman. 3,093,335.
Lane, Norman. 3,095,199.
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Solum, James R., Hempel, and Solum. 3,109,491.
Solum, James R., Hempel, and Solum. 3,109,492.
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Baarson, Robert E., and C. W. Jonaitis, to Armour and Co. Method for concentrating aluminum silicates and zircon from beach sand. 3,097,162, 7-9-63, Cl. 209—166.

Baarson, Robert E., H. B. Treweek, C. W. Jonaitis, and C. L. Ray, to Armour & Co. Phosphate ore flotation process. 3,098,817, 7-23-63, Cl. 209—166.

Baas, Hendrik B., and E. J. J. Veldhuijzen, to North American Philips Co., Inc. Hot-gas reciprocating machine and system composed of a plurality of these machines. 3,074,229, 1-22-63, Cl. 60—24.

Baasner, Wilhelm, to Agfa Aktiengesellschaft. Photographic masking arrangement. 3,089,384, 5-14-63, Cl. 88—24.

Baasner, Wilhelm, to Agfa Aktiengesellschaft. Projection printer provided with comparison negatives. 3,094,035, 6-18-63, Cl. 88—24.

Baatrup, Johannes V., to Danfoss ved Ingenior Mads Clausen. Regulating and shut-off unit for a preferably gas-heated flow-type water heater. 3,104,813, 9-24-63, Cl. 236—102.

Babayan, Vigen K., to E. F. Drew & Co., Inc. High smoke point frying oil. Re. 25,488, 11-26-63, Cl. 99—118.

Babb, Jackson L.: *See*—
White, William S., Jr., Babb, and McGuire.

Babb, James G., and H. J. Hershey; said Hershey assor. to Bell Telephone Laboratories, Inc., and said Babb assor. to Western Electric Co., Inc. Space saver dial. 3,105,122, 9-24-63, Cl. 179—90.

Babbel, Roy E. Multi-functional motor vehicle. 3,083,047, 3-26-63, Cl. 296—23.

Babbitless: *See*—
Barrot, Paul M. E., and Lemardeley.

Babbitt, Robert P., and J. L. Clure, to The Marquardt Corp. Sudden expansion burner having step fuel injection. 3,074,469, 1-22-63, Cl. 158—1.

Babcock, David L.: *See*—
Martin, William A., Easterly, Thomson, Babcock, and Jenkins.

Babcock, Eugene W.: *See*—
Sharp, Donald E., Dean, Babcock, and Montgomery.

Babcock, Harold S.: *See*—
Babcock, Mary E. and H. S.

Babcock, John C.: *See*—
Campbell, J. Allan, Babcock, and Wechter.

Babcock, John C., J. A. Campbell, and R. L. Pederson, to The Upjohn Co. 2α-methyl-11-oxygenated-5α-androstanes. 3,098,083, 7-16-63, Cl. 260—397.45.

Babcock, John C., J. A. Campbell, and R. L. Pederson, to The Upjohn Co. 3-enamine derivatives of 2α-methyl-5α-androstanes. 3,098,850, 7-23-63, Cl. 260—239.5.

Babcock, John C., and R. L. Pederson, to The Upjohn Co. 4-methyl-17 alpha-hydroxy-progesterone and esters thereof. 3,102,896, 9-3-63, Cl. 260—397.4.

Babcock, Mary E. and H. S. Hydraulically operated bed chair. 3,095,235, 6-25-63, Cl. 297—68.

Babcock, Roger S.: *See*—
Humphries, James J., Hodge, Babcock, and Whitemore.

Babcock, Stephen W., and D. W. Grisel, to General Dynamics Corp. Variable inductive device. 3,087,131, 4-23-63, Cl. 336—133.

Babcock & Wilcox Co., The: *See*—
Abbonizio, Ell, and Hoeltzel.
Allardt, Ernst W., and De Stephen.
Ammon, Johannes H., Braddy, and Kessler.
Bayer, Clyde B.
Christensen, Magnus.
Christensen, Magnus.
Davies, David K., and Schoessow.
Durham, Edwin.
Edlund, Milton C.
Hardgrove, Ralph M.
Harvey, James L., and Beaty.
Helble, Chalmers L., and Boyer.
Huge, Ernest C., and Musat.
Johnson, Lowell E.
Judd, Donald F.
Kidwell, John H.
Koch, Paul H.
Koch, Paul H., Pirsh, and Swenson.
Norton, Charles L., Jr.
Rackley, John M., and Peterson.
Ratcliffe, Temple W.
Reed, Roland L.
Schlichting, John, and Sprague.
Smith, Charles S.
Sprague, Theodore S.
Stallkamp, Hubert G.
Whitelaw, Robert L.
Wootton, William R.
Yoder, Lloyd W.

Babcock & Wilcox Ltd.: *See*—
Bincer, Hans.
Delfs, Hans J.
De Mart, Le Roy S.
De Mart, Le Roy S.
Evans, Richard H.
Evans, Richard H.
Genier, Henri.
Godshalk, Russell L.
Haftke, Jozef J.
Hage, William T.

Babcock & Wilcox Ltd.: *See*—Continued
Haynes, Ronald.
Kooistra, Lambert F.
McDaniels, John D., Jr., and De Mart.
Mckenzie, Edwin C.
Mong, Bernard A.
Mumm, John F.
Neumann, Willy.
Pegrum, James W.
Peters, Martin C.
Pirsh, Edward A., Dickinson, and Felgar.
Schluderberg, Donald C.
Taylor, Anthony J.
Taylor, Anthony J.
Tillequin, Jean F., and Blampin.
Wootton, William R.
Worley, Norman G.
Worley, Norman G., and Rooney.

Babcock, Zebe A. Lunch box latch. 3,093,262, 6-11-63, Cl. 220—34.

Babcook, Cecil A.: *See*—
Needham, Lester H., and Babcook.

Babiarz, Edward: *See*—
Posniak, Benjamin, McCoubrey, and Babiarz.

Babin, Alexander, to Crown Zellerbach Corp. Folded sheet dispenser. 3,095,996, 7-2-63, Cl. 221—52.

Babkin, Svjatoslav L., to Research Institute of Experimental Surgical Apparatus and Instruments. Instrument for ligating blood vessels with metal staples. 3,079,608, 3-5-63, Cl. 1—187.

Babler, Justus: *See*—
Waldvogel, Paul, and Babler.

Babson, Arthur L., to Warner-Lambert Pharmaceutical Co. Method of stabilizing acid phosphatase in serum by means of citrates and glutamates. 3,096,251, 7-2-63, Cl. 167—84.5.

Babson Bros. Co.: *See*—
Babson, Henry B.
Brown, Robert H.
Merritt, Thomas W., and Thomas.
Thiele, Fred W.

Babson, Henry B., to Babson Bros. Co. Milk flow measuring apparatus. 3,115,038, 12-24-63, Cl. 73—223.

Bacchi, Ray, to Administrator of the National Aeronautics and Space Administration, grantee. Valve actuator. 3,088,441, 5-7-63, Cl. 121—38.

Bach, Henry J., to Martin-Marietta Corp. Coating composition comprising an organic solvent solution of vinyl chloride-vinylidene chloride copolymer and an alkyl acrylate-alkyl methacrylate copolymer and base coated therewith. 3,084,065, 4-2-63, Cl. 117—75.

Bach, Henry J., and E. J. Esswein, Jr., to Mobil Finishes Co., Inc. Vinyl chloride-vinylidene chloride copolymer coatings modified with partially saponified, partially dehydrohalogenated copolymer of vinyl chloride and vinyl acetate. 3,112,287, 11-26-63, Cl. 260—33.6.

Bach, Jacob C., W. F. Fivek, and R. A. Heyden, to Western Electric Co., Inc. Tool for winding wires onto terminals. 3,098,615, 7-23-63, Cl. 242—7.

Bach, Johann W. Joint for artificial limb. 3,110,906, 11-19-63, Cl. 3—27.

Bach, Johann W. Prosthetic appliance. 3,111,683, 11-26-63, Cl. 3—21.

Bach, John W., to Pitney-Bowes, Inc. Automatic feeding apparatus. 3,072,052, 1-8-63, Cl. 101—235.

Bach, Willy, and F. Bennat, to Continental Elektroindustrie A.G., Askaniawerke. Louvre shutter operating mechanism. 3,103,863, 9-17-63, Cl. 95—58.

Bacharach Industrial Instrument Co.: *See*—
Gardner, George R.

Bache, John K., to George Salter & Co. Ltd. Weighing devices for suspended loads. 3,073,403, 1-15-63, Cl. 177—147.

Bacheler, Albert T., W. G. Helmrath, and J. M. Cochran, to Westinghouse Electric Corp. Apparatus and method for controlling motors. 3,073,996, 1-15-63, Cl. 318—6.

Bacher, Ludwig: *See*—
Kronig, Walter, Bayer, Wahl, and Bacher.

Bachert, John. Muffler device. 3,111,191, 11-19-63, Cl. 181—56.

Bachhuber, Theodore J. Shotgun shell reloading device. 3,105,408, 10-1-63, Cl. 86—25.

Bachi, Roberto. Means for expressing and imparting intelligence. 3,084,456, 4-9-63, Cl. 35—54.

Bachman, Anatole, to Amalgamated Electric Corp., Ltd. Electrical contact bridging assembly. 3,087,039, 4-23-63, Cl. 200—166.

Bachman, Fred E., to Amsted Industries Inc. Journal box insert. 3,084,982, 4-9-63, Cl. 308—38.

Bachman, Fred E., to Amsted Industries Inc. Power beam tread brake arrangement. 3,107,754, 10-22-63, Cl. 188—222.6.

Bachman, Gustave B.: *See*—
Hase, Henry B., Bachman, Feuer, and Warren.
Standish, Norman W., and Bachman.

Bachman, Robert A., to Cannon Electric Co. Front release contact retention device. 3,112,149, 11-26-63, Cl. 339—217.

Bachmann, Gerhard: *See*—
Wallenfels, Kurt A. W., and Bachmann.

Bachmann, Josef. Supply system for viscous fluids. 3,095,914, 7-2-63, Cl. 141—27.

Bachmann, Phil F. Adjustable gas pedal for motor vehicles. 3,088,331, 5-7-63, Cl. 74—513.

Bachmann, Woodward D. Conversions of sea water and generating systems. 3,076,096, 1-29-63, Cl. 290—1.

Bachmann, Woodward D. Temperature-sustaining apparatus for automobiles. 3,110,633, 11-12-63, Cl. 136—161.

Bachmayer, Joseph J.: *See*—
Saxton, James B., and Bachmayer.

Bachynskyj, Serhij: *See*—
Skipor, Eugen, and Bachynskyj.

Back, Alexander E.: *See*—
Zimmerley, Stuart R., Back, Beck, and Pick.

Back, Carl F. Extensible mast derrick. 3,100,625, 8-13-63, Cl. 254—143.

Back, Frank G. Automatic exposure control for cameras. 3,079,851, 3-5-63, Cl. 95—64.

Back, Frank G. Zoom projection lens. 3,094,581, 6-18-63, Cl. 88—57.

Back, Leonard: *See*—
Bergstein, Frank D., Nerenberg, and Back.

Back, Samuel. Removable cargo box for trucks or trailers. 3,112,836, 12-3-63, Cl. 214—515.

Back, Sangho, and R. E. Linde, to Crown Zellerbach Corp. Extensible paper and the process of producing the same. 3,104,197, 9-17-63, Cl. 162—113.

Backer, William R., to Norton Co. Automatic balancing means. 3,107,459, 10-22-63, Cl. 51—169.

Backer, William R., C. K. Kirk, G. E. Wespi, and T. F. Stevens, to Norton Co. Dynamically actuated balancing means. 3,107,550, 10-22-63, Cl. 74—573.

Backers, Franciscus T., and J. H. Wessels, to North American Philips Co., Inc. Magnetic recording. 3,079,469, 2-26-63, Cl. 179—100.2.

Backers, Franciscus T., to North American Philips Co., Inc. Device for recording and/or reproducing high-frequency signals, more particularly television signals. 3,084,225, 4-2-63, Cl. 179—100.2.

Backinger, George T., and D. L. Meggison, to General Foods Corp. Method of making a French fried potato product. 3,085,020, 4-9-63, Cl. 99—207.

Backlin, Clarence R., to Willcox & Gibbs Sewing Machine Co. Material work-feeding mechanism and control means therefor. 3,082,723, 3-26-63, Cl. 112—210.

Backlund, Gerald R., and J. F. Terenzi, to American Cyanamid Co. Process for preparing a foamed solution of polyacrylamide employing CO_2 and product produced thereby. 3,090,761, 5-21-63, Cl. 260—2.5.

Backlund, Peter S.: *See*—
Bergsteinsson, Ingolfur, Webb, and Backlund.
Nahin, Paul G., and Backlund.
Young, Donald C., Backlund, and Fort.

Backlund, Peter S., to Union Oil Co. of California. Production of trimellitic acid. 3,086,992, 4-23-63, Cl. 260—524.

Backofen, Elmer R., to Clark Equipment Co. Combined guide means. 3,111,856, 11-26-63, Cl. 74—230.3.

Backus, Arthur E. Traveler ring assemblies. 3,100,374, 8-13-63, Cl. 57—122.

Baclawski, Joseph E.: *See*—
Thompson, Paige W., and Baclawski.

Bacon, Francis T., and J. C. Frost, to National Research Development Corp. Fuel cells. 3,112,229, 11-26-63, Cl. 136—86.

Bacon, Frank R., and C. J. Billian, to Owens-Illinois Glass Co. Ultraviolet light absorbing glass. Re. 25,456, 10-8-63, Cl. 106—52.

Bacon, Karl W.: *See*—
Morgan, Edgar A., and Bacon.

Bacon, Karl W., and E. O. Morgan, to Walt Disney Productions. Bobsled amusement ride. 3,114,332, 12-17-63, Cl. 104—63.

Bacon, Victor L. Distribution regulator and shut-off gate. 3,078,019, 2-19-63, Cl. 222—310.

Badali, Joseph A., to Olin Mathieson Chemical Corp. Lock pin. 3,104,430, 9-24-63, Cl. 20—92.

Baddour, Maurice F.: *See*—
Blauvelt, Ralph C., and Baddour.

Bade, Alfred G.: *See*—
Wellauer, Edward J., and Bade.

Bade, Alfred G., to The Falk Corp. Variable speed drive. 3,079,804, 3-5-63, Cl. 74—230.17.

Bade, Erich, to Allis-Chalmers Mfg. Co. Process for the reduction of the alkali content in cement clinker. 3,110,751, 11-12-63, Cl. 263—53.

Badenoch, Benjamin W., E. I. Brown, J. S. Cardillo, and C. E. Liles, to Sperry Rand Corp. Power transmission. 3,108,542, 10-29-63, Cl. 103—162.

Bader, Erich, to Deutsche Gold- und Silber-Scheideanstalt vormals Roessler. Process for the introduction of finely divided solid fillers into lacquers. 3,083,115, 3-26-63, Cl. 106—308.

Bader, Kurt: *See*—
Waldbauer, Wilhelm, Oesterle, and Bader.

Badger, Afton C. Apparatus for the continuous application of coating to strip material. 3,084,662, 4-9-63, Cl. 118—50.

Badger, Alfred E.: *See*—
Meriwether, Henry R., Jr., Mewbourne, Warren, and Badger.

Badger Co., Inc., The: *See*—
Newton, Roger H.
Rousseau, William P. C.

Badger Plug Co.: *See*—
Voissem, Marvin C.

Badische Anilin- & Soda-Fabrik Aktiengesellschaft: *See*—
Balli, Heinz, Leuchs, Hehl, Grunwald, and Schmidt.
Bartholome, Ernst, Nonnenmacher, and Frey.
Baumann, Hans, and Dehnert.
Baumann, Hans, and Dehnert.
Baumann, Hans, and Dehnert.
Baumann, Hans, and Huenig.
Baumann, Hans, and Leuchs.
Boehm, Hans, Fischer, Haubach, Schiller, Umlauf, and Weber.
Braun, Willy, and Hartwig.
Braun, Willy, Ruske, and Maier.
Datow, Joachim, and Wimmer.
Dehnert, Johannes.
Deuschel, Werner, Gundel, Wuest, and Daubach.
Dimroth, Peter, and Pasedach.
Eisele, Julius, Federkiel, Krehbiel, Krzikalla, Lange, and Bohlemann.
Fischer, Adolf.
Frank, Berthold, and Nitschke.
Friederich, Herbert, and Lehnerer.
Fuchs, Werner.
Fust, Klaus J., Fischer, Friederich, and Stummeyer.
Fust, Klaus J., and Friederich.
Gruber, Josef, and Wintersberger.
Hartmark, Bjarne, Schuster, and Herrle.
Haupt, Gustav, Raichle, and Jung.
Hensel, Hans R., Baumann, Tartter, and Weissauer.
Hieber, Walter, and Wagner.
Hieber, Walter, and Wagner.
Hoerner, Hans, and Olsen.
Illing, Gerhard, and Stahl.
Illing, Gerhard, and von Kutepow.
Kastning, Ernst-Guenther, and Wisseroth.
Krauss, Kurt, and Diekmann.
Kroeper, Hugo, Fuchs, and Platz.
Kroeper, Hugo, and Platz.
Lange, Guenter, Luetzel, Wippel, Weidinger, and Kranz.
Maier, Karl, and Nienburg.
Markert, Ferdinand, Nonnenmacher, Funk, and Bieber.
Merkel, Karl, Werner, and Palm.
Mertens, Heinrich, and Stadler.
Meyer, Ferdinand, and Demmler.
Mueller-Tamm, Heinz, Buchholz, and Stastny.
Nonnenmacher, Helmut, and Bartholome.
Oettinger, Willi.
Ploetz, Ernst.
Poehler, Guenter, and Wegerich.
Polster, Rudolf.
Reicheneder, Franz, and Dury.
Reppe, Walter, Baur, and Schweter.
Schaurer, Gustav, and Heinzel.
Schlecht, Leo, Trageser, and Staeger.
Seefelder, Matthias, and Leuchs.
Seefelder, Matthias, and Neubauer.
Simon, Walter, Waldmann, Melan, and Plauth.
Steinhofer, Adolf, Frey, and Knobloch.
Stilz, Walter, Pommer, Gehm, Schmidt, Mertens, Hehl, and Grunwald.
Tartter, Arnold, Rohland, Ludsteck, and Schroedel.
Vollmert, Bruno, and Hesser.
Von Kutepow, Nikolaus, and Doerfel.
Von Kutepow, Nikolaus, Kindler, Eisfeld, Dettke, Jenne, and Detzer.
Von Schickh, Otto.
Von Schickh, Otto, and Metzger.
Von Schickh, Otto, and Metzger.
Weltz, Hans-Martin, and Lorenz.
Wiebusch, Klaus.
Willersinn, Herbert, Dietrich, Fust, Friederich, and Siebel.
Wisseroth, Karl, Herbeck, Lautenschlager, Moeller, Schmidtthonee, Staiger, Trieschmann, and Weber.
Wisseroth, Karl, and Kastning.
Wittig, Georg, and Pommer.

Badmaieff, Alexis, to Altec Lansing Corp. Remote volume control. 3,072,795, 1-8-63, Cl. 250—209.

Badner, Barry: *See*—
Solorow, Russell S., and Badner.

Baechli, George, to Jov Mfg. Co. Belt supporting device. 3,077,974, 2-19-63, Cl. 198—192.

Baechtel, Clarence A.: *See*—
Dunn, Robert F., and Baechtel.

Baeck, Alfred J., to Westinghouse Electric Corp. Intelligence transmitting means. 3,089,083, 5-7-63, Cl. 323—122.

Baeder, Donald L.: *See*—
Eldib, Ibrahim A., Charles, and Baeder.

Baenziger, Robert C. Fishing reel. 3,111,287, 11-19-63, Cl. 242—84.44.

Baer, Austin R. Hinge. 3,092,870, 6-11-63, Cl. 16—128.

Baer, Byron N., J. D. Brandner, and J. W. Le Maistre, to Atlas Chemical Industries, Inc. Spinning of viscose. 3,077,375, 2-12-63 Cl. 18—54.

Baer, Charles A., P. J. Clough, and R. W. Steeves, to National Research Corp. Process of coating a refractory body with boron nitride and then reacting with aluminum. 3,084,060, 4-2-63, Cl. 117—5.1.

Baer, Hans G., to Vacuumschmelze Aktiengesellschaft. Process for producing predetermined secondary recrystallization textures in metals. 3,073,729, 1-15-63, Cl. 148—112.

Baer, Herman W., to Radio Corp. of America. Article handling apparatus. 3,111,231, 11-19-63, Cl. 214—1.

Baer, John S., to Dennison Mfg. Co. Data handling mechanism. 3,095,141, 6-25-63, Cl. 234—45.

Baer, Massimo, to Monsanto Chemical Co. Graft copolymers and polymer blends containing same. 3,073,798, 1-15-63, Cl. 260—45.5.

Baer, Massimo, and M. F. Vignale, to Monsanto Chemical Co. Purification of organic liquids containing acid impurities. 3,079,428, 2-26-63, Cl. 260—486.

Baer, Massimo, and E. H. Hankey, to Monsanto Chemical Co. Compatible blends of rigid vinyl chloride polymers and alpha olefin polymers containing compatibilizing amounts of a halogenated polyolefin. 3,085,082, 4-9-63, Cl. 260—45.5.

Baer, Miles H.: *See*—
Hjelte, George, and Baer. 3,090,617.

Baer, Russel F., to Monsanto Chemical Co. Tow crimping apparatus. 3,076,250, 2-5-63, Cl. 28—1.

Baer, Russel F., to Monsanto Chemical Co. Thread winding apparatus. 3,076,614, 2-5-63, Cl. 242—18.

Baermann, Max. Eddy current heating device. 3,085,142, 4-9-63, Cl. 219—10.49.

Baermann, Walter P., to Prestige Furniture Corp. Multiple seating. 3,101,218, 8-20-63, Cl. 297—455.

Baermann, Walter P., to Prestige Furniture Corp. Detachable tufting in articles of furniture and the like. 3,103,082, 9-10-63, Cl. 45—138.

Baermann, Walter P., to Prestige Furniture Corp. Seat construction for articles of furniture. 3,107,944, 10-22-63, Cl. 297—452.

Bagby, Henry L. Gun carrier. 3,081,923, 3-19-63, Cl. 224—1.

Bagby, John P., to Bell and Howell Co. Automatic exposure mechanism with magnetic control of iris blades. 3,082,674, 3-26-63, Cl. 95—64.

Bagby, John P., to Bell & Howell Co. Automatic exposure control devices. 3,111,071, 11-19-63, Cl. 95—10.

Bagby, John P., and S. R. Freeland, to Bell and Howell Co. Automatic exposure control camera. 3,081,684, 3-19-63, Cl. 95—64.

Bagdon, Richard J.: *See*—
Smith, Harold A., Konrad, and Bagdon. 3,079,956.

Bagel Machines, Inc.: *See*—
Paltchell, Harold, and Goldberg. 3,080,831.

Bageman, Fred J. Wheel balancing method. 3,085,442, 4-16-63, Cl. 73—483.

Baggett, Joseph M., W. T. McMichael, and E. L. Pendleton, to The Dow Chemical Co. Metallic wool ignition materials. 3,086,894, 4-23-63, Cl. 149—5.

Baggott, Edmund W., to Ideal Toy Corp. Toy air rifle. 3,111,121, 11-19-63, Cl. 124—15.

Baggott, Edmund W., and J. Weih, to Ideal Toy Corp. Tearing mechanism for weeping doll. 3,070,921, 1-1-63, Cl. 46—133.

Baggs, Burton D., Jr.: *See*—
Smith, Alexander, and Baggs. 3,093,268.

Bagley, Russell W., to Medtronic, Inc. Cautery device. 3,100,489, 8-13-63, Cl. 128—303.17.

Bagnall, John R.: *See*—
Mitchell, Arthur G., and Bagnall. 3,083,444.

Bagnall, Larry O., to Allis-Chalmers Mfg. Co. Radial expansion compensating support for thermally expansible body. 3,098,509, 7-23-63, Cl. 138—114.

Bagno, Samuel M., to Specialties Development Corp. Contact protection circuit arrangement. 3,075,124, 1-22-63, Cl. 317—11.

Bagno, Samuel M., to Specialties Development Corp. Battery network. 3,108,191, 10-22-63, Cl. 307—66.

Bagno, Samuel M., to Specialties Development Corp. Stabilization of sensitivity in intruder detection systems. 3,108,271, 10-22-63, Cl. 343—8.

Bagno, Samuel M., to Specialties Development Corp. Intruder detecting system. 3,109,165, 10-29-63, Cl. 340—258.

Bagno, Samuel M., to Specialties Development Corp. Compensation for turbulence and other effects in intruder detection systems. 3,111,657, 11-19-63, Cl. 340—258.

Bagwell, Marshall U.: *See*—
Nelson, William R., and Bagwell. 3,106,309.

Bagwell, Marshall U., to The Texas Pipe Line Co. Apparatus for monitoring production or transportation equipment by detecting and indicating malfunction of pump. 3,087,431, 4-30-63, Cl. 103—25.

Bahama Press Co, Ltd.: *See*—
Sanford, Donald E., and Benevento. 3,103,880.

Bahco, Aktiebolaget: *See*—
Broecker, Ernst R. A. F. 3,078,838.
Wikstrom, Berth A. 3,109,581.

Bahlo, Klaus W., to The American Fabrics Co. Apparatus for solvent treatment of rolled fabric. 3,087,322, 4-30-63, Cl. 68—189.

Bahm, Jackson L., to Chrysler Corp. Duct construction. 3,093,055, 6-11-63, Cl. 98—2.

Bahn, John J., A. D. Coggeshall, R. T. Maher, and J. B. Waldbillig, to General Electric Co. Winding support system for a dynamoelectric machine. 3,089,048, 5-7-63, Cl. 310—260.

Bahn, John J., and W. L. Dormandy, to General Electric Co. Control of winding temperatures of liquid cooled generators. 3,112,415, 11-26-63, Cl. 310—54.

Bahnsen, Erwin B., to Steiner American Corp. Device for dispensing sheet material. 3,104,844, 9-24-63, Cl. 242—55.42.

Bahnsen, Ralph J.: *See*—
Paul, Gerard T., Bahnsen, and Dirac. 3,115,574.

Bahnson, Agnew H., Jr., and J. F. King, Jr.; said King assor. to The Bahnson Co. Apparatus for doffing spinning frames. 3,088,266, 5-7-63, Cl. 57—53.

Bahnson, Agnew H., Jr., and J. F. King, Jr.; said Bahnson assr. to Katherine King Bahnson, said King assor. to The Bahnson Co. Traveling cleaner with floor sweeping nozzle for textile machine rooms. 3,089,176, 5-14-63, Cl. 15—312.

Bahnson Co., The: *See*—
Bahnson, Agnew H., Jr., and King. 3,088,266.
Bahnson, Agnew H., Jr., and King. 3,089,176.

Bahnson, Katherine K.: *See*—
Bahnson, Agnew H., Jr., and King. 3,089,176.

Bahr, George K.: *See*—
Talbot, Richard C., Bahr, and Rose. 3,105,418.

Bahr, Paul L. Sanding attachment for portable electric drills. 3,091,061, 5-28-63, Cl. 51—170.

Bahr, Rannalt C. Adjustable high chair. 3,084,976, 4-9-63, Cl. 297—153.

Bahr, Thomas C.: *See*—
King, William M., Neltner, and Bahr. 3,114,350.

Bahre Metallwerk K.G.: *See*—
Fischer, Kurt, and Mund. 3,096,542.
Greten, Ernst. 3,072,293.

Bahrs, George S., D. W. Martin, and M. M. McWhorter. Frequency to voltage converter. 3,099,799, 7-30-63, Cl. 329—126.

Baicker, Alan. Outdoor barbecue grill-top cleaner with interchangeable head. 3,113,335, 12-10-63, Cl. 15—544.

Baier, Edwin: *See*—
Schultheis, Werner, Schimmelschmidt, Hoffmann, and Baier. 3,098,064.
Schultheis, Werner, Schimmelschmidt, Hoffmann, Baier, and Bode. 3,088,790.
Ulmer, Hans, Karacsonyi, Schimmelschmidt, and Baier. 3,100,673.

Baier, John F.: *See*—
Andresen, John H., Jr. 3,116,047.

Baier, Ludwig S. Ring buoy life preserver. 3,095,586, 7-2-63, Cl. 9—340.

Baier, Richard: *See*—
Phillips, Albert J., and Baier. 3,089,209.

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Baier, Richard, to American Smelting and Refining Co. Pouring mechanism for continuous casting. 3,115,686, 12-31-63, Cl. 22—82.

Baier, Wilhelm, K.G.: *See*—
Rau, Kurt. 3,071,183.

Baigent, Keith H., to R. H. Windsor Ltd. Injection moulding machines. 3,080,610, 3-12-63, Cl. 18—30.

Bailey, Adeline M. Safety control bag for children. 3,093,132, 6-11-63, Cl. 128—134.

Bailey, Arthur R., to Rose Bros. (Gainsborough) Ltd. Packaging apparatus. 3,106,315, 10-8-63, Cl. 221—93.

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Bailey, Charles H., to Shell Oil Co. Lubricating composition. 3,108,964, 10-29-63, Cl. 252—37.2.

Bailey, David Y.: *See*—
Bailey, Edwin M. and D. Y. 3,115,303.

Bailey, Donald, to Sir W. H. Bailey & Co. Ltd. Coin freed mechanisms. 3,081,858, 3-19-63, Cl. 194—102.

Bailey, Donald L., to Union Carbide Corp. Organofunctional siloxanes. 3,112,333, 11-26-63, Cl. 260—448.2.

Bailey, Duward W.: *See*—
Anderson, Bazeel B., Bailey, and Ash. 3,074,982.

Bailey, Edward A.: *See*—
Twitchell, Sherman W., and Bailey. 3,080,796.

Bailey, Edward A., to FMC Corp. Box forming and crimping apparatus. 3,102,456, 9-3-63, Cl. 93—41.1.

Bailey, Edwin M. and D. Y. Heating system. 3,115,303, 12-24-63, Cl. 237—10.

Bailey, Emmett C.: *See*—
Stout, Perry R., Skramstad, Merkle, Bailey, Spangenberg, Rabinow, and Raudenbush. 3,084,340.

Bailey, Ernest J., to Phillips Petroleum Co. Monomer recovery from butadiene/styrene latices by liquid-liquid extraction. 3,084,134, 4-2-63, Cl. 260—29.7.

Bailey, Francis M., to General Electric Co. Pendulum driving and driven single phase motor inertia control device. 3,102,975, 9-3-63, Cl. 318—281.

Bailey, Frederick E., Jr., to Union Carbide Corp. Polymerization of epoxides. 3,085,071, 4-9-63, Cl. 260—2.

Bailey, Frederick E., Jr., to Union Carbide Corp. Molecular association complexes of a urea and poly(ethylene oxide), and mixtures thereof with poly(ethylene oxide). 3,085,081, 4-9-63, Cl. 260—42.

Bailey, Frederick E., Jr., to Union Carbide Corp. Lubricating oil composition of improved viscosity index dispersancy. 3,108,967, 10-29-63, Cl. 252—51.5.

Bailey, Frederick E., Jr., F. N. Hill, and J. T. Fitzpatrick, to Union Carbide Corp. Process for polymerization of vicinal epoxides. 3,100,750, 8-13-63, Cl. 260—2.

Bailey, George G., to Bell Telephone Laboratories, Inc. Electrical drive circuit. 3,089,960, 5-14-63, Cl. 307—43.

Bailey, Herbert F.: *See*—
Nazarow, John P., Bailey, and Brinson. 3,094,774.

Bailey, Jesse. Stopper plunger. 3,109,178, 11-5-63, Cl. 4—256.

Bailey, Lester A.: *See*—
Hall, Jesse E., Sr., and Bailey. 3,071,191.

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Cowlin, Philip. 3,076,100.
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Hoffman, Howard T. 3,077,775.
Hornfeck, Anthony J. 3,071,006.
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Koppel, Harold H. 3,077,552.
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Bailey, Paul C., to United States of America, Navy. Scuttling device. 3,081,466, 3-19-63, Cl. 9—8.

Bailey, Raymond J.: *See*—
Bohon, Giles W. 3,093,363.

Bailey, Roderick F.: *See*—
Woodward, Stephen G., and Bailey. 3,081,952.

Bailey, Romney L. Railroad journal box oiling structure. 3,092,426, 6-4-63, Cl. 308—41.

Bailey, Theodore L. Mattress construction. 3,083,381, 4-2-63, Cl. 5—347.

Bailey, Theodore L. to United States of America, Army. Sealing flaps for garment openings. 3,094,703, 6-25-63, Cl. 2—96.

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Daman, Arthur C. and Bailey. 3,098,818.

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Bailey, Donald. 3,081,858.

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Bailey Wilfred, and H. R. Nilsson, to Svenska Rotor Maskiner Aktiebolag. Rotary compressors. 3,073,514, 1-15-63, Cl. 230—205.

Bailey, William A., to himself and G. B. Sweet. Roof construction. 3,082,576, 3-26-63, Cl. 50—64.

Bailey, William A., Jr., to Shell Oil Co. Extractive distillation. 3,116,224, 12-31-63, Cl. 202—39.5.

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Reid, John B., and Spence. 3,099,026.
Reid, John B., and Spence. 3,105,985.
Reid, John B., and Spence. 3,106,730.
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Reid, John B., and Spence. 3,107,376.

Bain, George W., to International Telephone and Telegraph Corp. System for large-area display of information. 3,090,828, 5-21-63, Cl. 178—6.6.

Bain, Joseph P., and R. L. Webb, to The Glidden Co. Preparation of menthenyl esters and ethers. 3,102,134, 8-27-63, Cl. 260—489.

Bain, Lewis A., Jr., and M. S. Burg, to Western Electric Co., Inc. Method of making electrical circuit boards. 3,079,672, 3-5-63, Cl. 29—155.5.

Bain, Norman D. Collapsible vehicle load bed sides. 3,097,012, 7-9-63, Cl. 296—10.

Bainbridge, William N., T. C. Campbell, and B. O. Heath, to The English Electric Co. Aeroplane undercarriages. 3,083,937, 4-2-63, Cl. 244—102.

Baines, Frederick, and K. J. W. Sheffield, to The Plessey Co. Ltd. Hydraulic accumulators. 3,088,493, 5-7-63, Cl. 138—31.

Baines, Leslie, to Richard Sutcliffe, Ltd. Variable output hydraulic pumps. 3,109,378, 11-5-63, Cl. 103—37.

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Bair, Stanley G., and J. T. Hagy, to The Journapak Corp. Journal lubricating device. 3,080,200, 3-5-63, Cl. 308—243.

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Kern, Walter P., Stoddart, and Williams. 3,085,155.
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Saunderson, Jason L. 3,090,278.

Baird, Calvin C.: *See*—
Baird, James, Jr. and C. C. 3,106,344.

Baird, Cecil. Meat hook rack. 3,076,664, 2-5-63, Cl. 280—47.19.

Baird, Charles E. Mechanical pencil. 3,101,073, 8-20-63, Cl. 120—11.

Baird, Donald R., to General Motors Corp. Semiconductor device. 3,089,067, 5-7-63, Cl. 317—234.

Baird, James, Jr. and C. C., to Industrial Roofing & Sheet Metal, Inc. Hot pitch or asphalt sprayer. 3,106,344, 10-8-63, Cl. 239—130.

Baird, James W. Back-up warning device for vehicles. 3,092,069, 6-4-63, Cl. 116—60.

Baird, Leslie L., to General Electric Co. Electric circuit interrupter. 3,073,936, 1-15-63, Cl. 200—168.

Baird, Leslie L., to General Electric Co. Manual charging means for stored energy closing mechanisms of electric circuit breakers. 3,095,489, 6-25-63, Cl. 200—153.

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Bakan, Joseph A.: *See*—
Brynko, Carl, and Bakan. 3,116,206.

Baker, Alan R., to National Research Development Corp. Apparatus for detecting combustible gases having an electrically conductive member enveloped in a refractory material. 3,092,799, 6-4-63, Cl. 338—34.

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Baker, Alfred L., Jr., to Sun Oil Co. Method of storing petroleum oil. 3,098,702, 7-23-63, Cl. 21—60.5.

Baker, Allen J., to Virginia Metal Products, Inc. Movable partition and panel structure. 3,072,227, 1-8-63, Cl. 189—34.

Baker, Allister L., to Keuffel & Esser Co. Tangent screw. 3,093,904, 6-18-63, Cl. 33—69.

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Boydston, Raymond W., and Baker. 3,071,499.

Baker, Arthur R., and T. F. Hennessy, to The American Hardware Corp. Locks. 3,070,987, 1-1-63, Cl. 70—383.

Baker, Arthur Y.: *See*—
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Baker, Benjamin P.: *See*—
Aspey, Wayne S., and Baker. 3,110,791.
Cromer, Charles F., Sandin, Baker, and Mellon National Bank and Trust Co. 3,095,490.

Baker, Benjamin P., to Westinghouse Electric Corp. Circuit interrupter. 3,082,308, 3-19-63, Cl. 200—147.

Baker, Buford M., to Texas Instruments Inc. Compensated gravity measuring device. 3,076,340, 2-5-63, Cl. 73—382.

Baker, Calvin E., and H. G. Hoffer. Controllably illuminated display device. 3,073,051, 1-15-63, Cl. 40—130.

Baker, Charles A. Hydraulic vane apparatus. 3,109,381, 11-5-63, Cl. 103—120.

Baker, Charles I., to A. M. Castle & Co. Corrosion products removal deaerator. 3,104,163, 9-17-63, Cl. 55—164.

Baker, Charles J. Hydraulic motor. 3,075,355, 1-29-63, Cl. 60—97.

Baker, Charles J., to The Skookum Co., Inc. Cable coupler. 3,100,323, 8-13-63, Cl. 24—123.

Baker, Charles R., and R. S. Paul, to Union Carbide Corp. Process and apparatus for purifying gases. 3,073,093, 1-15-63, Cl. 55—48.

Baker, Daniel S., to Statham Instruments, Inc. Bridge compensation circuits. 3,111,620, 11-19-63, Cl. 323—75.

Baker, David C., to The Bendix Corp. Engine preheater. 3,093,126, 6-11-63, Cl. 123—142.5.

Baker, David C., and R. W. Armstrong, to The Bendix Corp. Igniter. 3,073,121, 1-15-63, Cl. 60—39.82.

Baker, David K., to Baker Perkins Inc. Transfer of articles between moving conveyor means. 3,106,280, 10-8-63, Cl. 198—30.

Baker, Donald B., to Bird Machine Co. Spray nozzle. 3,078,529, 1-15-63, Cl. 239—113.

Baker, Donald R., and C. E. Loetel, to The Marley Co. Method of impregnating the wooden structure of cooling towers to preserve the same. 3,088,845, 5-7-63, Cl. 117—57.

Baker, Edgar B., to The Borden Co. Aqueous alkaline adhesive comprising phenol-formaldehyde condensate and homopolymers of ethylene oxide. 3,074,897, 1–22–63, Cl. 260—29.3.

Baker, Edward S. Minnow bucket. 3,092,926, 6–11–63, Cl. 43—57.

Baker, Elbert H., III, to Gregory Industries. Bicycle brake. 3,110,379, 11–12–63, Cl. 192—6.

Baker, Ellery L., to United Wire & Supply Corp. Gripping device for tube drawing. 3,078,984, 2–26–63, Cl. 205—24.

Baker, Forrest G., to Amedican Air Filter Co., Inc. Centrifugal fan housings. 3,098,603, 7–23–63, Cl. 230—133.

Baker, Francis E., to Union Carbide Corp. Method for forming multiwall bags. 3,106,140, 10–8–63, Cl. 93—35.

Baker, George. Apparatus for producing panoramic and panoramic stereoscopic images. 3,113,484, 12–10–63, Cl. 88—16.6.

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Mann, Victor E., and Baker. 3,106,613.

Baker, George T., C. L. Kettler, and G. P. Sarrafian, to Texas Instruments Inc. Digital computer with simultaneous internal data transfer. 3,074,636, 1–22–63, Cl. 235—157.

Baker, Gerald W., and D. A. Pieper, to Ball Bros. Co., Inc. Capping apparatus and procedure. 3,092,941, 6–11–63, Cl. 53—41.

Baker, Harold W., Jr., to Connersville Casket Co., Inc. Casket closure device. 3,094,346, 6–18–63, Cl. 292—5.

Baker, Harold W., Jr. Rotary motor and pump. 3,114,324, 12–17–63, Cl. 103—140.

Baker, Harris M., to E. I. du Pont de Nemours and Co. Stabilization of allphatic mercury fungicides. 3,090,722, 5–21–63, Cl. 167—42.

Baker, Harry L., and W. O. Maurer; said Maurer assor. to said Baker. Bottle carrier. 3,073,644, 1–15–63, Cl. 294—87.2.

Baker, Hayward R., to United States of America, Navy. Method for salvaging electrical equipment and machinery. 3,078,189, 2–19–63, Cl. 134—26.

Baker, Isaac M., Jr. Exhaust hood. 3,100,809, 8–13–63, Cl. 261—16.

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Baker, Jack D.: *See*—
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Baker, James T.: *See*—
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Baker, John: *See*—
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Baker, John R., to The Timken Roller Bearing Co. Drill bit and method of brazing. 3,077,798, 2–19–63, Cl. 76—108.

Baker, John B., to The Timken Roller Bearing Co. Drill bit. 3,080,009, 3–5–63, Cl. 175—410.

Baker, John R., to Baker Oil Tools, Inc. Slidable latching seal assembly. 3,109,490, 11–5–63, Cl. 166—114.

Baker, John R., and J. D. Kelthahn, to Baker Oil Tools, Inc. Anchors for tubular strings. 3,080,924, 3–12–63, Cl. 166—212.

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Baker, Joseph S., to The Procter & Gamble Co. Process of agglomerating pulverulent flour-containing food mixes. 3,116,150, 12–31–63, Cl. 99—94.

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Baker, Joseph W., P. E. Newallis, and J. P. Chupp, to Monsanto Chemical Co. Phosphinothioates. 3,077,431, 2–12–63, Cl. 167—22.

Baker, Joseph W., and J. P. Chupp, to Monsanto Chemical Co. N-(halogen substituted alkenyl) polyhalobenzamides. 3,077,498, 2–12–63, Cl. 260—558.

Baker, Joseph W., J. P. Chupp, and P. E. Newallis, to Monsanto Chemical Co. Aminobutynyl phosphates. 3,080,273, 3–5–63, Cl. 167—22.

Baker, Joseph W., P. E. Newallis, and J. P. Chupp, to Monsanto Chemical Co. Insecticidal phosphonothioates. 3,082,148, 3–19–63, Cl. 167—30.

Baker, Joseph W., J. P. Chupp, and P. E. Newallis, to Monsanto Chemical Co. O-(halophenyl) phosphonothioates. 3,096,238, 7–2–63, Cl. 167—30.

Baker, Joseph W., and G. A. Saul, to Monsanto Chemical Co. Vinyl phosphates. 3,102,067, 8–27–63, Cl. 167—22.

Baker, Marvin B. Needle control device for circular knitting machines. 3,093,986, 6–18–63, Cl. 66—90.

Baker, Max P., to General Motors Corp. Ball joint. 3,091,486, 5–28–63, Cl. 287—87.

Baker, Melvin L., to Thompson Ramo Wooldridge Inc. Signal detection system. 3,103,009, 9–3–63, Cl. 343—7.1.

Baker, Meredith H. Railroad spike with expanding locking sleeve. 3,091,991, 6–4–63, Cl. 85—23.

Baker, Merton S. Stair layout square. 3,112,568, 12–3–63, Cl. 33—92.

Baker, Mitchell, and E. M. Van Wagner, to Xerox Corp. Method of making printed circuits. 3,075,866, 1–29–63, Cl. 156—13.

Baker Oil Tools, Inc.: *See*—
Althouse, William S., Jr., and Fisher. 3,083,768.
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Baker Oil Tools, Inc.: *See*—Continued
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Clark, Earnest H., Jr. 3,096,825.
Conrad, Martin B. Re. 25,453.
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Crowe, Talmadge L. 3,096,823.
Crowe, Talmadge L. 3,100,537.
Crowe, Talmadge L. 3,102,594.
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Cox, Bradley G. 3,092,575.
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Heide, Henry A., and Wittenberger. 3,101,851.
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Nuttall, John M. 3,099,345.
Petersen, Conrod W., and Heide. 3,099,360.
Petersen, Conrad W., Wittenberger, and St. John. 3,101,475.
Stram, George H. 3,098,610.
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Baker Perkins Ltd.: *See*—
Ferrah, Frederick H. 3,094,860.
Lewis-Smith, Charles P., and Kilduff. 3,071,293.
Morton, David C., and Packman. 3,084,783.
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Baker, Ralph E. Floor guards. 3,108,393, 10–29–63, Cl. 45—137.

Baker, Ralph J. Condensate valve. 3,080,882, 3–12–63, Cl. 137—204.

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Elfving, Thore M., and Baker. 3,075,360.

Baker, Richard D., and B. R. Hayward, to United States of America, Atomic Energy Commission. Method of making alloys of second rare earth series metals. 3,072,475, 1–8–63, Cl. 75—122.7.

Baker, Robert E.: *See*—
Li, John C., and Baker. 3,099,526.
Martin, Paul W., and Baker. 3,072,232.

Baker, Robert F. Safety garment. 3,083,295, 3–26–63, Cl. 240—59.

Baker, Robert G., H. P. Webb, and H. E. Johnson. Automatic dose computer. 3,090,551, 5–21–63, Cl. 235—61.

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Prouty, Robert E., and Baker. 3,108,167.

Baker, Robert L., and R. E. Prouty, to Essex Wire Corp. Thermal timing apparatus. 3,108,166, 10–22–63, Cl. 200—122.

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Baker, Slade H., R. J. Baker, Jr., and Burnight. 3,096,604.

Baker, Ronald D.: *See*—
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Rose, Donald. 3,080,975.
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Baker-Roos, Inc.: *See*—
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Baker, Slade H., R. J. Baker, Jr., and T. R. Burnight. Row crop harvesting apparatus. 3,096,604, 7–9–63, Cl. 56—18.

Baker, Stanley W., to The Bergen Research Eng. Corp. Lift truck. 3,071,270, 1–1–63, Cl. 214—674.

Baker, Stuart C., to Thompson Ramo Wooldridge Inc. Electronic stepping integrator circuit. 3,074,641, 1–22–63, Cl. 235—183.

Baker, Thomas E., Jr.: *See*—
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Baker, Thomas R., and B. S. Posen, to Atlas General Industries, Inc. Vacuum type blank feeding device with positive on/off control. 3,089,698, 5–14–63, Cl. 271—56.

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Compton, Dinsdale M. J., and Baker. 3,104,049.

Baker, Willard C., to Ford Motor Co. Rear axle construction. 3,095,762, 7–2–63, Cl. 74—720.5.

Baker, Willard L.: *See*—
Morgan, Paul E., and Baker. 3,072,913.

Baker, William A. Shirt collar and cuff reinforcement. 3,088,117, 5–7–63, Cl. 2—129.

Baker, William A., A. W. Thompson, F. M. Lane, and J. Poslett, to Bristol Aeroplane Plastics Ltd. Molded railway vehicle bodies. 3,100,458, 8–13–63, Cl. 105—397.

Baker, William A., and A. W. Thompson, to Bristol Aeroplane Plastics Ltd. Pipes. 3,107,698, 10–22–63, Cl. 138—130.

Baker, William E., to Standard-Thomson Corp. Improved heat motor actuator. 3,075,348, 1–29–63, Cl. 60—23.

Baker, William E., to Standard-Thomson Corp. Pressure responsive actuator and method of making the same. 3,078,876, 2–26–63, Cl. 137—788.

Baker, William E., to Standard-Thomson Corp. Thermal responsive actuator. 3,080,756, 3–12–63, Cl. 73—368.3.

Baker, William E., to Standard-Thomson Corp. Pressure device. 3,094,239, 6–18–63, Cl. 220—44.

Baker, William E., to Standard-Thomson Corp. Fluid pressure responsive indicating device. 3,107,808, 10–22–63, Cl. 220—44.

Baker, William E., to Standard-Thompson Corp. Pressure-responsive actuating device. 3,112,382, 1–26–63, Cl. 200—82

Baker, William E., and F. E. Froehlich, to Bell Telephone Laboratories, Inc. Self-synchronizing delay line data translation. 3,107,344, 10–15–63, Cl. 340—173.

Baker, William G. Aligning jig for shingles. 3,110,113, 11–12–63, Cl. 33—188.

Baker, William J.: *See*—
Olds, William L., and Baker. 3,078,052.

Baker, William R.: *See*—
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Baker, William V. Fishing weight. 3,111,784, 11–26–63, Cl. 43—43.14.

Baker, Willis L., to Plastiwall, Inc. Apparatus and method for applying a striped coat of paint to a sheet of material in a single operation. 3,106,480, 10–8–63, Cl. 117—43.

Bakers Pride Oven Co., Inc.: *See*—
Nevin, Ira, and Fader. 3,082,680.

Baklan, John P., to Federal Screw Works. Diamond grinding wheel and compositions therefor. 3,087,803, 4–30–63, Cl. 51—298.

Bakke, Björn K., to A. Knag, A/S. Ventilating window structures. 3,083,799, 4–2–63, Cl. 189—65.

Bakke, George V., to Marquette Corp. Battery chargers. 3,081,426, 3–12–63, Cl. 323—54.

Bakke, William W.: *See*—
Hickner, Richard A., Bakke, and Judd. 3,072,652.

Bakker, Marinus A., to Staatsbedrijf Artillerie-Inrichtingen. Hand guard for rifles. 3,075,314, 1–29–63, Cl. 42—71.

Bakker, Teunis: *See*—
Blekart, Hendrik J. B., Bakker, and Kaasenbrood. 3,114,681.

Bakker, Willem: *See*—
Van Bergeijk, Jan, and Bakker. 3,111,367.

Bakos, Ben J., to The Fire King Co. Ceiling-type automatic fire extinguisher. 3,107,732, 10–22–63, Cl. 169—26.

Baks, Claude, to Societe de Prospection Electrique Procedes Schlumberger. Perforating apparatus. 3,104,611, 9–24–63, Cl. 102—20.

Bal, Francois H. Multi-purpose telescopic support. 3,112,910, 12–3–63, Cl. 248—161.

Balaceanu, Jean-Claude: *See*—
Clement, Genevieve, and Balaceanu. 3,096,376.

Balaceanu, Jean-Claude, and G. Clement, to Institut Francais du Petrole des Carburants et Lubrifiants. Method of rocket propulsion using organic polyperoxides. 3,108,432, 10–29–63, Cl. 60—35.4.

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Kleesattel, Claus, Balamuth, and Kuris. 3,076,904.
Kleesattel, Claus, Balamuth, and Kuris. 3,100,853.
Kleesattel, Claus, Balamuth, and Kuris. 3,113,225.
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Balamuth, Lewis, and A. Kuris, to Cavitron Ultrasonics, Inc. Dental instrument. 3,075,288, 1–29–63, Cl. 32—58.

Balamuth, Lewis, and A. Kuris, to Cavitron Ultrasonics, Inc. Ultrasonically vibrated cutting knives. 3,086,288, 4–23–63, Cl. 30—272.

Balamuth, Lewis, and A. Kuris, to Cavitron Ultrasonics Inc. Ultrasonic seam welding apparatus. 3,088,343, 5–7–63, Cl. 78—82.

Balamuth, Lewis, C. Kleesattel, and A. Kuris, to Cavitron Ultrasonics Inc. Ultrasonic cleaning devices and method of cleaning. 3,089,790, 5–14–63, Cl. 134—1.

Balamuth, Lewis, and A. Kuris, to Cavitron Ultrasonics Inc. Ultrasonic lapping machines. 3,093,937, 6–18–63, Cl. 51—67.

Balas, Jaroslav G., to Shell Oil Co. Polymerization of butadiene with a cobaltous compound-aluminum alkyl-hydrogen halide catalyst. 3,111,510, 11–19–63, Cl. 260—94.3.

Balaskovic, Pierre, to North American Philips Co., Inc. Valve for the projection of digits and characters for counters and computers. 3,082,341, 3–19–63, Cl. 313—70.

Balaz, Charles S.: *See*—
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Balaz, Charles S., to International Postal Supply Corp. Workpiece feed mechanism. 3,074,532, 1–22–63, Cl. 198—34.

Balcom, George A., and R. L. Archbold, to White Sewing Machine Corp. Fiber glass tank. 3,095,993, 7–2–63, Cl. 220—5.

Balcomb, Philip E., and E. J. Beyer, to Martin-Marietta Corp. Means for forming voids in concrete products. 3,074,140, 1–22–63, Cl. 25—128

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Baldeschwiler, Raymond A., and L. F. Sondgeroth. Clamp apparatus for wagon gates and the like. 3,083,848, 4–2–63, Cl. 214—82.

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Schuster, Ludwig K., and Baldi. 3,094,435.
Schuster, Ludwig K., and Baldi. 3,112,231.

Baldi, Eugene J.: *See*—
Reddick, Leonard J., Fort, Baldi, Harmon, and Ziegelbein. 3,113,046.

Balding, George H., to Kaiser Industries Corp. Electronic visual cue generator. 3,093,822, 6–11–63, Cl. 343—11.

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Baldwin, Brian E., to Mfg. Process Laboratories, Inc. Needle package. 3,101,841, 8–27–63, Cl. 206—43.

Baldwin, Brian E., and R. S. Lindenmeyer, to Mfg. Process Laboratories, Inc. Hollow needle. 3,071,135, 1–1–63, Cl. 128—221.

Baldwin, Brian E., and L. J. Marschak, Jr., to Mfg. Process Laboratories. Tube and hub joining method. 3,074,159, 1–22–63, Cl. 29—520.

Baldwin, Brian E., and R. S. Lindenmeyer, to Mfg. Process Laboratories, Inc. Needle. 3,090,384, 5–21–63, Cl. 128—221.

Baldwin, Bryce R., to General Motors Corp. Vibration damping mechanism. 3,080,771, 3–12–63, Cl. 74—574.

Baldwin, Charles A. Snow plow attachment. 3,115,715, 12–31–63, Cl. 37—45.

Baldwin, Francis P.: *See*—
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Lemiszka, Theodore, Baldwin, and Eby. 3,098,055.
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Baldwin, George C., to General Electric Co. Neutron detector. 3,076,895, 2–5–63, Cl. 250—83.1.

Baldwin, George D., to Truck-Lite Co., Inc. Potted truck light. 3,089,951, 5–14–63, Cl. 240—7.1.

Baldwin, George D., to Truck-Lite Co., Inc. Self-activated compartment light. 3,109,597, 11–5–63, Cl. 240—7.1.

Baldwin, Glenn A., T. H. Frame, and A. J. Maletzke, to General Motors Corp. Wheel cover. 3,092,420, 6–4–63, Cl. 301—37.

Baldwin, Herman J.: *See*—
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Baldwin, Howard A., to Arizona Research Foundation, Inc. Fluid amplifier system. 3,078,675, 2–26–63, Cl. 60—52.

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Baldwin, John L., Jr.: *See*—
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Baldwin, John W. Automobile tire washer. 3,108,299, 10–29–63, Cl. 15—21.

Baldwin-Lima-Hamilton Corp.: *See*—
Crankshaw, John H. 3,080,732.
Crankshaw, John H. 3,080,733.
Crankshaw, John H. 3,080,734.
Crankshaw, John H., and Lasley. 3,102,369.
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Kent, Francis J., and Sibler. 3,074,549.
Madsen, Walter M. 3,076,270.
Miller, Kenneth C. 3,108,181.
Nihlen, Arvid C. K., and Gardner. 3,077,928.
Nihlen, Arvid C. K., and Gardner. 3,112,558.
Nihlen, Arvid C. K., and Wallace. 3,100,930.
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Baldwin, Lloyd C.: *See*—
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Baldwin, Louis V., to E. I. du Pont de Nemours and Co. Electrical cable. 3,088,995, 5–7–63, Cl. 174—127.

Baldwin-Montrose Chemical Co. Inc. (Baldwin Division): *See*—
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Baldwin, Paul R. Boat propulsion system. 3,105,454, 10–1–63, Cl. 115—34.

Baldwin, Paul R. Boat propulsion system. 3,105,455, 10–1–63, Cl. 115—37.

Baldwin, Philip S.: *See*—
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Baldwin Piano Co., The: *See*—
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Campbell, Donald J., Elbrecht, and Fritz. 3,106,618.
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Quitter, John P., Corwin, and Lakamp. 3,072,005.
Wayne, William C., Jr. 3,084,585.

Baldwin, Richard H., to Standard Oil Co. Process for production of dimethyl terephthalate. 3,076,019, 1–29–63, Cl. 260—475.

Baldwin, Richard H., and C. A. Spiller, Jr., to Standard Oil Co. Recovery of phthalic acid products. 3,082,250, 3-19-63, Cl. 260—524.

Baldwin, Richard H., C. A. Spiller, Jr., and C. D. Kalfadelis, to Standard Oil Co. Continuous system for oxidizing substituted aromatic hydrocarbons and producing carboxylic acids. 3,092,658, 6-4-63, Cl. 260—524.

Baldwin, Richard H., and P. H. Towle, to Standard Oil Co. Cyclic process for reuse of sulfur dioxide in the purification of aromatic dicarboxylic acids. 3,095,445, 6-25-63, Cl. 260—525.

Baldwin, Richard H., C. A. Spiller, Jr., and C. D. Kalfadelis, to Standard Oil Co. Solvent system for carboxylic acid manufacture. 3,115,520, 12-24-63, Cl. 260—524.

Baldwin, Robert R., J. R. Lowry, J. F. Mezzino, and W. J. Ohan, Jr., to General Foods Corp. Process for treating chocolate and the resulting product. 3,108,874, 10-29-63, Cl. 99—23.

Baldwin, Roger A.: *See*—
Washburn, Robert M., and Baldwin. 3,112,331.

Baldwin, Roger A., R. M. Washburn, and K. R. Ellar, to American Potash & Chemical Corp. Phosphine borane compounds and their preparation. 3,086,055, 4-16-63, Cl. 260—606.5.

Baldwin, Ronald C., to Ingersoll-Rand Co. Method of making holes in the earth. 3,098,041, 7-23-63, Cl. 262—1.

Baldwin, Ronald J., to Otis Elevator Co. Dynamo stator assemblies having resiliently mounted field coils. 3,108,200, 10-22-63, Cl. 310—218.

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Rabinow, Jacob, and Balenger. 3,080,985.

Balenger, John W., to Rabinow Engineering Co. Inc. Keyboard signal generator. 3,104,388, 9-17-63, Cl. 340—345.

Balent, Ralph, to United States of America, Atomic Energy Commission. Moderator elements for uniform power nuclear reactor. 3,081,247, 3-12-63, Cl. 204—193.2.

Bales, Irvin W., to Chipman Chemical Co., Inc. Plant growth control and herbicidal composition and process of using the same. 3,077,392, 2-12-63, Cl. 71—2.4.

Balfe, George T., to Detroit Gasket & Mfg. Co. Metal gaskets. 3,091,472, 5-28-63, Cl. 277—206.

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Balfour, Arthur, & Co. Ltd.: *See*—
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Balfour, Walter, & Co. Inc.: *See*—
Recchione, Dominic A. 3,078,917.

Balgley, Ely: *See*—
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Balinski, Henry A.: *See*—
Allen, Malcolm H., Balinski, Garton, Hubbard, and Olson. 3,101,184.

Balister, Alex V. Lubricating device. 3,094,283, 6-18-63, Cl. 239—393.

Balkin, Mark, and D. G. Turner, to George Angus & Co. Ltd. Textile fibre contacting elements. 3,092,895, 6-11-63, Cl. 29—132.

Balko Inc.: *See*—
Balko, Verlie A., and Gram. 3,077,998.

Balko, Verlie A., and S. R. Gram, to Balko Inc. Boat trailer construction. 3,077,998, 2-19-63, Cl. 214—85.1.

Ball, Arthur F., to Essex Products, Inc. Reinforcing heel insert and heel. 3,106,791, 10-15-63, Cl. 36—34.

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Ball Bros. Co., Inc.: *See*—
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Horn, Robert R. 3,094,045.
Sherer, Abraham L., and Ruzicka. 3,074,836.

Ball Bros. Research Corp.: *See*—
Rosendahl, Gottfried R. 3,080,791.
Rosendahl, Gottfried R. 3,100,817.

Ball, Burton B., to General Electric Co. Method of making a porous material. 3,111,396, 11-19-63, Cl. 25—156.

Ball, Charles F., to Joy Mfg. Co. Mining machine having adjustable head. 3,077,342, 2-12-63, Cl. 262—26.

Ball, Charles F., to Joy Mfg. Co. Twin bore miner. 3,110,482, 11-12-63, Cl. 262—9.

Ball, Constance. Collapsible baby bed unit. 3,071,782, 1-8-63, Cl. 5—97.

Ball, Edwin L., and J. C. Vitucci, to American Cyanamid Co. Manufacture of sterile surgical suture collagen. 3,098,696, 7-23-63, Cl. 18—54.

Ball, Eric: *See*—
Pearson, John, Savage, and Ball. 3,080,625.

Ball, Frank J., and J. B. Doughty, to West Virginia Pulp and paper Co. Fibrous web material impregnated with lignin-containing resin. 3,090,700, 5-21-63, Cl. 117—66.

Ball, Frederick M.: *See*—
Gearhart, William M., and Ball. 3,076,718.

Ball, Jeremy T.: *See*—
Cousino, Walter P., and Ball. 3,109,317.

Ball, John D., C. J. Charske, and W. D. Mounce, to Jersey Production Research Co. Detonation of seismic charges. 3,100,444, 8-13-63, Cl. 102—21.6.

Ball, Joseph L., R. H. Edmonds, and G. F. Ross, to United States of America, Navy. Quick discharge circuit for a magnetron. 3,096,491, 7-2-63, Cl. 331—87.

Ball, Kenneth: *See*—
Grycko, Carl E., and Ball. 3,096,413.

Ball, Kenneth H., to Douglas Aircraft Co., Inc. Sheet metal shrinker. 3,075,068, 1-22-63, Cl. 219—149.

Ball, Mildred S.: *See*—
Ball, Richard N. 3,085,881.

Ball, Richard N., deceased, M. S. Ball, executrix. Method of treating ripe olives. 3,085,881, 4-16-63, Cl. 99—103.

Ball, Thomas M., to Chrysler Corp. Return flow carburetor. 3,078,077, 2-19-63, Cl. 261—36.

Ball, Thomas M., to Chrysler Corp. Return flow carburetor. 3,098,885, 7-23-63, Cl. 261—36.

Ball, Thomas Z., and W. D. Trevorrow, to Atlas Chemical Industries, Inc. Delay compositions for delay electric detonators. 3,111,438, 11-19-63, Cl. 149—37.

Ball, William R., Jr., to Owens-Corning Fiberglas Corp. Acoustical ceiling. 3,104,731, 9-24-63, Cl. 181—33.

Ballance, John J., deceased; by M. G. Ballance, administratrix, to Technical Animations, Inc. Apparatus for projecting selective animated images. 3,104,273, 9-17-63, Cl. 88—65.

Ballance, Mary G.: *See*—
Ballance, John J. 3,104,273.

Ballantyne, Earnest R., to Wayne Chemical Co. Floor cleansing device. 3,108,312, 10-29-63, Cl. 15—525.

Ballantyne, Earnest R., to Wayne Chemical Co. Floor cleansing device. 3,114,922, 12-24-63, Cl. 15—50.

Ballantyne, Earnest R., to Wayne Chemical Co. Floor cleansing device. 3,114,927, 12-24-63, Cl. 15—526.

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Hill, Martha A., and Ballard. 3,110,712.

Ballard, Carlos E.: *See*—
Lebeaux, Jacob M., and Ballard. 3,072,420.

Ballard, Clayton A.: *See*—
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Ballard, Denis G. H., to Courtaulds Ltd. Production of artificial threads. 3,089,749, 5-14-63, Cl. 18—54.

Ballard, Donald H., and A. E. Ellis, to Clayton Dewandre Co. Ltd. Air suspension systems for vehicles. 3,074,709, 1-22-63, Cl. 267—65.

Ballard, Donald H., and A. E. Ellis, to Clayton Dwandre Co. Ltd. Air suspension systems for vehicles. 3,091,257, 5-28-63, Cl. 137—627.5.

Ballard, Edward C., and E. E. Sommers, to E. I. du Pont de Nemours and Co. Fluorinated esters of polycarboxylic acids. 3,096,363, 7-2-63, Cl. 260—468.

Ballard, Henry D.: *See*—
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Ballard, Hyde W., to James Lees and Sons Co. Method and apparatus of tufting pile fabric. 3,091,199, 5-28-63, Cl. 112—79.

Ballard, Hyde W., to James Lees and Sons Co. Method for tufting pile fabrics. 3,095,840, 7-2-63, Cl. 112—79.

Ballard, Hyde W., and J. E. Smith, to James Lees and Sons Co. Method and apparatus for pattern tufting pile fabrics without loop robbing. 3,095,841, 7-2-63, Cl. 112—79.

Ballard, James W., to Systems Research Laboratories, Inc. High temperature pressure sensitive solid state material and device. 3,100,884, 8-13-63, Cl. 338—224.

Ballard, Mary A.: *See*—
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Ballard, Walter W., and R. B. Nelson, to L. R. Nelson Mfg. Co., Inc. Valve controlled variable pattern lawn sprinkler. 3,104,818, 9-24-63, Cl. 239—97.

Ballash, Clarence J., to The Cooper-Bessemer Corp. Marking device. 3,099,186, 7-30-63, Cl. 121—18.

Ballass, John T., and B. J. Freedman, to General Dynamics Corp. Low alloy steel welding wire. 3,115,406, 12-24-63, Cl. 75—124.

Balle, Walter, to Leonh. Herbert Maschinenfabrik, Firma. Tire vulcanising press mould. 3,082,480, 3-26-63, Cl. 18—42.

Ballentine, Earle W. Triboelectric generator. 3,086,131, 4-16-63, Cl. 310—7.

Ballentine, Richard E., and G. E. Saur, to Westinghouse Electric Corp. Scale breaking apparatus for drawn wire. 3,081,524, 3-19-63, Cl. 29—81.

Ballentine, William L., Jr., and J. W. Molden, to United States Steel Corp. Method for making metal panels. 3,082,519, 3-26-63, Cl. 29—447.

Balles, Paul W., Jr., to International Business Machines Corp. Detachable connector. 3,072,876, 1-8-63, Cl. 339—108.

Ballhausen, Carl. Method of and a device for generating high pressures. 3,084,388, 4-9-63, Cl. 18—16.5.

Balli, Heinz, D. Leuchs, M. Hehl, W. Grunwald, and O. Schmidt, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Optically brightened textile materials. 3,082,114, 3-19-63, Cl. 117—33.5.

Ballin, Gene, to Dosamatic Dropper Corp. Liquid dropper assembly. 3,101,751, 8-27-63, Cl. 141—24.

Ballinger, Peter, to California Research Corp. Bis (trimethyllead) sulfide. 3,073,852, 1-15-63, Cl. 260—437.

Ballinger, Peter, to California Research Corp. Trimethyllead methyl sulfide. 3,073,853, 1-15-63, Cl. 260—437.

Ballinger, Peter, to California Research Corp. Trimethyllead methyl thioglycolate. 3,073,854, 1-15-63, Cl. 260—437.

Ballinger, Peter, to California Research Corp. Trialkyllead thioglycolamides. 3,081,325, 3-12-63, Cl. 260—437.

Ballinger, Peter, to California Research Corp. Gasoline containing organometal compound. 3,116,127, 12-31-63, Cl. 44—69.

Ballou, Edward V., R. T. Barth, and R. O. Clark, to Gulf Research & Development Co. Potentiometric process. 3,084,030, 4-2-63, Cl. 23—230.

Ballun, Aloysius T.: *See*—
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Balmer, Clifford E., C. A. Brown, M. D. Hurwitz, and J. E. Masterson, to Rohm & Haas Co. Copolymerization of ethylene with alkyl acrylates or methacrylates. 3,089,897, 5-14-63, Cl. 260—486.

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Balmer, Hansjörg, to Nordberg Mfg. Co. Seal for gyratory crusher or the like. 3,108,756, 10-29-63, Cl. 241—216.

Balogh, Roy O., to McCabe-Powers Body Co. Portable digger. 3,073,397, 1-15-63, Cl. 175—201.

Balogh, Roy O., to McCabe-Powers Body Co. Mobile work platforms. 3,082,842, 3-26-63, Cl. 182—2.

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Landen, Leonard F., and Balogh. 3,079,667.

Balsbaugh, Paul H.: *See*—
Balsbaugh, Vernon L. 3,077,721.

Balsbaugh, Vernon L., to P. H. Balsbaugh. Tree limb shaker. 3,077,721, 2-19-63, Cl. 56—328.

Balsiger, Harold E., to Landis Tool Co. Alternate supporting means for annular workpieces. 3,093,938, 6-18-63, Cl. 51—103.

Balsiger, Harold E., and R. E. Price, to Landis Tool Co. Swivel indicator. 3,109,269, 11-5-63, Cl. 51—240.

Baltayan, Ara M., and J. L. Barker, to Laboratory For Electronics, Inc. Traffic control apparatus. 3,106,695, 10-8-63, Cl. 340—37.

Balteau, Pierre, to Raytheon Co. 3-phase voltage regulators. 3,075,139, 1-22-63, Cl. 323—66.

Balthazor, Bernard E., to Buddy L Corp. Spring suspension for toy vehicle. 3,083,499, 4-2-63, Cl. 46—221.

Balthazor, Bernard E., to Buddy L Corp. Toy vehicle with spring-mounted axle. 3,083,500, 4-2-63, Cl. 46—221.

Balthazor, Bernard E., to Buddy L Corp. Cab and like structure for toy vehicles. 3,083,501, 4-2-63, Cl. 46—223.

Balthazor, Bernard E., to Buddy L Corp. Battery carrier and lamp arrangement for toys. 3,083,502, 4-2-63, Cl. 46—230.

Balthazor, Bernard E., to Buddy L Corp. Front end structure for toy vehicles. 3,107,453, 10-22-63, Cl. 46—221.

Baltimore Aircoil Co., Inc.: *See*—
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Baltimore Instrument Co.: *See*—
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Baltzly, Richard, P. B. Russell, and N. B. Mehta, to Burrougha Wellcome & Co. (U.S.A.) Inc. 1,1-diphenyl-2-tertiary aminomethyl-3-hydroxymethyl-cyclopropanes and esters thereof. 3,093,076, 7-16-63, Cl. 260—294.7.

Bainteau, Jean-Michel, to Societe d'Optique et de Mecanique de Haute Precision. Orthoscopic wide angle objective. Re. 25,497, 12-17-63, Cl. 88—57.

Balwanz, William W., to United States of America, Navy. Electromagnetic energy measurement apparatus and method. 3,081,432, 3-12-63, Cl. 325—67.

Balz, Gunther W. Continuous finishing and polishing machine. 3,071,900, 1-8-63, Cl. 51—163.

Balz, Gunther W., to Roto-Finish Co. Finishing machine with controlled return of finishing media. 3,073,069, 1-15-63, Cl. 51—7.

Balz, Gunther W., to Roto-Finish Co. Self-separating finishing and polishing machine. 3,073,078, 1-15-63, Cl. 51—163.

Balz, Gunther W., to Roto-Finish Co. Self-separating finishing machine. 3,073,079, 1-15-63, Cl. 51—163.

Balz, Gunther W., to Roto-Finish Co. Multi stage Self-separating finishing machine. 3,073,080, 1-15-63, Cl. 51—163.

Balz, Gunther, W., to Roto-Finish Co. Externally opening duct finishing machine. 3,073,081, 1-15-63, Cl. 51—163.

Balz, Gunther W., to Roto-Finish Co. Unidirectional self-separating finishing machine. 3,073,082, 1-15-63, Cl. 51—163.

Balz, Gunther W., to Ransohoff Co. Cleaning and treating machine. 3,074,068, 1-15-63, Cl. 134—69.

Balz, Gunther W. Self-dumping finishing and polishing machine. 3,093,940, 6-18-63, Cl. 51—163.

Balz, Gunther W., to Roto-Finish Co. Differentially internally resilient finishing machine. 3,103,086, 9-10-63, Cl. 51—163.

Balzer, Abram P. Crop cutting, crushing and windrowing device. 3,079,742, 3-5-63, Cl. 56—23.

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Sandberg, John W., and Balzer. 3,095,825.

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Bamber, Cletus F.: *See*—
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Bamberger, Julien G., to Masco Corp. Catamaran type boat. 3,077,851, 2-19-63, Cl. 114—62.

Bambi, Harry J. Rotary apparatus for screening, comminuting and washing. 3,093,325, 6-11-63, Cl. 241—43.

Bame, John L.: *See*—
Sutton, Reid E., and Bame. 3,090,680.

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Martin, Peter, and Bamford. 3,092,964.

Bamford, John W., and W. M. Usry, to Spectrol Electronics Corp. Potentiometer. 3,108,245, 10-22-63, Cl. 338—174.

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Bamford, Rupert C.: *See*—
Bamford, Richard H. and R. C. 3,102,466.

Bamford, William R., to Imperial Chemical Industries Ltd. Esters of diboronic acids. 3,106,573, 10-8-63, Cl. 260—462.

Bammann, Heinrich. Spray head for high-pressure fluids. 3,081,953, 3-19-63, Cl. 239—588.

Ban, Gus: *See*—
Kirkpatrick, James S., and Ban. 3,077,819.

Banal, Michel: *See*—
Delaruelle, Jacques, and Banal. 3,114,920.

Banas, Julian. Covers. 3,072,167, 1-8-63, Cl. 150—52.

Banasiewicz, Henryk, to Fielden Electronics Ltd. Bridge oscillating arrangement utilizing output to vary balance. 3,109,149, 10-29-63, Cl. 331—66.

Bancel, Paul A., to Ingersoll-Rand Co. Infinite stop controlling device for compressors. 3,104,801, 9-24-63, Cl. 230—25.

Banche, Joe, H. D. Vander Putten, and B. E. Gatewood; said Banche and said Vander Putten assors. to North American Aviation, Inc. Antenna reflector construction. 3,105,969, 10-1-63, Cl. 343—915.

Bancroft, Joseph, & Sons Co.: *See*—
McNamara, Robert J. 3,096,559.
Rainard, Leo W., and Shattuck. 3,096,558.
Russo, Carl J., Trifunovic, and Sinski. 3,090,579.
Russo, Carl J., Trifunovic, and Sinski. 3,096,562.
Trifunovic, Alexander L., and Benedek. 3,110,076.

Bancroft Paper Co., Inc.: *See*—
Mouk, George W. 3,111,412.

Bancroft, Walter H., to Burroughs Corp. Voltage sensing control circuit. 3,108,205, 10-22-63, Cl. 317—31.

Bandiroli, Edoardo, to Bergomi Societ per Azioni. Multistage foam generator for extinguishing fires. 3,090,444, 5-21-63, Cl. 169—15.

Banek, Albert A. Grader blade lifting link. 3,103,131, 9-10-63, Cl. 74—583.

Banerian, Gordon, to Aerojet-General Corp. Vibratory pump. 3,077,162, 2-12-63, Cl. 103—159.

Banes, Fred W.: *See*—
Wiese, Herbert K., and Banes. 3,094,556.

Banfield, Reginald H., and A. M. Hilldon, to Laporte Chemicals Ltd. Concentration of hydrogen peroxide. 3,073,755, 1-15-63, Cl. 202—57.

Banford, John A., G. N. Hill, and W. M. Dillard, to Richardson-Merrell Inc. Method of preventing the development of iron deficiency anemia in suckling pigs. 3,105,791, 10-1-63, Cl. 167—53.

Bang, Mogen W., to Liberty Mfg. Corp. Apparatus for tuning a radio frequency. 3,071,742, 1-1-63, Cl. 334—50.

Baniel, Abraham: *See*—
Schachter, Ozjasz, and Baniel. 3,095,459.
Schächter, Ozjasz, and Baniel. 3,107,154.

Banlos, Edward W., to Douglas Aircraft Co., Inc. Fluorescent light dimming system. 3,086,140, 4-16-63, Cl. 315—98.

Banister, William K.: *See*—
Griswold, Frank B., and Banister. 3,102,347.

Bank, Flemming. Swivel mount for windows. 3,099,936, 7-30-63, Cl. 16—163.

Bank of America National Trust and Savings Association: *See*—
Delafontaine, Charles. 3,071,904.

Bank, Thomas A., to The Firestone Tire & Rubber Co. Vehicle suspension. 3,078,085, 2-19-63, Cl. 267—65.

Bank, Thomas A., to The Firestone Tire & Rubber Co. Air spring bellows. 3,078,086, 2-19-63, Cl. 267—65.

Banke, Henry C., to Clarin Mfg. Co. Chair structure. 3,099,479, 7-30-63, Cl. 297—36.

Banker, Gilbert S., to The Upjohn Co. Heat-cured, polymeric, medicinal dosage film coatings containing a polyvinylpyrrolidone copolymer, polyethenoid acid, and polyethylene glycol. 3,097,144, 7-9-63, Cl. 167—82.

Banker, Oscar H., to Fawick Corp. Accessory drive control mechanism. 3,082,647, 3-26-63, Cl. 74—785.

Banker, Oscar H., to Fawick Corp. Valve. 3,095,011, 6-25-63, Cl. 137—625.69.

Banker, Oscar H., to Fawick Corp. Hydraulic system incorporating flow divider valves. 3,101,594, 8-27-63, Cl. 60—52.

Banker, Robert D., P. W. Grounds, and R. A. Cody, to The Procter & Gamble Co. Two phase fast breaking foam pressurized hair waving composition. 3,099,603, 7-30-63, Cl. 167—87.1.

Bankers & Merchants, Inc.: *See*—
Weissman, Samuel M. 3,101,047.

Bankhead, Charles A. Assembled composition printing process. 3,097,594, 7-16-63, Cl. 101—128.4.

Banko, Edward, to L. J. Wing Mfg. Co., Div. of Aero-Flow Dynamics, Inc. Dual purpose door heater discharge. 3,089,403, 5-14-63, Cl. 98—36.

Banks, Arthur A., to Imperial Chemical Industries Ltd. Method of preparing carbon disulfide and hydrogen sulfide. 3,082,069, 3-19-63, Cl. 23—206.

Banks, David D.: *See*—
Hindle, Thomas, and Banks. 3,115,901.

Banks, Eric J.: *See*—
Cooper, Frederick D., Creighton, and Banks. 3,107,490.

Banks, Ethel E. Buttonhole forming member for garments. 3,105,971, 10-8-63, Cl. 2—96.

Banks, George W. Low torque high pressure fluid valve. 3,071,344, 1-1-63, Cl. 251—210.

Banks, George W. Sealing means for spindles of fluid valves. 3,096,096, 7-2-63, Cl. 277—117.

Banks, Merle W., to Lakeside Industries, Inc. Tracing device. 3,104,492, 9-24-63, Cl. 45—131.

Banks, Robert L., to Phillips Petroleum Co. Polymerization of propylene or butenes with VCl_4 catalyst to form liquid polymers. 3,075,026, 1-22-63, Cl. 260—683.15.

Banks, Waldo H., to Draper Corp. Lay motion for looms. 3,097,669, 7-16-63, Cl. 139—190.

Banks, William B.: *See*—
Agnew, Bobby G., and Banks. 3,075,466.

Banks, William B., to Automation Products, Inc. Method of and apparatus for determining physical properties of materials. 3,100,390, 8-13-63, Cl. 73—32.

Banks, William H., and R. C. Poole, to Atlas General Industries, Inc. Folding boxes of the tray type. 3,093,290, 6-11-63, Cl. 229—34.

Banlow, Fred H., to Broan Mfg. Co., Inc. Kitchen range hoods. 3,075,335, 1-29-63, Cl. 55—385.

Banner Co., The: *See*—
Fregeolle, Oscar, and White. 3,115,021.

Banner, Joseph, to Anjac Mfg. Co. Mounting for sliding panels for doorways and the like. 3,090,084, 5-21-63, Cl. 20—19.

Banner, Robert G., J. H. Pierce, and J. T. Chain, to Diamond Alkali Co. Tanning with lignin sulfonic acid-chromium reaction product and fatty acid salts. 3,092,436, 6-4-63, Cl. 8—94.26.

Banner Welder, Inc.: *See*—
Rosenberger, Thomas R. 3,098,147.

Banning, Thomas A., Jr.: *See*—
Clark, Robert A., Jr., Starr, Watson, and Banning. 3,079,085.

Banning, Thomas A., Jr. Instruments for controlling operations to ensure optimum operating conditions. 3,096,469, 7-2-63, Cl. 318—264.

Bannister, Brian: *See*—
Schroeder, William, Lewis, Hoelsema, Eble, and Bannister. 3,079,378.

Bansard, Pierre M. P., P. A. Dujols, and J. R. Perilhou, to North American Philips Co., Inc. Method of passing wire, cable sheath and the like through a wall. 3,091,683, 5-28-63, Cl. 219—85.

Banus, Mario D., to Metal Hydrides Inc. Method for preparing metal compounds. 3,112,989, 12-3-63, Cl. 23—14.

Banzhaf, Donald H., to Harley-Davidson Motor Co. Seat suspension. 3,116,089, 12-31-63, Cl. 297—203.

Banzhaf, John F., III: *See*—
Katzenstein, Henry S., Banzhaf, and Beckerman. 3,110,-801.

Baptist, James N., to W. R. Grace & Co. Isolation of bacteria. 3,072,538, 1-8-63, Cl. 195—101.

Baptist, James N., and F. X. Werber, to W. R. Grace & Co. Molded product containing poly-β-hydroxybutyric acid and method of making. 3,107,172, 10-15-63, Cl. 106—160.

Barabas, Janos, L. Zselyonka, F. Kiss, and A. Libik. Condenser for increasing the resolving power of microscopes using transmitted light. 3,078,764, 2-26-63, Cl. 88—40.

Barabas, John J.: *See*—
Gore, Robert H., and Barabas. 3,093,412.

Barabas, John J., to Castro Convertible Corp. Sofa-bed. 3,107,366, 10-22-63, Cl. 5—53.

Barabutes, Theodore, and A. Kulick, Jr., to Westinghouse electric Corp. Remote metering apparatus. 3,097,351, 7-9-63, Cl. 340—207.

Barach, Alvan L.: *See*—
Johnston, William D., and Barach. 3,077,085.

Barakauskas, Edward J.: *See*—
Rung, Robert D. 3,087,386.

Baral, William J.: *See*—
Ch'in, Norman C.-H., and Baral. 3,108,063.
Young, Billy J., Kelley, and Baral. 3,112,256.

Barall, Karl, W. Wilkenloh, and F. Kuhnapfel, to Rheinstahl Wanheim G.m.b.H. Mining apparatus and advancing means therefor. 3,106,825, 10-15-63, Cl. 61—45.

Baran, John, to Perk-Pak Packing Inc. Package adapted to contain granulated beverage material and method of making the same. 3,083,100, 3-26-63, Cl. 99—77.1.

Baran, John S., to G. D. Searle & Co. 17-alkynylandrosta-4,6-diene-3,17-diols, esters thereof and 19-nor compounds corresponding. 3,096,355, 7-2-63, Cl. 260—397.5.

Baran, John S., to G. D. Searle & Co. 17α(2-carboxyethyl)-androsta-4,6-diene-3β,17β-diol γ-lactone and esters thereof. 3,107,241, 10-15-63, Cl. 260—239.57.

Baranauckas, Charles F., and S. Gelfand, to Hooker Chemical Corp. Preparation of halocarbon having the empirical formula $C_6Cl_4F_{10}$. 3,080,429, 3-5-63, Cl. 260—648.

Baranauckas, Charles F., and J. J. Hodan, to Hooker Chemical Corp. Process for producing tris (2-butoxyethyl) phosphite. 3,101,363, 8-20-63, Cl. 260—461.

Baranski, Stephen: *See*—
Batlha, George X., and Baranski. 3,107,957.

Barasch, Hans P., to Republic Aviation Corp. Photosensitive electronic tracking head. 3,098,933, 7-23-63, Cl. 250—203.

Barassi, Carlo, G. Cappa, and A. Cegnar, to Pirelli S.p.A. Pneumatic tire with separate tread rings. 3,087,526, 4-30-63, Cl. 152—176.

Barassin, Jacques: *See*—
Plot, Paul, and Barassin. 3,098,148.

Baratoff, Paul, and J. Harris, to Korfund Dynamics Corp. Shock isolators. 3,110,464, 11-12-63, Cl. 248—20.

Baratti, Enrico, to Montecatini Societa Generale per l'Industria Mineraria e Chimica. Production of monofilaments obtained from highly viscous alpha-olefin polymers. 3,092,-891, 6-11-63, Cl. 28—82.

Barbacci, Norma L.: *See*—
Feldman, Louis I., Holmlund, and Barbacci. 3,087,864.
Feldman, Louis I., Holmlund, and Barbacci. 3,091,575.

Barbagallo, Charles J.: *See*—
Wyman, Irma N., and Barbagallo. 3,111,224.

Barbaresi, Sara M.: *See*—
Dubliner, Robert, Barbaresi, and Katzman. 3,096,428.

Barbati, Guido J., to United Shoe Machinery Corp. Welt guide for shoe sewing machines. 3,101,684, 8-27-63, Cl. 112—52.

Barbee, Kendall W.: *See*—
Snyder, John L., Barbee, and Legge. 3,081,276.

Barbee, Marion A., to Borg-Warner Corp. Clothes drying apparatus. 3,085,349, 4-16-63, Cl. 34—89.

Barber, Arthur L., Jr.: *See*—
Guglielmo, Richard J., Sr. 3,072,497.

Barber, Billy R., to Duke University. Pipette washing basket. 3,108,705, 10-29-63, Cl. 220—4.

Barber-Colman Co.: *See*—
Bullen, Clark V. 3,102,217.
Kennedy, Walter W. 3,114,505.
Paulson, William A. 3,098,919.
Raddeman, Melvin A. 3,096,101.
Steiner, John E. 3,096,937.
Wienecke, Frederick L. 3,103,056.
Wienecke, Frederick L. 3,103,057.

Barber, Donald R.: *See*—
Cattermole, Kenneth W., and Barber. 3,115,624.

Barber, Donald R., to International Standard Electric Corp. Decoding equipment. 3,094,688, 6-18-63, Cl. 340—174.

Barber, Everett M., to Texaco Inc. Internal combustion engine. 3,094,974, 6-25-63, Cl. 123—32.

Barber, Gene D., to Daystrom, Inc. Blocking oscillator comparator. 3,105,154, 9-24-63, Cl. 307—88.

Barber, Gene D., and B. L. Waddell, to Daystrom, Inc. Magnetic comparator. 3,105,155, 9-24-63, Cl. 307—88.

Barber-Greene Co.: *See*—
Allen, Frank M., Archer, and Shira. 3,096,035.
Lindenmeyer, Carl W. 3,075,732.

Barber, Herbert, to Monsanto Chemical Co. Yarn inspection apparatus. 3,076,251, 2-5-63, Cl. 28—64.

Barber, James C., G. H. Megar, and T. S. Sloan, to Tennessee Valley Authority. Recovery of phosphorus from sludge. 3,084,029, 4-2-63, Cl. 23—223.

Barber, James C., G. H. Megar, and T. S. Sloan, to Tennessee Valley Authority. Recovery of phosphorus from sludge. 3,113,839, 12-10-63, Cl. 23—165.

Barber, Jimmie L. Combined gold separator and amalgamator. 3,103,487, 9-10-63, Cl. 209—42.

Barber Machinery Ltd.: *See*—
Ellett, James R. 3,097,276.
Scribens, Peter. 3,093,215.

Barber, Michael D., ¼ each to C. S. Goodyear and B. G. Nemeroff. Explosive devices for spreading insecticides and the like. 3,110,256, 11-12-63, Cl. 102—7.2.

Barber, S. Morgan, to Barmart. Timing apparatus. 3,082,-301, 3-19-63, Cl. 200—38.

Barber, Theodore C. Kite control apparatus. 3,086,739, 4-23-63, Cl. 244—155.

Barber, Travis L. Garbage storage vault. 3,071,867, 1-8-63, Cl. 34—80.

Barber, William A., to American Cyanamid Co. Method of producing titanium monoxide or titanium carbide. 3,078,-149, 2-19-63, Cl. 23—202.

Barberis, Fortunato F. to General Motors Corp. Torch igniter. 3,090,200, 5-21-63, Cl. 60—39.82.

Barbier, Gilbert, and J. A. Naterop. Heating or cooling systems. 3,072,183, 1-8-63, Cl. 165—55.

Barbieri, Sigiafredo, to Durst S.p.A. Fabbrica Macchine ed Apparecchi Fototecnici. Flash lamp unit. 3,079,490, 2-26-63, Cl. 240—1.3.

Barbknecht, Fred W., and E. J. Gully, to International Harvester Co. Method and apparatus for making notched agricultural disks. 3,083,440, 4-2-63, Cl. 29—14.

Barbour, Charles W., Jr., and H. A. Humiston, to Martin-Marietta Corp. Radar target simulator. 3,110,026, 11-5-63, Cl. 343—17.7.

Barbour Corp.: *See*—
Greene, Percy W. 3,103,024.

Barbour, Fenner S.: *See*—
Worthen, Eugene P., and Barbour. 3,096,256.

Barbour Welting Co.: *See*—
Shea, Francis L. 3,078,601.

Barclay, Gerald M., to Ashland Oil & Refining Co. Process of coagulating carbon black-synthetic rubber latex masterbatches. 3,108,982, 10-29-63, Cl. 260—33.6.

Barclay, Gerald M., to Ashland Oil & Refining Co. Synthetic rubber. 3,108,983, 10-29-63, Cl. 260—33.6.

Barclay, Harry A.: *See*—
Loper, George B., Barclay, and Johnson. 3,075,172.

Barclay, John L., D. J. Hadley, and D. G. Stewart, to The Distillers Co. Ltd. Production of unsaturated aliphatic aldehydes. 3,089,909, 5-14-63, Cl. 260—604.

Barclay, Robert, Jr., and R. P. Kurkjy, to Union Carbide Corp. Organic isocyanate preparation. 3,076,007, 1-29-63, Cl. 260—453.

Barco Mfg. Co., Inc.: *See*—
Packard, George B., and Monigle. 3,113,725.

Barcus, Edward L., to General Motors Corp. Direction signal switch. 3,073,920, 1-15-63, Cl. 200—61.27.

Barcus, Edward L., to General Motors Corp. Direction signal mechanism. 3,073,921, 1-15-63, Cl. 200—61.34.

Barcus, Samuel W., Jr.: *See*—
Cornellson, Boyd, Jones, Lineback, Wolff, Barcus, Horak, and Inc. 3,076,253.

Bard, Donald O., to Chrysler Corp. Hydrodynamic type bearing. 3,115,372, 12-24-63, Cl. 308—9.

Barden Corp., The: *See*—
Mims, Bruce L., and Fitzgerald. 3,097,027.

Barden, John W., to United States of America, Navy. Pressure equalizer for controllable pitch propeller. 3,088,524, 5-7-63, Cl. 170—160.23.

Barden, Wayne A.: *See*—
Bender, Stanley O., and Barden. 3,115,589.

Barden, Wayne A., and S. O. Bender, to CTS Corp. Impulse motor. 3,097,316, 7-9-63, Cl. 310—49.

Barditch, Irving F., and R. G. Hartenstein, to Westinghouse Electric Corp. Inductanceless FM discriminator. 3,086,-175, 4-16-63, Cl. 329—132.

Barditch, Irving F., and W. Freeman, to Westinghouse Electric Corp. Monolithic semiconductor mixer apparatus with positive feedback. 3,107,331, 10-15-63, Cl. 325—451.

Bardowicks, Luise, and K. Haseloff; said Haseloff assor. to said Bardowicks. Method of manufacturing gramophone records carrying visual material. 3,102,730, 9-3-63, Cl. 274—42.

Bardsley, Robert E.: *See*—
Ross, Wilfred T., Bloomster, and Bardsley. 3,102,850.

Bardsley, Robert V., and R. J. Grady, to Huyck Corp. Pickling mechanism for looms. 3,114,396, 12-17-63, Cl. 139—144.

Bardwell, Edward T.: *See*—
Westphal, Walter A., and Bardwell. 3,106,050.

Bardy, Peter J., to General Binding Corp. Mechanism for removing and transporting a group of sheets from the top of a supply stack. 3,083,963, 4-2-63, Cl. 271—43.

Bare, Ira D.: *See*—
Hicks, Duane L. 3,076,651.

Barengoltz, Bernard A., to McGraw-Edison Co. Rotatable insulating bushing. 3,073,891, 1-15-63, Cl. 174—161.

Barengoltz, Bernard A. Mobile electrical transformer substation. 3,116,086, 12-31-63, Cl. 296—28.

Barenholtz, Bernard M., and F. Caplan. Playground apparatus. 3,083,015, 3-26-63, Cl. 272—56.5.

Barényi, Béla, to Daimler-Benz Aktiengesellschaft. Motor vehicle with large loading platform. 3,075,604, 1-29-63, Cl. 180—89.

Barényi, Béla, to Daimler-Benz Aktiengesellschaft. All-purpose motor vehicle. 3,080,189, 3-5-63, Cl. 296—28.

Barényi, Béla, to Daimler-Benz Aktiengesellschaft. Frame construction for motor vehicles. 3,080,190, 3-5-63, Cl. 296—28.

Barényi, Béla, to Daimler-Benz Aktiengesellschaft. Ventilating system for automobiles. 3,080,807, 3-12-63, Cl. 98—2.

Barényi, Béla, to Daimler-Benz Aktiengesellschaft. Windshield wiper arrangement. 3,082,462, 3-26-63, Cl. 15—250.30.

Barényi, Béla, to Daimler-Benz Aktiengesellschaft. Vehicle fender construction. 3,093,392, 6-11-63, Cl. 280—152.

Barényi, Béla, to Daimler-Benz Aktiengesellschaft. Slidable door arrangement in motor vehicles. 3,093,405, 6-11-63, Cl. 296—46.

Barényi, Béla, to Daimler-Benz Aktiengesellschaft. Motor vehicle door construction. 3,093,406, 6-11-63, Cl. 296—46.

Barényi, Béla, to Daimler-Benz Aktiengesellschaft. Automobile body and door construction. 3,097,878, 7-16-63, Cl. 296—28.

Barényi Béla, to Daimler-Benz Aktiengesellschaft. Passenger car with substantially flat top. 3,112,952, 12-3-63, Cl. 296—137.

Barfield, Charles G.: *See*—
Sullivan, Herbert D., Bledsoe, and Barfield. 3,101,963.

Barger, Alice J.: *See*—
Jones, Lyman L. 3,099,238.

Bargdill, Gerald E., and L. G. Penhorwood. Pivoted-cylinders log-turner means for handling logs. 3,105,529, 10-1-63, Cl. 143—99.

Barger, J. Perry, B. F. Love, and J. K. Sparrell, to Alco Products, Inc. Heat exchange means for space vehicles. 3,086,372, 4-23-63, Cl. 62—222.

Bargman, Theodore, Co.: *See*—
Truhon, John A. 3,095,724.

Baricevic, Ferdinand P., and D. E. Cheney, to Reliable Electric Co. Two conductor dead end. 3,089,916, 5-14-63, Cl. 174—79.

Barie, Walter P., Jr., H. B. Fernald, and B. H. Gwynn, to Gulf Research & Development Co. Process for isomerizing secondary alkyl aluminum compounds. 3,116,310, 12-31-63, Cl. 260—448.

Baring-Gould, Sabine L., to Northrop Corp. Gyro stabilization system. 3,071,012, 1-1-63, Cl. 74—5.34.

Baringer, Sylvester. Rungless ladder. 3,075,611, 1-29-63, Cl. 182—134.

Barish Associates, Inc.: *See*—
Barish, David T. 3,073,555.

Barish, Benjamin: *See*—
Lazo, Luis O., and Barish. 3,073,512.
Lazo, Luis R., and Barish. 3,112,096.

Barish, Benjamin J. Holder for soap bar or like article. 3,106,798, 10-15-63, Cl. 45—28.

Barish, David T., to Barish Associates, Inc. Parachutes. 3,073,555, 1-15-63, Cl. 244—145.

Barish, David T. Swivel. 3,104,855, 9-24-63, Cl. 244—142.

Barish, Thomas: *See*—
Grill, Raymond J., and Barish. 3,105,441.

Barkan, Philip, and U. R. Tognella, to General Electric Co. Pressure relief valve for a hydraulic system. 3,114,387, 12-17-63, Cl. 137—494.

Barke, Vladimir N., N. I. Blitstein, I. M. Grlaznov, A. L. Livshits, B. K. Mechetner, S. S. Podlazov, and D. F. Yakhimovich. Ultrasonic abrasive machining apparatus. 3,094,814, 6-25-63, Cl. 51—59.

Barker-Bland, Harry, deceased (by M. C. P. Barker-Bland, administratrix), to G. Klashek. Pyrophoric lighters. 3,089,324, 5-14-63, Cl. 67—7.1.

Barker-Bland, Maria C. P.: *See*—
Barker-Bland, Harry. 3,089,324.

Barker, Charles L., Jr., and W. K. Kern, to United States of America, Air Force. Aircraft rocket launcher. 3,077,-144, 2-12-63, Cl. 89—1.7.

Barker Co., The: *See*—
Barker, Maynard C. 3,105,720.

Barker Engineering Corp.: *See*—
Barker, Virgil D. 3,104,416.

Barker, George E.: *See*—
Kember, Raymond C., and Barker. 3,088,766.

Barker, Harold E., to General Motors Corp. Forming articles by arc plasma spraying. 3,112,539, 12-3-63, Cl. 22—200.

Barker, James R.: *See*—
Munro, William D., Barker, Ellis, and Gibola. 3,083,289.

Barker, Jerry C., and J. W. Anderson. Marine drive. 3,088,296, 5-7-63, Cl. 64—17.

Barker, John L.: *See*—
Baltayan, Ara M., and Barker. 3,106,695.

Barker, John L., to Laboratory For Electronics Inc. Interlinking system for traffic actuated control apparatus. 3,079,587, 2-26-63, Cl. 340—40.

Barker, John L., to Laboratory for Electronics, Inc. Traffic speed deviation computer. 3,082,949, 3-26-63, Cl. 235—151.

Barker, John L., to Laboratory for Electronics, Inc. Electrical monitoring system. 3,107,338, 10-15-63, Cl. 340—41.

Barker, Maynard C., to The Barker Co. Pneumatic conveying system. 3,105,720, 10-1-63, Cl. 302—2.

Barker, Randolph G. Sensitive electric switch. 3,086,093, 4-16-63, Cl. 200—85.

Barker, Ray C. Crankcase vapor recycle system. 3,073,293, 1-15-63, Cl. 123—119.

Barker, Robert N.: *See*—
Ponsness, Lloyd E., and Barker. 3,097,560.

Barker, Robert S.: *See*—
Saffer, Alfred, and Barker. 3,089,906.
Saffer, Alfred, and Barker. 3,089,907.

Barker, Stephen: *See*—
Bennett, Walter, and Barker. 3,081,292.
Heinmiller, Percival M., and Barker. 3,081,120.

Barker, Virgil D., to Barker Engineering Corp. Eyeglass hinges. 3,104,416, 9-24-63, Cl. 16—140.

Barker, William A., to United Shoe Machinery Corp. Shoe leveling machine. 3,076,985, 2-12-63, Cl. 12—35.5.

Barker, William A., to United Shoe Machinery Corp. Machines for applying pressure to shoe bottoms. 3,081,468, 3-19-63, Cl. 12—16.2.

Barker, William E., Jr., to Poly Tech Research, Inc. Apparatus for measuring levels of materials in containers. 3,099,158, 7-30-63, Cl. 73—321.

Barkhuff, Mary S., to Monsanto Chemical Co. Aqueous interpolymer latices comprising fumarates, unsaturated acids and aromatic hydrocarbons. 3,073,791, 1-15-63, Cl. 260—29.6.

Barkis, Edward: *See*—
Hartung, Harold A., and Barkis. 3,108,070.

Barkley, Charles G., and J. R. Beesley, to Atlas Crankshaft Corp. Method and apparatus for heat-treating. 3,101,165, 8-20-63, Cl. 266—4.

Barkley, Charles R., to Lempco Products, Inc. Antifriction bearing construction having orbiting ball arrangement. 3,086,824, 4-23-63, Cl. 308—6.

Barkley & Dexter, Inc.: *See*—
Dexter, Robert G. 3,106,109.

Barkman, David R., to Package Machinery Co. Converting wrapping machines to wrap different size articles. 3,105,-336, 10-1-63, Cl. 53—220.

Barkman, Erik F.: *See*—
Ramirez, Ernest R., and Barkman. 3,079,308.

Barksdale, Mitchell L.: *See*—
Fulkerson, Edward F., and Barksdale. 3,103,200.

Barkstrom, Reynold, to International Harvester Co. Conveyor for corn pickers. 3,075,339, 1-29-63, Cl. 56—98.

Barlet, Clarence D., to Armstrong Cork Co. Method of bonding metal to glass. 3,075,871, 1-29-63, Cl. 156—322.

Barley, Royston P., to No-Sag Spring Co. Devices for securing springs to furniture and other framework. 3,101,-818, 8-27-63, Cl. 189—35.

Barlow, Benjamin W., to The De Havilland Engine Co. Ltd. Uni-directional driving devices. 3,099,339, 7-30-63, Cl. 192—37.

Barlow, Donald A., to H. J. Leak & Co. Ltd. Diaphragm for electro acoustic transducer. 3,111,187, 11-19-63, Cl. 181—32.

Barlow, Edward H.: *See*—
Lengyel, John F., and Barlow. 3,076,973.

Barlow, Edward H., to Scovill Mfg. Co. Dual flushing unit for toilet bowls. 3,086,217, 4–23–63, Cl. 4—41.

Barlow, Lester P., to Bar-Rup Corp. Apparatus for preserving liquids by freezing. 3,111,011, 11–19–63, Cl. 62—341.

Barlow, Norman L., and W. Carash. Hydraulic intermittent traction device. 3,086,518, 4–23–63, Cl. 128—75.

Barlow, Norman M., and E. Melanson, to United-Carr Fastener Corp. Snap fastener members in strip form. 3,083,429, 4–2–63, Cl. 24—208.

Barlow, Raymond S.: *See*—
Phillips, Leonard R., Waeldner, Palmquist, and Barlow. 3,084,711.

Barlow, Sidney D.: *See*—
De Molin, Arrigo V., and Barlow. 3,115,868.

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Lenk, Wilhelm. 3,077,726.
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Lohest, Hans. 3,090,879.
Lohest, Hans, Antrecht, and Becker. 3,075,342.
Lohest, Hans, Schrader, and Weber. 3,090,571.
Schlippers, Heinz. 3,099,860.

Barnard, Clayton H., to Bailey Meter Co. Telemetering control for isolated process. 3,071,970, 1–8–63, Cl. 73—432.

Barnard, Marcellus C., ½ to L. J. Palmer. Table, desk, or the like. 3,113,531, 12–10–63, Cl. 108—115.

Barnard, Therides V. Corn popping machines. 3,085,493, 4–16–63, Cl. 99—238.1.

Barnby, Donald W., to Owens-Illinois Glass Co. Fluid spreader. 3,110,919, 11–19–63, Cl. 15—236.

Barnby, Herbert A., and S. M. Edwards, to Owens-Illinois Glass Co. Method of closing glass containers. 3,098,334, 7–23–63, Cl. 53—42.

Barnes, Annette F. Fitted sheet. 3,111,688, 11–26–63, Cl. 5—334.

Barnes, Brown E., to Hyster Co. Lift truck. Re. 25,432, 8–13–63, Cl. 187—9.

Barnes, Charles H.: *See*—
Grosse, Frank, Barnes. 3,078,479.

Barnes, Charles M.: *See*—
Shutt, Paul B., Larsen, Barnes, and Pullano. 3,077,283.

Barnes, Charles R. and C. R. Geesner, to United States of America, Air Force. Electrical capacitor having a silicon nitride dielectric. 3,095,527, 6–25–63, Cl. 317—258.

Barnes, Charles T.: *See*—
Barnes, Llewellyn T. and C. T. 3,081,071.

Barnes, Charles W.: *See*—
Lytton, Kenneth G., Barnes, and Wise. 3,071,202.

Barnes, David M., and B. R. Wofford, to Owens-Corning Fiberglas Corp. Grooved strand guide. 3,073,538, 1–15–63, Cl. 242—43.2.

Barnes, Douglas H., to Bell Telephone Laboratories, Inc. Traffic measurement apparatus. 3,099,819, 7–30–63, Cl. 340—172.5.

Barnes Engineering Co.: *See*
Asthelmer, Robert W. 3,090,869.
Asthelmer, Robert W., and Merlen. 3,097,298.
Daley, William J. 3,087,377.
De Waard, Russell D., Fisher, and Hvizdak. 3,109,097.
Hall, Richard W. 3,091,154.
Lowenstein, Mark G., and Asthelmer. 3,096,650.
McHenry, Thomas F. 3,091,690.
McHenry, Thomas F. 3,115,030.
McHenry, Thomas F., and Asthelmer. 3,084,253.
Merlen, Monty M. 3,109,943.
Miserocchi, Henry F., and McConnell. 3,105,625.
Murphy, James L. 3,093,742.
Poor, Walter S., and Arck. 3,087,373.
Rudomanski, Andrew C., De Waard, and Wormser. 3,091,693.
Schwarz, Frank. 3,081,399.
Weiss, Morris. 3,094,623.
Wormser, Eric M., De Waard, and Rudomanski. 3,097,300.
Yates, Harold W. 3,095,795.

Barnes, Frank A. Shotgun sight. 3,090,123, 5–21–63, Cl. 33—52.

Barnes, George W., to David Industries. Chassis slide mechanism. 3,092,429, 6–4–63, Cl. 312—333.

Barnes, Gerald L.: *See*—
Pooley, Robert W., and Barnes. 3,098,832.

Barnes, Harry M., W. A. Mitchell, and L. T. Kreuzner, to General Foods Corp. Gasified product. 3,086,370, 4–23–63, Cl. 62—1.

Barnes, Harry T., Sr., ⅙ to I. J. Barnes. Latch. 3,090,643, 5–21–63, Cl. 292—170.

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Krezanoski, Joseph Z. 3,086,647.

Barnes, Ima J.: *See*—
Barnes, Harry T., Sr. 3,090,643.

Barnes, James H. Detachable sidewall trim ring. 3,085,829, 4–16–63, Cl. 301—37.

Barnes, James H. Flexure type tire trim. 3,089,731, 5–14–63, Cl. 301—37.

Barnes, Jocelyn: *See*—
Jarvis, Victor E., and Barnes. 3,087,314.

Barnes, Joseph C. Vertical lift aircraft. 3,071,334, 1–1–63, Cl. 244—23.

Barnes, Joseph T. Flexible-printing-plate securing arrangement. 3,108,538, 10–29–63, Cl. 101—415.1.

Barnes, La Mar P. Removal tool-pin and socket electrical connectors. 3,100,931, 8–20–63, Cl. 29—203.

Barnes, Lawrence T. Gas shielded arc welding apparatus. 3,116,406, 12–31–63, Cl. 219—75.

Barnes, Llewellyn T. and C. T. Fuel charger for an internal combustion engine. 3,081,071, 3–12–63, Cl. 261—30.

Barnes, Llewellyn T. and C. T. Throttle for internal combustion engine. 3,086,554, 4–23–63, Cl. 137—637.3.

Barnes, Llewellyn T. Tuning device with specially shaped capacitor plates. 3,090,021, 5–14–63, Cl. 334—82.

Barnes, Llewellyn T. Drive means for reactance unit. 3,090,243, 5–21–63, Cl. 74—10.85.

Barnes, Llewellyn T. Variable electrical trimmer capacitor. 3,100,856, 8–13–63, Cl. 317—249.

Barnes, Malcolm L., to Norton Infirmary Institute of Research. Apparatus for measuring prothrombin time. 3,106,090, 10–8–63, Cl. 73—53.

Barnes, Marion D., to Monsanto Chemical Co. Method and composition for brightening aluminum. 3,094,489, 6–18–63, Cl. 252—79.2.

Barnes, Paul T., to United States of America, Navy. Liquid propellant tankage. 3,091,923, 6–4–63, Cl. 60—35.6.

Barnes, Paul T., and C. P. Keegel. Propellant supply system for rockets and the like. 3,072,020, 1–8–63, Cl. 89—1.7.

Barnes, Philip C., and S. E. Kay, to Pilkington Bros. Ltd. Process and apparatus for deposition of copper. 3,084,063, 4–2–63, Cl. 117—35.

Barnes, Porter I., Jr., and T. E. Pitts, to Leesona Corp. Package control mechanism for winding machines. 3,081,046, 3–12–63, Cl. 242—36.

Barnes, Ralph G. Paving machine. 3,087,394, 4–30–63, Cl. 94—48.

Barnes, Ralph G. Finishing machine for concrete surfaces. 3,113,494, 12–10–63, Cl. 94—45.

Barnes, Robert C. Tube squeezer. 3,081,001, 3–12–63, Cl. 222—99.

Barnes, Robert K.: *See*—
Hostettler, Fritz, Barnes, and McLaughlin. 3,073,788.

Barnes, Robert K., to Union Carbide Corp. Alkylene oxide adducts of substituted tetrahydropyrans. 3,074,966, 1–22–63, Cl. 260—345.9.

Barnes, Robert L.: *See*—
Wartik, Thomas, and Barnes. 3,080,427.

Barnes, Thomas W. Gyroscope. 3,086,400, 4–23–63, Cl. 74—5.7.

Barnes, W. F.: *See*—
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Barnes, W. F., and John, Co.: *See*—
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Barnes, William A.: *See*—
Zeidler, Reinhold C., and Barnes. 3,071,228.

Barnes, William A. Carton handling device. 3,073,642, 1–15–63, Cl. 294—31.2.

Barnes, William E., and J. Zubaty, to General Motors Corp. Adjustable eccentric drive devices. 3,073,178, 1–15–63, Cl. 74—571.

Barnes, Vernon M., Jr., J. A. Burke, Jr., I. R. King, and R. L. Wolf, to Texaco Experiment Inc. Rocket. 3,114,318, 12–17–63, Cl. 102—34.1.

Barnet, Frederick R., to United States of America, Navy. Jetevator system design. 3,102,390, 9–3–63, Cl. 60—35.55.

Barnet, Fredrick R., and V. I. Milani, to United States of America, Navy. Hydraulic tensile tester for ring structures. 3,111,840, 11–26–63, Cl. 73—89.

Barnett, Edward H.: *See*—
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Lipschutz, Sidney, and Barnett. 3,112,057.

Barnett, Hugh W., and W. T. Force, to Canada Packers Ltd. Continuous process for the preparation of smoked sausage products. 3,113,870, 12–10–63, Cl. 99—109.

Barnett, Irwin, and D. W. Traub. Magnetic kit and related apparatus. 3,077,696, 2–19–63, Cl. 46—16.

Barnett, Jackson H., Jr., and G. H. Jackson, to Reilly Tar & Chemical Co. Primer for plasticized coal tar enamels and method of producing same. 3,080,245, 3–5–63, Cl. 106—278.

Barnett, James E. Shampoo couch and sink combination. 3,110,039, 11–12–63, Cl. 4—159.

Barnett, Stanley D.: *See*—
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Barnette, Stanley R. Method of making cast plastic laminates. 3,072,973, 1–15–63, Cl. 18—59.

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Kihn, Harry, and Barnette. 3,114,047.

Barnette, William E., and H. Kihn, to Radio Corp. of America. Decoder circuits. 3,110,016, 11–5–63, Cl. 340—174.

Barney, Arthur L., to E. I. du Pont de Nemours and Co. Process for producing images, using light sensitive aromatic-1,2-dialdehydes and elements therefor. 3,102,811, 9–3–63, Cl. 96—48.

Barney, Greenlief H., and L. C. Burman, to Engelhard Industries Inc. Composite fuel elements for nuclear reactors. 3,098,024, 7–16–63, Cl. 204—193.2.

Barney, Harold, L., to Bell Telephone Laboratories, Inc. Unitary artificial larynx. 3,072,745, 1–8–63, Cl. 179—1.

Barney, Walter. Surge protection circuit. 3,112,435, 11–26–63, Cl. 323—9.

Barnhard, Dorn. Guide line marker assembly. 3,079,049, 2–26–63, Cl. 222—169.

Barnhart, Carlton L. Automatic coin collector. 3,092,308, 6–4–63, Cl. 232—57.

Barnhart, Carlton L. Automatic coin collector. 3,109,528, 11–5–63, Cl. 194—9.

Barnhart, Carlton L., W. E. Cantrell, and C. A. Clayton, Jr. Automatic coin collector. 3,104,001, 9–17–63, Cl. 194—9.

Barnhart, Harry E., to The Bendix Corp. Electrical connector. 3,112,146, 11–26–63, Cl. 339—30.

Barnhart, Robert E., and F. C. Sawyer, to E. I. du Pont de Nemours and Co. Gelled ammonium nitrate blasting explosive and process. 3,072,509, 1–8–63, Cl. 149—2.

Barnhart, Robert R.: *See*—
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Barning, Fred R.: *See*—
Campbell, Charles, and Barning. 3,092,236.

Barnitz, Richard W., and J. F. McCarthy, to Jones & Laughlin Steel Corp. Continuous mill control means. 3,109,330, 11–5–63, Cl. 80—35.

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Barns, Fred K., and C. H. Wenger, to The B. F. Goodrich Co. Stock shell retaining device. 3,105,648, 10–1–63, Cl. 242—72.1.

Barnstead, John W., to General Electric Co. Welded container with thermoplastic lining and method of making same. 3,115,987, 12–31–63, Cl. 220—64.

Barnstead Still and Sterilizer Co.: *See*—
Smith, Verity C. 3,095,259.

Barnum, Orville G., to Pactor Corp. Shock absorbing axle mount for vehicles. 3,107,907, 10–22–63, Cl. 267—65.

Barogenics, Inc.: *See*—
Gerard, George, and Brayman. 3,080,609.
Gerard, George, and Brayman. 3,091,804.
Gerard, George, and Brayman. 3,103,699.
Gerard, George, and Brayman. 3,105,984.

Baron, Charles. Removable fishing sinker. 3,096,599, 7–9–63, Cl. 43—44.9.

Baron, Frank E., to Vitramon, Inc. Encapsulated assemblies. 3,086,149, 4–16–63, Cl. 317—242.

Baron, George B., and E. W. Sankey, to Universal Marion Corp. Propulsion device of the walker type. 3,078,941, 2–26–63, Cl. 180—8.

Baron Industries: *See*—
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Barone, Bruno J., and W. F. Brill, to Petro-Tex Chemical Corp. Oxidation of methacrolein or acrolein to the corresponding acid and peroxide in the presence of iodine. 3,114,769, 12–17–63, Cl. 260—530.

Barone, Gennaro, to Societa Applicazioni Gomma Antivibranti S.A.G.A. S.p.A. Flexible joint for torque transmission. 3,112,626, 12–3–63, Cl. 64—11.

Baronetzky, Egon O. M., to North American Philips Co., Inc. Getter structure. 3,102,633, 9–3–63, Cl. 206—4.

Baroni, Giorgio. Building construction. 3,090,162, 5–21–63, Cl. 50—52.

Baroud, Carum. Paint can attachment. 3,074,604, 1–22–63, Cl. 222—569.

Barows, Arthur G., and R. F. Zitko, to International Harvester Co. Multiple knife assembly for forage choppers. 3,093,951, 6–18–63, Cl. 56—294.

Bar-Plate Mfg. Co., The: *See*—
Polayes, Jack. 3,091,853.

Barr, Arthur C. and N. K. Nursing nipple. 3,113,569, 12–10–63, Cl. 128—252.

Barr, Bernard J. Electromechanical actuating device. 3,092,208, 6–4–63, Cl. 185—40.

Barr, Courtland H., Jr.: *See*—
Barr, Courtland H., Sr., C. H. Barr., Jr., and J. W. Barr. 3,106,206.

Barr, Courtland H., Sr., C. H. Barr, Jr., and J. W. Barr, to Courtland Laboratories. Blood sample collection apparatus. 3,106,206, 10–8–63, Cl. 128—276.

Barr, Edward J., to McCulloch Corp. Diaphragm pump. 3,104,617, 9–24–63, Cl. 103—150.

Barr, Frank T., and T. A. Reiter, to Esso Research and Engineering Co. Utilization of proton recoil energy in neutron irradiated vapor phase organic reactions. 3,101,307, 8–20–63, Cl. 204—154.2.

Barr, George M., to F. S. Simms & Co. Ltd. Machines for making mop swabs. 3,107,124, 10–15–63, Cl. 300—21.

Barr, Harold R.: *See*—
Jones, Leslie R., and Barr. 3,077,979.

Barr, Harold N., and L. Frank, to Martin-Marietta Corp. Fissionable fuel capsules and method of manufacturing same. 3,091,581, 5–28–63, Cl. 204—193.2.

Barr, Harry S., Jr., E. P. Nagel, and J. Furstenberg, to Pheumafil Corp. Roll clearers. 3,074,121, 1–22–63, Cl. 19—263.

Barr, Irwin R., to Aircraft Armaments, Inc. Method of making ball bearing. 3,089,221, 5–14–63, Cl. 29—148.4.

Barr, Irwin R., and N. J. La Costa, to Aircraft Armaments, Inc. Cartridge actuated device. 3,106,181, 10–8–63, Cl. 89—1.

Barr, James R., to General Electric Co. Pressure relief device. 3,113,172, 12–3–63, Cl. 174—11.

Barr, John W.: *See*—
Barr, Courtland H., Sr., C. H. Barr., Jr., and J. W. Barr. 3,106,206.

Barr, Norma K.: *See*—
Barr, Arthur C. and N. K. 3,113,569.

Barr, Robert A., and C. J. Waechter, to Midland-Ross Corp. Outsert applying apparatus. 3,083,009, 3–26–63, Cl. 270—58.

Barr Rubber Products Co., The: *See*—
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Chupa, John C. 3,112,529.

Barr, Walter L., to Rose Brothers (Gainsborough) Ltd. Wrapping machines. 3,070,930, 1–1–63, Cl. 53—159.

Barraclough, R. W., Ltd.: *See*—
Barraclough, Ronald W. 3,112,588.

Barraclough, Ronald W., ½ to R. W. Barraclough Ltd. Machines for making, filling and sealing containers. 3,112,588, 12–3–63, Cl. 53—187.

Barralon, Jacques, 50% to M. Capron. Educational test apparatus. 3,087,256, 4–30–63, Cl. 35—9.

Barrass, Ernest A.: *See*—
Ure, George R., Benson, and Barrass. 3,084,109.

Barratt, Peter: *See*—
Waters, Ian M., and Barratt. 3,114,799.

Bar-Ray Products, Inc.: *See*—
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Lapof, Ray C. 3,095,797.

Barrett, Donald L., to The Goodyear Tire & Rubber Co. Tire repair unit. 3,080,907, 3–12–63, Cl. 152—367.

Barrett, Fred O.: *See*—
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Barrett, Fred O., and C. G. Goebel, to Emery Industries, Inc. Process for manufacture of phenolated fatty acids. 3,074,983, 1–22–63, Cl. 260—413.

Barrett, Fred O., and C. G. Goebel, to Emery Industries, Inc. Method of producing higher fatty acid polymers. 3,097,220, 7–9–63, Cl. 260—407.

Barrett, George T.: *See*—
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Barrett, George T., and A. H. Ashley, to Sylvania Electric Products Inc. Noise cancellation for magnetic memory devices. 3,112,470, 11–26–63, Cl. 340—174.

Barrett, George T., and T. E. Baker, Jr., to Sylvania Electric Products Inc. Memory systems. 3,115,619, 12–24–63, Cl. 340—174.

Barrett, Hillard E., and E. A. Gallo, to Curtiss-Wright Corp. Variable area nozzle and shroud combination. 3,081,596, 3–19–63, Cl. 60—35.6.

Barrett, Homer D., R. T. Estes, and G. C. Stow, Jr., to Monsanto Chemical Co. Yarn manufacture and products obtained thereby. 3,113,369, 12–10–63, Cl. 28—75.

Barrett, Jasper H., J. C. Wright, and B. B. Cowser, to Union Carbide Corp. Production of a solution of diacetyl peroxide in acetic anhydride. 3,079,443, 2–26–63, Cl. 260—610.

Barrett, Nat A., and N. H. Fuller. Automatic alarm system. 3,111,656, 11–19–63, Cl. 340—215.

Barrett, Rowland M. Golf club. 3,102,726, 9–3–63, Cl. 273—81.2.

Barrett, Terence, D. English, and K. J. Williams, to The United Kingdom Atomic Energy Authority. Viscosity groove type shaft seal. 3,109,658, 11–5–63, Cl. 277—3.

Barrett, Walter R. C., and K. D. Harris, to Lakeshire Products, Inc. Infra-red heating apparatus. 3,108,173, 10–22–63, Cl. 219—35.

Barrett, Wayne T., M. G. Sanchez, and M. C. Vanik, to W. R. Grace & Co. Stable silica-clad thoria sols and their preparation. 3,097,175, 7–9–63, Cl. 252—313.

Barrow, James E. Leg structure for metal tables and the like. 3,096,791, 7–9–63, Cl. 138—151.

Barrett, Wesley H., to Dowty Mining Equipment Ltd. Pushing devices for mine conveyors. 3,084,920, 4–9–63, Cl. 262—1.

Barrett, William A., to W. P. Evans & Sons Ltd. Belt for suction boxes. 3,115,439, 12–24–63, Cl. 162—367.

Barrett, William H., and J. C. Hart, to Minnesota and Ontario Paper Co. Method of treating coated fiberboard. 3,092,508, 6–4–63, Cl. 117—8.

Barrez, Lucien, to Societe Anonyme dite Societe Normande de Carton Ondule. Package or carton. 3,077,294, 2–12–63, Cl. 229—6.

Barricks, Joseph B., 5% to M. Zerin, and 95% to R. L. Lowell. Sound emitting device. 3,095,669, 7–2–63, Cl. 46—179.

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Carles, Alonza C. 3,077,129.

Barrie, Robert B. Amphibious vehicle. 3,097,372, 7–16–63, Cl. 9—1.

Barringer, Anthony R., and S. Kagan, to Barringer Research Ltd. Method and apparatus for the measurement of magnetic fields. 3,098,197, 7–16–63, Cl. 324—.5.

Barringer, Anthony R., to Selco Exploration Co. Ltd. Method and apparatus for the remote detection of ore bodies utilizing pulses of short duration to induce transient polarization in the ore bodies. 3,105,934, 10–1–63, Cl. 324—4.

Barringer, Anthony R., to Barringer Research Ltd. Mounting system for the isolation of rotational vibrations. 3,115,326, 12–24–63, Cl. 248—358.

Barringer, Charles M., to E. I. du Pont de Nemours and Co. Polyurethane cellular materials. 3,080,329, 3–5–63, Cl. 260—2.5.

Barringer, Mary T.: *See*—
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Barrington, Leonard F.: *See*—
Blades, Charles E., and Barrington. 3,074,912.

Barrocro, Louis F. Refrigerating shelf structure. 3,090,211, 5–21–63, Cl. 62—256.

Barroll, Alfred E., and K. H. Kretzschmar, to Socony Mobil Oil Co., Inc. Satellite gathering system. 3,095,889, 7–2–63, Cl. 137—14.

Barron, Archie N.: *See*—
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Barron, Lee H. Portable hole cutting wire-saw machine. 3,093,021, 6–11–63, Cl. 83—201.

Barrot, Paul M. E., and C. Y. L. Lemardeley, to Babbitless. Means for suspending the shafts of gyratory crushers. 3,107,868, 10–22–63, Cl. 241—211.

Barrows, Roger O.: *See*—
Schraber, Henry A., and Barrows. 3,091,403.

Bar-Rup Corp.: *See*—
Barlow, Lester P. 3,111,011.

Barrus, Donald M., to North American Aviation, Inc. Ball latch and drive mechanism. 3,074,577, 1–22–63, Cl. 214—658.

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Barry, Adelbert, and W. D. Mounce, to Jersey Production Research Co. Apparatus for drill stem testing. 3,107,729, 10–22–63, Cl. 166—66.

Barry, David T., to United States of America, Navy. Quick acting gate for voltage or current discharge. 3,100,269, 8–6–63, Cl. 307—88.5.

Barry, John K., to South Chester Corp. Press insert having angular knurlings. 3,079,970, 3–5–63, Cl. 151—41.73.

Barry, John P., and H. Schneiderman, to Aerojet-General Corp. Method of propulsion employing catalyzed nitroalkane-alkylene oxide composition. 3,098,350, 7–23–63, Cl. 60—35.4.

Barry, Leonard D. Flux diverter. 3,072,750, 1–8–63, Cl. 179—100.2.

Barry, Leonard D., to Ampex Corp. Tape recorder. 3,099,709, 7–30–63, Cl. 178—6.6.

Barry, Leonard D. Magnetic recording and reproducing. 3,110,764, 11–12–63, Cl. 178—6.6.

Barry, Louis A., and R. P. Considine. Vehicle tire spray shield. 3,088,751, 5–7–63, Cl. 280—154.5.

Barry, Raymond L., and W. W. Richardson, to International Minerals & Chemical Corp. Production of potassium fluosilicate. 3,082,061, 3–19–63, Cl. 23—88.

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Barry, Sydney E., to Shawinigan Chemicals Ltd. Purification of phenol. 3,102,149, 8–27–63, Cl. 260—621.

Barry, Thomas J., and W. Burke, to Ether Ltd. Means for controlling the temperature, pressure, or rate of flow of a fluid, or for other analogous purposes. 3,076,926, 2–5–63, Cl. 323—64.

Barry-Wehmiller Machinery Co.: *See*—
Husome, Robert G. 3,115,970
Nekola, William J., and Henigman. 3,111,131.

Barry Wright Corp.: *See*—
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Barsel, Norman, to Chem Research Co. 7-halogenated adrenochrome derivatives. 3,098,858, 7–23–63, Cl. 260—295.

Bart, Abraham: *See*—
Gex, Virgil E., and Bart. 3,107,702.

Barta, Henry J., to S & C Electric Co. Fuse construction for operation by an auxiliary circuit interrupter. 3,094,597, 6–18–63, Cl. 200—114.

Barta, Henry R.: *See*—
Woos, John P., and Barta. 3,080,642.

Bartel, Walter A. Double implement drawbar. 3,112,124, 11–26–63, Cl. 280—412.

Bartels, Albert H.: *See*—
Vaughn, Frank R. 3,090,558.

Bartels, Erich, to Rheinmetall, G.m.b.H., Firma. Repeater-type cocking firing mechanism for guns. 3,095,781, 7–2–63, Cl. 89—27.

Bartels, Erich, to Rheinmetall, G.m.b.H., Firma. Gun with cartridge magazine or propellant charge magazine. 3,099,937, 8–6–63, Cl. 89—24.

Bartels, Henning G. Fluid moving apparatus. 3,073,248, 1–15–63, Cl. 103—87.

Bartelt, Dietrich, to Mannesmann Aktiengesellschaft. Apparatus for classifying particulate material. 3,082,873, 3–26–63, Cl. 209—491.

Bartelt Engineering Co., Inc.: *See*—
Boston, William T., and Johnson. 3,114,643.
Frank, Carl A. 3,107,793.
Mahaffy, Reid A., and Harder. 3,093,206.

Barter Laboratories, Inc.: *See*—
Taylor, Olin C. 3,096,915.

Barter, LeRoy D., to Beckman Instruments, Inc. Transistorized voltage regulator. 3,116,447, 12–31–63, Cl. 323—22.

Barth, Bruce P., to Union Carbide Corp. Punk resistant, powdered binder compositions comprising a phenolic novolac and a polymeric condensation product of an alkyl ether of dimethylol urea, and mineral fibers bonded therewith. 3,076,780, 2–5–63, Cl. 260—45.1.

Barth, Bruce P., and A. K. Ingberman, to Union Carbide Corp. Punk resistant, water-dilutable binder compositions comprising a phenolic resole and a polymeric condensation product of an alkyl ether of dimethyl urea, and mineral fibers bonded therewith. 3,072,595, 1–8–63, 260—45.1.

Barth, Elmer J., and C. J. Gustafsson, to Dana Corp. Double countershaft, multispeed transmission. Re. 25,458, 10–8–63, Cl. 74—331.

Barth, Gilbert R.: *See*—
Lombard, Sherman O., and Barth. 3,072,415.

Barth, Harry J., and P. T. Gay, to International Latex Corp. Coated rubber articles and method of producing same. 3,098,755, 7–23–63, Cl. 117—33.

Barth, Jacques, and E. Roche, to Societe Generale de Constructions Electriques & Mecaniques (Alsthom). 3,072,555, 1–8–63, Cl. 204—193.2.

Barth, John W., to Jacobsen Mfg. Co. Reel type lawn mower with catcher. 3,100,372, 8–13–63, Cl. 56—199.

Barth, John W., to Jacobsen Mfg. Co. Reel type lawn mower with catcher. 3,110,147, 11–12–63, Cl. 56—199.

Barth, Ralph T.: *See*—
Ballou, Edward V., Barth, and Clark. 3,084,030.

Barthell, Eduard, H.-D. Schmidt-Neuhaus, and F. Hilgers, to Chemische Fabrik Stockhausen & Cie. Process for the production of elements made of hydrated cellulose. 3,114,592, 12–17–63, Cl. 18—54.

Bartholomaus, Werner, to Kämper-Morton G.m.b.H. Axial piston engines. 3,092,034, 6–4–63, Cl. 103—162.

Bartholomaus, Werner J.: *See*—
Kamps, Reinhold G., and Bartholomaus. 3,073,252.

Bartholome, Ernst: *See*—
Nonnenmacher, Helmut, and Bartholome. 3,090,684.

Bartholome, Ernst, H. Nonnenmacher, and O. Frey, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Conversion of gaseous hydrocarbons into carbon monoxide and hydrogen. 3,090,682, 5–21–63, Cl. 48—196.

Bartholomew, Domenic L., to Trancoa Chemical Corp. Sulfur dioxide producing composition and method of using same. 3,105,790, 10–1–63, Cl. 167—53.

Bartholomew, Jerry S., to The Cincinnati Milling Machine Co. Centerless grinding machine. 3,094,817, 6–25–63, Cl. 51—103.

Barth-Wehrenalp, Gerhard, and D. M. Gardner, to Pennsalt Chemicals Corp. Novel monopropellant. 3,113,895, 12–10–63, Cl. 149—109.

Barti, Herbert: *See*—
Schellenberg, Wolf-Dietrich, Kramer, Barti, and Hofer. 3,080,346.

Bartkus, Edward A.: *See*—
Neuworth, Martin B., Hotelling, and Bartkus. 3,084,198.

Bartkus, Marjorie M.: *See*—
Harling, Walter J. 3,076,646.

Barti, Herbert, and J. Peter, to Farbenfabriken Bayer Aktiengesellschaft. Process comprising heating a mixture of an ethylene-vinyl acetate copolymer, catalyst and a cross-linking monomer. 3,111,500, 11–19–63, Cl. 260—41.

Barti, Herbert, and H. Scheurlen, to Farbenfabriken Bayer Aktiengesellschaft. Shrinkage foils produced from ethylene-vinylester-copolymers. 3,114,736, 12–17–63, Cl. 260—87.3.

Barti, Herbert, and W. Becker, to Farbenfabriken Bayer Aktiengesellschaft. Process for the manufacture of copolymers. 3,115,485, 12–24–63, Cl. 260—87.3.

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Jellinek, Karl, Hegedüs, Ulmer, and Barti. 3,097,908.

Barti, Hugo, and E. Feess, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning. Process for printing of textile material. 3,094,369, 6–18–63, Cl. 8—65.

Barti, Hugo, and E. Feess, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning. Process for producing white or color resists on dyeings with vat dyestuffs on native or regenerated cellulose. 3,097,045, 7–9–63, Cl. 8—65.

Bartlett, Allen R., to Mosier Harbor Metal Products Corp. Lock for sliding doors. 3,115,763, 12–31–63, Cl. 70—100.

Bartlett, George A., to Howe Richardson Scale Co. Automatic lock-out switch. 3,098,536, 7–23–63, Cl. 177—12.

Bartlett, Jeffrey H.: *See*—
Kirshenbaum, Isidor, Bartlett, and Hill. 3,082,192.
Lippincott, Samuel B., and Bartlett. 3,089,904.

Bartlett, John P. Frame support structures. 3,080,875, 3–12–63, Cl. 135—1.

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Bartlett, Norman. 3,101,943.
Bartlett, Norman. 3,116,060.

Bartlett, Merrill F., to Ciba Corp. Novel 12 H-indolo [2,3-b] indazolo [5,4-b] quinolizine compounds. 3,076,811, 2–5–63, Cl. 260—288.

Bartlett, Norman, ½ to M. Bartlett. Amusement ride. 3,101,943, 8–27–63, Cl. 272—36.

Bartlett, Norman, ½ to M. Bartlett. Amusement ride. 3,116,060, 12–31–63, Cl. 272—34.

Bartlett, Philip L., and G. Etzel, to E. I. du Pont de Nemours and Co. Liquid hydrocarbon fuels containing metal complexes of betaines as antistatic agents. 3,116,125, 12–31–63, Cl. 44—68.

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Bartlett, Ronald S., G. O. Michaels, and O. H. Thomas, to Sinclair Research, Inc. Isomerization of aromatic in the presence of an alumina-platinum-boria catalyst. 3,079,447, 2–26–63, Cl. 260—668.

Bartlett, Ronald S., G. O. Michaels, and O. H. Thomas, to Sinclair Research, Inc. Process for the isomerization of alkyl benzenes. 3,113,979, 12–10–63, Cl. 260—668.

Bartlett, Roscoe G., Jr. Respiratory apparatus. 3,099,987, 8–6–63, Cl. 128—142.

Bartlett, Roscoe G., Jr. Respiratory apparatus. 3,100,485, 8–13–63, Cl. 128—142.

Bartlett, Roscoe G., Jr. Respiratory apparatus. 3,102,537, 9–3–63, Cl. 128—142.

Bartlett, Thomas S., to International Resistance Co. Tensioner. 3,101,912, 8–27–63, Cl. 242—54.

Bartley, Leo S., to Bartley Mfg. Co., Inc. Wire stripping tool. 3,108,505, 10–29–63, Cl. 81—9.5.

Bartley Mfg. Co., Inc.: *See*—
Bartley, Leo S. 3,108,505.

Bartling, James T., O. J. Saholt, and B. Smith, to United States of America, Navy. Rocket assisted torpedo. 3,088,403, 5–7–63, Cl. 102—7.

Bartmann, Rüdiger J. W. G., to Beteiligungs-und Patentverwaltungsgesellschaft mit beschrankter Haftung. Heating arrangement. 3,116,054, 12–31–63, Cl. 263—32.

Barto, Ivan J. Table and bench assembly. 3,100,127, 8–6–63, Cl. 297—157.

Bartocha, Bodo K. W., to United States of America, Navy. Method for the preparation of vinyl-alkali metal compounds. 3,098,881, 7–23–63, Cl. 260—665.

Bartocha, Bodo K. W. New vinyl compounds and methods for their preparation. 3,100,217, 8–6–63, Cl. 260—448.

Bartok, William: *See*—
Heath, Carl E., and Bartok. 3,086,995.

Bartok, William, and P. J. Lucchesi, to Esso Research and Engineering Co. Radiolytic oxidation of hydrocarbons. 3,099,613, 7–30–63, Cl. 204—162.

Bartolat, Albert F. Rotating guide boring bar. 3,094,014, 6–18–63, Cl. 77—3.

Bartoli, Camillo. Derrick devices for lifting the goods on the ships. 3,084,807, 4–9–63, Cl. 212—58.

Bartolini Salimbeni. Method and apparatus for electrically logging earth formations by sensing the redox potential arising in a mud filled borehole. 3,098,198, 7–16–63, Cl. 324—1.

Bartolucci, Edgar O., to Lane Display Corp. Dump bin. 3,089,632, 5–14–63, Cl. 229—37.

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Barton, David W., and J. R. Elwell, to Ford Motor Co. Power steering mechanism. 3,103,986, 9–17–63, Cl. 180—79.2.

Barton, Donald E., to American Seal-Kap Corp. of Delaware. Journal stop. 3,109,683, 11–5–63, Cl. 308—40.

Barton, Hugh M., Jr., and R. Q. Gregg, to Phillips Petroleum Co. Nephelometer and control system. 3,078,756, 2–26–63, Cl. 88—14.

Barton Instrument Corp.: *See*—
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Barton, Lloyd H., to Weldotron Corp. Heater. 3,116,394, 12–31–63, Cl. 219—19.

Barton, Loy E., to Radio Corp. of America. Thermometer. 3,076,339, 2–5–63, Cl. 73—362.

Barton, Loy E., to Radio Corp. of America. Thermometers. 3,092,998, 6–11–63, Cl. 73—362.

Barton, Loy E., to Radio Corp. of America. Phase-shifted double-sideband two-channel A.M. communications system. 3,102,167, 8–27–63, Cl. 179—15.

Barton, Raymond W., and E. G. Swenson, to Don Baxter, Inc. Blood container. 3,105,613, 10–1–63, Cl. 222—81.

Barton, Russell L. Dispenser for collapsible tube contained products. 3,074,598, 1–22–63, Cl. 222—100.

Barton, Stanley, to The Procter & Gamble Co. Food product. 3,102,820, 9–3–63, Cl. 99—204.

Barton, Stanley, to The Procter & Gamble Co. Simulative fruit granules and method for preparing same. 3,105,766, 10–1–63, Cl. 99—204.

Bartoo, George O. Self-sealing washer reservoir. 3,108,719, 10–29–63, Cl. 222—180.

Bartosz, Frank J.: *See*—
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Bartz, Raymond F., H. M. Helland, and C. J. Vincent, to Lockport Felt Co., Inc. Papermaker's felt. 3,086,276, 4–23–63, Cl. 28—79.

Baruch, Jordan J., and B. G. Watters, to Bolt Beranek and Newman, Inc. Acoustic absorber. 3,087,572, 4–30–63, Cl. 181—33.

Baruch, Jordan J., and B. G. Watters, to Bolt Beranek and Newman, Inc. Acoustic construction unit. 3,087,575, 4–30–63, Cl. 181—33.

Baruh, Bradford G. Bottle with non-refilling liquid dispenser. 3,109,546, 11–5–63, Cl. 215—21.

Barusch, Maurice R., to California Research Corp. Engine starting fluid. 3,108,864, 10–29–63, Cl. 44—53.

Barvin, William R. Cap for containers. 3,115,979, 12–31–63, Cl. 215—9.

Barzano, Piero. Method and apparatus for packaging articles. 3,103,773, 9–17–63, Cl. 53—392.

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Baschet, François. Musical instrument. 3,084,587, 4–9–63, Cl. 84—402.

Baschet, Francois P. M. Compound musical instrument. 3,101,022, 8–20–63, Cl. 84—404.

Bascom, Carlton H.: *See*—
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Basebe, Arthur C., and H. A. Clements, to S.S.S. Gears Ltd. Rotary synchronous clutches. 3,093,226, 6–11–63, Cl. 192—67.

Baselt, Frederick C., to American Can Co. Coffee package. 3,077,409, 2–12–63, Cl. 99—152.

Basford, Kenneth A., to Rolls-Royce Ltd. Control linkage arrangement for gas turbine engine fuel system. 3,103,829, 9–17–63, Cl. 74—479.

Basford, Kenneth A., and T. J. Panton, to Rolls-Royce Ltd. Hydro-mechanical governor. 3,095,030, 6–25–63, Cl. 121—43.

Basham, Cloyed S. Cutting attachment for use with a moldboard. 3,084,727, 4–9–63, Cl. 144—34.

Basham, Raymond B., and F. F. Gross. Liquid volume measuring devices. 3,102,424, 9–3–63, Cl. 73—202.

Bashaw, Robert N., and B. G. Harper, to The Dow Chemical Co. Insoluble polyacrylic acid salts and method of preparing the same. 3,090,736, 5–21–63, Cl. 204—154.

Bashe, Jerome T., to Robbins Aviation, Inc. Solenoid actuated fluid valve. 3,107,893, 10–22–63, Cl. 251—86.

Bashor, Nelson P., and J. W. Appelgren, to W. F. and John Barnes Co. Bridge circuit control means with ganged switches effecting leakage compensation. 3,091,704, 5–28–63, Cl. 307—88.5.

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Basic Motor Developments, Inc.: *See*—
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Bassett, Albert. 3,104,768.
Hauck, Aloysius J. 3,090,040.
Krezek, Donald. 3,089,965.
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Basile, Gene E.: *See*—
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Basile, Rocco F., to The Kent Mfg. Co. Conductor cable stripping tool. 3,102,444, 9–3–63, Cl. 81—9.5.

Basilevsky, Alexis G., to Electrochemical Processes, Inc. Electrochemical process and apparatus with purification of mercury. 3,091,579, 5–28–63, Cl. 204—99.

Baskerville, Ralph J., to General Electric Co. Ratchet mechanism for charging a closing spring in an electric circuit breaker. 3,084,238, 4–2–63, Cl. 200—153.

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Lee, Robert H. 3,089,076.

Bass Bros. Enterprises, Inc.: *See*—
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Bass, Harold E., to General Dynamics Corp. Valve. 3,100,499, 8–13–63, Cl. 137—246.22.

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Basseches, Jacob T.: *See*—
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Bassett, Albert, to Basic Products Corp. Transfer mechanism. 3,104,767, 9–24–63, Cl. 214—23.

Bassett, Albert, to Basic Products Corp. Transfer apparatus. 3,104,768, 9–24–63, Cl. 214—23.

Bassett, Alton H., to Johnson & Johnson. Sanitary napkins and methods of making the same. 3,095,878, 7–2–63, Cl. 128—290.

Bassett, Charles R. Hydraulically actuated disc brake assembly. 3,108,658, 10–29–63, Cl. 188—72.

Bassett, John B., to Standard Research Consultants, Inc. Paging and alarm system. 3,113,270, 12–3–63, Cl. 325—55.

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Bassett, William E. Nail clipper. 3,093,147, 6-11-63, Cl. 132—75.5.

Bassi, Alberto, C. Corsetti, F. Mantega, and G. Perona, to Centro Informazioni Studi Esperienze S.r.l. System and universal apparatus for the complete preparing of metallographic samples. 3,102,090, 8-27-63, Cl. 204—217.

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Bassin, Charles S. Adjustable golf club. 3,096,982, 7-9-63, Cl. 273—80.1.

Bassin, Charles S. Garment hanger. 3,115,286, 12-24-63, Cl. 223—96.

Bassist, Rudolph G. Knitting machine provided with independently adjustable thread-guide element. 3,074,259, 1-22-63, Cl. 66—84.

Bassler, Gerald C., and A. F. Stang, to Armour & Co. Method of preparing long chain alkyl chlorides. 3,076,044, 1-29-63, Cl. 260—652.

Basso, John E., to The Buehler Corp. Gate positioner. 3,070,954, 1-1-63, Cl. 60—35.5.

Basso, John E., to The Buehler Corp. Direction control for jet boat. 3,071,101, 1-1-63, Cl. 115—12.

Bassoff, Arthur B., to National Broach & Machine Co. Method for trimming a gear honing tool. 3,072,116, 1-8-63, Cl. 125—11.

Bassoff, Arthur B., to National Broach & Machine Co. High production gear grinder. 3,110,132, 11-12-63, Cl. 51—95.

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Billington, Evans R. 3,095,899.
Hanson, Herbert G., and Poethig. 3,094,849.
Norway, Harold L. 3,090,518.
St. Clair, Theodore A. 3,090,402.

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Bastle, Paul. Fish pole holder. 3,089,674, 5-14-63, Cl. 248—40.

Bastow, Donald, to Birfield Engineering Ltd. Universal joints. 3,106,076, 10-8-63, Cl. 64—17.

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Bataille, Claude, to Societe a responsabilite limitee dite Ateliers de Poclain-Bataille & Fils. Hydraulic engine. 3,092,085, 6-4-63, Cl. 121—61.

Batcha, Emil. Sign bracket. 3,115,325, 12-24-63, Cl. 248—204.

Batchelder, Charles F., and J. A. Rubico, to Batchelder Rubico, Inc. Quarter-gauging shoe last and height gauge. 3,110,915, 11-19-63, Cl. 12—141.

Batchelder, John M. Disk computer. 3,092,717, 6-4-63, Cl. 235—61.5.

Batchelder, Laurence, to United States of America, Navy. Navigation system with electroacoustic leader cables. 3,089,117, 5-7-63, Cl. 340—4.

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Batcheller, Frederick A., to Permia Tubes Ltd. Method of producing a seismograph drillhole casing. 3,087,241, 4-30-63, Cl. 29—529.

Batcheller, Hugh W., to Kent Mfg. Corp. Wire-gripping part of electric terminal member. 3,096,136, 7-2-63, Cl. 339—276.

Batcheller, Hugh W., to Kent Mfg. Corp. Machine for crimping terminals on wires. 3,101,765, 8-27-63, Cl. 153—1.

Batchelor, Clyde S., and W. R. Jensen, to Raybestos-Manhattan, Inc. Friction devices. 3,092,214, 6-4-63, Cl. 188—218.

Batchelor, James D., G. P. Curran, and E. Gorin, to Consolidation Coal Co. Process for regenerating manganese oxide acceptors for hydrogen sulfide. 3,101,303, 8-20-63, Cl. 202—31.

Batchelor, Joseph B., Jr., to Central Electronics, Inc. Inverse clipping circuit. 3,094,670, 6-18-63, Cl. 330—2.

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Batdorf, Robert L., G. C. Dacey, and D. A. Kleinman, to Bell Telephone Laboratories, Inc. Improved tunnel diode. 3,109,758, 11-5-63, Cl. 148—33.1.

Bate, Clavell, & Nephews Ltd.: *See*—
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Bate, Frederick D., to Clavell Bate & Nephews Ltd. Sealing means for wrapping machines. 3,085,144, 4-9-63, Cl. 219—19.

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Bateman, William S., Jr. Speaker enclosure. 3,080,013, 3-5-63, Cl. 181—31.

Bates, Albert D. Room divider device. 3,111,723, 11-26-63, Cl. 20—4.

Bates, Arthur C., and C. R. Huttinger, to I-T-E Circuit Breaker Co. Current interrupting device. 3,110,782, 11-12-63, Cl. 200—78.

Bates, Arthur D., and M. J. Wells, to Western Geophysical Co. of America. Variable density camera. 3,107,137, 10-15-63, Cl. 346—33.

Bates, Arthur L., to American Viscose Corp. Method for producing crimped regenerated cellulosic fibers. 3,077,374, 2-12-63, Cl. 18—54.

Bates, Charles J., and A. A. Andre, to The Procter & Gamble Co. Prepared potato containing culinary mix. 3,089,773, 5-14-63, Cl. 99—94.

Bates, David J., to Hughes Aircraft Co. Periodically focused traveling wave tube with tapered phase velocity. Re. 25,329, 2-19-63, Cl. 315—3.5.

Bates, Robert L., and P. L. Fondy, to Chemineer, Inc. High shear impeller. 3,111,305, 11-19-63, Cl. 259—134.

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Bath, Cyril, Co., The: *See*—
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Bath Iron Works Corp.: *See*—
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Bathey Mfg. Co.: *See*—
Steele, Glen R. 3,086,660.

Bathish, Louis N., to Pharmaseal Laboratories. Apparatus for administering liquids. 3,100,487, 8-13-63, Cl. 128—227.

Batle, Glenn L., E. C. Fuerst, Sr., and V. U. Speed. Folding chair with fishing pole holder and tackle box. 3,077,327, 2-12-63, Cl. 248—42.

Batlas, George X., and S. Baranski. Paper towel dispenser. 3,107,957, 10-22-63, Cl. 312—39.

Batrow, John and P. P., to Batrow Laboratories, Inc. Electrophysiotherapy apparatus. 3,077,884, 2-19-63, Cl. 128—423.

Batrow Laboratories, Inc.: *See*—
Batrow, John and P. P.

Batrow, Peter P.: *See*—
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Battail, Gérard: *See*—
Pinet, André E., and Battail. 3,097,338.

Battelle Development Corp., The: *See*—
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McCrory, Rollin J., and Wilson. 3,071,120.
Safranek, William H., Jr., Beach, and Faust. 3,111,464.

Battelle Memorial Institute: *See*—
Paullus, Clarence L., and Reigbard. 3,110,974.

Battenfeld, Gebr., Firma: *See*—
Thiel, Horst. 3,108,326.

Batterton, Elmo L., and M. J. Lonsdale, to A. F. Meyer Mfg. Co. Grain dryer. 3,078,590, 2-26-63, Cl. 34—102.

Batti, Mario, and L. B. Schweiger, to Miles Laboratories, Inc. Process for the production of itaconic acid. 3,078,217, 2-19-63, Cl. 195—36.

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Fleck, Edwin G., Jr., and Battista. 3,109,743.

Battista, Orlando A., E. G. Fleck, Jr., and E. W. Neumann, to American Viscose Corp. Oxidation derivatives of cellulose crystallite aggregates. 3,111,513, 11-19-63, Cl. 260—212.

Battista, Samuel P., to Arthur D. Little, Inc. Device for continuous delivery of metered amounts of liquid. 3,115,280, 12-24-63, Cl. 222—95.

Battistin, Ferdinando. Variable-speed drives. 3,082,634, 3-26-63, Cl. 74—199.

Battle Creek Packaging Machines, Inc.: *See*—
Smith, John W., and Willbrandt. 3,083,514.
Willbrandt, Franklin M. 3,075,328.
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Battle, Frederick H., Jr., to Cutler-Hammer, Inc. Pulse-count threshold control circuit. 3,089,138, 5-7-63, Cl. 343—106.

Battle, Jack L., to Jersey Production Research Co. Liquid coating applicator. 3,108,024, 10-22-63, Cl. 118—408.

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Battner, Elliot, and H. A. Schaeffer, to Olin Mathieson Chemical Corp. Complexes of tetracycline antibiotics and preparations of same. 3,082,253, 3-19-63, Cl. 260—559.

Batts, Harvey J.: *See*—
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Batty, Harry A., and E. B. Broadrick, to James Lees and Sons Co. Tufting machine with shifting needle bar. 3,109,395, 11-5-63, Cl. 112—79.

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Batzer, Hans, O. Ernst, and W. Fatzer. 3,4-epoxy-1-hydroxyacetal-cyclohexanes and endomethylene cyclohexanes. 3,072,679, 1-8-63, Cl. 260—340.7.

Batzer, Thomas H., to United States of America, Atomic Energy Commission. Fluid pressure and cam operated vacuum valve. 3,112,095, 11-26-63, Cl. 251—172.

Bau, Robert G. Cosmetic make-up device. 3,071,143, 1-1-63, Cl. 132—88.7.

Bau, Robert G. Cosmetic stick container. 3,082,869, 3-26-63, Cl. 206—56.

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Baude, John, to Allis-Chalmers Mfg. Co. Thermoelectric cooler circuit with thermal electric feed-back arrangement. 3,091,939, 6-4-63, Cl. 62—3.

Baude, John, to Allis-Chalmers Mfg. Co. Pulse amplitude discriminator. 3,092,731, 6-4-63, Cl. 307—88.5.

Baude, John, to Allis-Chalmers Mfg. Co. Compound cascade transistor switch having nonlinear resistance thermal runaway protection. 3,109,940, 11-5-63, Cl. 307—88.5.

Baude, John, to Allis-Chalmers Mfg. Co. Pulse width discriminator. 3,112,218, 12-3-63, Cl. 307—88.5.

Baude, John, to Allis-Chalmers Mfg. Co. Circuit breaker control employing saturable reactors. 3,116,440, 12-31-63, Cl. 317—54.

Baude, John, to Allis-Chalmers Mfg. Co. Triggered blocking oscillator with surge prevention. 3,116,465, 12-31-63, Cl. 331—112.

Baude, John, and W. S. Lorenz, to Allis-Chalmers Mfg. Co. Surge controller for protecting a source of electrical energy. 3,087,106, 4-23-63, Cl. 321—11.

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Bauder, Ulrich, to Firma Fr. Hesser Maschinenfabrik-Aktiengesellschaft. Device for applying patches of greasy adhesives to razor blade wrappers. 3,107,181, 10-15-63, Cl. 118—211.

Bauder, Ulrich, and K. Braun, to Firma Fr. Hesser, Maschinenfabrik-Aktiengesellschaft. Volumetric filling machine. 3,073,400, 1-15-63, Cl. 177—56.

Baudet, Jacques, to La Telemecanique Electrique. Switch of the screw selector type. 3,102,174, 8-27-63, Cl. 200—33.

Baudhuin, George J., to Drott Mfg. Corp. Vehicle steering system. 3,075,603, 1-29-63, Cl. 180—79.2.

Baudin-Chateauneuf: *See*—
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Baudoux, Edmond, to Etablissement Dic. Method of dry construction and set of elements for carrying out the same. 3,076,293, 2-5-63, Cl. 50—126.

Baudry, Jean, to Institut Francais du Petrole, des Carburants et Lubrifiants. Process for operating controlled ignition engines with lean combustible mixtures. 3,087,480, 4-30-63, Cl. 123—119.

Baudry, Rene A., to Westinghouse Electric Corp. Dynamoelectric machine. 3,110,827, 11-12-63, Cl. 310—55.

Bauer, Alfred F., to National Lead Co. Method for producing coated die castings. 3,083,424, 4-2-63, Cl. 22—203.

Bauer, Alfred F., to National Lead Co. Die casting method and article. 3,098,270, 7-23-63, Cl. 22—204.

Bauer, Alfred F., to National Lead Co. Die-casting method. 3,106,002, 10-8-63, Cl. 22—215.

Bauer, Arnold, to Patent-Treuhand-Gesellschaft fur Elektrische Gluhlampen m.b.H. Electric high pressure discharge lamps. 3,090,883, 5-21-63, Cl. 313—113.

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Bauer, Benjamin B., to Columbia Broadcasting System, Inc. Stereophonic loudspeaker arrays. 3,080,012, 3-5-63, Cl. 181—31.

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Ginaven, Marvin E. 3,079,705.
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Bauer, Charles. Mold form for columns made of casting material. 3,099,062, 7-30-63, Cl. 25—131.

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Bauer, Eduard: *See*—
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Bauer, Edwin W., to International Business Machines Corp. Magnetic core logical device. 3,077,582, 2-12-63, Cl. 340—174.

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Bauer, Hans, E. Bergmeister, and J. Heckmaier, to Wacker-Chemie G.m.b.H. Polymerization of unsaturated organic compounds in aqueous dispersion. 3,115,487, 12-24-63, Cl. 260—92.8.

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Bauer, Howard G.: *See*—
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Bauer, John R. Strap locking device. 3,078,536, 2-26-63, Cl. 24—194.

Bauer, Joseph L., to Belleville Sheet Metal Works, Inc. Ladder clamp. 3,105,667, 10-1-63, Cl. 248—361.

Bauer, Karl. Hydraulic axial piston machine. 3,108,545, 10-29-63, Cl. 103—173.

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Bauer, Kurt, H. Danzlger, and G. Schulze, deceased (E. B. K. Schulze, nee Wolczinski, legal heiress), to Farbenfabriken Bayer Aktiengesellschaft. Process for obtaining pure trimethylolpropane. 3,082,259, 3-19-63, Cl. 260—637.

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Bauer, Myron J., and R. C. Wilson, to United States of America, Navy. Blast doors and span track arrangement for guided missile launching system. 3,095,780, 7-2-63, Cl. 89—1.7.

Bauer, Oscar E. Vehicle mounted animal catching device. 3,095,858, 7-2-63, Cl. 119—151.

Bauer, Peter, to Pye Ltd. Control devices for cameras. 3,108,527, 10-29-63, Cl. 95—45.

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Bauer, Robert F., and R. B. Thornburg, to Shell Oil Co., Continental Oil Co., The Superior Oil Co., and Union Oil Co. of California. Pipe handling apparatus. 3,083,842, 4-2-63, Cl. 214—2.5.

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Bauer, Sherrick L.: *See*—
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Bauer, Stefan G., to Rolls-Royce Ltd. Method of producing canned fuel rods for nuclear reactors. 3,096,264, 7-2-63, Cl. 204—154.2.

Bauer, Stefan G., and N. Battle, to Rolls-Royce Ltd. Steam cooled reactor and fuel channel. 3,099,616, 7-30-63, Cl. 204—193.2.

Bauer, Stefan G., and D. H. Jubb, to Rolls-Royce Ltd. Steam generating plant. 3,103,917, 9-17-63, Cl. 122—1.

Bauer, Walther H., to Continental Can Co., Inc. Sheet pullback mechanism. 3,073,593, 1-15-63, Cl. 271—60.

Bauer, Werner R., to Robertshaw-Fulton Controls Co. Electromagnetic relay and armature therefor. Re. 25,351, 3-19-63, Cl. 200—87.

Bauer, William C., A. P. McCue, and K. C. Rule, to FMC Corp. Method of crystallizing sodium bicarbonate. 3,072,466, 1-8-63, Cl. 23—300.

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Bauer, William H., Jr., and J. A. Gervasi, to Minnesota Mining and Mfg. Co. Method of preparing dispersions from blend of fluorine containing polymers. 3,075,939, 1-29-63, Cl. 260—30.4.

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Bauerschmidt, Charles H., to C.H.B. Autobowling Corp. Automatic pin-setting machine. 3,072,405, 1-8-63, Cl. 273—43.

Bauger, Louis J., R. Constant, and L. F. Jumelle, to Societe Nationale d-Etude et de Construction de Moteurs d'Aviation. Improvements to jet-propelled aircraft with directional discharge-nozzles for vertical take-off. 3,096,954, 7-9-63, Cl. 244—23.

Bauger, Louis J., A. J. B. Lacroix, and P. M. Phelipon, to Societe Nationale d'Etude et de Construction de Moteurs d'Aviation. Combustion equipment for jet propulsion units. 3,102,392, 9-3-63, Cl. 60—39.72.

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Patton, Richard A., Baugh, and Suriano. 3,111,385.

Baugh, Charles W., Jr., to Westinghouse Electric Corp. Broadcast stereo receiver. 3,076,057, 1-29-63, Cl. 179—15.

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Baughan, Herbert A. Dental saliva ejectors. 3,101,544, 8–27–63, Cl. 32—33.
Baughan, Herbert A. Dental saliva ejectors. 3,101,545, 8–27–63, Cl. 32—33.
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Baum, Allan M. Sponge mop. 3,090,985, 5–28–63, Cl. 15—244.
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Baum, Custer C., to The Te Co. Radiation detector. 3,088,037, 4–30–63, Cl. 250—227.
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Baum, Kurt, to Henry J. Kaiser Co. Recovery of combustible gases in ferro-metallurgical processes. 3,084,039, 4–2–63, Cl. 75—59.
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Baumann, Dwight M., to Hydel Inc. Photoelectric high scanning rate digital storage and read-out device. 3,109,933, 11–5–63, Cl. 250—219.
Baumann, Franz, and F. Zendron, to Bally's Shoe Factories Ltd. Shank and heel seat member for footwear. 3,091,872, 6–4–63, Cl. 36—70.
Baumann, Frederick W., to General Electric Co. Hermetic motor cartridge. 3,083,308, 3–26–63, Cl. 310—57.
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Baumann, Hans, and D. Leuchs, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Quaternized water-soluble basic dyestuffs. 3,086,002, 4–16–63, Cl. 260—146.
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Baumann, Hans, and J. Dehnert, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Production of water-soluble dyestuffs salts. 3,102,878, 9–3–63, Cl. 260—146.
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Baumann, Hans D., to Worthington Corp. Self-locking fluid operated valve actuating mechanism. 3,112,654, 12–3–63, Cl. 74—110.
Baumann, Harold C., to Sperry Rand Corp., Ford Instrument Co. Division. Passive sonar detection and bearing system. 3,089,118, 5–7–63, Cl. 340—6.
Baumann, Heinz. Method of improving the soil. 3,110,129, 11–12–63, Cl. 47—58.
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Baumann, Robert C., and L. Winkler, to United States of America, Navy. Spin adjusting mechanism. 3,072,363, 1–8–63, Cl. 244—1.
Baumann, Rudolf G. H., to Daimler-Benz Aktiengesellschaft. Drive arrangement for foldable tops of motor vehicles or the like. 3,116,087, 12–31–63, Cl. 296—117.
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Baumel, Irwin D., to Crosby Laboratories, Inc. Multiplex speech communication system. 3,079,464, 2–26–63, Cl. 179—15.
Baumel, Irwin D., to Crosby Laboratories, Inc. Speech communication system. 3,083,338, 3–26–63, Cl. 325—65.
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Baur, Carl, and F. Freitag, to Agfa Aktiengesellschaft. Triplet wide-angle objective lens. 3,087,384, 4–30–63, Cl. 88—57.
Baur, Carl, and G. Konigl, to Agfa Aktiengesellschaft. Variable framing means for a combined range and view finder. 3,089,380, 5–14–63, Cl. 88—1.5.
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Bausch, Ewald, and R. Wighton, to United States of America, Air Force. Locking and extracting means for can-enclosed units. 3,101,230, 8–20–63, Cl. 339—91.
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Acitelli, Mario A., and Blair. 3,102,197.
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Baush, Edward R., and M. A. Howe, Jr., to W. R. Grace & Co. Method for cling packaging an object. 3,113,874, 12–10–63, Cl. 99—174.
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Bautsch, George L. Flashlight construction. 3,085,150, 4–9–63, Cl. 240—10.65.
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Bayers, Elliott, to Stuffing Equipment Corp. Apparatus for stuffing dolls, or the like. 3,099,407, 7–30–63, Cl. 241—47.

Bayley, Abraham, and F. E. Resnik, to Philip Morris Inc. Process for improving the flavor and aroma of tobacco and product. 3,082,125, 3–19–63, Cl. 131—17.
Bayley, Abraham, and F. E. Resnik. Tobacco products. 3,109,436, 11–5–63, Cl. 131—17.
Bayley, Abraham, F. E. Resnik, and E. W. Robb II, to Philip Morris, Inc. Tobacco product. 3,111,951, 11–26–63, Cl. 131—17.
Bayor, Gordon P.: *See*—
Rogers, Thomas H., Bayor, and Magnusson. 3,103,591.
Bawabe, Rafael R.: *See*—
Klimmel, Clifford J., and Bawabe. 3,070,977.
Bawden, Richard F.: *See*—
Sfat, Michael R., Bauknecht, Bawden, and Dahlstrom. 3,116,221.
Bawn, Cecil E. H.: *See*—
Clarke, Michael R., and Bawn. 3,080,349.
Baxa, Edward H., to Allis-Chalmers Mfg. Co. Method of and apparatus for removing alkali from cement system. 3,110,483, 11–12–63, Cl. 263—28.
Baxa, James F. Protective device for tires and tubes. 3,106,953, 10–15–63, Cl. 152—427.
Baxendale, Lily: *See*—
Gottfried, Siegfried, and Baxendale. 3,084,185.
Baxrainer, Johann: *See*—
Schatz, Karl, and Baxrainer. 3,099,369.
Baxter, Arthur F., E. M. and H. E. Powers. Portable cabinet. 3,082,050, 3–19–63, Cl. 312—209.
Baxter & Cicero, Inc.: *See*—
Johnson, Lloyd F. 3,084,656.
Baxter, Denver D.: *See*—
Irwin, Henry S., and Baxter. 3,116,048.
Baxter, Don, Inc.: *See*—
Barton, Raymond W., and Swenson. 3,105,613.
Baxter Filtration Corp.: *See*—
Baxter, Thomas D. 3,084,800.
Baxter, Gene F., to Weyerhaeuser Co. Process of stabilizing phenol formaldehyde resin. 3,108,990, 10–29–63, Cl. 260—45.7.
Baxter, George E., and W. W. Levis, Jr., to Wyandotte Chemicals Corp. Synthesis of chlorinated alkylpyrazines. 3,113,-132, 12–3–63, Cl. 260—250.
Baxter, John C., to The Rapids-Standard Co., Inc. Conveyor and a case release apparatus. 3,101,158, 8–20–63, Cl. 221—295.
Baxter, Joseph, Jr.: *See*—
Lacker, Robert F., and Baxter. 3,081,026.
Baxter, Joseph, Jr., to The Black-Clawson Co. Paper machinery. Re. 25,333, 2–19–63, Cl. 152—348.
Baxter Laboratories, Inc.: *See*—
Bellamy, David, Jr. 3,079,920.
Bellamy, David, Jr. 3,110,308.
Berger, Arthur, and Borgaes. 3,090,810.
Bowen, Edward H., Jr. 3,090,724.
Broman, Cyrus R. 3,074,402.
Broman, Cyrus R. 3,087,490.
Broman, Cyrus R. 3,099,429.
Cayle, Theodore. 3,075,886.
Desautels, Robert E. 3,100,490.
Elenbogen, Gilbert. 3,081,320.
Gewecke, Theodore H., and Broman. 3,112,746.
Gewecke, Theodore H., Broman, and Morris. 3,087,491.
Harrison, Robert R., and Broman. 3,079,919.
Kartinos, Nicholas J. 3,116,327.
Lingley, Robert C. 3,075,639.
Meister, Heinrich. 3,095,358.
Stone, Irwin M. 3,089,818.
Wandell, Francis A., and Poltras. 3,078,847.
Baxter, Leonard R., and L. E. Lockert, said Lockert assor. to said Baxter. Box construction. 3,072,278, 1–8–63, Cl. 217—12.
Baxter, Meriwether L., Jr., to The Gleason Works. Non-generated straight bevel gears. 3,104,557, 9–24–63, Cl. 74—459.5.
Baxter, Robert O., to International Paper Co. Bag closure. 3,099,384, 7–30–63, Cl. 229—62.
Baxter, Thomas D., to Baxter Filtration Corp. Industrial filter head. 3,084,800, 4–9–63, Cl. 210—232.
Baxter, Thomas R., and M. M. Stukane, to Continental Can Co., Inc. Container for liquid. 3,081,003, 3–12–63, Cl. 222—105.
Baxter, Warren N., to E. I. du Pont de Nemours and Co. Process for the separation of hydrocarbons. 3,101,381, 8–20–63, Cl. 260—677.
Bay, Paul G., to Abbott Laboratories. Process for making nitrocyclopropane. 3,100,805, 8–13–63, Cl. 260—644.
Bay, Paul G., to Abbott Laboratories. Process for making nitrocyclopropane. 3,100,806, 8–13–63, Cl. 260—644.
Bay, Thomas J. Condenser tube protector. 3,073,352, 1–15–63, Cl. 138—140.
Bayard, Gaston, to Westland S.A. Conditioning system for cooling heated equipment. 3,113,440, 12–10–63, Cl. 62—170.
Baybarz, Fred L., ¼ to Green-Penny Co. Adjustable rack connection. 3,096,108, 7–2–63, Cl. 287—54.
Baybarz, Russell D., and M. H. Lloyd, to United States of America, Atomic Energy Commission. Process for separating americium and curium from rare earth elements. 3,079,225, 2–26–63, Cl. 23—14.5.
Bayer, Carl: *See*—
Leiss, Emil, Bayer, and Krautheim. 3,083,601.
Bayer, Friedrich, to Friedrich Grohe Aramaturenfabrik. Thermostatic mixing valve. 3,090,559, 5–21–63, Cl. 236—12.
Bayer, Otto: *See*—
Klappert, Helmut, and Bayer. 3,076,687.
Holtschmidt, Hans, Von Spulak, Muller, and Otto. 3,098,840.
Maiz, Hugo, Lober, Bayer, and Scheurlen. 3,107,229.
Müller, Erwin, Bayer, Wilms, Van Spulak, and Theis. 3,095,399.
Nischk, Gunther, Holtschmidt, Bongard, and Bayer. 3,096,296.
Rinke, Heinrich, and Bayer. 3,078,257.
Wagner, Kuno, Bayer, and Holtschmidt. 3,087,912.
Windemuth, Erwin, Schnell, and Bayer. 3,073,802.
Bayer, Rudolf: *See*—
Knauer, Hans-Ulrich, Vogel, and Bayer. 3,098,122.
Bayer, Walter: *See*—
Kronig, Walter, Bayer, Wahl, and Bacher. 3,099,538.
Bayerische Motoren Werke A.G.: *See*—
Boguslawski, Rudolf. 3,076,350.
Bayerl, George L. Feed leveling apparatus. 3,111,114, 11–19–63, Cl. 119—52.
Bayers, Edward A., to Celanese Corp. of America. Racks. 3,084,803, 4–9–63, Cl. 211—13.
Bayhi, Joseph F.: *See*—
Alexander, Warren A., and Bayhi. 3,088,541.
Baylinson, S Brian. Motor hotel. 3,085,699, 4–16–63, Cl. 214—16.1.
Bayluk, John. Corner support for a deck pallet. 3,114,339, 12–17–63, Cl. 108—53.
Bayly, John G., to Atomic Energy of Canada Ltd. Time delay device for analogue computer. 3,087,143, 4–23–63, Cl. 340—173.
Bayne, Robert T., to Varo Inc. Electrokinetics Division. D.C. to A.C. converter. 3,092,786, 6–4–63, Cl. 331—113.
Baynes, Gene P., to The Bendix Corp. Clutch mechanism and the like. 3,091,314, 5–28–63, Cl. 192—104.
Bays, Carl A., to FMC Corp. Method of creating an underground communication. 3,086,760, 4–23–63, Cl. 262—3.
Bays, Grover H.: *See*—
Parsons, Robert L., and Bays. 3,092,221.
Bayston, Thomas E.: *See*—
Campanella, Samuel J., and Bayston. 3,078,345.
Bazard, Richard J., to Datex Corp. Data processing system. 3,076,598, 2–5–63, Cl. 235—61.9.
Bazelmans, Wilhelmus J. C. M. Devices for removing creases from individual pieces of fabric by means of a current of air. Re. 25,370, 4–16–63, Cl. 38—2.
Bazinet, Wilfred P., Jr.: *See*—
Hicks, John W., Jr., and Bazinet. 3,104,191.
Beach, Clarence R.: *See*—
Briscoe, William J., and Beach. 3,107,799.
Beach, Earl F.: *See*—
Upton, Chester W., Jr., and Beach. 3,071,668.
Beach, Earl F., and C. W. Upton, Jr., to Westinghouse Electric Corp. Electric switch. 3,079,474, 2–26–63, Cl. 200—48.
Beach, Eugene H.: *See*—
Fisher, Lyman C., and Beach. 3,110,877.
Beach, Horace J., and H. C. Morgan, to Gulf Oil Corp. Cement composition. 3,071,481, 1–1–63, Cl. 106—90.
Beach, John B., to Cornell Aeronautical Laboratory, Inc. Strobe painting display system for radar indicator. 3,094,694, 6–18–63, Cl. 343—11.
Beach, John G.: *See*—
Safranek, William H., Jr., Beach, and Faust. 3,111,464.
Beach, Laurence R., W. C. Slagle, and R. E. Thoman, to General Dynamics Corp. Light information recording system. 3,109,060, 10–29–63, Cl. 178—6.8.
Beach, Leland K., and J. E. Shewmaker, to Esso Research and Engineering Co. Process for making phosphonates. 3,093,673, 6–11–63, Cl. 260—461.
Beach, Milton B., to Flexible Steel Lacing Co. Belt fastener. 3,074,132, 1–22–63, Cl. 24—33.
Beach, T. Arnold. Combination expansion tank valve. 3,094,-143, 6–18–63, Cl. 137—588.
Beach, William A., and J. D. Soltis, to Esso Research and Engineering Co. Method of reducing noise in oil burners 3,087,532, 4–30–63, Cl. 158—117.5.
Beachem, Michael T., and J. T. Shaw, to American Cyanamid Co. Bis-sulfinic acid-olefin adducts. 3,084,195, 4–2–63, Cl. 260—593
Beachler, Edward D., to Beloit Iron Works. Suction roll perforation design. 3,097,995, 7–16–63, Cl. 162—371.
Beacom, Robert, and K. P. Schubert, to The National Acme Co. Two-speed spindle. 3,108,838, 9–17–63, Cl. 82—28.
Beacom, Robert, and K. P. Schubert, to The National Acme Co. Steady rest. 3,103,840, 9–17–63, Cl. 82—38.
Beacon Looms, Inc.: *See*—
Holtz, Abraham. 3,106,829.
Beacon Plastic and Metal Products, Inc.: *See*—
Spier, I Martin. 3,074,097.
Beadsmoore, John K., to United Kingdom Atomic Energy Authority. Electrical circuits performing a switching function. 3,084,287, 4–2–63, Cl. 328—104.
Beale, Richard D.: *See*—
Kent, Nelson H., Beale, and Blackburst. 3,094,270.
Beale, Richard D., N. H. Kent, and G. L. Wilde, to Rolls-Royce Ltd. Valve for gas turbine engines. 3,074,432, 1–22–63, Cl. 137—625.28.
Beale, Richard D., and F. Littleford, to Rolls-Royce Ltd. Gas turbine engine. 3,113,430, 12–10–63, Cl. 60—39.31.

Beall, Richard W., Jr. Acid solution dispenser. 3,078,883, 2–26–63, Cl. 141—198.

Beall, William R.: *See*—
Loudon, Robert E., Oldenburg, Beall, Christoff, and Payton. 3,077,590.

Beals, David L.: *See*—
Emrick, Donald D., and Beals. 3,091,650.
Emrick, Donald D., and Beals. 3,115,468.

Beals, Kenneth M., and W. A. Horne, to Gulf Research & Development Co. Method of producing a medicinal mineral oil. 3,080,313, 3–5–63, Cl. 208—108.

Beals, Vaughn L. R., Jr., S. R. Hurley, and W. R. Laidlaw, to North American Aviation, Inc. Aircraft flutter testing device. 3,113,451, 12–10–63, Cl. 73—67.2.

Beam, Chester R.: *See*—
Cohen, Stanley L., and Beam. 3,112,193.

Beam Guidance, Inc.: *See*—
Goubau, Georg J. E. 3,101,472.

Beam, Harry L.: *See*—
Sheps, Martin L., and Beam. 3,074,217.

Beam Products Mfg. Co.: *See*—
Zonker, Lawrence C. 3,071,186.

Beam, Walter R., to Radio Corp. of America. Radar. 3,088,-105, 4–30–63, Cl. 343—5.

Beam, Walter W., to Conch International Methane Ltd. Insulated space and elements thereof. 3,109,206, 11–5–63, Cl. 20—4.

Beaman, Alden G. Heterocyclic nitrogen compounds containing sulfonyl fluoride groups and method of producing same. 3,074,948, 1–22–63, Cl. 260—254.

Beaman, John B., Jr.: *See*—
Ott, Vivian L., and Beaman. 3,116,073.

Beaman, John B., and V. L. Ott. Outboard motor carrier. 3,071,387, 1–1–63, Cl. 280—47.24.

Beaman, John B., and V. L. Ott. Lawn edger. 3,073,101, 1–15–63, Cl. 56—249.

Beaman, John B., and V. L. Ott. Skew hoe. 3,075,587, 1–29–63, Cl. 172—371.

Beamish, Bernard D., to Johnson & Johnson. Contamination proof package. 3,104,012, 9–17–63, Cl. 206—46.

Beamish, Thomas R. Aircraft float. 3,095,846, 7–2–63, Cl. 114—66.5.

Bean, Arthur M., and M. F. Cetta, to Bean Bros. Inc. Bowling pin and method of producing the same. 3,093,171, 6–11–63, Cl. 144—310.

Bean Bros. Inc.: *See*—
Bean, Arthur M., and Cetta. 3,093,171.

Bean, Charles H., and F. J. Karesek, to United States of America, Atomic Energy Commission. Refractory metal tube drawing. 3,075,637, 1–29–63, Cl. 205—21.

Bean, Charles J.: *See*—
Payne, Lockett D., and Bean. 3,082,142.

Bean, Charles P. Magnetic material. 3,110,613, 11–12–63, Cl. 117—71.

Bean, Herbert A., Jr., to C. L. Berger & Sons, Inc. Plumb bob with retractable point. 3,113,387, 12–10–63, Cl. 33—216.

Bean, Morris, & Co.: *See*—
Alexander, James G., Wagner, and Bean. 3,074,802.

Bean, Raymond W., to United States of America, Atomic Energy Commission. Fuel element. 3,111,477, 11–19–63, Cl. 204—193.2.

Bean Rubber Mfg. Co.: *See*—
Mosher, James R. 3,082,896.

Bean, Xarifa L.: *See*—
Alexander, James G., Wagner, and Bean. 3,074,802.

Beaney, Walter E.: *See*—
Highberg, George A., Beaney, and Greenlees. 3,088,746.

Beanland, Eric: *See*—
Payne, Hugh F., and Beanland. 3,088,915.

Bear, James H. Dish washing machine. 3,083,717, 4–2–63, Cl. 134—57.

Bear Mfg. Co.: *See*—
MacMillan, Charles W. 3,071,863.
MacMillan, Charles W. 3,088,547.
MacMillan, Charles W. 3,091,862.

Bear, William L. Bird house. 3,078,826, 2–26–63, Cl. 119—23.

Bear Brand Hosiery Co.: *See*—
Blackstock, Emerson B. 3,092,953.
Walrabenstein, Oscar G. 3,115,024.

Beard, Chester S., J. E. White, and C. R. Le Wan, to General Controls Co. Proportional positioning system. 3,087,470, 4–30–63, Cl. 121—41.

Beard, Edward S. Tubular fabric spreading and rolling machine. 3,076,249, 2–5–63, Cl. 26—55.

Beard, Edward S. Tubular fabric extensible spreading means. 3,078,541, 2–26–63, Cl. 26—55.

Beard, Lawrence R.: *See*—
Doerfer, Richard E., Harms, and Beard. 3,106,273.

Beard, Walter C., Jr., to The Risdon Mfg. Co. Metering valve for pressure packages. 3,104,785, 9–24–63, Cl. 222—207.

Bearde, John N. Building construction. 3,104,427, 9–24–63, Cl. 20—2.

Bearden, William G.: *See*—
Spurlock, James W., Holmgren, and Bearden. 3,110,346.

Beards, Bertram M. Machine or mill for crushing or pulverising materials. 3,079,095, 2–26–63, Cl. 241—65.

Beardsley, Kenneth D., and E. J. Wilk, to General Electric Co. Magnetic core. 3,074,038, 1–15–63. Cl. 336—213.

Beardsley, Melville W., to National Research Associates, Inc. Method of providing deceleration and lift for reentry body. 3,113,750, 12–10–63, Cl. 244—117.

Beardsley, Osmer G. Safety bathtub. 3,113,323, 12–10–63, Cl. 4—173.

Beardsley, Richard G., to Lockheed Aircraft Corp. Aircraft control system. 3,114,521, 12–17–63, Cl. 244—76.

Bearing Inspection, Inc.: *See*—
Matheson, Stuart N. 3,095,730.

Bearss, Henry E., ½ each to L. A. Bearss, and R. E. Bearss. Lead halter. 3,098,330, 7–23–63, Cl. 54—24.

Bearss, Lawrence A.: *See*—
Bearss, Henry E. 3,098,336.

Bearss, Robert E.: *See*—
Bearss, Henry E. 3,098,336.

Beart, Robert W., to Illinois Tool Works Inc. Lock washer. 3,072,168, 1–8–63, Cl. 151—35.

Beasley, Jack M., and H. Greenewald, Jr., to Ling-Temco-Vought, Inc. Heating method. 3,106,594, 10–8–63, Cl. 13—1.

Beasley, James P.: *See*—
Windwood, John M., and Beasley. 3,095,521.

Beasley, Max M., to Singer-Cobble, Inc. Multiple pile height tufting machine. 3,108,553, 10–29–63, Cl. 112—79.

Beasley, Olson B. Ironing machine. 3,071,878, 1–8–63, Cl. 38—15.

Beasley, Robert M.: *See*—
Walner, Eugene, and Beasley. 3,082,051.

Beasley, Robert M., and H. L. Johns, to Horizons Inc. Inorganic fibers and method of preparation. 3,082,099, 3–19–63, Cl. 106—39.

Beasley, Willis R. Bed having removable side and end panels. 3,093,838, 6–18–63, Cl. 5—331.

Beason, Elmer C., Jr.: *See*—
Kraft, Donald L., and Beason. 3,083,757.

Beatrice Foods Co.: *See*—
North, Gerald C., Noznick, and Bundus. 3,105,763.
Noznick, Peter P., and Bernardoni. 3,097,950.
Noznick, Peter P., Bundus, and Eggen. 3,090,688.

Beatty Bros. Ltd.: *See*—
Anderson, Harry M. 3,112,015.

Beatty, Donald C. Automatic telephone dialing device. 3,079,466, 2–26–63, Cl. 179—90.

Beatty, Eugene F., to The Bendix Corp. Fluid pressure intensifying unit. 3,078,678, 2–26–63, Cl. 60—54.6.

Beatty, John W., to United States of America, Air Force. Image intensifying photosensitive film. 3,078,369, 2–19–63, Cl. 250—65.

Beatty, John W., to General Electric Co. Circuit breaker of gas blast type having insulator bushing means for externally locating an impedance means. 3,114,816, 12–17–63, Cl. 200—148.

Beatty, Theodore R.: *See*—
Drengler, George R., Clark, Stark, and Beatty. 3,087,-003.

Beaty, Alden Q.: *See*—
Harvey, James L., and Beaty. 3,093,327.

Beau, Raymond, to Les Produits Semi-Conducteurs. Process for the manufacture of antimony of high purity. 3,108,-934, 10–29–63, Cl. 204—105.

Beauchamp, Albert J. Skid resistance tester. 3,098,377, 7–23–63, Cl. 73—9.

Beauchamp, Wilfred A., to The Youngstown Steel Door Co. Rollers for doors of refrigerator and box cars. 3,106,600, 10–8–63, Cl. 20—23.

Beaudin, Gerald P., Jr.: *See*—
Kyser, Robert J., Prevost, and Beaudin. 3,086,226.

Beaudoin, Andre. Core plug. 3,115,969, 12–31–63, Cl. 206—59.

Beaudry, Walter A., E. P. Pollitt, and R. E. Smith, to F. W. Means Co. Automatic towel flattening device. 3,092,263, 6–4–63, Cl. 214—1.

Beaudry, Walter A., E. P. Pollitt, and R. E. Smith, to F. W. Means & Co. Automatic towel flattening device. 3,092,-271, 6–4–63, Cl. 214—152.

Beaulaurier, Gerald H. Exercise device. 3,095,947, 7–2–63, Cl. 182—139.

Beaumont Birch Co.: *See*—
Davenport, William G., and Addison. 3,104,747.

Beaunit Corp.: *See*—
Brower, Paul V. 3,116,352.
Brower, Paul V. 3,116,353.
Brower, Paul V. 3,116,354.
Woodell, Rudolph. 3,097,414.
Woodell, Rudolph. 3,103,732.
Woodell, Rudolph. 3,112,986.

Beaunit Mills, Inc.: *See*—
Bley, Rudolph S. 3,080,607.

Beaupre, Ernest: *See*—
Fortin, Louis P., and Lemieux. 3,098,669.

Beauvais, John H. Teaching device. 3,093,912, 6–18–63, Cl. 35—8.

Beauvais, Max.: *See*—
Cheftel, Henri, and Beauvais. 3,071,478.

Beauvais, Max. Continuous treatment of food containers. 3,101,995, 8–27–63, Cl. 21—78.

Beaven, Ernest W. J., to Shell Oil Co. Reclaimed oil composition for rubber. 3,116,258, 12–31–63, Cl. 252—364.

Beaven, Leslie W. Cycling shaft assembly for internal combustion engines. 3,091,927, 6–4–63, Cl. 60—39.34.

Beaver, David J., and P. J. Stoffel, to Monsanto Chemical Co. 3,4-dichlorophenyl substituted alkyl ureas. 3,072,719, 1–8–63. Cl. 260—553.

Beaver, David J., and P. J. Stoffel, to Monsanto Chemical Co. Preservation of rubber with alkoxyphenyl alicyclic amines. 3,074,907, 1–22–63, Cl. 260—45.9.

Beaver, David J., E. G. Jaworski, and A. J. Suhovecky, to Monsanto Chemical Co. Methods and compositions for the treatment of soil. 3,085,043, 4–9–63, Cl. 167—22.

Beaver, David J., and P. J. Stoffel, to Monsanto Chemical Co. Cycloaliphatic chlorocarbanilates. 3,097,229, 7–9–63, Cl. 260—471.

Beaver, David J., and P. J. Stoffel, to Monsanto Chemical Co. Alkoxyalkyl 3,4-dichlorocarbanilates. 3,100,222, 8–6–63, Cl. 260—471.

Beaver, David J., and P. J. Stoffel, to Monsanto Chemical Co. Antiseptic detergent compositions and method of controlling bacterial growth. 3,103,467, 9–10–63, Cl. 167—58.

Beaver, Garth H., to The Dow Chemical Co. Aqueous cellulosic compositions and method of making same. 3,108,890, 10–29–63, Cl. 106—186.

Beaver Industries, Inc.: *See*—
Holmes, Frank C. 3,080,929.

Beaver, Millard B. Printing device. 3,071,071, 1–1–63, Cl. 101—380.

Beaver, Millard B. Printing apparatus. 3,093,070, 6–11–63, Cl. 101—376.

Beaver, Richard J., and J. H. Cherubini, to United States of America, Atomic Energy Commission. Selective separation of uranium from ferritic stainless steels. 3,089,751, 5–14–63, Cl. 23—14.5.

Beaverson, Wayne A., and R. C. Ramsey, to Electro-Voice, Inc. Unidirectional microphone. 3,095,484, 6–25–63, Cl. 179—115.5.

Beazley, Robert M., and H. L. Johns, to Horizons Inc. Inorganic fibers and preparation thereof. 3,110,545, 11–12–63, Cl. 18—54.

Bebech, Michael J. Apparatus for filtering liquids. 3,115,458, 12–24–63, Cl. 210—241.

Bebinger, Jack E., to General Electric Co. Waste disposer. 3,084,877, 4–9–63, Cl. 241—46.

Becanne, Robert: *See*—
Roche, Andre, Grancher, Gajac, and Becanne. 3,096,377.

Becaune, Robert L. P.: *See*—
Pomot, Jean L. E., Luzarreta, and Becanne. 3,078,213.
Pomot, Jean L. E., Luzarreta, and Becanne. 3,111,519.

Beche, Hans. Die forging press. 3,107,559, 10–22–63, Cl. 80—19.

Becher, Robert P., to E. I. du Pont de Nemours and Co. Yarn treating apparatus. 3,097,412, 7–16–63, Cl. 28—1.

Becher, William S.: *See*—
Taggart, Robert E., and Becher. 3,114,226.

Bechert, James R.: *See*—
Howe, Ralph S., Jr., and Bechert. 3,085,810.

Bechle, Rudolph P., to Potdevin Machine Co. Hot melt adhesive extruder. 3,078,824, 2–26–63, Cl. 118—410.

Bechler, Andre. Fine-adjustment device with threaded spindle. 3,078,582, 2–26–63, Cl. 33—170.

Bechler, Andre. Automatic lathe. 3,103,146, 9–10–63, Cl. 90—15.1.

Bechman, William O., to International Harvester Co. Angular adjusting means for a land clearing implement. 3,101,-794, 8–27–63, Cl. 172—698.

Bechtel, Robert J., to Hercules Powder Co. Nitric acid concentration. Re. 25,393, 6–11–63, Cl. 202—68.

Bechtle, Richard, to American Messer Corp. Apparatus for simultaneous flame cutting and marking of profiled sheet metal. 3,114,205, 12–17–63, Cl. 33—23.

Bechtler, Hans C. Centrifugal falling film evaporator. 3,107,194, 10–15–63, Cl. 159—6.

Bechtold, Arthur W., to Chemway Corp. Sterile medicated strips. 3,075,527, 1–29–63, Cl. 128—260.

Bechtold, Donald C., and E. W. Stanley, to Armstrong Cork Co. Web tension control for multi-unit printing press. 3,098,432, 7–23–63, Cl. 101—152.

Bechtold, Max F., to E. I. du Pont de Nemours and Co. Molybdenum-titanium-silicon-nitrogen products and process for making same. 3,110,589, 11–12–63, Cl. 75—175.5.

Bechtold, Max F., E. L. Little, Jr., H. J. McCauley, and F. J. Penoza, to E. I. du Pont de Nemours and Co. Silicide composition and method of manufacture. 3,110,092, 11–12–63, Cl. 29—182.5.

Bechtold, Paul E. Window structure. 3,090,613, 5–21–63, Cl. 268—99.

Bechtold, Robert H.: *See*—
Bornemann, William, Bechtold, Philips, Freeman, Loretz, and Neuman. 3,099,199.

Bechtold, Rudolph F., and J. N. Vincent, to Continental Can Co., Inc. Unloader for palletized bulk can package. 3,107,-794, 10–22–63, Cl. 214—8.5.

Beck, Arnold H. W., A. T. Starr, and T. H. Walker, to International Standard Electric Corp. Decoding arrangements for electric pulse code modulation systems. 3,115,623, 12–24–63, Cl. 340—347.

Beck, Basil D., and A. B. Swain, to Owens-Illinois Glass Co. Glass furnace bubbler patterns. 3,104,967, 9–24–63, Cl. 65—178.

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Beck, Cyrus, and L. S. Guarino, to United States of America, Navy. Allowable load limit computer and indicator. 3,077,-575, 2–12–63, Cl. 340—27.

Beck, Dan H. Partitioned carton. 3,086,690, 4–23–63, Cl. 229—27.

Beck, Earl J., Jr., to United States of America, Navy. Engine starting device. 3,110,422, 11–12–63, Cl. 222—83.5.

Beck, Erich, to Alpine Aktiengesellschaft, Maschinenfabrik und Eisengiesserei. Apparatus for producing plastic filaments. 3,110,930, 11–19–63, Cl. 18—8.

Beck, Franklin H.: *See*—
Bidwell, Lawrence R., Beck, and Fontana. 3,082,082.

Beck, Frederick R., and J. J. Kaleba, to Controls Co. of America. Timer. 3,074,282, 1–22–63, Cl. 74—3.52.

Beck, Frederick W. and K. J. Linking machines. 3,083,655, 4–2–63, Cl. 112—27.

Beck, Garvin L.: *See*—
Borton, Robert O., and Beck. 3,076,226.

Beck, Geoffrey E., to Marconi's Wireless Telegraph Co. Ltd. Doppler radar systems. 3,072,900, 1–8–63, Cl. 343—8.

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Mathues, Thomas O., Beck, Davis, and Forward. 3,088,539.

Beck, George W., E. P. Harris, M. S. Millhouse, and C. L. Moorman, to General Motors Corp. Sealing strip. 3,110,-938, 11–19–63, Cl. 20—69.

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Vohrer, Herbert, Beck, and Plank. 3,089,535.

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Beck, Herbert H., and K. J. Hall, to Armour & Co. Method of packaging food and the resulting package. 3,092,501, 6–4–63, Cl. 99—171.

Beck, Jacob H. Tandem. 3,086,764, 4–23–63, Cl. 263—8.

Beck, Jonathan, Jr., to Bil-Jax, Inc. Adjustable scaffolding. 3,071,205, 1–1–63, Cl. 182—146.

Beck, Kenneth J.: *See*—
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Beck, Kurt, to F. Hichenberg and himself. Edible toy ball for dogs. 3,107,651, 10–22–63, Cl. 119—29.

Beck, Merrill G., to Lord Mfg. Co. Spring suspension. 3,073,620, 1–15–63, Cl. 280—124.

Beck, Quentin S., 1/10 to L. F. Engle, Jr. Method of installing an areaway wall. 3,099,900, 8–6–63, Cl. 50—533.

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Beck, Samuel J., to The Safety Skate Co., Inc. Railroad skate having lockable retainers. 3,096,729, 7–9–63, Cl. 104—260.

Beck, Sigmund. Method and apparatus of producing converging bristle tufts. 3,071,415, 1–1–63, Cl. 300—19.

Beck, Thomas M., and G. I. Klein, to Victor Chemical Works. Process for preparing ethyl paranitrophenyl thionophenylphosphonate. 3,071,608, 1–1–63, Cl. 260—461.

Beck, Thomas M., and E. N. Walsh, to Stauffer Chemical Co. Bis(hydroxyalkyl)amino alkyl phosphonic acid diesters. 3,076,010, 1–29–63, Cl. 260—461.

Beck, Urban R. Automatic car door lock. 3,104,124, 9–17–63, Cl. 292—280.

Beck, William R., to Goodman Mfg. Co. Composite flight. 3,089,579, 5–14–63, Cl. 198—175.

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Keller, Daniel F., and Beck. 3,098,765.

Beck, William W., to E. I. du Pont de Nemours and Co. Quenching process. 3,115,385, 12–24–63, Cl. 18—54.

Becka, Paul N. Signal construction. 3,085,224, 4–9–63, Cl. 340—105.

Beckadolph, Richard, to Continental Gummi-Werke Aktiengesellschaft. Pneumatic tire. 3,093,181, 6–11–63, Cl. 152—361.

Beckadolph, Richard, W. Eckelmann, and W. Beissner, to Continental Gummi-Werke Aktiengesellschaft. Vehicle tire. 3,081,811, 3–19–63, Cl. 152—355.

Beckadolph, Richard, H. Menell, and W. Niclas, to Continental Gummi-Werke Aktiengesellschaft. Machine for making carcasses for vehicle tires. 3,081,814, 3–19–63, Cl. 156—394.

Beckadolph, Richard, and W. Niclas, to Continental Gummi-Werke Aktiengesellschaft. Mold for use in connection with the casting of transmission belts. 3,109,202, 11–5–63, Cl. 18—36.

Beckadolph, Richard, and W. Niclas, to Continental Gummi-Werke Aktiengesellschaft. Method of making a precision transmission belt with meshing teeth. 3,114,598, 12–17–63, Cl. 18—59.

Becke, Margot, nee Goehring, to Olin Mathieson Chemical Corp. Chlorine-free phosphorus nitrile-amides and method of their preparation. 3,084,997, 4–9–63, Cl. 23—190.

Beckenbauer, Franz, and F. Oulehla, to Eisenwerk-Gesellschaft Maximilianshutte A.G. Method of excavating. 3,106,068, 10–8–63, Cl. 61—40.

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Becker, Anthony F. Shoe attachment. 3,075,307, 1–29–63, Cl. 36—7.7.

Becker, August E., and S. Willeford, to Sterling Steel Casting Co. Cap for concrete pilings. 3,075,358, 1–29–63, Cl. 61—53.

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Becker, Erwin W. A. Process for the production of water or hydrogen having an increased deuterium content. 3,087,791, 4–30–63, Cl. 23—204.

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Becker, Frank E., D. M. Bingham, and R. J. Young, to International Business Machines Corp. Typewriter input checking mechanism. 3,082,854, 3–26–63, Cl. 197—19.

Becker, Frederick L., and R. J. Goodwin, to Gulf Research & Development Co. Process for plugging formations. 3,087,542, 4–30–63, Cl. 166—29.

Becker, George D., to Nordberg Mfg. Co. Vibrating unit for screening and feeding. 3,076,549, 2–5–63, Cl. 209—367.

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Becker, Gerhard, to Anker-Werke Aktiengesellschaft. Selective control device for keyboard-type business machines. 3,076,595, 2–5–63, Cl. 235—27.

Becker, Gerhard, to Huttenwerk Oberhausen Aktiengesellschaft. Means for the prevention of disintegration damage to the walls of tankers occasioned in carrying corrosive fluids. 3,086,678, 4–23–63, Cl. 220—63.

Becker, Gerhard, A. Hecker, E. Lührmann, and K. Bruno, to Anker-Werke A.G. Inking device for inking ribbons, felt rollers, rubber coatings and the like. 3,072,053, 1–8–63, Cl. 101—336.

Becker, Hans, to Steinbock G.m.b.H. Fork lift truck. 3,072,418, 1–8–63, Cl. 280—43.12.

Becker, James L. Boat. 3,084,655, 4–9–63, Cl. 114—67.

Becker, Johannes, to Optische Industrie "de Oude Delft," N.V. Color corrected optical system containing a concave spherical mirror and a meniscus lens. 3,110,752, 11–12–63, Cl. 88—57.

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Becker, Nathan, to Seaview Industries, Inc. Roof deck support and attaching means. 3,115,728, 12–31–63, Cl. 50—199.

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Becker, Rudolf, to Gesellschaft fur Linde's Eismaschinen Aktiengesellschaft. Process for the selective separation of components of gaseous mixtures by regenerative cooling. 3,073,128, 1–15–63, Cl. 62—12.

Becker, Rudolf, to Gesellschaft fur Linde's Eismaschinen Aktiengesellschaft. Process of and apparatus for low-temperature decomposition of gas mixtures. 3,073,130, 1–15–63, Cl. 62—28.

Becker, Rudolf, to Gesellschaft fur Linde's Eismaschinen Aktiengesellschaft. Process for the selective removal of carbon dioxide and hydrogen sulfide from gaseous mixtures containing the same. 3,074,245, 1–22–63, Cl. 62—12.

Becker, Rudolf, to Gesellschaft fur Linde's Eismaschinen Aktiengesellschaft. Process for separating SO_2 and constituents of a similar dew point from gases by means of regenerators. 3,075,362, 1–29–63, Cl. 62—12.

Becker, Rudolf, to Gesellschaft fur Linde's Eismaschinen Aktiengesellschaft. Process for the decomposition of gas. 3,076,318, 2–5–63, Cl. 62—11.

Becker, Rudolf, to Gesellschaft fur Linde's Eismaschinen Aktiengesellschaft. Process for the operation of regenerators, preferably for use in the low-temperature range. 3,091,093, 5–28–63, Cl. 62—12.

Becker, Rudolf, to Gesellschaft fur Linde's Eismaschinen Aktiengesellschaft. Process of and apparatus for separating gases with cold production by work-producing expansion of low-boiling product. 3,091,094, 5–28–63, Cl. 62—24.

Becker, Rudolf, to Gesellschaft fur Linde's Eismaschinen Aktiengesellschaft. Process and apparatus for refrigeration by work-producing expansion. 3,091,941, 6–4–63, Cl. 62—13.

Becker, Rudolf, to Gesellschaft fur Linde's Eismaschinen Aktiengesellschaft. Method for producing ethylene. 3,098,107, 7–16–63, Cl. 260—677.

Becker, Rudolf, to Gesellschaft fur Linde's Eismaschinen Aktiengesellschaft. Method and apparatus for separating gases. 3,100,696, 8–13–63, Cl. 62—13.

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Beckett, Joseph K., to Western Gulf Oil Co. Apparatus for backflushing a producing formation penetrated by a well. 3,074,399, 1–15–63, Cl. 166—68.

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Becks, Vernon C., to The Cleveland Trust Co., trustee. Bowling game apparatus. 3,091,458, 5–28–63, Cl. 273—54.

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Beckwith, Sterling, to Dual Jet Refrigeration Co. Refrigeration cabinet and defrost. 3,094,851, 6–25–63, Cl. 62—256.

Beckwith, Walter L., Jr., to Plastic Mold & Engineering Co. Stop mechanism for braiding machines. 3,101,042, 8–27–63, Cl. 87—18.

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Bedol, Marshall T. Folding table. 3,083,066, 3–26–63, Cl. 108—50.

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Beebe, Herbert R., to American Doll & Toy Corp. Arm and leg joint construction for toy figures. 3,099,895, 8–6–63, Cl. 46—161.

Beebe, John N., to Raytheon Co. Echo ranger with bottom signal amplitude compressor. 3,072,882, 1–8–63, Cl. 340—3.

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Doyle, Frank P., Nayler, and Rollnson. 3,071,575.
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Been, Hollis R., to The Dow Chemical Co. Bag making. 3,077,820, 2–19–63, Cl. 93—35.

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Beer, Henri B., to Amalgamated Curacao Patents Co., N.V. Noble metal coated titanium electrode and method of making and using it. 3,096,272, 7–2–63, Cl. 204—1.

Beer, Henri B., to Amalgamated Curacao Patents Co. N.V. Diaphragm for use in electrolysis. 3,098,802, 7–23–63, Cl. 204—1.

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Beerbower, Alan, and J. L. Murray, to Esso Research and Engineering Co. Radiation resistant mineral oils. 3,094,488, 6–18–63, Cl. 252—51.5.

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Beerli, George A., to Congoleum-Nairn Inc. Tape dispenser. 3,092,343, 6–4–63, Cl. 242—55.

Beerli, Karl, to Saindel- Motoren-und Maschinenfabrik A.G. Electromotor-driven textile mill spindles. 3,095,687, 7–2–63, Cl. 57—100.

Beerman, Henry P., to Victor Comptometer Corp. Method and materials for disposing of radioactive waste. 3,116,488, 12–31–63, Cl. 55—33.

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Beers, Kenneth H., and J. L. Bower, to North American Aviation, Inc. D.C. power amplifier. 3,086,177, 4–16–63, Cl. 330—18.

Beers, Robert T., to Chicago Pneumatic Tool Co. Splined socket member for wrenches. 3,073,192, 1–15–63, Cl. 81—121.

Beese, Norman C., to United States of America, Navy. High intensity short arc lamp having an annular cathode shield. 3,109,952, 11–5–63, Cl. 313—207.

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Beeson, Eric J. G., H. E. Stanyon, and L. J. Capp, to Associated Electrical Industries Ltd. Quartz-to-metal seals. 3,100,168, 8–6–63, Cl. 154—2.4.

Beetle, Robert H., and H. R. Larson, to American Brake Shoe Co. Railroad car wheels. 3,078,160, 2–19–63, Cl. 75—123.

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Beffa, Fabio, and G. Schetty, to J. R. Geigy A-G. Formazane dyestuffs containing heavy metal. 3,109,840, 11–5–63, Cl. 260—149.

Begany, Stephen P., J. C. Fisher, Jr., L. M. Litz, and H. C. Quandt, to Union Carbide Corp. Cerium monosulfide articles, method of making same and composition therefor. 3,109,745, 11–5–63, Cl. 117—5.3.

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Begeman, Robert H., to United States of America, Navy. Artificial intermediate frequency target simulator. 3,113,-312, 12–3–63, Cl. 343—17.7.

Begemann, Pauline H.: *See*—
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Beggs, Donald, and W. A. Phillips, to Midland-Ross Corp. Ingot heating furnace. 3,097,836, 7–16–63, Cl. 263—41.

Beghetto, Raymond A., Jr. Hand tool for box buckles. 3,073,-029, 1–15–63, Cl. 30—361.

Beghin, Jacques, to Organico, S.A. Coloring of super polyamide resins. 3,081,281, 3–12–63, Cl. 260—78.

Begin, Sylvio J., to K & W Mfg. Co. Safety jackknife device for tractor-trailer vehicles. 3,082,019, 3–19–63, Cl. 280—432.

Beguin, Fred P., to American Optical Co. Mouthpiece microphone unit. 3,114,802, 12–17–63, Cl. 179—188.

Beguin, Richard F., to Electronics Specialties Co. Transistor relaxation oscillator fence charger. 3,115,610, 12–24–63, Cl. 331—71.

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Macall, Thomas F. 3,081,824.

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Behncke, Hans J., to Equipment Imports, Inc. Pressing machine. 3,112,574, 12–3–63, Cl. 38—66.

Behncke, Hermann, to Inventa A.G. fur Forschung und Patentverwertung. Process for the upgrading of cellulose textiles. 3,095,323, 6–25–63, Cl. 117—143.

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Behnke, George W., and R. G. Westcott, to Simplicity Engineering Co. Vibratory feeder. 3,105,815, 10–1–63, Cl. 209—247.

Behnke, Robert C., and C. H. Palmer, to General Motors Corp. Composite valve lifter. 3,073,292, 1–15–63, Cl. 123—90.

Behr, Benjamin, to Joseph Behr & Sons, Inc. Pressed metal scrap briquettes and coating process. 3,107,166, 10–15–63, Cl. 75—44.

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Behrens, Curtis E., to Borg-Warner Corp. and J. D. Robbins. Dry cleaning machine. 3,106,831, 10–15–63, Cl. 68—12.

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Behun, Eugene, R. E. Cronkwright, J. D. Griffith, K. F. Moore, and R. E. Stalcup, to International Telephone and Telegraph Corp. System and method for determining the attitude of a space vehicle. 3,090,583, 5–21–63, Cl. 244—14.

Behun, John D., to Wyandotte Chemicals Corp. Process for preparing diethyl oxalimidate. 3,112,334, 11–26–63, Cl. 260—453.

Behymer, Donald J., and C. D. Mullin, to Maico Electronics, Inc. Acoustical device. 3,116,376, 12–31–63, Cl. 179—107.

Beich, Frank R., W. G. Whitney, and A. W. Whitton, Jr., to American Hospital Supply Corp. Package for sterile articles. 3,074,540, 1–22–63, Cl. 206—43.

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Bekkala, Ralph R., and H. G. Humphries, to General Motors Corp. Engine timing and balancing mechanism. 3,109,417, 11–5–63, Cl. 123—90.

Belaieff, James F., to Frame S.A. Washing machine. 3,089,-326, 5–14–63, Cl. 68—24.

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Price, Herbert P., and Belanger. 3,071,562.

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Belger, Myron P. Antenna supporting brackets. 3,094,303, 6–18–63, Cl. 248—40.

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Belk, Wilber C., to FMC Corp. Fruit processing apparatus. 3,086,455, 4–23–63, Cl. 100—131.

Belk, Wilber C., to FMC Corp. Method of and apparatus for sectionizing citrus fruit. 3,105,531, 10–1–63, Cl. 146—3.

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Bell, Edward R., V. A. Campanile, and E. Bergman, to Shell Oil Co. Process for polymerizing unsaturated aldehydes using ionizing radiation and resulting polymers. 3,105,801, 10–1–63, Cl. 204—154.

Bell Electric Co.: *See*—
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Bell, George L. Action game board. 3,098,657, 7–23–63, Cl. 273—123.

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Bell, Harry G., J. D. Gay, and K. G. Shaffer, to The Gay-Bell Corp. Apparatus and method for the continuous production of hogsheads and the like. 3,091,769, 6–4–63, Cl. 1—66.

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Bell, John F., to Zenith Radio Corp. Turret tuner. 3,083,-339, 3–26–63, Cl. 325—438.

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Bell, Joseph P. Illumination means for automotive wheels. 3,099,401, 7–30–63, Cl. 240—8.12.

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Bell, Lewis W., and L. F. Mulno, to Star Expansion Industries Corp. Powder actuated fastener driving tool. 3,103,013, 9–10–63, Cl. 1—44.5.

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Bell, Norton W., to Consolidated Electrodynamics Corp. Signal controlled oscillator. 3,087,121, 4–23–63, Cl. 331—11.

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Bell, Ramsay M., to Hammond Machinery Builders, Inc. Mechanical device. 3,099,904, 8–6–63, Cl. 51—141.

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Bell, Raymond W., to United States of America, Agriculture. Process for producing sweetened condensed cream. 3,108,-875, 10–29–63, Cl. 99—55.

Bell, Richard J.: *See*—
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Bell, Sidney R., and B. J. Clay. Pad holder. 3,105,989, 10–8–63, Cl. 15—209.

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Dickieson, Alton C. 3,102,505.
Dimond, Thomas L. 3,108,254.
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Hamilton, Billy H. 3,106,674.
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Henning, Harley A. 3,100,890.
Hersey, Ralph E. 3,113,184.
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Irwin, Gordon C. 3,112,372.
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Kaenel, Reginald A. 3,111,593.
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Kahng, Dawon. 3,102,230.
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Krom, Myron F. 3,093,708.
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McAfee, Kenneth B., Jr. 3,100,868.
McConkey, James F., Jr., and Van Slooten. 3,087,095.
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Muller, John F. 3,080,492.
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Panicello, Joseph F. 3,110,820.
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Tenten, Robert C. 3,080,537.
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Williams, Russell J., and Heimos. 3,094,044.
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Bennett, John D., to Sun Oil Co. Apparatus for controlling the movement of a tool through a tubular structure. 3,078,922, 2–26–63, Cl. 166—214.

Bennett, John D., to Sun Oil Co. Side wall core taking apparatus. 3,085,637, 4–16–63, Cl. 175—77.

Bennett, John D., to Sun Oil Co. Bore hole logging apparatus having separate landing member means to position a recording instrument casing above a drill bit. 3,112,442, 11–26–63, Cl. 324—1.

Bennett, John D., and P. E. Chaney, to Sun Oil Co. Side wall core taking apparatus. 3,085,636, 4–16–63, Cl. 175—77.

Bennett, John E., and S. A. Fierston, to Sylvania Electric Products Inc. Digitally positioned wave filter. 3,095,539, 6–25–63, Cl. 325—163.

Bennett, John L., G. B. Wooton, and R. L. Clagett, to The Black and Decker Mfg. Co. High-efficiency permanent magnet motor. 3,102,964, 9–3–63, Cl. 310—154.

Bennett, John W., and F. W. Perry, to The National Cash Register Co. Check feeding and alining mechanism. 3,100,-113, 8–6–63, Cl. 271—71.

Bennett, Joyce K.: *See*—
Hoff, Dale R., and Bennett. 3,107,201.

Bennett, Marvin D. and R. D., to Thomsen Supply, Inc. Elastic ball check valve. 3,077,204, 2–12–63, Cl. 137—525.

Bennett, Morelnud P., and E. L. Hughes, to General Electric Co. Cooling device. 3,075,299, 1–29–63, Cl. 34—202.

Bennett, Neill G.: *See*—
Rogers, Edward A., and Bennett. 3,089,339.

Bennett, Orell F., to E. I. du Pont de Nemours and Co. Method for isolating aromatic carboxylic acids. 3,096,343, 7–2–63, Cl. 260—328.

Bennett, Owen G.: *See*—
Hopkins, James C., and Bennett. 3,097,600.

Bennett, Paul J., to Reynolds Metals Co. Method of refining kyanite ore. 3,116,140, 12–31–63, Cl. 75—1.

Bennett, Ralph D.: *See*—
Finke, Jefferson M. 3,112,085.

Bennett, Richard A., and H. O. Kron, to King of Prussia Research & Development Corp. Hydraulic actuator. 3,090,360, 5–21–63, Cl. 121—38.

Bennett, Richard D.: *See*—
Bennett, Marvin D. and R. D. 3,077,204.

Bennett, Sherman A. Aquatic amusement device. 3,091,453, 5–28–63, Cl. 272—1.

Bennett, Thomas C., Jr. Animal cages with interlocking framing and interlocking gutter. 3,087,458, 4–30–63, Cl. 119—17.

Bennett, Walter, and S. Barker, to Utility Trailer Mfg. Co. Vehicle running gear and suspension. 3,081,292, 3–12–63, Cl. 280—104.5.

Bennett, Walter P.: *See*—
Nielsen, Dale E., Olsen, and Bennett. 3,075,583.
Nielsen, Dale E., Olsen, and Bennett. 3,104,134.

Bennett, Willard H. Method and apparatus for producing electrically conducting coatings on vitreous substances. 3,075,861, 1–29–63, Cl. 117—211.

Bennett, Willard H. Circuit for producing square wave pulses by parallel capacitors discharging through load at different rates. 3,097,311, 7–9–63, Cl. 328—67.

Bennett, Willard H. Propulsion means for space vehicles. 3,102,384, 9–3–63, Cl. 60—35.5.

Bennett, William R. Personal inflatable life raft. 3,105,981, 10–8–63, Cl. 9—316.

Bennett, William D., and H. H. Green, to Dunlop Rubber Co. Ltd. Extruders. 3,103,037, 9–10–63, Cl. 18—12.

Bennett, William F.: *See*—
Moran, Lawrence F., and Bennett. 3,083,399.

Bennett, William N., to Cypress Garden Skis, Inc. Ratchet ski binder. 3,102,279, 9–3–63, Cl. 9—310.

Bennetts, John L.: *See*—
Sailer, Erik, Timmerman, Bennetts, and Armstrong. 3,109,866.

Benning, Anthony F., to E. I. du Pont de Nemours and Co. Anti-knock motor fuels. 3,113,850, 12–10–63, Cl. 44—69.

Benning, Bennie L. R., and C. J. Cuneo, to FMC Corp. Production of barium hydroxide monohydrate. 3,082,066, 3–19–63, Cl. 23—186.

Benning, Wilbert O. Safety belt indicating device. 3,112,-467, 11–26–63, Cl. 340—52.

Benninger A.-G., Maschinenfabrik: *See*—
Coester, Robert. Re. 25,409.
Wildi, Edwin. 3,096,945.

Benninghoff, William E., and J. W. Thomas, to The Ohio Crankshaft Co. Resistance welding method and apparatus. 3,098,146, 7–16–63, Cl. 219—59.

Benninghoff, William L. Taper thread cutting die head with radially removable wedge elements for controlling the chasers. 3,082,446, 3–26–63, Cl. 10—120.5.

Benno, Edward L., to The Frank G. Hough Co. Tractor loaders. 3,092,920, 6–11–63, Cl. 37—117.5.

Benoit, George J., Jr., to California Research Corp. Lubricant composition. 3,110,673, 11–12–63, Cl. 252—51.5.

Benoit, Horace O. J. Wire stripping tool. 3,080,469, 3–5–63, Cl. 219—29.

Benoit, Roland A., to Royalmetal Corp. Drawer pull. 3,098,-686, 7–23–63, Cl. 312—320.

Benoti, Robert L.: *See*—
Mackiw, Vladimir N., Kunda, and Benoti. 3,088,803.

Bensema, Eugene E., and C. A. Brady, to United States Steel Corp. Apparatus for weighing a moving object. 3,106,259, 10–8–63, Cl. 177—12.

Benson, Benjamin S., Jr., and R. S. Geocaris, to Thomas Industries, Inc. Combination lighting and ventilating fixture. 3,090,434, 5–21–63, Cl. 165—50.

Benson, Carl F., to The Torrington Co. Constant velocity universal joint. 3,083,549, 4–2–63, Cl. 64—21.

Benson, Donald H., and W. R. Pratt, to Vanguard Abrasive Corp. Method of making a diamond abrasive saw blade. 3,110,579, 11–12–63, Cl. 51—293.

Benson, Everett H., to Bergevin & Carlson Mining and Milling Co. Process for extracting gold and apparatus therefor. 3,087,611, 4–30–63, Cl. 209—3.

Benson, Gerald J. Device for mailing coins. 3,112,861, 12–3–63, Cl. 229—92.9.

Benson, Gustav E., and H. M. Saunders, to Owens-Corning Fiberglas Corp. Apparatus for feeding a multifilament strand. 3,071,301, 1–1–63, Cl. 226—168.

Benson, Harvey D.: *See*—
Palopoli, Frank P., Fell and Benson. 3,075,014.

Benson, Jack J.: *See*—
Williams, Sam B., and Benson. 3,077,076.

Benson, John O., to General Mills, Inc. Method of making star-shaped cereal. 3,077,406, 2–12–63, Cl. 99—81.

Benson, Louis. Reciprocating permanent magnet switching device. 3,114,809, 12–17–63, Cl. 200—87.

Benson, Louise P. Garment for infant of crawling stage. 3,085,248, 4–16–63, Cl. 2—80.

Benson Mfg. Co., The: *See*—
Dean, George A. 3,083,893.

Benson, Marco D. Jack for light fixtures. 3,111,232, 11–19–63, Cl. 214—1.

Benson, Richard W. H.: *See*—
Ure, George R., Benson, and Barrass. 3,084,109.

Benson, Robert W., to Xerox Corp. Image selector apparatus. 3,094,036, 6–18–63, Cl. 88—24.

Benson, Robert W., and V. J. Raelson, to Armour Research Foundation of Illinois Institute of Technology. Method and apparatus for stress analysis. 3,101,608, 8–27–63, Cl. 73—67.5.

Benson, Robert W., and J. O. Wilson, to Xerox Corp. Edge drag device. 3,104,872, 9–24–63, Cl. 271—61.

Benson, Robert W., and J. O. Wilson, to Xerox Corp. Paper supply tray. 3,104,873, 9–24–63, Cl. 271—61.

Benson, Richard W. H., to Imperial Chemical Industries Ltd. Process for the production of terephthalic acid. 3,091,636, 5–28–63, Cl. 260—524.

Benson's Anchors, Inc.: *See*—
Benedict, Frank A. 3,078,074.

Bent, John H., and R. H. Olsson, to Gardner-Denver Co. Pendant control device. 3,073,347, 1–15–63, Cl. 136—636.1.

Bentele, Max: *See*—
Hurley, Roy T., Bentele, and Kimberley. 3,081,753.

Bentele, Max, to Curtiss-Wright Corp. Air cooled rotor for rotary mechanism. 3,112,870, 12–3–63, Cl. 230—210.

Bentele, Max, C. Jones, and A. H. Raye, to Curtiss-Wright Corp. Cooling and lubrication system for rotary mechanisms. 3,098,605, 7–23–63, Cl. 230—210.

Bentele, Max, E. F. Pierce, and C. Jones, to Curtiss-Wright Corp. Compensated rotary mechanism construction. 3,102,492, 9–3–63, Cl. 103—130.

Bentele, Max, C. Jones, and A. H. Raye, to Curtiss-Wright Corp. Rotor and bearing construction for rotary mechanisms. 3,111,261, 11–19–63, Cl. 230—207.

Benteler, Helmut, to Benteler-Werke Aktiengesellschaft Werk Neuhaus Schloss Neuhaus. Method of and apparatus for continuously producing small section welded steel tubes. 3,075,484, 1–29–63, Cl. 113—33.

Benteler-Werke Aktiengesellschaft Werk Neuhaus Schloss Neuhaus: *See*—
Benteler, Helmut. 3,075,484.

Bentfield, Harold R. Tab applicator. 3,071,047, 1–1–63, Cl. 93—1.1.

Bentkowsky, Jerome, to Sperry Rand Corp. Fine and coarse signal mixing circuit. 3,100,859, 8–13–63, Cl. 318—30.

Bentkowsky, Jerome, J. H. Chadwick, Jr., and V. E. Williams, to Sperry Rand Corp. Turn rate control system. 3,111,-105, 11–19–63, Cl. 114—144.

Bentkowsky, Jerome, J. H. Chadwick, Jr., and V. E. Williams, to Sperry Rand Corp. Automatic pitch control system. 3,106,903, 10–15–63, Cl. 114—16.

Bentley, Arthur P., to Fred-Tex Machine, Inc. Constant tension hydraulic brake. 3,073,418, 1–15–63, Cl. 188—91.

Bentley Engineering Co. Ltd., The: *See*—
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Manger, Charles F., and Smith. 3,095,719.

Bentley, George P., to Instrument Development Laboratories, Inc. Temperature control system for viscous fluid instrumentation. 3,076,885, 2–5–63, Cl. 219—20.

Bentley, George P., G. C. McNabb, and E. L. Lewis, to Instrument Development Laboratories, Inc. Method of making slip ring-commutator devices. 3,085,951, 4–16–63, Cl. 204—146.

Bentley, George W.: *See*—
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Bentley, Harry O., to Owens-Corning Fiberglas Corp. Method and apparatus for stripping yarns or threads from bobbins. 3,112,550, 12–3–63, Cl. 28—19.

Bentley, James S., to Teleflex Products Ltd. Vehicle seats with safety harness. 3,091,496, 5–28–63, Cl. 297—386.

Bentley, John M., to Westinghouse Electric Corp. High impedance voltage comparator. 3,090,000, 5–14–63, Cl. 323—67.

Bentley, John M., and J. H. Brown, to United States of America, Navy. Direct current digital to analog decoder. 3,092,824, 6–4–63, Cl. 340—347.

Bentley, Kenneth J.: *See*—
Shaw, Herbert S., and Bentley. 3,095,964.

Bentley, Kenton E., and L. G. Cole, to Consolidated Electrodynamics Corp. Oxygen detection. 3,086,924, 4–23–63, Cl. 204—1.

Bentley Knitting Machinery Organization, Inc., The: *See*—
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Bentley, Richard E., Jr., to Texas Paint Supply Co. Paint container device. 3,091,793, 6–4–63, Cl. 15—257.06.

Benton, Louis A., to Johns-Manville Corp. Continuous dry blender. 3,090,602, 5–21–63, Cl. 259—3.

Benton, Robert C., and D. A. Bauchspies, to Centre Circuits, Inc. Etching machine. 3,082,774, 3–26–63, Cl. 134—63.

Bentov, Itzhak E. Means for administering medicine. 3,102,540, 9–3–63, Cl. 128—232.

Bentz, Charles C., and P. J. Tamburro, to Bell Telephone Laboratories, Inc. Cable connector shield. 3,116,361, 12–31–63, Cl. 174—88.

Bentzinger, Harlan A., to Precision Chemical Pump Corp. Pump. 3,092,032, 6–4–63, Cl. 103—150.

Benveniste, Jacques: *See*—
Reck, Richard A., Wilhelmy, and Benveniste. 3,104,984.

Benway, Robert E., to Radio Corp. of America. Electron gun. 3,090,882, 5–21–63, Cl. 313—82.

Benz, Fritz: *See*—
Gaeumann, Ernst, and Benz. 3,089,816.

Benz, Jakob, to Sandoz Ltd. Process for the production of 2,4,5,6-tetrachloropyrimidine. 3,075,980, 1–29–63, Cl. 260—251.

Benz, Jakob, A. Schweizer, and W. Wehrli, to Sandoz Ltd. Monoazo diphenyl triazine dyestuffs. 3,093,628, 6–11–63, Cl. 260—153.

Benz, Jakob, and L. Schneider, to Sandoz Ltd. Reactive dyestuffs. 3,114,746, 12–17–63, Cl. 260—163.

Benzimra, Georges D.: *See*—
Benichou, Samuel, Beyrard, and Benzimra. 3,072,465.
Benichou, Samuel, Beyrard, and Benzimra. 3,072,682.

Benzing, Erhard P., to Monsanto Chemical Co. Process for the manufacture of enamines. 3,074,940, 1–22–63, Cl. 260—247.

Benzing, Jacob M.: *See*—
Szuba, Walter D., and Benzing. 3,094,085.

Benzing, Walter C., E. C. Schmarschmidt, and R. E. Grammer, to Merck & Co., Inc. Process for producing pure crystalline silicon by pyrolysis. 3,112,997, 12–3–63, Cl. 23—223.5.

Benzinger, Theodor H. Thermopile switching systems. 3,099,-923, 8–6–63, Cl. 73—341.

Bequette, Robert J.: *See*—
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Ber, Esther, F. Dvolaitzky, and J. M. Guilbert, to Societe Civile Auguil. 2-hydrazino-octane-sulfate. 3,079,441, 2–26–63, Cl. 260—583.

Berard, Oreste. Composite louver slats for jalousie windows. 3,110,936, 11–19–63, Cl. 20—62.

Berard, Thomas C., to American Massage Sales and Mfg. Corp. Kinesitherapy pad. 3,092,099, 6–4–63, Cl. 128—33.

Berard, Thomas C. Kinesitherapy device. 3,096,757, 7–9–63, Cl. 128—36.

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Hudgin, Donald E., and Berardinelli. 3,093,617.

Berardinelli, Frank M., and R. W. Stevenson, to Celanese Corp. of America. Oxymethylene copolymers. 3,072,609, 1–8–63, Cl. 260—67.

Berberich, Georg: *See*—
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Berberich, Helmut, and H. Thoma, to Thoma Co. Device for eliminating flying fibre from textile machines, particularly spinning and doubling frames. 3,086,240, 4–23–63, Cl. 15—312.

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Berch, William H., to General Dynamics Corp. Routing means for telephone system. 3,098,125, 7–16–63, Cl. 179—18.

Berch, William H., and B. A. Harris, to General Dynamics Corp. Recording control circuit. 3,094,700, 6–18–63, Cl. 346—74.

Berch, William H., M. A. Clement, R. K. Kaye, and J. W. Newitt, to General Dynamics Corp. Toll ticketing telephone system. 3,102,166, 8–27–63, Cl. 179—7.1.

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Berchtold, Max, to I-T-E Circuit Breaker Co. Aerodynamic wave machine port lead edge modification for extended speed range. 3,074,622, 1–22–63, Cl. 230—69.

Berchtold, Max, to I-T-E Circuit Breaker Co. Aerodynamic wave machine formed rotor blades to minimize thermal stress. 3,101,168, 8–20–63, Cl. 230—69.

Berck, William F., to Ralph N. Brodie Co. Valve control mechanism. 3,094,004, 6–18–63, Cl. 74—2.

Berck, William F., to Ralph N. Brodie Co. Shut-off valve for metered flows. 3,101,924, 8–27–63, Cl. 251—25.

Berdan, David, and T. Romano, Jr., to Buck Engineering Co., Inc. Spring wear clip for use on pin cups of automatic pin setting machine. 3,107,093, 10–15–63, Cl. 273—42.

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Berenbaum, Arthur, E. Vanderslice, and W. T. Yoast, to Philco Corp. Dryer and method of operation. 3,100,144, 8–6–63, Cl. 34—43.

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Mager, Humphrey I. X., Berends, and Schut. 3,094,530.

Berens, Heinrich, to Reimers-Getriebe KG. Control mechanism for infinitely variable cone pulley transmissions. 3,090,246, 5–21–63, Cl. 74—230.17.

Berens, Heinrich, to Reimers Getriebe K.G. Automatic chain tightening mechanism for infinitely variable cone pulley gears. 3,097,540, 7–16–63, Cl. 74—230.17.

Beresford, Peter A. International standard time indicating device. 3,115,002, 12–24–63, Cl. 58—43.

Beresin, Morris. Artificial teeth. 3,105,300, 10–1–63, Cl. 32—2.

Beretvas, Helen S., to Standard Oil Co. Alkyl phenol lactates. 3,084,183, 4–2–63, Cl. 260—479.

Beretvas, Helen S., to Standard Oil Co. Rust inhibitor for lubricating oil. 3,116,252, 12–31–63, Cl. 252—51.5.

Beresa, Helen D. Clothesline cover. 3,075,648, 1–29–63, Cl. 211—180.

Berg Airlectro Products Co.: *See*—
Brodi, Edward J., Dobrikin, and Mastis. 3,109,347.
Dobrikin, Harold L. 3,093,324.
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Horowitz, Charles, and Dobrikin. 3,109,456.
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Koteles, Stephen A., and Berg. 3,114,165.

Berg, Clyde H. O.: *See*—
Switzer, Robert L., Lieffers, and Berg. 3,073,683.
Switzer, Robert L., Lieffers, and Berg. 3,104,947.

Berg Electronics, Inc.: *See*—
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Berg, Jack V., to Minnesota Mining and Mfg. Co. Tape attaching machine. 3,076,493, 2–5–63, Cl. 156—446.

Berg, Joseph A. Self-aligning seating construction. 3,080,-195, 3–5–63, Cl. 297—312.

Berg, Louis, to Duplic Industries. Frozen confection dispensing machine. 3,075,480, 1–29–63, Cl. 107—1.

Berg, Louis. Power-operated screw-driver and parts assembly machine. 3,107,707, 10–22–63, Cl. 144—32.

Berg, Quentin, to AMP Inc. Method of manufacturing electrical connectors. 3,074,150, 1–22–63, Cl. 29—155.55.

Berg, Quentin. Electrical connector. 3,086,193, 4–16–63, Cl. 339—258.

Berg, Richard D., to Western Electric Co., Inc. Torque testing apparatus. 3,088,313, 5–7–63, Cl. 73—139.

Berg, Robert A., to Weyerhaeuser Co. Platform carton. 3,095,086, 6–25–63, Cl. 206—45.19.

Berg, William G., and I. Ginsburgh, to Standard Oil Co. Gamma ray caliper. 3,080,479, 3–5–63, Cl. 250—71.5.

Berg, William K., R. A. Riddell, E. G. Spencer, and L. E. Tomlinson, to North American Aviation, Inc. Vent and relief valve. 3,099,285, 7–30–63, Cl. 137—220.

Bergan, Reuben A.: *See*—
Monaghan, Ralph, and Bergan. 3,105,148.

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Berge, Jacques M. A. C., to Ch. Gervias Societe Anonyme. Apparatus for the manufacture of cheese. 3,085,333, 4–16–63, Cl. 31—46.

Berge, Sven E., to Bofors, Aktiebolaget. Device for guns on combat vehicles. 3,101,028, 8–20–63, Cl. 89—14.

Berge, William O., to Sperry Rand Corp. Driver circuit using avalanche transistors and resonant LC for respectively discharging and recharging of capacitor. 3,114,056, 12–10–63, Cl. 307—88.5.

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Bergee, Arthur P.: *See*—
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Bergel, Franz, and R. Wade, to National Research Development Corp. O - [N - di - (chloroalkyl)carbamoyl]serine. 3,079,302, 2–26–63, Cl. 167—78.

Bergemann, Werner E., and D. L. Whitmore, to The Gleason Works. Cutter checking device and method. 3,099,883, 8–6–63, Cl. 33—201.

Bergen, Charles R., and W. W. Woods, to Continental Oil Co. Method of producing heat-stable greases. 3,090,750, 5–21–63, Cl. 252—18.

Bergen Machine & Tool Co., Inc.: *See*—
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Kovach, John E. 3,115,974.

Bergen Pipesupport Corp.: *See*—
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Bergen Research Engineering Corp., The: *See*—
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Bergen, Walter F., to Pacific & Atlantic Shippers, Inc., d.b.a. Tyres Industries. Dock bumper. 3,096,973, 7–9–63, Cl. 267—1.

Bergendahl, Raymond L., to Cherry-Burrell Corp. Container washing apparatus. 3,099,276, 7–30–63, Cl. 134—107.

Bergener, Arthur C.: *See*—
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Bergenson, Harold L., and D. S. Potter; said Potter assor. to said Bergerson. Vehicle with boom. 3,077,338, 2–12–63, Cl. 254—139.1.

Bergenwall, Henning O., to Merex Furniture Co, Ltd. Reclining chair. 3,074,759, 1–22–63, Cl. 297—318.

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Casty, Tichard, Abel, Maeder, and Berger. 3,104,931.

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Berger, Bernard H., to Cities Service Research and Development Co. Antifreeze composition. 3,090,757, 5–21–63, Cl. 252—75.

Berger, C. L., & Sons, Inc.: *See*—
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Davis, Elwin W. 3,085,465.

Berger, Charles V., to Universal Oil Products Co. Production of specific xylene isomers. 3,078,318, 2–19–63, Cl. 260—668.

Berger, Daniel R.: *See*—
Gavlin, Gilbert, Boyer, and Berger. 3,104,247.

Berger, Donald E.: *See*—
De Haven, Clark G., and Berger. 3,070,836.
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Berger, Donald E., to Phillips Petroleum Co. Control of absorber product. 3,090,683, 5–21–63, Cl. 48—196.

Berger, Donald E., and R. G. Atkinson, to Phillips Petroleum Co. Control of polymerization reactions. 3,078,265, 2–19–63, Cl. 260—94.9.

Berger, Emilio C. Apparatus for improving visuality of projected images. 3,085,470, 4–16–63, Cl. 88—24.

Berger, Frank M., to Carter Products, Inc. Novel composition of matter for treatment of nervous disorders. 3,090,-726, 5–21–63, Cl. 167—65.

Berger, Frank M., and B. J. Ludwig, to Carter Products, Inc. Analgesic aryloxypropanolamines. 3,085,938, 4–16–63, Cl. 167—65.

Berger, Frank M., and S. L. Plechner. Titanic acid complexes of hydroxy aliphatic carboxylic acids antiperspirant compositions. 3,090,728, 5–21–63, Cl. 167—90.

Berger, Fritz, to Rheinmetall G.m.b.H. Mechanical fuse for projectiles. 3,090,311, 5–21–63, Cl. 102—71.

Berger, Fritz, to Rheinmetall G.m.b.H., Firma. Land mine, more particularly anti-tank mine. 3,098,439, 7–23–63, Cl. 102—8.

Berger, Fritz, to Rheinmetall G.m.b.H., Firma. Land mine, more particularly anti-tank mine. 3,098,440, 7–23–63, Cl. 102—8.

Berger, George C. Vapor generating apparatus. 3,115,872, 12–31–63, Cl. 123—25.

Berger, George E. Toy plane control device. 3,107,452, 10–22–63, Cl. 46—77.

Berger, Johannes, to C. Zeiss. Five lens objective. 3,099,-702, 7–30–63, Cl. 88—57.

Berger, Kornel. Electric swivel connector. 3,104,897, 9–24–63, Cl. 285—166.

Berger, Leon. Interchangeable disc for surgical drainage device. 3,077,192, 2–12–63, Cl. 128—283.

Berger, Max. Bracelet 3,073,492, 1–15–63, Cl. 224—4.

Berger, Paul, to Advance Transformer Co. Apparatus for igniting and operating gaseous discharge devices. 3,112,-428, 11–26–63, Cl. 315—138.

Berger, Paul, to Advance Transformer Co. Gaseous discharge ballast. 3,114,861, 12–17–63, Cl. 315—189.

Berger, Pierre, to Compagnie des Ateliers et Forges de la Loire (St. Chamond-Firminy-St. Etienne-Jacob-Holtzer). Extrusion apparatus. 3,079,634, 3–5–63, Cl. 18—12.

Berger, Richard K., A. J. Nicholas, and D. N. Shaw, to Worthington Corp. Means for converting a refrigeration compressor for use in a plural compressor refrigeration installation. 3,072,318, 1–8–63, Cl. 230—206.

Berger, Richard M.: *See*—
Buuzl, Rudolph H., and Berger. 3,094,736.

Berger, Richard M., to U.S. Filter Corp. Method of treating continuous filamentary tows. 3,095,343, 6–25–63, Cl. 156—180.

Berger, Richard M., to U.S. Filter Corp. Products formed from continuous filamentary tows. 3,111,702, 11–26–63, Cl. 15—563.

Berger, Werner W., E. S. Gwin, and W. P. Wood, to General Motors Corp. Vehicle body. 3,103,380, 9–10–63, Cl. 296—28.

Berger, Wilhelm, to G. Buehler. Control means and method in a drier for macaroni products. 3,110,573, 11–12–63, Cl. 34—30.

Berger, Wolfgang W.: *See*—
Smoot, Charles H., Berger, Adams, and Swanson. 3,115,-778.

Bergeretto, Adelmo. Collapsible container adapted for storing loose, flowable material. 3,107,712, 10–22–63, Cl. 150—.5.

Bergeron, Alfred L., and E. T. Walter, to Pneumatic Scale Corp., Ltd. Packaging machine. 3,107,774, 10–22–63, Cl. 198—32.

Bergeron, Charles R., and A. O. Wikman, to Ethyl Corp. Purification of 1,1,1-trichloroethane by extractive distillation. 3,113,079, 12–3–63, Cl. 202—39.5.

Bergevin & Carlson Mining and Milling Co.: *See*—
Benson, Everett H. 3,087,611.

Bergfald, Oren T.: *See*—
Cullinan, John C., Trowbridge, and Bergfald. 3,084,553.

Bergford, Gerald W.: *See*—
Byrne, James D., Bergford, and Kirschner. 3,116,395.

Bergfors, Gordon A., to Exercycle Corp. Pedal crank mechanism for exerciser. 3,081,645, 3–19–63, Cl. 74—594.1.

Berggren, Grant W. Amalgamation table. 3,092,572, 6–4–63, Cl. 209—66.

Berggren, John L. Record table drives for sound reproduction machines. 3,105,692, 10–1–63, Cl. 274—39.

Berggren, Lars: *See*—
Dahle, Orvar, and Berggren. 3,093,999.

Berggren, Lloyd E., to Minneapolis-Honeywell Regulator Co. Transportation systems. 3,090,328, 5–21–63, Cl. 104—138.

Bergh Bros. Co., Inc.: *See*—
Bergh, George G. and R. G. 3,107,807.

Bergh, George G. and R. G., to Bergh Bros. Co., Inc. Box wall and base combination. 3,107,807, 10–22–63, Cl. 220—4.

Bergh, Robert G.: *See*—
Bergh, George G. and R. G. 3,107,807.

Berghash, Hyman H., to Roberts Dental Mfg. Co., Inc. Mouth guard. 3,073,300, 1–15–63, Cl. 128—136.

Berghaus, Bernhard. Method of and apparatus for producing reactions under electrical action. 3,090,745, 5–21–63, Cl. 204—312.

Berghaus, Klaus: *See*—
Bomm, Heinz, and Berghaus. 3,098,259.

Berghausen, Philip E.: *See*—
Ramey, Robert A., Soller, and Berghausen. 3,110,876.
Soller, Walter, Berghausen, Smith, and Snyder. 3,114,-260.

Berghgracht, Marius: *See*—
Boone, Joseph. 3,114,298.

Berghöfer, Hans, and H. Griebel. Gas connection tap with hose connection part. 3,100,619, 8–13–63, Cl. 251—149.9.

Bergin, John A.: *See*—
Feldman, Charles L., Fields, and Bergin. 3,091,940.

Bergland, Harry R., and A. R. Wagner, to Burroughs Corp. Stop mechanism control for record feeding apparatus. 3,072,048, 1–8–63, Cl. 101—100.

Bergland, Harry R., and A. R. Wagner, to Burroughs Corp. Recording apparatus. 3,088,400, 5–7–63, Cl. 101—93.

Bergling, Charles G. B.: *See*—
Bergling, Karl A. L. 3,108,350.

Bergling, Karl A. L., to C. G. B. Bergling. Sawing device. 3,108,350, 10–29–63, Cl. 25—108.

Berglof, Bengt R.: *See*—
Andersson, Birger A. V., and Berglof. 3,077,345.

Berglund, Carl E.: *See*—
Margraf, Harry J., Robinson, and Berglund. 3,078,803.

Berglund, David B., and J. H. Drew. Texas Electronics Products Corp. Random sampling demonstration device. 3,095,-655, 7–2–63, Cl. 35—30.

Berglund, Erik E., to Hermorion Ltd. Tetrahedron producing method and apparatus. 3,090,175, 5–21–63, Cl. 53—28.

Berglund, Gustav R., to L. M. Ericsson Telefonaktiebolaget. Mobile radio stations interconnected with a wire telephone system. 3,105,118, 9–24–63, Cl. 179—41.

Berglund, Kurt K., A. O. Jacobsson, and G. A. Magni, to Jarnhs Elektriska Aktiebolag. Release system for radiographic exposures. 3,103,590, 9–10–63, Cl. 250—93.

Berglund, Wilhelm A. Safety valve assembly for brake lines. 3,109,448, 11-5-63, Cl. 137—460.

Bergman, Edward, to Art Steel Co., Inc. Interlocking cabinets. 3,084,985, 4-9-63, Cl. 312—111.

Bergman, Elliot: *See*—
Bell, Edward R., Campanile, and Bergman. 3,105,801.

Bergman, Gunnar B.: *See*—
Bradley, Wilson, Jr., and Bergman. 3,104,334.

Bergman, Robert T. Drafting instrument. 3,081,545, 3-19-63, Cl. 33—27.

Bergman, Sune H., to ABO Mustad & Son. Musical instrument. 3,099,700, 7-30-63, Cl. 84—1.19.

Bergmann, Adolph G.: *See*—
Spooner, Howard E., and Bergmann. 3,113,196.

Bergmann, Anders K., A. H. Elldin, A. C. Jacobaeus, C. G. Svala, and G. E. Welander, to Telefonaktiebolaget LM Ericsson. Electronic telephone system. 3,088,998, 5-7-63, Cl. 179—15.

Bergmann, Artur E. H., to Klockner-Humboldt-Deutz Aktiengesellschaft. Froth flotation of cryolite. 3,082,872, 3-26-63, Cl. 209—167.

Bergmann, Ernst R., to Goodman Mfg. Co. Continuous mining machine. 3,086,762, 4-23-63, Cl. 262—9.

Bergmann, Ernst R., to Goodman Mfg. Co. Adjustable boring head for continuous mining machine. 3,109,635, 11-5-63, Cl. 262—26.

Bergmann, Heinrich W., to Conch International Methane Ltd. Stabilization means for storage tanks. 3,095,107, 6-25-63, Cl. 220—15.

Bergmann, Paul F., to Johnson Products, Inc. Rocker arm oiling system. 3,111,119, 11-19-63, Cl. 123—90.

Bergmann, Paul F., J. W. Humphreys, and M. V. Dodd, to Johnson Products, Inc. Mechanical self-adjusting tappet. 3,115,128, 12-24-63, Cl. 123—90.

Bergmeister, Eduard: *See*—
Bauer, Hans, Bergmeister, and Heckmaier. 3,115,487.

Bergmeister, Eduard, R. Fritzweiler, H. Schwarz, and H. Wimmer, to Wacker-Chemie G.m.b.H. Process and apparatus for continuously washing highly viscous masses. 3,086,243, 4-23-63, Cl. 18—1.

Bergomi Societa per Azioni: *See*—
Bandiroli, Edoardo. 3,090,444.

Bergonzo, Pierre, to Tarex S.A. Automatic lathe for cutting threads. 3,089,160, 5-14-63, Cl. 10—101.

Bergougnou, Maurice A., and T. Kalina, to Esso Research and Engineering Co. Process for the recovery of bitumen from tar sands utilizing a cooling technique. 3,114,694, 12-17-63, Cl. 208—11.

Bergounhon, René, and G. Bellanger, to Adar S.A.R.L. Servo mechanism for controlling various members. 3,083,534, 4-2-63, Cl. 60—51.

Bergquist, Dwight H., to Henningsen, Inc. Method of preparing powdered egg albumen. 3,082,098, 3-19-63, Cl. 99—210.

Bergquist, Palmer. Bow pull indicator. 3,097,624, 7-16-63, Cl. 116—67.

Bergquist, Roger K.: *See*—
Jernberg, Evert H., and Bergquist. 3,091,714.

Bergson, Gustav. Computer for taking squares of plurality of sums. 3,083,902, 4-2-63, Cl. 235—61.

Bergstedt, John E. Display refrigerator doors. 3,074,124, 1-22-63, Cl. 20—19.

Bergstein, Frank D., R. W. Nerenberg, and L. Back, to Interstate Folding Box Co. Process and apparatus for the manufacture of cell interlined containers. 3,104,596, 9-24-63, Cl. 93—36.01.

Bergsteinsson, Ingolfur, I. D. Webb, and P. S. Backlund, to Union Oil Co. of California. Phosphoric acid. 3,077,381, 2-12-63, Cl. 23—165.

Bergsten, Arvid H.: *See*—
Bergsten, Frank R. and A. H. 3,109,813.

Bergsten, Frank R. and A. H. Septic tanks. 3,109,813, 11-5-63, Cl. 210—532.

Bergstrand, Ralph B.: *See*—
Candlin, James E., Jr., and Bergstrand. 3,102,497.

Bergsträsser, Georg, to Telefonbau und Normalzeit G.m.b.H. Manually operated generators for telephone service. 3,094,-637, 6-18-63, Cl. 310—69.

Bergstrom, Carl V. Flexible sealing grommet. 3,109,662, 11-5-63, Cl. 277—178.

Bergstrom, Eric V. Device to aid drawing of true perspective views. 3,086,296, 4-23-63, Cl. 35—26.

Bergstrom, Erick W., Jr. Pallet coupler. 3,073,613, 1-15-63, Cl. 280—24.

Bergstrom, Frederick S., to Wood Conversion Co. Roof deck structure. 3,077,703, 2-19-63, Cl. 50—346.

Bergstrom, Herman A., to General Aniline & Film Corp. Preparation of dyestuffs and pigments. 3,079,376, 2-26-63, Cl. 260—192.

Bergström, Hilding O. V., and K. G. Trobeck (deceased, by Å. Furrer, administrator). Process for combustion of waste liquors. 3,113,833, 12-10-63, Cl. 23—48.

Bergstrom, Nils E. L. Method for mounting of plastic sheet material, particularly as ceiling covering in a room, and a tool accomplishing the method. 3,105,239, 10-1-63, Cl. 1—60.

Bergstrom, Thomas A.: *See*—
Birdsall, George T., and Bergstrom. 3,091,464.

Bergwerksgesellschaft Hibernia A.G.: *See*—
Ester, Wilhelm, and Sommer. 3,092,557.
Ester, Wilhelm, and Sommer. 3,092,587.

Bergwerksverband zur Verwertung von Schutzrechten der Kohlentechnik G.m.b.H.: *See*—
Grosskinsky, Otto, Huck, and Klempt. 3,104,959.

Bergy, Malcolm E., R. R. Herr, and D. J. Mason, to The Upjohn Co. Antibiotic lincolnensin and method of production. 3,086,912, 4-23-63, Cl. 167—65.

Beriger, Ernst, to Ciba Ltd. New carbamoylalkyl phosphorus ester compounds. 3,092,541, 6-4-63, Cl. 167—22.

Berk, Aristid D.: *See*—
Kleinman, Leonard, and Berk. 3,076,132.

Berk, Aristid D., and E. Strumwasser, to Hughes Aircraft Co. Bidirectional coupling between waveguides via two nonreciprocal gyromagnetic coupling rods. 3,099,805, 7-30-63, Cl. 333—24.1.

Berk, Sigmund, to United States of America, Army. Radioisotope method for measuring the weight of the contents of assembled items. 3,089,378, 5-14-63, Cl. 86—32.

Berk, Sigmund, to United States of America, Army. Radioactive temperature indicating devices. 3,090,862, 5-21-63, Cl. 250—43.5.

Berkeley, Florence B.: *See*—
Berkeley, Laurence J. 3,093,103.

Berkeley, Laurence J., deceased; F. B. Berkeley, executrix. Method of producing spiral pipe. 3,093,103, 6-11-63, Cl. 113—35.

Berkeley, Peter ., Jr.: *See*—
Martzweiller, Joseph K., Robbins, and Berkeley. 3,094,-564.

Berkelhammer, Gerald, F. A. Wagner, Jr., and R. J. Magee, to American Cyanamid Co. Triazinylalkyl phosphates. 3,102,885, 9-3-63, Cl. 260—248.

Berkey, Reynold A., to Diamond Alkali Co. Method of killing microorganisms, plant pests, and plants with halogenated dihydrothiophene-1,1-dioxide compounds. 3,073,692, 1-15-63, Cl. 71—2.5.

Berkin, George M., to International Business Machines Corp. Serial adder and subtracter. 3,083,910, 4-2-63, Cl. 235—153.

Berkley, Charles R., to Gulf Oil Corp. Chemical pump for oil wells. 3,097,605, 7-16-63, Cl. 103—6.

Berkley, Earl E.: *See*—
Reddick, John A., Berkley, Linthicum, and Buxton. 3,083,828.

Berkley Machine Co.: *See*—
Ehlscheid, Gunther. 3,086,338.
Subklew, Hermann. 3,085,762.
Winkler, Richard, and Dunnebier. 3,088,382.
Winkler, Richard, and Dunnebier. 3,096,977.
Winkler, Richard, and Dunnebier. 3,097,578.
Winkler, Richard, and Dunnebier. 3,100,110.
Winkler, Richard, and Dünnebier. 3,103,842.

Berkloo, Freerk: *See*—
Allen, Chester, Jr., and Berkloo. 3,099,190.

Berko Electric Mfg. Corp.: *See*—
Knoll, David, and Greenhaus. 3,097,287.

Berkowitz, Bernard, to Sperry Rand Corp. Ring scanning antenna adapted for flush mounting. 3,086,205, 4-16-63, Cl. 343—754.

Berkowitz, David A., to Bell Telephone Laboratories, Inc. Positive or negative high gain image amplifier. 3,107,303, 10-15-63, Cl. 250—213.

Berkowitz, Edward B., T. E. Makowski, B. G. Spars, and N. H. Berlin, to Esso Research and Engineering Co. Refining process for petroleum wax. 3,089,841, 5-14-63, Cl. 208—27.

Berkowitz, Howard, and R. W. Mocs, to The Martin-Marietta Corp. Method and apparatus for automatic digital process control. 3,086,708, 4-23-63, Cl. 235—154.

Berkowitz, Irving L., to Kason Display Hardware Inc. Fitting for attaching together tubular members. 3,089,716, 5-14-63, Cl. 287—54.

Berkoz, Beliz: *See*—
Bowers, Albert, and Berkoz. 3,082,220.
Zderic, John A., Bowers, Halpern, and Berkoz. 3,080,383.
Zderic, John A., Bowers, Halpern, and Berkoz. 3,080,390.

Berl, John T. Quick, detachable safety support or belt. 3,100,484, 8-13-63, Cl. 128—134.

Berlant, Emmanuel. Transport mechanism. 3,109,603, 11-5-63, Cl. 242—55.12.

Berleme, George H. Attachment device for vacuum cleaning slat-like articles. 3,110,923, 11-19-63, Cl. 15—394.

Berlepsch, Joseph C., Jr., and C. J. Crowley, to The Seamless Rubber Co. Marking plastic covers. 3,091,562, 5-28-63, Cl. 156—245.

Berlie (U.K.), Ltd.: *See*—
Williams, Betty M. 3,113,572.

Berlin, Daniel. Tray construction. 3,106,295, 10-8-63, Cl. 211—132.

Berlin, Daniel. Laundry cart. 3,106,409, 10-8-63, Cl. 280—39.

Berlin, Daniel. Convertible hammock and seat. 3,115,364, 12-24-63, Cl. 297—130.

Berlin, Herbert: *See*—
Rudszinat, Willy, and Berlin. 3,091,245.
Rudszinat, Willy, and Berlin. 3,093,143.
Rudszinat, Willy, and Berlin. 3,099,989.

Berlin, Norton: *See*—
Berkowitz, Edward B., Makowski, Spars, and Berlin. 3,089,841.

Berliner, Henry A. Convertible coffee-dining table. 3,087,-442, 4-30-63, Cl. 108—19.

Berliner, Henry A. Ventilating device. 3,090,292, 5-21-63, Cl. 98—2.

Berlinghof, William L., to Motson Services Incorp. Printed circuit. 3,072,500, 1-8-63, Cl. 117—212.

Berlinsky, Shmuel, to Holtzer-Cabot Corp. Gear cutting apparatus. 3,110,135, 11-12-63, Cl. 51—108.

Berly, Edward M. Electrostatic precipitator. 3,108,865, 10-29-63, Cl. 55—131.

Berlyn, Martin J. Harmonic balancing device for internal combustion engines. 3,112,658, 12-3-63, Cl. 74—603.

Berlyn, Martin J., to Dominion Engineering Works Ltd. Stock inlet. 3,115,098, 12-24-63, Cl. 103—113.

Berman, Aaron W., to Aarving Displays, Inc. Connection member for display racks. 3,092,408, 6-4-63, Cl. 287—113.

Berman, Arthur: *See*—
Braginetz, Paul A. 3,114,974.

Berman, Elliot, to The National Cash Register Co. Photochemical printing. 3,090,687, 5-21-63, Cl. 96—48.

Berman, Elliot, to The National Cash Register Co. Derivatives of 1,3,3 trimethyl-spiro (2'H-1'-benzopyran-2,2'-indolene). 3,100,778, 8-13-63, Cl. 260—319.

Berman, Elliot, and H. Schwab, to The National Cash Register Co. Light sensitive element and process for recording images thereon. 3,072,481, 1-8-63, Cl. 96—48.

Berman, Herbert, and S. Sporn, to United Aircraft Corp. Transistor demodulator. 3,075,150, 1-22-63, Cl. 329—50.

Berman, Kurt: *See*—
Adamson, Arthur P., and Berman. 3,112,612.

Berman, Max, to General Electric Co. Series brake system for alternating current motors. 3,087,104, 4-23-63, Cl. 318—367.

Berman, Morris. Expansion-contraction joint and groove form. 3,094,908, 6-25-63, Cl. 94—18.

Berman, Richard M., and B. Schwartz, to Vector Mfg. Co., Inc. Body electrode. 3,085,577, 4-16-63, Cl. 128—418.

Berman, Robert, and W. H. Fordham, Jr. Orthodontic appliance. 3,110,105, 11-12-63, Cl. 32—14.

Berman, Robert A., to Medical Plastics, Inc. Mouth-to-mouth resuscitator. 3,080,864, 3-12-63, Cl. 128—29.

Berman, Sanford. Mixed liquid dispenser. 3,097,670, 7-16-63, Cl. 141—83.

Ber-Mar Mfg.: *See*—
Candlin, James E., Jr., and Bergstrand. 3,078,814.
Scott, Margaret B. 3,079,004.

Bermingham, Peter D., and M. Stiller, to Quikey Mfg. Co. Inc. Key case. 3,101,762, 8-27-63, Cl. 150—40.

Berna, Albert J. Angular rotary drive. 3,103,799, 9-17-63, Cl. 64—20.

Bernaden, Alex, Jr., J. H. Schmidt, and J. R. Quier, to General Motors Corp. Magnetically operable program controller. 3,114,084, 12-10-63, Cl. 317—189.

Bernard, Collette G.: *See*—
Gaudillière, Pierre. 3,111,670.

Bernard, David W.: *See*—
Jones, James O., Bernard, and Colagrossi. 3,107,049.

Bernard, David W., to Sperry Rand Corp. Change of character detector for typewriter controlled punch. 3,106,337, 10-8-63, Cl. 234—23.

Bernard, Frank J. Means for supporting panels, bars, rods and the like. 3,086,627, 4-23-63, Cl. 189—38.

Bernard, George G.: *See*—
Holbrook, Orrin C., and Bernard. 3,070,991.
Holm, Le Roy W., and Bernard. 3,082,822.

Bernard, George G., to The Pure Oil Co. Antifreeze composition containing an indicator material. 3,079,343, 2-26-63, Cl. 252—75.

Bernard, George G., to The Pure Oil Co. Superior waterflooding process. 3,096,820, 7-9-63, Cl. 166—9.

Bernard, George G., to The Pure Oil Co. Method of controlling corrosion of ferrous metal due to pitting by addition of mineral acid. 3,098,700, 7-23-63, Cl. 21—2.7.

Bernard, George G., to The Pure Oil Co. Process for selectively treating subterranean formations. 3,115,930, 12-31-63, Cl. 166—33.

Bernard, James A., to General Motors Corp. Electromagnetic clutch. 3,082,933, 3-26-63, Cl. 230—15.

Bernard, Jean L., M. Gauthron, and A. Gautier, to Commissariat a l'Energie Atomique. Methods and apparatus for the determination of thermal stresses. 3,075,378, 1-29-63, Cl. 73—15.6.

Bernard, John E., Jr.: *See*—
Kelly, Daniel A., and Bernard. 3,102,464.

Bernard, John E., Jr., to Graham-White Mfg. Co. Reel assembly. 3,106,366, 10-8-63, Cl. 242—77.

Bernard, Levio P., to International Business Machines Corp. Fluid immersed clutch mechanism having an externally positioned controlling electromagnet. 3,103,269, 9-10-63, Cl. 192—28.

Bernard, Walter J., to Sprague Electric Co. Electrolytic capacitor and method for producing same. 3,087,872, 4-30-63, Cl. 204—39.

Bernardin Bottle Cap Co., Inc.: *See*—
Montgomery, Van H. 3,114,467.

Bernardini, Albert T., R. F. Managan, and R. D. McGuire. Formable bag construction for use as helmet liner or mattress. 3,070,802, 1-1-63, Cl. 2—6.

Bernardoni, Edwin A.: *See*—
Noznick, Peter P., and Bernardoni. 3,097,950.

Bernat, Charles A., to Plastic Wire & Cable Corp. Method of molding electrical connector plugs. 3,086,251, 4-23-63, Cl. 18—59.

Bernat, Emile, & Sons Co.: *See*—
Dexter, Robert G. 3,078,626.

Bernatis, Thomas S.: *See*—
Love, Robert F., and Bernatis. 3,097,830.

Bernauer, Karl, P. Karrer, and H. Schmid, to Hoffmann-La Roche Inc. C-dihydrotoxiferin dihalides and a process for their preparation. 3,073,832, 1-15-63, Cl. 260—293.

Bernd, Jules P., to Brunswick Corp. Tensioning device. 3,084,887, 4-9-63, Cl. 242—155.

Berndt, Franz: *See*—
Huhn, Wolfram, and Berndt. 3,114,638.

Berndt, Richard F., to Virkotype Corp. Raised printing powder and method of making same and using same. 3,083,116, 3-26-63, Cl. 117—13.

Berne, William E. Resistance exercising apparatus. 3,103,-357, 9-10-63, Cl. 272—79.

Bernemyr, Rune B., K. G. H. Lindberg, B. G. Magnusson, and C. G. Svala, to Telefonaktiebolaget LM Ericsson. Magnetic memory arrangement. 3,102,999, 9-3-63, Cl. 340—174.

Berner, George W., Jr.: *See*—
Edwards, William R., Berner, and Wesselhoft. 3,113,163.

Berner, John: *See*—
Doyle, Frank B., Lassiter, and Berner. 3,077,890.

Berner, Roland A., to Ceramic Combustion and Engineering Co. Pallet. 3,077,982, 2-19-63, Cl. 206—65.

Berner, Roland A., to Nalco Chemical Co. Scale removal. 3,095,862, 7-2-63, Cl. 122—379.

Berner, William L., to Union Carbide Corp. Coupler. 3,110,-510, 11-12-63, Cl. 287—129.

Bernfeld, Isabel M. Garment construction. 3,098,236, 7-23-63, Cl. 2—106.

Bernhard, Frank L., to United States of America, Navy. Automatic electrical connection device. 3,082,396, 3-19-63, Cl. 339—65.

Bernhard, Hermann: *See*—
Loew, Gunther, Thoma, and Bernhard. 3,074,894.

Bernhardi, Tom G., to Whiting Corp. Hydraulic classifier. 3,071,447, 1-1-63, Cl. 23—273.

Bernhardt, William R.: *See*—
Todt, Gerhard, and Bernhardt. 3,101,182.

Bernhauer, Konrad, to Hoffmann-La Roche Inc. Preparation of vitamin B_{12} derivatives. 3,072,674, 1-8-63, Cl. 260—314.

Bernl, Ralph J., J. B. McKelvey, and R. R. Benerito, to United States of America, Agriculture. Perfluoroalkoxy-substituted propyl ethers of cellulose textile fiber and process of making. 3,079,214, 2-26-63, Cl. 8—120.

Bernick, Leslie M., V. P. Pearson, and W. C. Sievert, to Inland Steel Co. Electrolytic tinning process. 3,093,555, 6-11-63, Cl. 204—28.

Bernier, Chester A., to Square D Co. Tool for modifying electrical panelboards. 3,115,053, 12-24-63, Cl. 81—15.

Bernier, Jean C. Axonometric drafting instrument. 3,070,-894, 1-1-63, Cl. 33—189.

Bernier, Jean C. Perspective drawing instrument. 3,109,-210, 11-5-63, Cl. 33—77.

Bernier, Lionel: *See*—
Bianchi, Joseph P. 3,114,300.

Bernier, Louis E., to E. T. Wright & Co., Inc. Method for molding the inner side of a shoe at the heel end. 3,072,934, 1-15-63, Cl. 12—142.

Bernier, Louis E., to E. T. Wright & Co., Inc. Shoe rack. 3,079,002, 2-26-63, Cl. 211—34.

Bernier, Napoleon M., to California Stucco Products of N.E., Inc. Method of coloring stones and other mineral aggregates. 3,099,574, 7-30-63, Cl. 117—100.

Bernier, Roland J. Car seat assembly. 3,094,354, 6-18-63, Cl. 297—112.

Berning, Hans-Heinrich, K. Tredopp, and H. Stoff, to Robot Foto und Elektronik G.m.b.H., & Co., KG. Photographic camera for supervision purposes. 3,111,886, 11-26-63, Cl. 95—1.1.

Berninger, Kenneth L., to General Motors Corp. Speed maintaining mechanism. 3,092,090, 6-4-63, Cl. 123—103.

Berninger, Kenneth L., D. W. Miller, J. A. Remke, and R. A. Hirsch, to General Motors Corp. Variable pitch propeller. 3,115,939, 12-31-63, Cl. 170—160.2.

Berno, Harmond E., to The Ford Motor Co. Brake adjustment link. 3,077,955, 2-19-63, Cl. 188—79.5.

Bernotas, Ralph J., to General Motors Corp. Scraper bowl. 3,073,044, 1-15-63, Cl. 37—129.

Bernotas, Ralph J., to General Motors Corp. Track roller assembly. 3,082,047, 3-19-63, Cl. 308—211.

Bernotas, Ralph J., to General Motors Corp. Scraper bowl. 3,100,945, 8-20-63, Cl. 37—129.

Bernreiter, Jaromir: *See*—
Kessler, Hugo, and Bernreiter. 3,099,278.

Berns Air King Corp.: *See*—
Lipsey, Edward. 3,081,694.

Bernson, Elmer R., M. E. Beyers, and J. H. Babbitt, Jr., to Caterpillar Tractor Co. Disc-type brake with vibration absorbing means. 3,072,220, 1-8-63, Cl. 188—72.

Bernstein, Carl, to Witco Chemical Co., Inc. Polyurethane foams and polyesters for preparation thereof. 3,079,350, 2-26-63, Cl. 260—2.5.

Bernstein, Charles N.: *See*—
Zihlman, Frederick A., Bernstein, and Thames. 3,116,-190.

Bernstein, Herbert L.: *See*—
Abbott, Tirey C., Jr., and Bernstein. 3,102,995.
Yale, Harry L., and Bernstein. 3,072,651.
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Yale, Harry L., Sowinski, and Bernstein. 3,071,596.

Bernstein, Jack, and H. L. Yale, to Olin Mathieson Chemical Corp. Derivatives of 3,4-dihydro-1,2,4-pyrido [2,3-*a*] thiadiazine-7-sulfonamide-1,1-dioxide. 3,103,511, 9-10-63, Cl. 260—243.

Bernstein, Joel H., V. J. Parrillo, D. W. Reuther, and J. R. Vadus, to Sperry Rand Corp. V-beam radar system. 3,072,902, 1–8–63, Cl. 343—11.

Bernstein, Joseph T., to Air Products and Chemicals, Inc. Method and apparatus for separating gaseous mixtures. 3,113,854, 12–10–63, Cl. 62—28.

Bernstein, Malcolm E. Metro-audiometer. 3,093,914, 6–18–63, Cl. 35—35.

Bernstein, Robert, and D. V. Zinn, to Fruehauf Trailer Co. Bottom dump trailer construction. 3,088,774, 5–7–63, Cl. 298—27.

Bernstein, Seymour: *See*—
Cantrall, Edward W., Littell, Bernstein, and Gordon. 3,094,541.
Heller, Milton, and Bernstein. 3,080,361.
Holmund, Chester E., Feldman, Evans, Bernstein, and Dusza. 3,071,580.

Bernstein, Seymour, and M. D. Heller, to American Cyanamid Co. Substituted steroid ethers of the pregnane series. 3,086,031, 4–16–63, Cl. 260—397.45.

Bernstein, Seymour, and G. R. Allen, Jr., to American Cyanamid Co. 9α-halo-11β-hydroxy-16α,17α-alkylidenedioxy-1,4-pregnadienes. 3,111,516, 11–19–63, Cl. 260—239.55.

Bernstein, Wilbur: *See*—
Moore, Albert N. 3,090,485.

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Alberts, Herbert, and Bernt. 3,072,991.

Bernz, Otto, Co., Inc.: *See*—
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Webster, Milo E. 3,078,915.

Berquist, Leonard G., W. A. Millious, and J. H. Newhouse, to Clark Equipment Co. Crane assembly. 3,076,558, 2–5–63, Cl. 212—55.

Berres, Clifford R., G. E. Tabet, and E. A. Wilder, to S. C. Johnson & Son, Inc. Novel emulsifiable waxy linear polyesters. 3,088,928, 5–7–63, Cl. 260—29.2.

Berridge, Frederick L., and R. S. Brooks, to Joseph Robb & Co., Ltd. Floating spring loaded riser device. 3,080,066, 3–5–63, Cl. 211—49.

Berruti, Raymond, to Heterochemical Corp. Vitamin K premix. 3,079,261, 2–26–63, Cl. 99—2.

Berry Bros. Corp.: *See*—
Berry, John C. 3,099,353.

Berry, Clifford E.: *See*—
Brubaker, Wilson M., and Berry. 3,112,863.
Hall, Lawrence G., Cole, and Berry. 3,081,250.

Berry, David A.: *See*—
Bitting, Russell D., and Berry. 3,106,550.

Berry, David A., to Esso Research and Engineering Co. Process for producing aromatic polyamides from acetamidobenzoic acids. 3,109,836, 11–5–63, Cl. 260—78.

Berry, David G., to Collins Radio Co. Uni-directional circularly polarized log periodic antenna. 3,113,316, 12–3–63, Cl. 343—792.5.

Berry, Ernest V. Method of prestressing a crankshaft and crankshaft formed as a result thereof. 3,090,712, 5–21–63, Cl. 148—146.

Berry, Foster W.: *See*—
Jolitz, William L., Satchell, and Berry. 3,104,105.

Berry, Francis D.: *See*—
Davis, Frederick L. and E. J. A., and Berry. 3,073,089.

Berry, Frank, to Differential Hydraulics, Inc. Spherical trajectory rotary power device. 3,075,506, 1–29–63, Cl. 123—43.

Berry, Frank R.: *See*—
Thompson, William, and Berry. 3,109,308.

Berry, George E.: *See*—
Horton, John P., Berry, and Stirling. 3,101,501.

Berry, George G.: *See*—
Wirth, Allan R., Murdock, and Berry. 3,111,357.

Berry, Harry J. Internal combustion engine. 3,080,856, 3–12–63, Cl. 123—18.

Berry, Henry W., to Minneapolis-Honeywell Regulator Co. Attitude controls. 3,097,816, 7–16–63, Cl. 244—14.

Berry, John C., to Berry Bros. Corp. Stocking package and method. 3,099,353, 7–30–63, Cl. 206—79.

Berry, John F., to International Packers Ltd. Humane electrical stunners. 3,104,417, 9–24–63, Cl. 17—1.

Berry, John M., to Midland Chemical Corp. Fill-seal wood finishing method and product. 3,080,257, 3–5–63, Cl. 117—72.

Berry, Kenneth L., to E. I. du Pont de Nemours and Co. Fibrous aluminum borate and its preparation. 3,080,242, 3–5–63, Cl. 106—65.

Berry, Kenneth L., to E. I. du Pont de Nemours and Co. Spinnable mullite fibers and their preparation. 3,104,943, 9–24–63, Cl. 23—110.

Berry, Paul D.: *See*—
La Combe, Edward M., and Berry. 3,113,122.

Berry, Ralph E. Web elastic holder and sewing guide. 3,089,691, 5–14–63, Cl. 269—1.

Berry, Richard C., to Crouse-Hinds Co. Dead-front electrical receptacle. 3,078,435, 2–19–63, Cl. 339—111.

Berry, Richard C., to Crouse-Hinds Co. Electrical connector. 3,078,436, 2–19–63, Cl. 339—143.

Berry, Robert W., Jr., to Wesson Corp. Rotating cutter assembly. 3,091,138, 5–28–63, Cl. 77—58.

Berry, Theodore L., and W. R. Gieske, to The Ford Alexander Corp. Tubing calipering instrument. 3,075,292, 1–29–63, Cl. 33—178.

Berry, Vivion C. Automatically adjustable mooring structure for vessels. 3,088,287, 5–7–63, Cl. 61—48.

Berryhill, Emma L., and W. L. Sayer. Hair conditioner and retainer. 3,088,469, 5–7–63, Cl. 132—9.

Berryman, Mrs. Katherine W.: *See*—
Ames, Robert G. 3,070,827.

Bers, Naum S., to Space Technology Laboratories, Inc. Transducing and control systems. 3,097,535, 7–16–63, Cl. 74—5.7.

Berscheid, Irvine J. Drill bit. 3,080,934, 3–12–63, Cl. 175—410.

Bersin, Richard L.: *See*—
Brinkerhoff, Joris M., and Bersin. 3,084,255.

Bersin, Theodor: *See*—
Mueller, Arthur, Schwarz, and Bersin. 3,076,798.
Müller, Arthur, and Bersin. 3,100,202.

Berst, Nell W.: *See*—
Von Smolinski, Alfred, Berst, and Alt. 3,072,515.

Berst, Nell W., W. M. Gauntt, and E. F. Maisel, to The Diversey Corp. Finish remover compositions. 3,075,923, 1–29–63, Cl. 252—144.

Berstein, Gregor: *See*—
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Bersworth, Frederick C. Method and composition for control of fish odors and odors of proteinaceous origin. 3,113,104, 12–3–63, Cl. 252—1.

Bersworth, Frederick C., and A. E. Frost, to The Dow Chemical Co. Ammonium phosphate fertilizer and preparation thereof. 3,076,701, 2–5–63, Cl. 71—43.

Berta, Remo J., and W. Haumann, to Union Carbide Corp. Cryogenic storage apparatus. 3,097,900, 7–16–63, Cl. 312—214.

Bertao, Antonio M., 50% to H. W. Jarvis. Floating claw for milking machines. 3,094,099, 6–18–63, Cl. 119—14.54.

Bertele, Hans C. Mercury-vapour electric discharge apparatus. 3,086,135, 4–16–63, Cl. 313—29.

Bertell, Paul, to Standard Mirror Co., Inc. Support for mounting a rear vision mirror on a windshield. 3,096,061, 7–2–63, Cl. 248—288.

Bertels, Josef, to Wibau Westdeutsche Industrie- u. Strassenbau-Maschinen-Gesellschaft m.b.H. Tiltable container for transporting bulk materials. 3,089,725, 5–14–63, Cl. 294—73.

Bertelsen, Bruce I., to International Business Machines Corp. Method of making plural layer thin film devices. 3,110,620, 11–12–63, Cl. 117—217.

Bertelsen, William R., 25% to W. E. Martin, and 25% to Martin Engineering Co. Self propelled vehicle track. 3,074,499, 1–22–63, Cl. 180—9.62.

Bertelsen, William R., 25% to W. E. Martin, and 25% to Martin Engineering Co. Air track. 3,074,764, 1–22–63, Cl. 305—11.

Bertelsen, William R., 25% to W. E. Martin, and 25% to Martin Engineering Co. Ground effect machine equipped with auxiliary selectively adjustable ground engaging propelling mechanisms. 3,095,938, 7–2–63, Cl. 180—7.

Bertelsmann, Rolf, to Max Langensiepen Kommandit Gesellschaft. Wall plugs. 3,080,787, 3–12–63, Cl. 85—2.4.

Berth, Peter: *See*—
Kaiser, Wilhelm J., and Berth. 3,100,739.

Berthiaume, Leon A., to Bausch & Lomb Inc. Transmission. 3,098,399, 7–23–63, Cl. 74—366.

Berthier, Emile A. Multipolar circuit maker and breaker. 3,102,933, 9–3–63, Cl. 200—89.

Berthod, Louis: *See*—
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Berthold, Cornelius E., and J. R. Kane, to San Antonio Chemicals, Inc. Recovery of cesium values from pollucite ore. 3,112,169, 11–26–63, Cl. 23—32.

Bertie, Raymond J.: *See*—
Woodie, Merlyn G., and Bertie. 3,075,464.

Bertin, Daniel: *See*—
Nomine, Gerard, Bertin, Tessier, Pierdet, and Bucourt. 3,101,354.

Bertin, Daniel, to Roussel-UCLAF. 3α-(α-trimethylammonioacetoxy) - 20 - bis(nitratomethyl) - 21 - nitrato - 5β - pregnane-11-one hydroxide and acid salts thereof. 3,114,675, 12–17–63, Cl. 167—65.

Bertin, Daniel, and L. Nedelec, to Roussel-UCLAF. Novel process of preparation of polyhydroxylated pregnanes. 3,079,385, 2–26–63, Cl. 260—239.55.

Bertin, Daniel, H. Fritel, and L. Nedelec, to Roussel-UCLAF, S.A. Novel Δ^4-pregnene-3-ones and preparation thereof. 3,094,524, 6–18–63, Cl. 260—239.55.

Bertin, Daniel, and H. Fritel, to Roussel-UCLAF, S.A. 3α-amino-20-bis(hydroxymethyl)-pregnanes and process therefor. 3,108,125, 10–22–63, Cl. 260—397.45.

Bertin, Daniel, and L. Nedelec, to Roussel-UCLAF, S.A. 1'-($\Delta^{9(11)}$)-5β-androstene - 3α - ol - 17β - yl)-3',5',8'-trioxa bicyclo-(2,2,2)-octane and its carboxylic acid esters. 3,114,676, 12–17–63, Cl. 167—65.

Bertin, Jean H.: *See*—
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Bertin, Jean H., to Societe Bertin & Cie. Heat exchange in a furnace. 3,113,764, 12–10–63, Cl. 263—10.

Bertin, Jean H., and B. J. M. Salmon, to Societe Bertin & Cie (Societe a Responsabilite) Limited. Torque converter. 3,105,388, 10–1–63, Cl. 74—113.

Bertl, Rudolf J.: *See*—
Rasmussen, Arne P., Bertl, and Geyser. 3,085,354.

Bertolacini, Ralph J., and G. W. Powers, Jr., to Standard Oil Co. Arsenic removal from hydrocarbons and conversion thereof. 3,093,574, 6–11–63, Cl. 208—91.

Bertolacini, Ralph J., and H. M. Brennan, to Standard Oil Co. Method of controlling properties of porous metal oxides. 3,094,384, 6–18–63, Cl. 23—141.

Bertoni, Vittorio. Film selection and drive means in a multiple film projector. 3,091,992, 6–4–63, Cl. 88—17.

Bertorelli, Orlando L.: *See*—
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Bertorelli, Orlando L., to J. M. Huber Corp. Preparation of crystalline silicic acid pigments. 3,110,606, 11–12–63, Cl. 106—306.

Bertram, Hans J.: *See*—
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Bertram, Klaus, to Telefunken G.m.b.H. Stereo sound control system. 3,110,769, 11–12–63, Cl. 179—1.

Bertrang, Hermann, to Klenzle Apparate G.m.b.H. Setting arrangement for interconnected indicators. 3,105,731, 10–1–63, Cl. 346—20.

Bertsch, Josef A., to Dana Corp. Dynamic testing machine. 3,106,840, 10–15–63, Cl. 73—71.6.

Bertsche, Ralph H., Jr., R. A. Carlson, L. R. Hetzler, and L. J. Raver, to General Motors Corp. Electrical power converter. 3,078,409, 2–19–63, Cl. 321—8.

Bertuzzi, Andrew F., to Phillips Petroleum Co. Method of oil production by vertical gas drive. 3,073,386, 1–15–63, Cl. 166—9.

Berven, Harold T., to Bemis Bro. Bag Co. Bag. 3,088,652, 5–7–63, Cl. 229—56.

Bervoets, Johannes, to Staatsbedrijf Artillerie-Inrichtingen. Means for removably securing a bayonet to a rifle. 3,076,280, 2–5–63, Cl. 42—86.

Berwin, Kurt, to Chicago Musical Instrument Co. Electrified accordion. 3,104,581, 9–24–63, Cl. 84—171.

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Morana, Simon J., Simons, and Wummer. 3,116,111.

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Berz, Wolfgang: *See*—
Berz, Max and W. 3,090,180.

Berzina, Talivaldis, to E. I. du Pont de Nemours and Co. Chemical plating solution and process for plating therewith. 3,096,182, 7–2–63, Cl. 106—1.

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Besamer, Paul J., and R. M. De Long, to The Upjohn Co. Method for sealing hard filled capsules. 3,078,629, 2–26–63, Cl. 53—37.

Besancon, Bernard A. G., and M. Durup, to Compagnie Francaise de Raffinage. Method of synthesis of hydroperoxides. 3,113,085, 12–3–63, Cl. 204—162.

Besel, Wilhelm: *See*—
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Besler, Mattheus: *See*—
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Besinger, Ollie L. Precast, reinforced concrete column construction. 3,110,982, 11–19–63, Cl. 50—191.

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Palmqvist, Fredrik T. E., and Beskow. 3,108,953.

Beskow, Stig, to Separator, Aktiebolaget. Teat cup for milking machines. 3,099,246, 7–30–63, Cl. 119—14.49.

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Fallon, Herbert J. 3,079,740.
Hill, Keith A. 3,097,426.
Welles, Donald P., Jr. 3,083,895.

Besmer Teppichfabrik G.m.b.H., Firma: *See*—
Vitek, Marcel A. 3,099,919.
Vitek, Marcel A. 3,100,302.

Besser, Eli D., to United States of America, Navy. Process for making extrudable propellant. 3,093,523, 6–11–63, Cl. 149—98.

Besser, Eli D., R. T. Mather, and W. G. Finnegan, to United States of America, Navy. Process for making nitrocellulose propellant formulations having improved tensile strength and ballistic properties. 3,103,458, 9–10–63, Cl. 149—98.

Bessette, Georges H. N. Chain and sprocket drive structure. 3,091,129, 5–28–63, Cl. 74—229.

Bessette, Norman J. Car top carrier. 3,113,819, 12–10–63, Cl. 312—323.

Bessiere, Pierre E. Self-regulating piston pumps and in particular fuel injection pumps. 3,071,074, 1–1–63, Cl. 103—41.

Bessiere, Pierre E., to Precision Mecanique Labinal. Machines with slip-drives, particularly as applied to A-C generators. 3,075,137, 1–22–63, Cl. 322—40.

Bessiere, Pierre E. Self regulating reciprocating pumps and in particular fuel injection pumps. 3,090,314, 5–21–63, Cl. 103—41.

Bessiere, Pierre E. Self regulating reciprocating pumps in particular for the injection of fuel into engines. 3,091,180, 5–28–63, Cl. 103—41.

Bessiere, Pierre E. Fuel injection pumps having distribution pistons. 3,099,217, 7–30–63, Cl. 103—2.

Bessiere, Pierre E. Self-regulating reciprocating piston pumps, in particular for the injection of fuel into internal combustion engines. 3,099,219, 7–30–63, Cl. 103—41.

Bessiere, Pierre E. Reciprocating pumps and in particular fuel injection pumps for internal combustion engines. 3,103,174, 9–10–63, Cl. 103—41.

Bessiere, Pierre E., to Societe Anonyme pour l'Exploitation des Procedes Chimiques et Physiques. Self-regulating reciprocating pumps, in particular for the injection of fuel into internal combustion engines. 3,114,321, 12–17–63, Cl. 103—41.

Bessonny, Al I., to Machine-O-Matic, Inc. Control system with adjustable selector switch means for web severing machine. 3,105,405, 10–1–63, Cl. 83—75.

Best, Albert M.: *See*—
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Kline, Charles M., Hofmeister, Hobbs, and Best. 3,090,133.

Best, Albert M., to Sperry Rand Corp. Forage distributing and conveying apparatus. 3,111,115, 11–19–63, Cl. 119—52.

Best, Charles L., and D. J. Munson, to The J. R. Clark Co. Folding chair construction. 3,086,813, 4–23–63, Cl. 297—58.

Best, Clarence A. Portable desk. 3,090,330, 5–21–63, Cl. 108—43.

Best, Cyril: *See*—
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Best, Cyril, to Molins Machine Co. Ltd. Device for counting cigarettes and similar rod-like articles. 3,104,754, 9–24–63, Cl. 198—40.

Best, Cyril, to Molins Machine Co. Ltd. Cigarette-making machines. 3,105,498, 10–1–63, Cl. 131—66.

Best, Edison F.: *See*—
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Best, Stanley G., to United Aircraft Corp. Flow control system for pressurized aircraft compartment. 3,078,778, 2–26–63, Cl. 98—1.5.

Best, Thomas. Repair device. 3,083,597, 4–2–63, Cl. 81—15.7.

Best, William N. Rolling game. 3,073,599, 1–15–63, Cl. 273—108.

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Bete Fog Nozzle, Inc.: *See*—
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Bete, John U., to Bete Fog Nozzle, Inc. Spray nozzle with a plurality of continuous grooves. 3,104,063, 9–17–63, Cl. 239—548.

Beteiligungs- und Patentverwaltungsgesellschaft mit beschrankter Haftung: *See*—
Bartmann, Rüdiger J. W. G. 3,116,054.
Gerlach, Rudolph H. 3,103,315.
Hammel, Siegfried, and Herzig. 3,113,994.
Hoff, Hans S. 3,111,400.

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Vargo, Louis A., Jr., and Bethardy. 3,079,878.

Bethe, Günther, to Azoplate Corp. Electrophotographic plates comprising solid solutions of oxazolones. 3,072,479, 1–8–63, Cl. 96—1.

Bethea, Barron. Cable clamp. 3,108,344, 10–29–63, Cl. 24—125.

Bethea Co., Inc.: *See*—
Smith, Karl E. 3,115,688.

Bethea, Malcolm, Jr. Apparatus for taking the load off an insulator assembly. 3,111,553, 11–19–63, Cl. 174—40.

Bethell, James R., D. J. Hadley, and B. Wood, to The Distillers Co. Ltd. Production of unsaturated aliphatic aldehydes. 3,094,565, 6–18–63, Cl. 260—604.

Bethell, James R., and D. J. Hadley, to The Distillers Co. Ltd. Production of unsaturated aliphatic aldehydes. 3,098,102, 7–16–63, Cl. 260—604.

Bethell, Marion I. H., and B. E. Wilde, deceased (by M. I. H. Betheli, administratrix), to Monsanto Chemicals Ltd. Lower secondary alkyl alkoxyanilines as rubber antiozonants. 3,114,730, 12–17–63, Cl. 260—45.9.

Bethke, Donald G.: *See*—
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Bigge, Henry C. 3,091,826.
Brion, Dalton F., Norback, and Winkler. 3,088,821.
Eaton, John F. 3,094,879.
Epstein, Samuel, Frame, and Melloy. 3,076,361.
Field, Joseph. 3,105,758.
Francisco, Herbert H., Ressler, Roberts, and Snyder. 3,082,157.
Garland, Christopher M., Wallace, Pitts, and Lin. 3,111,212.
Kovatch, Robert J. 3,081,495.
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Osborn, Elburt F. 3,082,105.
Peeling, Richard C. 3,111,060.
Schwartz, Louis S. 3,081,548.
Seymour, David J., and Welshko. 3,111,104.
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Bethoon, Dene, and R. D. Nowlin, Jr., to Pacific Seating Corp. Stadium seat. 3,116,091, 12–31–63, Cl. 297—325.

Betner, Thomas E., to Plastomatic Corp. Plastic container with tear-off film cover. 3,073,477, 1–15–63, Cl. 220—54.

Betner, Thomas E., to Plastomatic Corp. Film sealed container with pouring spout. 3,101,870, 8–27–63, Cl. 222—107.

Betner, Thomas E., to Plastomatic Corp. Sealed plastic containers. 3,108,708, 10–29–63, Cl. 220—54.

Betschmann, Otto. Method for the production of a coated paper product. 3,086,884, 4–23–63, Cl. 117—76.

Better, Bernard R., to Scully-Jones and Co. Torque tester. 3,115,029, 12–24–63, Cl. 73—1.

Better Sleep Mfg. Co.: *See*—
Emery, William M. 3,115,647.

Bettinger, Oskar, to International Standard Electric Corp. Automatic gain control circuit for IF-amplifiers of a large bandwidth. 3,111,631, 11–19–63, Cl. 330—133.

Bettner, Carl F. Wire coating die. 3,110,625, 11–12–63, Cl. 118—125.

Bettoli, Phillip S., and J. J. Klimas, to The Ruberoid Co. Flame-retardant asphaltic roofing materials. 3,096,196, 7–2–63, Cl. 117—32.

Bettoni, Eugene C., to Holley Carburetor Co. Ignition device. 3,096,405, 7–2–63, Cl. 200—31.

Bettoni, Eugene C., and F. S. Kerr, to Holley Carburetor Co. Ignition contacts. 3,076,064, 1–29–63, Cl. 200—19.

Bettoni, Ezio, and G. Monti. Apparatus for card-drawing and doubling textile fibers. 3,071,820, 1–8–63, Cl. 19—98.

Betts, Elmer H. Device for measuring and quantity registering of dry materials. 3,091,963, 6–4–63, Cl. 73—218.

Betts, Robert E., to United States of America, Army. Igniter squib. 3,100,447, 8–13–63, Cl. 102—28.

Betts, Robert E., to United States of America, Army. Hafnium-potassium perchlorate pyrotechnic composition. 3,109,762, 11–5–63, Cl. 149—42.

Betts, William M. Fiberglass wet muffler for marine engines. 3,077,240, 2–12–63, Cl. 181—52.

Betts, William M., and R. C. Requa. Underwater viewers. 3,081,726, 3–19–63, Cl. 114—66.

Betz, Clarence G., to H. K. Porter Co. Tape rule. 3,087,251, 4–30–63, Cl. 33—138.

Betz, Hans, to Fritz Heinzmann. Variable speed governor. 3,074,281, 1–22–63, Cl. 73—531.

Betz Laboratories, Inc.: *See*—
Kahler, Harry L., and Brown. 3,089,796.

Betzen, John L. Quadruple acting internal combustion engines. 3,075,507, 1–29–63, Cl. 123—56.

Beu, Richard A., to Hanau Engineering Co., Inc. Water heater. 3,089,941, 5–14–63, Cl. 219—38.

Beuby, William C. Sailboat of the catamaran type. 3,077,850, 2–19–63, Cl. 114—39.

Beuck, Coin J. Pen and pencil holder. 3,104,435, 9–24–63, Cl. 24—10.

Beuhler, William B Automatic parking control device. 3,083,483, 4–2–63, Cl. 39—6.

Beuk, Jack F.: *See*—
Denton, Arnold E., Beuk, Hogan, and McBrady. 3,098,014.

Beuscher, Clinton J., to International Telephone and Telegraph Corp. Method of removing hardened photoresist material from printed circuit conductors. 3,081,203, 3–12–63, Cl. 134—28.

Beuscher, Howard W., J. I. Geary, and D. J. Morris, to Allied Chemical Corp. Bitumen impregnated fiberboard. 3,087,851, 4–30–63, Cl. 162—171.

Beushausen, Willi, to Micafil A.-G. Auxiliary attachment for layer winding machines for winding coils on relay cores and the like. 3,090,569, 5–21–63, Cl. 242—9.

Beusman, Curtis C., to United Nuclear Corp. Transpiration cooled soot blower. 3,084,373, 4–9–63, Cl. 15—317.

Beusman, Curtis C., L. Malin, and W. S. Mott, to United Nuclear Corp. Transpiration cooled boiler baffle. 3,110,273, 11–12–63, Cl. 110—98.

Beuther, Harold, R. A. Flinn, A. M. Henke, and J. B. McKinley, to Gulf Research & Development Co. Hydrogenation process for preparation of lubricating oils. 3,078,221, 2–19–63, Cl. 208—111.

Beuther, Harold, R. A. Flinn, A. M. Henke, and J. B. McKinley, to Gulf Research & Development Co. Hydrogenation catalyst and method of preparation. 3,078,238, 2–19–63, Cl. 252—439.

Beutler, Leonard. Wedge type clamping rim for containers. 3,103,293, 9–10–63, Cl. 220—46.

Bevan, Bernard J., and C. P. Anderson, to SCM Corp. Record medium winder. 3,113,742, 12–10–63, Cl. 242—67.1.

Bevard, Roger L., to Lake Shore, Inc. Material handling apparatus. 3,077,992, 2–19–63, Cl. 212—15.

Bevard, Roger L., to Lake Shore, Inc. Crane. 3,083,838, 4–2–63, Cl. 212—74.

Beveridge, Harold N., and H. L. Carter, Jr., to Raytheon Co. Pulsed electron discharge systems. 3,096,517, 7–2–63, Cl. 343—17.1.

Bevington, James R.: *See*—
Herbold, Robert J. 3,103,906.

Bewley, Lawrence L., and J. F. Foster, to Burroughs Corp. Data conversion system. 3,072,328, 1–8–63, Cl. 235—61.1.

Bex, Wilhelmus, and G. Starre, to North American Philips Co., Inc. Method of manufacturing grids for use in electric discharge tubes. 3,102,560, 9–3–63, Cl. 140—71.5.

Bey, Ahmet K., to Monarch Tool & Machinery Co. Magnetic key chain. 3,108,346, 10–29–63, Cl. 24—201.

Bey, Ahmet K., to Monarch Tool & Machinery Co. Holder for keys and the like. 3,112,638, 12–3–63, Cl. 70—459.

Beyer, Christa: *See*—
Beyer, Eugen. 3,089,746.

Beyer, Diana: *See*—
Beyer, Eugen. 3,089,746.

Beyer, Elmer J.: *See*—
Balcomb, Philip E., and Beyer. 3,074,140.

Beyer, Eugen, deceased, by M. (nee Feist), F. R., D. and C. Beyer; said M. Beyer assor. to said F. R., D. and C. Beyer. Feed control apparatus for record sheets. 3,089,746, 5–14–63, Cl. 346—138.

Beyer, Fred R.: *See*—
Beyer, Eugen. 3,089,746.

Beyer, Jeno, to W. C. 't Hart & Zn. Instrument- en Apparatenfabriek N.V. Plying and twisting frame adapted to deliver cross-wound yarn packages. 3,111,804, 11–26–63, Cl. 57—76.

Beyer, Martha: *See*—
Beyer, Eugen. 3,089,746.

Beyer-Olsen, Knut, and O. Steffenssen. Method for making by rotary casting a buoyant body of plastic furnished with a passage therethrough. 3,081,493, 3–19–63, Cl. 18—36.

Beyer, Raymond H., to United States of America, Navy. Explosive quick-disconnect. 3,084,597, 4–9–63, Cl. 89—1.

Beyer, Raymond H., J. E. Burke, and D. J. Hasley, to United States of America, Navy. Explosive cable-cutting fitting. 3,089,417, 5–14–63, Cl. 102—24.

Beyer, Walter, and W. F. Kelley, to Cordova, Inc. Method of condensed motion picture films for projection. 3,115,806, 12–31–63, Cl. 88—24.

Beyerle, Konrad. Damping bearing for the shafts of a gas centrifuge. 3,097,167, 7–9–63, Cl. 233—23.

Beyers, Eugene J. and R. J. Wente, to General Motors Corp. Water injection system for a multistage compressor. 3,100,964, 8–20–63, Cl. 60—39.3.

Beyers, Marvin E.: *See*—
Bernson, Elmer R., Beyers, and Babbitt. 3,072,220.

Beyersdorfer, Michael: *See*—
Carrico, Ralph T., Ford, Halbrooks, Beyersdorfer, and Percifield. 3,111,860.

Beyerstedt, John M., H. E. Erickson, and H. H. Talboys, to Nordberg Mfg. Co Process of applying wear resistant metal coatings. 3,101,274, 8–20–63, Cl. 117—46.

Beyerstedt, Ralph L., to The Frank G. Hough Co. Four wheel tractor steering arrangement. 3,075,784, 1–29–63, Cl. 280—91.

Beyerstedt, Ralph L., J. C. Laegeler, Jr., and D. S. Strader, to The Frank G. Hough Co. Tractor loaders. 3,105,603, 10–1–63, Cl. 214—140.

Beyler, Roger E.: *See*—
Oberster, Arthur E., Beyler, and Sarett. 3,092,628.
Oberster, Arthur E., Beyler, and Sarett. 3,100,204.
Sarett, Lewis H., Beyler, and Hoffman 3,079,407.

Beyler, Roger E., to Merck & Co., Inc. Alkyl ethers of 17α-hydroxy-19 nor progesterone. 3,105,840, 10–1–63, Cl. 260—397.4.

Beynon, John H., and C. B. Milne, to Shell Oil Co. Halogen-containing hydrocarbon polymers. 3,081,294, 3–12–63, Cl. 260—139.

Beyrard, Norbert R.: *See*—
Benichou, Samuel, Beyrard, and Benzimra. 3,072,465.
Benichou, Samuel, Beyrard, and Benzimra. 3,072,682.

Bezdel Wincenty: *See*—
Cattermole, Kenneth W., Herman, Bezdel, and Darton. 3,073,903.
Wright, Esmond P. G., Ridler, and Bezdel. 3,081,448.

Bezdel, Wincenty, to International Standard Electric Corp. Data-storage and data-processing devices. 3,090,836, 5–21–63, Cl. 179—15.

Besemes, Nicholas. Internal combustion engine exhaust muffler. 3,105,570, 10–1–63, Cl. 181—56.

Bezman, Irving I., to Armstrong Cork Co. Preparation of cyclic phosphonitriles. 3,098,871, 7–23–63, Cl. 260—551.

Besman, Irving I. and J. H. Smalley, to Armstrong Cork Co. Quasiphosphonium compounds. 3,080,422, 3–5–63, Cl. 260—551.

Bhend, Raymond E. Boat support and hold-down apparatus. 3,072,376, 1–8–63, Cl. 248—361.

Bhimani, Bhupendrakumar V.: *See*—
Rohats, Nicholas, and Bhimani. 3,071,724.

Bialczak, Edward C., to General Aniline & Film Corp. Diazotype materials for the production of black images. 3,113,025, 12–3–63, Cl. 96—91.

Bialczak, Edward C., and W. J. Welch, to General Aniline & Film Corp. Dye brightening agent in diazotype process. 3,078,162, 2–19–63, Cl. 96—49.

Bialkowski, Ludwik S., to The B. F. Goodrich Co. Accumulator for fluid power systems. 3,100,509, 8–13–63, Cl. 138—31.

Bialo, Walter. Luggage construction. 3,098,548, 7–23–63, Cl. 190—49.

Bianca, Edoardo G., to Silopark S.A. Hoisting arrangement. 3,083,792, 4–2–63, Cl. 187—1.

Bianca, Edoardo G., to Silopark S.A. Elevator system in which drive mechanism is mounted upon the counterweight. 3,101,130, 8–20–63, Cl. 187—20.

Bianchi, Eduardo A., to General Dynamics Corp. Discriminator responsive to uniformly spaced pulses utilizing normally damped resonant tank feeding threshold output circuit. 3,076,108, 1–29–63, Cl. 307—88.5.

Bianchi, Eduardo A., and H. L. Hill, to General Dynamics Corp. Ramp self-testing system. 3,087,144, 4–23–63, Cl. 340—213.

Bianchi, Joseph P., 40% to L. Berner, and 20% to W. J. Ruano. Lined paper box and method of making same. 3,114,300, 12–17–63, Cl. 93—36.6.

Bianchini, Andrew F. Industrial hammer with replaceable heads. 3,088,506, 5–7–63, Cl. 145—36.

Bianco, Ernest E.: *See*—
Albright, John W., and Bianco. 3,096,391.

Biard, James R., and W. T. Matzen, to Texas Instruments Inc. Stabilized duty cycle modulated multivibrator. 3,076,152, 1–29–63, Cl. 331—113.

Bibanoff, George. Playing pieces for ball games. 3,106,399, 10–8–63, Cl. 273—95.

Bibb, John T., to Lok-Products Co. T-runner. 3,101,661, 8–27–63, Cl. 98—31.

Bibbero, Robert J., to Bulova Research and Development Laboratories, Inc. Multiple-sensor coordinated apparatus. 3,076,961, 2–5–63, Cl. 843—6.

Biben, Edward, to Dunatic Industries, Inc. Label cut-off actuating device. 3,079,825, 3–5–63, Cl. 83—209.

Biber, Albert, to Gulf Research & Development Co. Constant viscosity fuel injection nozzle. 3,100,084, 8–6–63, Cl. 239—463.

Bible, Robert E.: *See*—
Spriestersbach, Ronald C., and Bible. 3,083,304.

Bible, Robert E., R. L. McIntyre, and D. A. Peterson, to Librascope, Inc. Computer. 3,074,638, 1–22–63, Cl. 235—167.

Bible, Roy H., Jr., to G. D. Searle & Co. 17-(carboxymethoxy/2 - hydroxyethoxy) - 3 - methoxy - 17 - methylestra-1,3,5 (10)-triene. 3,081,315, 3–12–63, Cl. 260—397.1.

Bibolet, Aubert H., G. L. Brown, G. A. Richter, Jr., and R. P. Fellmann, to Rohm & Haas Co. Aqueous spinning dispersion of acrylonitrile polymer containing nitrile solvent. 3,078,243, 2–19–63, Cl. 260—29.6.

Bibolet, Aubert H., G. L. Brown, G. A. Richter, Jr., and R. P. Fellmann, to Rohm & Haas Co. Composition comprising an aqueous dispersion of a methyl methacrylate copolymer which has an organic fusion-aid dissolved therein. 3,078,244, 2–19–63, Cl. 260—29.6.

Biby, Edward E. Dual sofa bed. 3,092,846, 6–11–63, Cl. 5—18.

Bice, Charles C.: *See*—
Hudson, Paul S., and Bice. 3,087,844.

Bichard, John A.: *See*—
Butler, Roger M., and Bichard. 3,094,481.
Butler, Roger M., and Bichard. 3,114,783.

Bichard, John A., to Esso Research and Engineering Co. Method of preparation of surfacing material from tar sands. 3,110,605, 11–12–63, Cl. 106—281.

Bichell, William J., and J. R. Ransom. Visual indicator. 3,076,187, 1–29–63, Cl. 340—378.

Bichl, Josef. Machine for injection molding of self-hardening resins. 3,083,408, 4–2–63, Cl. 18—30.

Bick, David E., to Dowty Hydraulic Units Ltd. Speed control apparatus for wheeled vehicles. 3,107,633, 10–22–63, Cl. 104—162.

Bickel, Albert F.: *See*—
Ter Horg, Arne P., van Helden, and Bickel. 3,110,735.

Bickel, Hans: *See*—
Gaeumann Ernst, Vischer, and Bickel. 3,093,550.

Bickel, Herman H., and W. Leigemann, to The Wickes Corp. Atomizing fuel burner construction. 3,092,332, 6–4–63, Cl. 239—405.

Bickerdike, Robert L., and G. Hughes, to Minister of Aviation, in Her Majesty's Government of the United Kingdom of Great Britain and Northern Ireland. Method of making carbon articles. 3,084,394, 4–9–63, Cl. 18—54.7.

Bickerdike, Robert L., G. Hughes, and W. Watt, to Minister of Aviation, in Her Majesty's Government of the United Kingdom of Great Britain and Northern Ireland. Process for forming impermeable carbon articles. 3,107,973, 10–22–63, Cl. 18—54.7.

Bickett, Milford J. Truck tire bead breaking device. 3,082,812, 3–26–63, Cl. 157—1.2.

Bickford, Frank H.: *See*—
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Bickford, Warren H., to The Gilman Bros. Co. Method for producing a flexible, resilient low density web of cellular plastic. 3,082,483, 3–26–63, Cl. 18—48.

Bicking, John B., to Merck & Co., Inc. Substituted pyrazole sulfonamides. 3,097,210, 7–9–63, Cl. 260—294.8.

Bicking, John B., to Merck & Co., Inc. Substituted pyrazole sulfonamides. 3,113,949, 12–10–63, Cl. 260—310.

Bicking, John B., and J. M. Sprague. Heterocyclic compounds. 3,113,075, 12–3–63, Cl. 167—65.

Bickmore, John T., J. J. Codichini, and C. L. Huber, to Xerox Corp. Xerographic apparatus. 3,105,426, 10–1–63, Cl. 95—1.7.

Bickmore, John T., H. Bogdonoff, and W. J. Burris, to Xerox Corp. Xerographic developing apparatus. 3,105,777, 10–1–63, Cl. 118—637.

Bicknell, Charles E., to Pye Ltd. Machine for handling semiconductor material. 3,080,053, 3–5–63, Cl. 209—88.

Bickoff, Emanuel M., A. L. Livingston, and A. N. Booth, to United States of America, Agriculture. Coumarone derivatives and use thereof. 3,077,404, 2–12–63, Cl. 99—2.

Biczel, Henry J.: *See*—
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Biddick, Lloyd W., Jr. Kite trolley. 3,105,663, 10–1–63, Cl. 244—155.

Biddison, John M., to H. W. Moore. Insulating machine. 3,076,258, 2–5–63, Cl. 29—205.

Bidelman, Bruce B.: *See*—
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Millard, George R., Bidelman, and Nobbs. 3,079,629.

Bidwell, Howard, ½ to R. Bidwell. Apparatus for processing paper stock. 3,116,028, 12–31–63, Cl. 241—97.

Bidwell, Joseph B., to General Motors Corp. Gas turbine accelerator. 3,097,485, 7–16–63, Cl. 60—39.14.

Bidwell, Lawrence R., F. H. Beck, and M. G. Fontana, to The Ohio State University Research Foundation. High strength, corrosion-resistant alloy. 3,082,082, 3–19–63, Cl. 75—125.

Bidwell, Rachel: *See*—
Bidwell, Howard. 3,116,028.

Bieber, Clarence G., to The International Nickel Co., Inc. Nickel alloy. 3,093,518, 6–11–63, Cl. 148—31.

Bieber, Frederick J., and C. I. Steinback, to Acrometal Products, Inc. Winding spool. Re. 25,390, 5–28–63, Cl. 242—118.61.

Bieber, Herbert A.: *See*—
Bieber, Lawrence A. and H. A. 3,104,065.

Bieber, Herman, H. M. Hartzband, and W. M. Basch, to Esso Research and Engineering Co. Process for removing metallic contaminants from oils. 3,095,368, 6–25–63, Cl. 208—252.

Bieber, Hermann: *See*—
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Bieber, Lawrence A. and H. A. Outdoor lighting fixtures. 3,104,065, 9–17–63, Cl. 240—25.

Bieber, Philip. Simulated hedge for turf race track. 3,099,247, 7–30–63, Cl. 119—15.5.

Biechler, Charles S., C. S. Pearsall, A. Staprans, and R. S. Symons, to Varian Associates. Radio frequency output circuits and output windows. 3,113,238, 12–3–63, Cl. 315—39.

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Biedenstein, Vincent G., to R.C. Can Co. Tear type container closure. 3,083,858, 4–2–63, Cl. 220—27.

Biederman, Paul R. Well casing protector. 3,112,961, 12–3–63, Cl. 308—4.

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Biedermann, Friedrich, and R. Wick, to Agfa Aktiengesellschaft. Photographic printing system and method. 3,076,378, 2–5–63, Cl. 88—24.

Biedermann, Friedrich, and R. Wick, to Agfa Aktiengesellschaft. Photographic copying device. 3,102,463, 9–3–63, Cl. 95—73.

Biedermann, Herbert: *See*—
Tax, Hans, and Biedermann. 3,093,091.

Biedess, Anthony R., to Goodman Mfg. Co. Loading machine. 3,096,893, 7–9–63, Cl. 214—90.

Biedess, Anthony R., to Goodman Mfg. Co. Articulated conveyor. 3,100,563, 8–13–63, Cl. 198—124.

Biefeld, Lawrence P., T. E. Philipps, and T. J. Collier, to Owens-Corning Fiberglas Corp. Glass fibers coated with an organo-silicon polyol. 3,081,195, 3–12–63, Cl. 117—126.

Biegel, Donald R., and J. W. Willis, to Datanamics, Inc. Fluid flow control and metering device. 3,102,552, 9–3–63, Cl. 137—494.

Biehl, Harold R.: *See*—
Callender, Ralph W., and Biehl. 3,101,514.

Biehl, Richard E.: *See*—
Alper, Ralph H., and Biehl. 3,091,081.

Biehl, Richard E., H. N. Price, and M. Sternberg, to Curtiss-Wright Corp. Pre-filled propellant tank for rockets. 3,097,766, 7–16–63, Cl. 222—135.

Biek, Paul A. to Goodman Mfg. Co. Power steering apparatus. 3,092,201, 6–4–63, Cl. 180—79.2.

Biekart, Hendrik J. B., T. Bakker, and P. J. C. Kaasenbrood, to Stamicarbon N.V. Process of recovering unreacted ammonia from a urea synthesis melt by a two stage rectification operation. 3,114,681, 12–17–63, Cl. 202—67.

Biel, Hans, and H. Hornung, to H. Sickinger. Apparatus for producing booklets. 3,085,265, 4–16–63, Cl. 11—1.

Biel, Hans, and H. Hornung, to H. Sickinger. Conveying mechanism and feed member therefor. 3,090,481, 5–21–63, Cl. 198—221.

Biel, John H.: *See*—
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Biel, John H., to Lakeside Laboratories, Inc. Tertiaryamino butynyl alcohols. 3,086,021, 4–16–63, Cl. 260—268.

Biel, John H., to Lakeside Laboratories, Inc. Antidepressant: 3-pyrrolidyl glycolates. 3,091,570, 5–28–63, Cl. 167—65.

Biel, John H., to Lakeside Laboratories, Inc. Composition consisting of 2-pyrrolidyl-methyl-N-lower alkyl and 3-piperidyl-N-lower alkyl phenyl-glycolates as antispasmodics and central stimulant, and process of preparation. 3,094,463, 6–18–63, Cl. 167—65.

Biel, John H., to Lakeside Laboratories, Inc. Cycloalkyl-alkyl hydrazines. 3,095,448, 6–25–63, Cl. 260—563.

Biel, John H., to Lakeside Laboratories, Inc. Unsymmetrical N,N'-(N,N-disubstituted aminoalkyl)-hydrazines. 3,098,073, 7–16–63, Cl. 260—247.5.

Bielawski, Mitchell S., and J. M. Mavity, to Universal Oil Products Co. Polymerization of olefins using a solid phosphoric acid catalyst. 3,112,350, 11–26–63, Cl. 260—683.15.

Bielenberg, Waldemar: *See*—
Hartlapp, Gerhard, Bielenberg, and Kribbe. 3,087,783.

Bielenberg, Waldemar, F. Rodis, H. W. Ziegler, G. Dronsek, and A. Hinz, to Knapsack-Griesheim Aktiengesellschaft. Process and apparatus for the drying and burning of pellets. 3,100,106, 8–6–63, Cl. 263—8.

Bielinski, George D.: *See*—
Bielinski, Joseph D. and G. D. 3,073,444.

Bielinski, Joseph D. and G. D. Bottle inspection and detecting method and apparatus. 3,073,444, 1–15–63, Cl. 209—74.

Bielstein, Walter J., to Jersey Production Research Co. Wire line cementing tool. 3,100,535, 8–13–63, Cl. 166—162.

Bielz, Heinrich, to Ernst Kratz. Surgical needle for medical purposes. 3,074,409, 1–22–63, Cl. 128—339.

Bien, Hans-Samuel, and F. Baumann, to Farbenfabriken Bayer Aktiengesellschaft. Anthraquinone dyestuffs. 3,078,282, 2–19–63, Cl. 260—374.

Bienert, Wenzel, to Farbenfabriken Bayer Aktiengesellschaft. Packing container. 3,098,559, 7–23–63, Cl. 206—42.

Bieniecki, Henry S.: *See*—
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Bienvenue, Roland L.: *See*—
Wallace, John W., and Bienvenue. 3,097,753.

Bier, Milan. Electrical filtering process and device. 3,079,318, 2–26–63, Cl. 204—180.

Bierlich, Johannes H. Valance assembly. 3,111,162, 11–19–63, Cl. 160—19.

Biermann, David, to Hartzell Propeller, Inc. Feathering propeller. 3,115,937, 12–31–63, Cl. 170—160.16.

Biermann, Earl E., and M. Appleman, to United States of America, Navy. Launcher. 3,106,132, 10–8–63, Cl. 89—1.7.

Biermann, William A., R. R. Bauer, and L. V. McCarty, to Controls Co. of America. Control device. 3,080,143, 3–5–63, Cl. 251—11.

Biernatzki, Anton T., and F. König, to Auto Union G.m.b.H. Steering wheel mounting. 3,112,381, 11–26–63, Cl. 200—61.5.

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Rosato, Frank J., and Biernson. 3,083,578.

Bierwagen, Otto T.: *See*—
Scherer, George F., and Bierwagen. 3,090,751.

Bierwirth, Friedhelm, to Daimler-Benz Aktiengesellschaft. Adjusting mechanism for gas turbine fuel control. 3,111,809, 11–26–63, Cl. 60—39.28.

Bierwirth, Herbert R.: *See*—
Gollwitzer, George E., Forma, and Bierwirth. 3,079,011.

Biesecker, Donald L., to Illinois Tool Works Inc. Ball bearing. 3,105,725, 10–1–63, Cl. 308—195.

Biesecker, Donald L., to Illinois Tool Works Inc. Deformable head screw grommet. 3,110,337, 11–12–63, Cl. 151—41.75.

Bieselaar, Dirk: *See*—
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Bigaouette, Jean R. Closure for bags and the like. 3,114,184, 12–17–63, Cl. 24—30.5.

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Big Drum, Inc.: *See*—
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Wise, Robert T. 3,092,944.
Wise, Robert T., and Erickson. 3,089,614.

Bigelow, Charles G., Jr., to Selas Corp. of America. Burner. 3,078,914, 2–26–63, Cl. 158—99.

Bigelow, Floyd E., Jr. Portable building and apparatus for the transportation and erection of the same. 3,095,616, 7–2–63, Cl. 20—2.

Bigelow, Herbert L., to Baker Oil Tools, Inc. Tubing anchor and catcher apparatus. 3,077,933, 2–19–63, Cl. 166—217.

Bigelow, Herbert L., to Baker Oil Tools, Inc. Parallel string packer. 3,106,961, 10–15–63, Cl. 166—134.

Bigelow, John E., to General Electric Co. X-ray analyzing apparatus wherein two comparative detector channels have different absorption versus frequency characteristics. 3,100,261, 8–6–63, Cl. 250—51.5.

Bigelow-Sanford, Inc.: *See*—
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Harrison, Wayne T., and Carrigan. 3,077,906.
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Big Five Shoe Brake Corp.: *See*—
Darling, Ralph E. 3,085,660.

Big Four Industries, Inc.: *See*—
Brosene, William G., Jr. 3,084,728.

Biggart, Dora G.: *See*—
Biggart, James L. 3,082,233.

Biggart, James L., deceased, by D. G. Biggart, executrix, to National Research and Development Corp. Process of producing free flowing aluminum naphthenate and product thereof. 3,082,233, 3–19–63, Cl. 260—448.

Bigge, Henry C., to Bethlehem Steel Co. Hot top seal. 3,091,826, 6–4–63, Cl. 22—147.

Bigge, Henry W. Steerable trailer. 3,102,735, 9–3–63, Cl. 280—81.

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Biggs, Albert J., and E. Ribchester, to Hazeltine Research, Inc. Television receiver having fine tuning apparatus. 3,073,895, 1–15–63, Cl. 178—5.8.

Biggs, Billy B.: *See*—
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Biggs, Ernest R., Jr., and H. E. Lewis, to Surgical Appliance Industries, Inc. Ankle brace. 3,073,305, 1–15–63, Cl. 128—166.

Biggs, John: *See*—
Gould, Eric G., and Biggs. 3,091,800.

Biggs, Orrick H., T. Wroblewski, and D. R. Dayton, to Sylvania Electric Products Inc. Manufacture of laminated core inductors. 3,096,568, 7–9–63, Cl. 29—155.61.

Biggs, Orrick H., T. Wroblewski, and D. R. Dayton, to Sylvania Electric Products Inc. Method and mechanism for the manufacture of laminated core inductors. 3,096,805, 7–9–63, Cl. 153—2.

Biggs, Stanley C. Handgrip for a golfer's putter. 3,109,653, 11–5–63, Cl. 273—165.

Bigler, James C., Jr. Collapsible or foldable seat for child. 3,097,016, 7–9–63, Cl. 297—457.

Bigler, Robert R., and E. M. Washburn, to Radio Corp. of America. Crystal unit. 3,073,975, 1–15–63, Cl. 310—9.2.

Bigliano, Robert P., to E. I. du Pont de Nemours and Co. Physiologic fluid pressure sensing head. 3,099,262, 7–30–63, Cl. 128—2.05.

Bigliano, Robert P., G. E. Meyer, and R. D. Morse, to E. I. du Pont de Nemours and Co. Physiologic fluid pressure measuring apparatus. 3,102,534, 9–3–63, Cl. 128—2.05.

Bignon, Lucien C. A. M. Windshield wiper blades. 3,089,174, 5–14–63, Cl. 15—250.36.

Bigot, Bernard, to Compagnie de Saint-Gobain. Preparation of sodium tripolyphosphate. 3,094,382, 6–18–63, Cl. 23—107.

Bigot, Bernard, to Compagnie de Saint-Gobain. Preparation of sodium tripolyphosphate. 3,110,559, 11–12–63, Cl. 23—107.

Bigot, Johan A., and P. L. Kerkhoffs, to Stamicarbon N.V. Process for the preparation of ω-lactams. 3,114,748, 12–17–63, Cl. 260—239.3.

Bigsby, Frank L. Appetite control composition. 3,074,847, 1–22–63, Cl. 167—55.

Big Three Welding Equipment Co.: *See*—
Plummer, Ray A., and Smith. 3,100,528.
Smith, Arthur W., and Plummer. 3,100,525.

Bihaly, Lajos, to Trubenised Co. (Registered Trust). Apparatus for guiding a workpiece under the needle of a sewing machine. 3,079,880, 3–5–63, Cl. 112—204.

Biheller, Hans J., to Worthington Corp. Emergency shaft sealing device. 3,096,985, 7–9–63, Cl. 277—27.

Bihr, Otto E., to Ruhr Intrans Hubstapler, G m.b.H. Clamp attachment. 3,075,663, 1–29–63, Cl. 214—655.

Bijl, Peter, to American Enka Corp. Warper. 3,072,998, 1–15–63, Cl. 28—32.

Bijloo, Johan D.: *See*—
Uhlenbroek, Jan H., and Bijloo. 3,090,721.

Bijloo, Johan D., and E. H. Reerink, to North American Philips Co., Inc. Phenazine derivatives for combating nematodes. 3,080,283, 3–5–63, Cl. 167—53.

Bijloo, Johan D., and E. H. Reerink, to North American Philips Co., Inc. Phenazine for combatting lungworm. 3,080,284, 3–5–63, Cl. 167—53.

Bijvoet, Leonardus A. N., to Inland Steel Container Co. Shipping container. 3,086,679, 4–23–63, Cl. 220—63.

Bikales, Norbert M.: *See*—
Saunders, Kenneth W., and Bikales. 3,097,956.

Bilane, Roland B. Roll forming machine. 3,089,660, 5–14–63, Cl. 242—56.

Bilbrey, Donald L., to The Emerson Electric Mfg. Co. Detachable plug connector for submersible apparatus. 3,092,431, 6–4–63, Cl. 339—94.

Bilde, Tord E. D., to Aktiebolaget Talongmaskiner. Calculating machine. 3,073,520, 1–15–63, Cl. 235—60.

Bilderbeek, Derk, to W. J. Stokvis Koninklijke Fabriek van Metaalwerken. Plastic moulding. 3,092,441, 6–4–63, Cl. 18—55.

Biles, James R., and R. R. Holmes, to Monsanto Chemical Co. Paper making process. 3,098,786, 7–23–63, Cl. 162—157.

Bilger, Walter L. Article dispenser with reciprocating ejector. 3,087,592, 4–30–63, Cl. 194—65.

Bilichnianksy, Theodore: *See*—
Isreeli, Jack, and Bilichnianksy. 3,107,537.

Bil-Jax, Inc.: *See*—
Beck, Jonathan, Jr. 3,071,205.

Bilker & Moyerman: *See*—
Ehlmann, Irwin. 3,075,461.

Bill, Arthur, and D. W. Dawson, to Rolls-Royce Ltd. Lubricating arrangements for bearings in engines. 3,075,349, 1–29–63, Cl. 60—39.08.

Bill, Theodore R. Derricks. 3,071,255, 1–1–63, Cl. 212—35.

Bill, Theodore R. Leveling and bracing legs for vehicles. 3,087,627, 4–30–63, Cl. 212—145.

Billen, Peter, E. Emmerich, W. Haendeler, and W. Linnera, to Schloemann Aktiengesellschaft. Extruded tubes and cable sheaths. 3,085,684, 4–16–63, Cl. 207—10.

Billeruds Aktiebolag: *See*—
Björkman, Anders E. G., and Andersson. 3,083,077.

Billett, Michael G., and J. Gibson, to The British Petroleum Co., Ltd. Quenching oil and method of quenching metals. 3,113,054, 12–3–63, Cl. 148—29.

Billett, S Martin: *See*—
Marsocchi, Alfred, and Billett. 3,091,561.

Billi, Giorgio, and V. Luchi. Yarn severing device for a circular knitting machine. 3,100,976, 8–20–63, Cl. 66—145.

Billi, Giorgio, and V. Luchi. Yarn severing device for circular knitting machines. 3,100,977, 8–20–63, Cl. 66—145.

Billi, Giorgio, and V. Luchi. Circular knitting machine having a device for severing yarn. 3,113,443, 12–10–63, Cl. 66—145.

Billian, Carroll J.: *See*—
Bacon, Frank R., and Billian. Re. 25,456.

Billian, Carroll J., to Owens-Illinois Glass Co. Phosphorescent glasses and method of making same. 3,077,456, 2–12–63, Cl. 252—301.6.

Billian, Carroll J., to Owens-Illinois Glass Co. Conducting solder glass compositions. 3,080,328, 3–5–63, Cl. 252—513.

Billig, Franklin A.: *See*—
Washburn, Robert M., and Billig. 3,090,801.

Billingham, James R. Jet device for water skis. 3,077,616, 2–19–63, Cl. 9—310.

Billingham, Joseph, Ltd.: *See*—
Perl, Albert H. F. 3,088,203.

Billinghurst, John E. W.: *See*—
Copp, Frederick C., McCoubrey, and Billinghurst. 3,090,725.

Billings, Charles K.: *See*—
Bullock, Norman J., Brubaker, and Billings. 3,091,954.

Billings, Charles K., D. F. Alexander, and M. C. Harrold, to General Motors Corp. Fabric washing machine with means for regulating the temperature of the fabric prior to the spinning thereof. 3,078,700, 2–26–63, Cl. 68—12.

Billings, Parnell S. Golf glove. 3,100,302, 8–13–63, Cl. 2—160.

Billington, Evans R., to The Bastian-Blessing Co. Fixed pressure regulator. 3,074,426, 1–22–63, Cl. 137—505.25.

Billington, Evans R., to The Bastian-Blessing Co. Liquid outage connection. 3,095,899, 7–2–63, Cl. 137—454.5.

Billman, Louis S., to United Aircraft Corp. Lifting device. 3,082,836, 3–26–63, Cl. 180—7.

Billmyer, William S. Sectional boat. 3,081,465, 3–19–63, Cl. 9—2.

Billotti, Paul, and L. W. Weiss. Multi-beat instrument. 3,095,775, 7–2–63, Cl. 84—484.

Billow, Arthur H.: *See*—
Hieber, George E., and Billow. 3,090,499.

Bills, Claud H., Jr., to Axaline Golf Co. Long-handled, swingable driving instrument. 3,083,969, 4–2–63, Cl. 273—80.

Bills, Floyd T., to Allegheny Ludlum Steel Corp. Polishing apparatus. 3,099,853, 8–6–63, Cl. 15—97.

Bills, Lloyd W., and R. S. Quesinberry, to Mark Chemical Co. Mixing faucet. 3,104,674, 9–24–63, Cl. 137—218.

Bilotti, Anthony G., and R. M. Hainer, to American Chicle Co. Slab chewing gums containing active ingredients and method of preparing same. 3,075,884, 1–29–63, Cl. 167—82.

Bilow, Norman, to The Dow Chemical Co. Stabilized chloroethylenic polymer latexes. 3,075,937, 1–29–63, Cl. 260—29.6.

Bilows, Walter, to American Machine & Foundry Co. Bowling pin spotting machine. 3,083,017, 3–26–63, Cl. 273—43.

Bilter, Halsey R., to International Harvester Co. Blow squeeze molding machine. 3,075,262, 1–29–63, Cl. 22—36.

Bily, Peter J., to FMC Corp. Fluid conveying apparatus. 3,096,797, 7–9–63, Cl. 141—387.

Bilz, Otto. Length compensation device for quick change chucks. 3,091,473, 5–28–63, Cl. 279—76.

Bimber, Russell M.: *See*—
Bluestone, Henry, and Bimber. 3,101,377.

Bimber, Russell M., to Diamond Alkali Co. Reaction of a thiophene-1,1-dioxide with conjugated dienes and resulting 1,3-cyclohexadiene derivatives. 3,110,739, 11–12–63, Cl. 260—648.

Binaski, Theodore H.: *See*—
Austin, William E., Levin, and Binaski. 3,098,013.

Bincer, Hans, to Babcock & Wilcox Ltd. Method of and apparatus for ultrasonically testing butt welds. 3,100,987, 8–20–63, Cl. 73—67.7.

Binder, Hans, and R. Heinle. New cyclic di-imide organophosphorus compounds and process for their production. 3,083,222, 3–26–63, Cl. 260—461.

Binder, Heinrich: *See*—
Klapdohr, Hans, Binder, Horn, and Peus. 3,106,866.

Binder, Hermann, and E. Friedrich, to Rieker & Co. Welt shoe with vulcanized hole. 3,070,909, 1–1–63, Cl. 36—14.

Binder, Hermann, and E. Fridrich, to Rieker & Co. Shoe having a midsole with an upwardly extending edge projecting laterally beyond the shoe upper. 3,107,443, 10–22–63, Cl. 36—2.5.

Binder Magnete K.G.: *See*—
Binder, Wilhelm, and Hauer. 3,085,662.

Binder, Paul B.: *See*—
Johnson, Curtis R. A., Garvin, Ruppenthal, Morris, and Binder. 3,071,772.

Binder, Richard, to Fichtel & Sachs A.G. Automotive clutch control system. 3,084,772, 4–9–63, Cl. 192—3.5.

Binder, Richard, to Fichtel & Sachs A.G. Automotive plate spring friction clutch. 3,093,228, 6–11–63, Cl. 192—89.

Binder, Rolf: *See*—
Wildboiz, Rudolf, Binder, and Stähell. 3,112,139.

Binder, Rolf, and P. Stähell, to Joh. Jacob Rieter & Cie, Actiengesellschaft. Apparatus for depositing open fibrous material in spinning plants. 3,111,348, 11–19–63, Cl. 302—59.

Binder, Wilhelm, and R. Hauer, to Binder Magnete K.G. Electromagnetically releasable spring brake. 3,085,662, 4–16–63, Cl. 188—171.

Bindernagel, Alt: *See*—
Uebing, Heinrich, Bretschneider, Bindernagel, and Jurczyk. 3,114,276.

Bindler, Jakob. *See*—
Pugin, André, and Bindler. 3,082,213.
Schlapfer, Hans, and Bindler. 3,096,309.

Bindler, Jakob, and E. Model, to J. R. Geigy, A.-G. New amphoteric 2-imino-1,3-di-N-heterocycles. 3,108,903, 10–29–63, Cl. 117—138.5.

Binford, Murray C.: *See*—
Dalsemer, Gordon H., and Binford. 3,095,327.

Binger, Lawrence W.: *See*—
Mutchler, David E., and Binger. 3,082,453.

Binger, Wayne W., and B. M. Ponchel, to Aluminum Co. of America. Removing flux residues. 3,074,624, 1–22–63, Cl. 134—28.

Binger, Wayne W., and D. G. Vandenburgh, to Aluminum Co. of America. Elevated temperature liquid heating systems. 3,089,466, 5–14–63, Cl. 122—17.

Bingham, Basil E. M.: *See*—
Klein, Elias, Nelson, and Bingham. 3,109,700.

Bingham, Dillion M.: *See*—
Becker, Frank E., Bingham, and Young. 3,082,854.

Bingham, George H., Jr., to Cambridge Rubber Co. Last for use in making plastic footwear. 3,099,862, 8–6–63, Cl. 18—41.

Bingham, George H., Jr., and O. Y. Olsson, to Cambridge Rubber Co. Method of making footwear having water-impervious outer soles. 3,101,496, 8–27–63, Cl. 12—142.

Bingham, John D., to Henry Simon Ltd. Self-propelled brushes for reciprocating sieves. 3,113,923, 12–10–63, Cl. 209—388.

Bingham, Raymond: *See*—
Snipe, Arthur, T. R. and R. Bingham. 3,085,795.

Bingham, Sidney H. Monorail constructions. 3,092,040, 6–4–63, Cl. 105—150.

Bingham, Terrence R.: *See*—
Snipe, Arthur, T. R. and R. Bingham. 3,085,795.

Bingley, Frank J., and J. F. Fisher, to Philco Corp. Composite image reproducing means. 3,113,180, 12–3–63, Cl. 178—6.8.

Binkley, Caleb V. Valve compressor. 3,091,839, 6–4–63, Cl. 29—217.

Binkley Co., The: *See*—
McKay, Harry M. 3,081,617.
McKay, Harry M. 3,096,993.

Binks Mfg. Co.: *See*—
Wallace, Ray H., Jr. 3,082,644.

Binning, Robert C., to Standard Oil Co. Hydrogenation catalyst. 3,102,864, 9–3–63, Cl. 252—438.

Binns, Jack N. Contour roll-turning lathe. 3,095,770, 7–2–63, Cl. 82—2.

Binns, Jack N. Tracer finger for automatic tracer and method and means of coordinating same with a cutter. 3,096,688, 7–9–63, Cl. 90—62.

Binns, John W.: *See*—
Christensen, Kenneth M., and Binns. 3,108,833.

Binon, Fernand A. G., G. J. L. Dechamps, deceased; by E. Dechamps, representative, to Societe Belge de l'Azote et des Produits Chimiques du Marly. Process for preparing hydrolysis products of β-dimethyl amino-β-hydroxybutyronitrile chloromethylate. 3,096,368, 7–2–63, Cl. 260—534.

Biochemie Gesellschaft mit beschrankter Haftung: *See*—
Brandl, Ernst, and Kleiber. 3,109,779.
Margreiter, Hans, Brunner, and Brandl. 3,093,547.

Bioferm Corp.: *See*—
Megna, John C. 3,073,749.
Sudarsky, Jerry M., and Fisher. 3,112,248.

Biorex Laboratories Ltd.: *See*—
Gottfried, Siegfried, and Baxendale. 3,084,185.

Biorseth, Elwin J.: *See*—
Smith, John W., and Biorseth. 3,081,191.

Birch and Birch: *See*—
Laws, Malcolm H. 3,086,524.
Laws, Malcolm H. 3,104,663.

Birch, Harry. Combination crib, highchair and wagon. 3,111,332, 11–19–63, Cl. 280—31.

Birch, Marjorie A. Combined tooth brush and gum massager. 3,103,027, 9–10–63, Cl. 15—110.

Birchfield, John R., and V. A. Gulsian, to Thompson Ramo Wooldridge Inc. Method and apparatus for forming conical and related shapes. 3,072,086, 1–8–63, Cl. 113—52.

Birch-Iensen, Åke H. G., and G. Bjork, to Svenska Sockerfabriks Aktiebolaget. Apparatus for opening collapsed cartons. 3,111,066, 11–19–63, Cl. 93—53.

Bird Electronic Corp.: *See*—
Bird, James R., and Stevens. 3,095,454.

Bird, George F.: *See*—
Shore, David T., and Bird. 3,102,813.

Bird, James R., and H. E. Stevens, to Bird Electronic Corp. Connection assembly for coaxial conductor. 3,095,454, 6–25–63, Cl. 333—22.

Bird Machine Co.: *See*—
Baker, Donald B. 3,073,529.
Cannon, Madison M., Dick, and Salomon. 3,092,578.
Roos, John T. 3,072,136.
Troland, Edwin P. 3,105,044.

Bird, Philip L.: *See*—
Chambers, Hubert H., and Bird. 3,114,961.

Bird, Richard M., and R. Stanley, Jr., to General Precision, Inc. Digital servo loop with automatic tachometer control to provide variable damping. 3,093,776, 6–11–63, Cl. 318—28.

Bird, Ruth. Electrical wire connectors. 3,083,260, 3–26–63, Cl. 174—87.

Bird, Ruth. Advertising devices incorporating a dispensable aroma. 3,116,077, 12–31–63, Cl. 281—15.

Bird & Son, Inc.: *See*—
Allen, Herman C. 3,115,105.
Sallie, Stanley H. 3,080,683.

Bird, Thomas S., to Bausch & Lomb Inc. Optical system for optical projectors. 3,115,537, 12–24–63, Cl. 88—57.

Birdair Structures, Inc.: *See*—
Reitmeler, George F. 3,103,050.

Birdsall, Bruce E., to Carrier Corp. Air conditioning units. 3,092,178, 6–4–63, Cl. 165—1.

Birdsall, Dale H., and R. E. Riley, to United States of America, Atomic Energy Commission. Magnetic shaping process. 3,088,200, 5–7–63, Cl. 29—421.

Birdsall, George T., and T. A. Bergstrom. Game. 3,091,464, 5–28–63, Cl. 273—108.

Birdsall, Robert E., to Enterprise Machine Parts Corp. Collet driving head. 3,073,612, 1–15–63, Cl. 279—4.

Birdsboro Corp.: *See*—
Bush, John E. 3,078,540.
Gartrell, John T. 3,074,123.
Peterson, Edward C. 3,083,603.

Bireley, Frank W., and H. A. Foss, to Brown Citrus Machinery Corp. Fruit juice extractor. 3,094,919, 6–25–63, Cl. 100—39.

Birtield Engineering Ltd.: *See*—
Bastow, Donald. 3,106,076.
Edwards, Douglas A., and Summers. 3,111,821.

Birge, William T., to Kelsey-Hayes Co. Brake construction. 3,115,219, 12–24–63, Cl. 188—78.

Biritz, Laszlo F., to Houston Chemical Corp. Tetraethyl lead preparation. 3,108,127, 10–22–63, Cl. 260—437.

Birk, Harold W. Marine muffler. 3,115,210, 12–24–63, Cl. 181—52.

Birk, Rudolf, H. Kaufer, and R. Schwab, to Agfa Aktiengesellschaft. Feed-controlling roller. 3,083,642, 4–2–63, Cl. 101—367.

Birkenbeul, Robert M., and P. W. Johnson; said Birkenbeul assor. to said Johnson. Drum exerciser. 3,106,395, 10–8–63, Cl. 272—57.

Birkenes, Bernhard, to Motorola, Inc. Radio receiver. 3,089,087, 5–7–63, Cl. 325—319.

Birkenes, Bernhard, to Motorola, Inc. Radio receiver. 3,104,357, 9–17–63, Cl. 325—319.

Birkhead, Frank G., to Chainveyor Corp. Automatic releasing drive carriage for power and free conveyor systems. 3,079,872, 3–5–63, Cl. 104—172.

Birkner, Lars G., and S. T. Henriksson, to Boliidens Gruvaktiebolag. Wood preservative. 3,099,598, 7–30–63, Cl. 167—38.5.

Birkness, Harald A., to Standard Oil Co. Locked-safe valve. 3,090,218, 5–21–63, Cl. 70—179.

Birks, La Verne S., Jr., to United States of America, Navy. System for recording parallel X-rays. 3,079,501, 2–26–63, Cl. 250—51.5.

Birmann, Rudolph. Compound power plant. 3,093,959, 6–18–63, Cl. 60—13.

Birnans, Josef, and H. Steinert, to R. Dewas. Weaving method and loom. 3,092,150, 6–4–63, Cl. 139—122.

Birmingham Small Arms Co. Ltd., The: *See*—
Harris, Geoffrey T., and Child. 3,109,235.
Scott, Harold R. 3,081,385.

Birmingham Sound Reproducers Ltd.: *See*—
Guest, Lawrence V. 3,085,759.

Birnbaum, Hermann, and J. Lederer, to Hachmeister-Inc Process for producing monoglycerides of fatty acids. 3,102,129, 8–27–63, Cl. 260—410.7.

Birnbaum, Morris M., and P. M. Salomon, to General Precision, Inc. Correlation circuit. 3,114,831, 12–17–63, Cl. 235—181.

Biro, Jorge E., ¼ to F. F. Pita. Insecticidal composition comprising 1-halophenyl-1-nitro-phenyl-2-dihalo-3-monohalobutane. 3,107,200, 10–15–63, Cl. 167—30.

Birosel, Dionisio M., ¼ each to T. C. Fisher, L. C. Padilla, and N. G. Fisher. Physico-mechanical process of obtaining high quality cocoanut oil. 3,106,571, 10–8–63, Cl. 260—412.2.

Birrell, James G. Float with renewable selectively usable spreader. 3,105,318, 10–1–63, Cl. 43—43.15.

Birtcher, Corp., The: *See*—
Booher, Charles F., II. 3,113,821.

Birtwell, William C., to Davol Rubber Co. Arterial catheter. 3,094,124, 6–18–63, Cl. 128—348.

Birtwell, William C., to Davol Rubber Co. Heart pump apparatus. 3,099,260, 7–30–63, Cl. 128—1.

Birum, Gail H.: *See*—
Dever, James L., and Birum. 3,089,893.

Birum, Gail H., to Monsanto Chemical Co. Organic phosphorus compounds. 3,089,891, 5–14–63, Cl. 260—461.

Birum, Gail H., to Monsanto Chemical Co. Toxic, O,O-dimethyl-and O,O-diethyl S-pentachlorophenyl phosphoro thioate. 3,094,457, 6–18–63, Cl. 167—30.

Birum, Gail H., to Monsanto Chemical Co. Organic sulfur-containing compounds. 3,116,335, 12–31–63, Cl. 260—608.

Birum, Gail H., and G. A. Richardson, to Monsanto Chemical Co. Organic antimony-phosphorus compounds. 3,081,327, 3–12–63, Cl. 260—446.

Birum, Gail H., and G. A. Richardson, to Monsanto Chemical Co. Silicon-phosphorus compounds. 3,113,139, 12–3–63, Cl. 260—346.1.

Birum, Herbert L., Jr.: *See*—
Hammitt, Andrew B., and Birum. 3,075,253.

Bisberg, Abraham: *See*—
Ruthen, Milton, and Bisberg. 3,098,430.

Bisbing, Paul E., to Philco Corp. Cathode ray tube faceplate construction. 3,089,052, 5–7–63, Cl. 313—110.

Biscardi, Charles T.: *See*—
Showers, Lewis M., Jr., and Biscardi. 3,096,859.

Bisch, Charlotte M.: *See*—
Bisch, William H. 3,074,084.

Bisch, William H., deceased, C. M. Bisch, executrix. Float for use in swimming pools and at beaches. 3,074,084, 1–22–63, Cl. 9—347.

Bischof, Julius L., and W. A. Dosenbach. Denture attachment. 3,085,334, 4–16–63, Cl. 32—2.

Bishay, Adil M., to United States of America, Atomic Energy Commission. Gamma radiation dosage-measuring glasses and method of using. 3,089,957, 5–14–63, Cl. 250—83.

Bishman Mfg. Co.: *See*—
Bishman, Walter A. 3,113,609.
Ruhland, Walter F. 3,097,825.

Bishman, Walter A., to Bishman Mfg. Co. Tire changer. 3,113,609, 12–10–63, Cl. 157—1.17.

Bishoff, Theodore: *See*—
Cornwell, Carlyle S., and Bishoff. 3,095,787.

Bishop, Albert B., 3rd, to Industrial Nucleonics Corp. Automatic process control. 3,075,700, 1–29–63, Cl. 235—151.

Bishop, Arthur E. Apparatus for making variable lead hourglass steering gear worms. 3,077,705, 2–19–63, Cl. 51—97.

Bishop and Babcock Corp., The: *See*—
Adams, James E. 3,110,373.
Jaworski, Leonard S. 3,084,739.
Munse, Robert A. 3,104,739.
Munse, Robert A. 3,108,371.

Bishop, Charles J. Actuating cap. 3,110,426, 11–12–63, Cl. 222—505.

Bishop, Clarence E.: *See*—
Kay, James A., and Bishop. 3,092,873.

Bishop, Claude R., and M. Stern, to Union Carbide Corp. Means of preventing embrittlement in metals exposed to aqueous electrolytes. 3,109,734, 11–5–63, Cl. 75—171.

Bishop, Donald, and J. H. Ripper, to National Research Development Corp. Tape-measures. 3,098,622, 7–23–63, Cl. 242—84.5.

Bishop, Donald R., and L. O. Bruneau, to Polaroid Corp. Photographic apparatus. 3,091,379, 5–28–63, Cl. 225—89.

Bishop, Earl L., and O. A. Pelkey, to The Akron Standard Mold Co. Air actuated motor unit. 3,081,743, 3–19–63, Cl. 121—38.

Bishop, Edwin L.: *See*—
Bishop, Thomas D. and E. L. 3,105,681.

Bishop, Fred W., to Great Lakes Carbon Corp. Composition and method for treating drilling fluids. 3,091,588, 5–28–63, Cl. 252—8.5.

Bishop, Geoffrey S., to Elliott Bros. (London) Ltd. Automatic landing systems for aircraft. 3,110,458, 11–12–63, Cl. 244—77.

Bishop, Gwendolin A.: *See*—
Bishop, Thomas D., and E. L. 3,105,681.

Bishop, Harold F., D. E. Wiley, and M. Bock, II, to Exomet Inc. Exothermic welding apparatus. 3,103,719, 9–17–63, Cl. 22—58.

Bishop, Harold F., D. E. Wiley, and M. Bock, II, to Exomet Inc. Welding process and material. 3,103,721, 9–17–63, Cl. 22—16.

Bishop, Harry K.: *See*—
Reilly, Thomas A., Beckman, and Bishop. 3,090,824.
Reilly, Thomas A., Beckman, and Bishop. 3,115,429.

Bishop, John J., R. M. Thomas, and G. K. Welsse, to Olin Mathieson Chemical Corp. Process for preparing N,N,N',N'-tetramethylammeline, its dimer and its mercuric chloride complex. 3,110,715, 11–12–63, Cl. 260—242.

Bishop, John W., II, to Bishop Spools, Inc. Ribbon spool construction. 3,112,020, 11–26–63, Cl. 197—175.

Bishop, Lee P. Method for preparing soluble coffee wafers. 3,071,470, 1–1–63, Cl. 99—66.

Bishop, Leon H.: *See*—
Gray, Lowell C., and Bishop. 3,114,532.

Bishop, Leon H., to The Bendix Corp. Speed sensing device using two-phase alternator. 3,082,354, 3–19–63, Cl. 317—5.

Bishop, Leonard J., to Mechanical Handling Systems, Inc. Flexible rail type stop and release mechanism for overhead conveyor. 3,088,419, 5–7–63, Cl. 104—172.

Bishop, Leonard J., P. Klamp, and R. Krammer, to Mechanical Handling Systems, Inc. Entrance switch mechanism for overhead conveyor. 3,099,966, 8–6–63, Cl. 104—96.

Bishop, Lewis H., and E. M. Pedersen, to Pierce Specialized Equipment Co. Machine for collating glue tipping and carbon interleaving. 3,114,543, 12–17–63, Cl. 270—58.

Bishop, Morris, to Lipton Products Ltd. Load handling vehicles. 3,107,750, 10–22–63, Cl. 187—9.

Bishop, Robert W., and C. H. O'Grady, to Kent-Moore Organization, Inc. Pinch-off tool. 3,078,904, 2–26–63, Cl. 153—24.

Bishop, Ronald F., and F. Clifford, to Whessoe Ltd. Load supporting means. 3,109,551, 11–5–63, Cl. 220—1.

Bishop, Ronald L., to American Bosch Arma Corp. Gyroscopic apparatus. 3,082,631, 3–26–63, Cl. 74—5.47.

Bishop Spools, Inc.: *See*—
Bishop, John W. II. 3,112,020.

Bishop, Thomas D., to The Deritend Engineering Co. Ltd. Apparatus for the treatment of cardboard and the like for the manufacture of cardboard boxes or containers. 3,111,067, 11–19–63, Cl. 93—58.2.

Bishop, Thomas D., and E. L., deceased (G. A. Bishop and H. S. R. Cheatle, executors). Mechanism for feeding cardboard and like blanks to creasing, slotting, folding or other treating machinery. 3,105,681, 10–1–63, Cl. 271—32.

Bishop, Walter M., to Bell Telephone Laboratories, Inc. Stowage apparatus for cable instrumentality housings. 3,093,333, 6–11–63, Cl. 242—54.

Bishop, William, to William Bishop Co. Container. 3,072,248, 1–8–63, Cl. 206—56.

Bishop, William A., to Copolymer Rubber & Chemical Corp. Moisture content monitoring. 3,110,173, 11–12–63, Cl. 73—77.

Bishop, William, Co.: *See*—
Bishop, William. 3,072,248.

Bisley, A. M., & Co. Ltd.: *See*—
Bisley, Robin S. 3,110,140.

Bisley, Robin S., to A. M. Bisley & Co. Ltd. Siderakes and like implements. 3,110,149, 11–12–63, Cl. 56—377.

Bisordi, Mario V., and P. Winchell. Frozen blood plasma defroster. 3,112,387, 11–26–63, Cl. 219—35.

Bissell, Don W., and C. D. Brunner, to Ipsen Ceramics, Inc. Mullite porcelain. 3,103,443, 9–10–63, Cl. 106—45.

Bissell, Inc.: *See*—
Anderson, Howard A. 3,076,216.
Haar, Howard E., and Hughes. 3,094,737.
Yonkers, Robert A., Herring, and Anderson. 3,079,626.
Yonkers, Robert A., Rosendall, and Lathrop. 3,085,284.

Bissinger, Walter J., to Norton Co. Weight-compensating means for precision-shifted members. Re. 25,348, 3–12–63, Cl. 308—5.

Bisson, Leo J.: *See*—
Auger, Joseph, and Bisson. 3,107,814.

Bissonnette, Harold F.: *See*—
Bissonnette, Irving M., Y. J., and H.F. 3,085,134.

Bissonnette, Irving M., Y. J., and H. F. Combination information guide and indexed note book for wall telephones. 3,085,134, 4–9–63, Cl. 179—146.

Bissonnette, Yolanda J.: *See*—
Bissonnette, Irving M., Y. J., and H. F. 3,085,134.

Biszantz, Fred, to Hercules Gallon Products Inc. Automatic tilting dump truck stabilizer. 3,083,059, 3–26–63, Cl. 298—17.

Biszantz, Fred, and A. H. Ruth, to Hercules Gallon Products Inc. Hydraulic system for dump trucks. 3,094,359, 6–18–63, Cl. 298—8.

Bitco, Inc.: *See*—
Lunden, Sidney L., and Mosely. 3,104,005.
Stober, Harley E. 3,080,029.

Bither, Tom A., Jr., to E. I. du Pont de Nemours and Co. Oxides of tungsten and Group III–A elements. 3,112,992, 12–3–63, Cl. 23—51.

Bitler, Barbara A.: *See*—
Doerschuk, Albert P., Bitler, and Petty. 3,105,016.

Bittel, Karl, to Flugzeugwerke Dresden, VEB. Oleo shock absorber for automotive vehicles and the like. 3,076,643, 2–5–63, Cl. 267—64.

Bitter, Lajos: *See*—
Szöts, Géza, Szetey, Kocsis, Kondor, Havasi, Ritter, Demeter, Gulyás, and Bitter. 3,089,226.

Bitterli, Peter, to Sandoz Ltd. Phthalocyanine dyestuffs containing halo-pyrimidyl groups. 3,105,070, 9–24–63, Cl. 260—242.

Bitterlich, Gordon M., A. L. Primas, and P. P. Hahn, to Thermal Research & Engineering Corp. Submerged exhaust combustion unit. 3,088,812, 5–7–63, Cl. 23—281.

Bitting, Miriam E. Protector. 3,074,399, 1–22–63, Cl. 128—132.

Bitting, Russell D., and D. A. Berry, to Union Bag-Camp Paper Corp. High softening point maleic modified tall oil rosin glycerol esters. 3,106,550, 10–8–63, Cl. 260—97.5.

Bittman, Jess C.: *See*—
Nye, Maurice A., and Bittman. 3,076,619.
Nye, Maurice A., and Bittman. 3,097,812.
Nye, Maurice A., and Bittman. 3,098,109.

Bittman, Jess C., to The Vaughn Machinery Co. Stands for continuous pay-off of wire and the like. 3,082,973, 3–26–63, Cl. 242—129.

Bittman, Jess C., to The Vaughn Machinery Co. Wire packaging machine. 3,113,745, 12–10–63, Cl. 242—83.

Bittner, Clarence W., to Shell Oil Co. Iodinative hydrocarbon conversion process. 3,106,590, 10–8–63, Cl. 260—673.5.

Bittner, Clarence W., and G. Holzman, to Shell Oil Co. Dimerization of propylene to 4-methyl-1-pentene. 3,075,027, 1–22–63, Cl. 260—683.15.

Bittner, Ernst, to The Scholl Mfg. Co., Inc. Sliding buckle for strap ends. 3,088,184, 5–7–63, Cl. 24—175.

Bituminous Coal Research, Inc.: *See*—
Cooper, Franklin D. 3,081,009.

Bitzer, Edmund C.: *See*—
Tyler, Merle D., Hughes, and Bitzer. 3,092,240.

Bitzer, Martin: *See*—
Olshel, John R., and Bitzer. 3,078,492.
Olshel, John R., and Bitzer. 3,080,595.
Olshel, John R., and Bitzer. 3,095,596.
Olshel, John R., Deibel, Reister, and Bitzer. 3,110,056.

Bitzer, Martin, to Trico Products Corp. Windshield cleaning system. 3,076,220, 2–5–63, Cl. 15—250.2.

Bivens, Arnold R. Portable undercutting saw. 3,111,969, 11–26–63, Cl. 143—43.

Bivens, Paul E., and L. H. Wideman, to Owens-Illinois Glass Co. Method of fire finishing glass tumblers. 3,107,161, 10–15–63, Cl. 65—65.

Bixby, Guy T., to L. B. Weber. Combined tie clip and necktie protector. 3,085,247, 4–16–63, Cl. 2—46.

Bixby, Guy T., to Mine Safety Appliances Co. Ear cup assembly for helmets. 3,091,771, 6–4–63, Cl. 2—3.

Bixby, Leo A., to Rockwell-Standard Corp. Vehicle drive mechanism. 3,093,417, 6–11–63, Cl. 301—1.

Bixby, Leo A., to Rockwell-Standard Corp. Power transmission. 3,095,758, 7–2–63, Cl. 74—701.

Bixby, Leon C. Heat treating basket. 3,092,375, 6–4–63, Cl. 263—47.

Bixby, Wallace E., to Wedge Wire Corp. Screen. 3,116,239, 12–31–63, Cl. 209—395.

Bixby, William H., and L. J. Green, to North Electric Co. Current supply apparatus. 3,080,516, 3–5–63, Cl. 323—22.

Bixby-Zimmer Engineering Co.: *See*—
Mullins, William E. 3,074,554.

Bixson, Louis L., and H. H. Debol, to United States of America, Air Force. Instantaneous and simultaneous propellant shutoff for a bipropellant flow system. 3,097,483, 7–16–63, Cl. 60—35.6.

Bizard, André G., to Compagnie de Construction de Gros Material "Electro-Mecanique." Filter. 3,081,876, 3–19–63, Cl. 210—107.

Bizerba-Werke Wilhelm Kraut KG: *See*—
Kuhnle, Ernst. 3,092,314.
Kuhnle, Ernst, and Schwarz. 3,092,199.

Bizet, Pierre M., to Compagnie Industrielle des Telephones. Bilaterally operable transistorized shifting register. 3,098,161, 7–16–63, Cl. 307—88.5.

Bjerke, Alf J. Dismountable shelving units. 3,111,916, 11–26–63, Cl. 108—152.

Bjork, Arvid J., to A. O. Smith Corp. Lightweight structural panel and method of making the same. 3,080,268, 3–5–63, Cl. 154—45.

Björk, Bengt A.: *See*—
Wallqvist, Sven H., and Björk. 3,075,697.

Bjork, Carl K.: *See*—
Hradel, Joseph R., and Bjork. 3,094,060.
Hradel, Joseph R., and Bjork. 3,094,443.

Bjork, Gerhard: *See*—
Birch-lensen, Åke H. G., and Bjork. 3,111,066.

Bjorklund, Carl W.: *See*—
Mullins, Lawrence J., Jr., Leary, Bjorklund, and Maraman. 3,098,028.

Bjorklund, Gustaf E. Variable displacement piston machine. 3,101,060, 8–20–63, Cl. 103—161.

Björklund, Gustaf E., S. R. Edvardsson, and R. G. Eriksson, to Dentatus, Aktiebolaget. Machine adapted to operate as pump, compressor or motor. 3,106,167, 10–8–63, Cl. 103—161.

Björkman, Anders E. G., and P. E. Andersson, to Billeruds Aktiebolag. Method for the recovery of sodium carbonate from alkali-containing spent cellulose liquors. 3,083,077, 3–26–63, Cl. 23—48.

Bjorn, Thomas E., P. C. Hosking, and O. Szymber, to Stewart-Warner Corp. Unbalance detection apparatus. 3,071,007, 1–1–63, Cl. 73—466.

Bjorn, Warren A.: *See*—
Nygren, Arnold C., and Bjorn. 3,072,152.

Bjorndal, Magnus: *See*—
Frick, Edward M., and Bjorndal. 3,110,037.

Blaauw, Andrew. Double sickle bar mower. 3,114,230, 12–17–63, Cl. 56—297.

Black-Clawson Co., The: *See*—
Baxter, Joseph, Jr. Re. 25,333.
Corbin, Wesley S., Moore, and Pearson. 3,074,476.
Jacobs, Robert J., and Coghill. 3,079,889.
Lacker, Robert F. 3,092,582.
Lacker, Robert F., and Baxter. 3,081,026.
Lorenz, Clermont H., and Penrod. 3,101,914.
Messing, Hjalmar S. 3,105,434.
Moore, Lawrence A. 3,085,503.
Rojecki, Walter E. 3,079,805.
Yokes, Robert F. 3,073,535.

Black and Decker Mfg. Co., The: *See*—
Bennett, John L., Wooton, and Clagett. 3,102,964.
McCarty, George W., and Kohler. 3,087,519.
Riley, Robert H., Jr. 3,091,433.
Sheps, Martin I., and Beam. 3,074,217.
Stanley, Allen C. 3,085,603.
Stanley, Allen C. 3,096,133.

Black, Douglas E., to B. C. Wheeler. Meter rack. 3,086,667, 4–23–63, Cl. 214—130.

Black, Douglas E. Acorn-shaped cutter bit. 3,102,442, 9–3–63, Cl. 77—67.

Black, Douglas E. Transition pipe coupling. 3,108,826, 10–29–63, Cl. 285—174.

Black, Du Wayne G., N. C. McKelvy, and C. R. George, to Link-Belt Co. Gravimetric conveyor. 3,107,819, 10–22–63, Cl. 222—55.

Black, Ernest P., to Sun Oil Co. Non-drip candles. 3,091,952, 6–4–63, Cl. 67—22.

Black, Frank S., to FMC Corp. Concentrated insecticidal compositions. 3,094,456, 6–18–63, Cl. 167—30.

Black, Geoffrey D., to The British Oxygen Co. Ltd. Apparatus for controlling or assisting respiration. 3,088,455, 5–7–63, Cl. 128—29.

Black, Harold D., to United States of America, Army. Quick connector. 3,086,466, 4–23–63, Cl. 102—44.

Black, James: *See*—
Hoyle, Walter W., and Black. 3,111,075.

Black, James F., and D. A. Guthrie, to Esso Research and Engineering Co. Polymeric lubricating oil additives. 3,089,832, 5–14–63, Cl. 204—158.

Black, James G., Jr., to Illinois Tool Works Inc. Wafers for modular constructions. 3,078,335, 2–19–63, Cl. 174—138.

Black, James G., Jr., to Illinois Tool Works Inc. Apparatus for orienting wafers. 3,103,273, 9–10–63, Cl. 198—33.

Black, James J., to Pullman Inc. Marker lights for roadway vehicles. 3,087,051, 4–23–63, Cl. 240—7.1.

Black, James J., to Pullman Inc. Floor construction for refrigerated roadway vehicle. 3,092,220, 6–4–63, Cl. 189—34.

Black, James J., to Pullman Inc. Splash guard. 3,095,215, 6–25–63, Cl. 280—154.5.

Black, James J., to Pullman Inc. Floor construction for refrigerated roadway vehicle. 3,102,334, 9–3–63, Cl. 29—548.
Black, James P.: *See*—
Monnikendam, Phillip, Clarke, and Black. 3,080,223.
Black, John W., to Pemco Wheel Co. Castered wire dolly. 3,090,637. 5–21–63, Cl. 280—79.1.
Black Products Co.: *See*—
Lau, Erwin M. 3,102,561.
Lau, Erwin M. 3,103,300.
Lau, Erwin M. 3,115,905.
Zenke, Herbert J. 3,073,401.
Zenke, Herbert J. 3,102,602.
Black, Raymond J.: *See*—
Brown, James W., and Black. 3,078,967.
Black, Robert B., to Agrashell, Inc. Extender compositions, adhesive solutions containing same and process of preparation. 3,099,633. 7–30–63, Cl. 260—17.2.
Black, Robert E.: *See*—
Danforth, John P., and Black. 3,093,739.
Black, Robert H. Control and guide for bowling ball. 3,094,329, 6–18–63, Cl. 273—49.
Black, Robert H., to The Pannier Corp. Boron oxide derivative high temperature marking ink. 3,111,413, 11–19–63, Cl. 106—20.
Black, Robert L., to General Motors Corp. Transmission. 3,088,339. 5–7–63. Cl. 74—761.
Black, Robert L., to General Motors Corp. Transmission. 3,091,980. 6–4–63, Cl. 74—752.
Black, Robert S. Truss-type adjustable joist. 3,078,970, 2–26–63, Cl. 189—37.
Black, Ronald C., and E. J. Hohos, to Mine Safety Appliances Co. Rock drill tip holder. 3,089,552, 5–14–63, Cl. 175—400.
Black, Roy D., to L. R. Crow. Educational devices. 3,074,182, 1–22–63. Cl. 35—19.
Black, Roy D., to L. R. Crow. Educational device. 3,080,663, 3–12–63, Cl. 35—19
Black, Roy D., to L. R. Crow. Educational devices. 3,105,309, 10–1–63, Cl. 35—19.
Black, Sivalls & Bryson, Inc.: *See*—
Carter, J Warne. 3,106,504.
Hanssen, Albert J. 3,088,485.
Smith, Delbert P., Ellis, and Worley. 3,104,958.
Wood, Loren E. 3,091,359.
Black, Stewart L.: *See*—
Hanson, Theodore L., and Black. 3,092,029.
Black, Warren R., to Illinois Tool Works, Inc. Molding machine. 3,081,491, 3–19–63, Cl. 18—19.
Black, Warren R., B. W. Henrikson, and W. R. Van Loo, to American Seating Co. Simulated slat bench construction. 3,093,096. 6–11–63, Cl. 108—153.
Black, William B., and H. G. Clark III, to Monsanto Chemical Co. Solution of polypyrrolidone in superheated water. 3,076,774, 2–5–63, Cl. 260—29.2.
Black, William C., Sr., and P. A. Crescl. Load carrying vehicle. 3,090,514. 5–21–63, Cl. 214—512.
Black, William H.: *See*—
Frankel, Theodor, and Black. 3,105,878.
Black, William H. Method and apparatus for prefabricating prestressed monoplanar trusses. 3,100,301, 8–13–63, Cl. 1—160.
Black, William T.: *See*—
Pike, Roscoe A., and Black. 3,109,011.
Blackburn Aircraft Ltd.: *See*—
Tucknott, Robert. 3,113,353.
Blackburn, Alan B., to General Motors Corp. Method of making a permanent magnet rotor. 3,077,026, 2–12–63, Cl. 29—155.53.
Blackburn, Alan P., and E. E. Miles, to The General Electric Co. Ltd. Apparatus for use in coating tubes internally with finely divided solid material. 3,111,429, 11–19–63, Cl. 118—7.
Blackburn, Charles M., to United States of America, Navy. Pressure switch. 3,077,524, 2–12–63, Cl. 200—82.
Blackburn, Charles M., to United States of America, Navy. Hydraulic power supply. 3,100,965, 8–20–63, Cl. 60—51.
Blackburn, Hogard, to Monsanto Chemical Co. Mixers. 3,072,957, 1–15–63, Cl. 18—2.
Blackburn, Jasper, Corp.: *See*—
Woehner, Charles J. 3,112,148.
Blackburn, Richard E., to Container Corp. of America. End carrying container. 3,106,331, 10–8–63, Cl. 229—27.
Blackburn, Walter L. Screw connector for barges or the like. 3,105,675, 10–1–63, Cl. 254—67.
Blackburn, William E.: *See*—
Ellis, Charles W., III, and Blackburn. 3,075,727.
Blacker, Merrill S., to United States Steel Corp. Open hearth furnace door. 3,104,655, 9–24–63, Cl. 122—498.
Blackerby, William S. Lawn mower having magnet attached. 3,084,495, 4–9–63, Cl. 56—255.
Blackford, Benjamin B., to Johnson & Johnson. Porous extensible pressure-sensitive adhesive tape in which perforations are arranged to facilitate tearing. 3,085,024, 4–9–63, Cl. 117—4.
Blackford, Benjamin B., deceased, to Johnson & Johnson. Tape. 3,085,572, 4–16–63, Cl. 128—156.
Blackhall, Douglas J. W., and T. Robertson, to J. Blakeborough & Sons Ltd. Wedge type valves for fluids. 3,088,705, 5–7–63, Cl. 251—187.
Blackham, Angus U.: *See*—
Mador, Irving L., and Blackham. 3,114,762.
Blackhurst, Robert V.: *See*—
Kent, Nelson H., Beale, and Blackhurst. 3,094,270.
Blackman, Arthur W., Jr., to United Aircraft Corp. Nuclear powered propulsive device. 3,108,054, 10–22–63, Cl. 204—193.2.
Blackman, Calvin C., and R. J. Beemer, to L. Wilson. Apparatus for annealing coils of strip metal. 3,081,074, 3–12–63, Cl. 263—47.
Blackman, Paul R.: *See*—
Turbett, George R., and Blackman. 3,116,408.
Blackman, Paul R., to Air Reduction Co., Inc. Arc welding apparatus. 3,102,947, 9–3–63, Cl. 219—130.
Blackman, Paul R., and C. R. Sibley, to Air Reduction Co., Inc. Electric arc cutting. 3,115,568, 12–24–63, Cl. 219—69.
Blackmer, Richard H.: *See*—
Titterington, William A., and Blackmer. 3,098,768.
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Magnuson, Elton E., and Blackmore. 3,096,596.
Blackmore, Richard H., to Union Carbide Corp. Electrode contact apparatus. 3,107,267, 10–15–63, Cl. 13—16.
Blackstock, Emerson B., to Bear Brand Hosiery Co. Method and apparatus for forming yarn. 3,092,953, 6–11–63, Cl. 57—36.
Blackstone Corp.: *See*—
Douglas, Peyton W. 3,083,558.
Douglas, Peyton W. 3,085,418.
Hale, Everett W., and Laudenslager. 3,080,228.
Laudenslager, Harry B., Jr. 3,099,590.
Blackstone, Robert M. Distributor puller with adjustable fulcrum means. 3,110,959, 11–19–63, Cl. 29—267.
Blackwell, Jennings P., to Phillips Petroleum Co. Stabilized nitric acid. 3,113,836, 12–10–63, Cl. 23—157.
Blackwell, Lyman L., to E. K. Sweeney Mfg. Co. Electrostatic voltage metering device. 3,109,141, 10–29–63, Cl. 324—123.
Blackwood, George W., and D. L. Shanklin, to W. R. Grace & Co. Cement pack set inhibitor. 3,093,499, 6–11–63, Cl. 106—90.
Blackwood, Robert K.: *See*—
Stephens, Charles R., Jr., and Blackwood. 3,081,346.
Blackwood, Robert K., H. H. Rennhard, J. J. Beereboom, and C. R. Stephens, Jr., to Chas. Pfizer & Co., Inc. Derivatives of tetracycline and its analogs. 3,109,007, 10–29–63, Cl. 260—346.2.
Blades, Charles E., and L. F. Barrington; said Blades assor. to Air Reduction Co., Inc., and said Barrington assor. to A. E. Staley Mfg. Co. Stabilization of vinyl acetate. 3,074,912, 1–22–63, Cl. 260—45.95.
Blades, Herbert, and J. R. White, to E. I. du Pont de Nemours and Co. Fibrillated strand. 3,081,519, 3–19–63, Cl. 28—81.
Blagden, Jack H. Combined article for cleaning cleated golf shoes and grooved golf clubs and similar objects. 3,105,257, 10–1–63, Cl. 15—105.
Blagg, Leon, to Schlumberger Well Surveying Corp. Borehole apparatus. 3,092,182. 6–4–63, Cl. 166—241.
Blaha, Albert L., A. Feiner, T. Feldman, and R. H. Klie, to Bell Telephone Laboratories, Inc. Switching device. 3,075,059, 1–22–63, Cl. 200—102.
Blaha, Eli W.: *See*—
Sabol, Albert R., and Blaha. 3,086,940.
Sabol, Albert R., Blaha, and Karli. 3,086,941.
Sabol, Albert R., Blaha, and Koskie. 3,109,814.
Blaha, Emil, to Selas Corp. of America. Apparatus for forming clay spheres. 3,071,357, 1–1–63, Cl. 263—30.
Blaha, Emil, to Selas Corp. of America. Apparatus for forming clay spheres. 3,071,358, 1–1–63, Cl. 263—30.
Blaha, Emil, to Selas Corp. of America. Apparatus for forming clay spheres. 3,071,359, 1–1–63, Cl. 263—36.
Blaha, Emil, to Selas Corp. of America. Air preheating burner. 3,101,773, 8–27–63, Cl. 158—109.
Blaich, Fritz, to A. Nattermann & Cie. Process for the production of a concentrate of active substance from senna. 3,089,814, 5–14–63, Cl. 167—56.
Blaich, Mason C.: *See*—
Schaeffer, Benjamin B., and Blaich. 3,107,993.
Blaikie, William R., and J. H. Murray, to Johnson & Johnson. Sterile surgical dressing unit. 3,095,088, 6–25–63, Cl. 206—63.2.
Blaiklock, William J., and C. S. Reasby, to United States of America, Army. Gage for coupling members. 3,100,939, 8–20–63, Cl. 33—174.
Blain, Paul, to Institut de Recherches de la Siderugie. Hydraulic arrangement for adjusting the spacing of the rolls in rolling mills and for compensating mill spring. 3,075,417, 1–29–63, Cl. 80—56.
Blain, Willard E. Holder for roll of toilet tissue. 3,079,099, 2–26–63, Cl. 242—55.2.
Blaine, Arthur C.: *See*—
Womack, Archer L., Blaine, and Orley. 3,109,522.
Blair, Benton, 25% to F. Blair. Eyeglasses holder for pockets. 3,115,687, 12–31–63, Cl. 24—3.
Blair Displays, Inc.: *See*—
Portnoy, Allen J. 3,103,374.
Portnoy, Allen J. 3,103,396.
Blair, Edgar A., to Sun Oil Co. Preparation of tetrafluoroethylene. 3,096,379, 7–2–63, Cl. 260—653.3.
Blair, Farnham: *See*—
Blair, Benton. 3,115,687.
Blair, George D.: *See*—
Holcroft, Walter H., and Blair. 3,105,863.

Blair, Gerald E.: *See*—
Acitelli, Mario A., and Blair. 3,102,197.
Blair, J. Thomas: *See*—
Bain, Bruce K., Blair, Burger, Ross, Vorachek, and Wolcott. 3,106,373.
Blair, James, to Imperial Chemical Industries Ltd. Continuous production of liquid explosive nitric esters. 3,086,042, 4–16–63, Cl. 260—467.
Blair, James E.: *See*—
Williams, Robert K., and Blair. 3,102,787.
Blair, James M.: *See*—
Kline, Gale D., and Blair. 3,083,108.
Blair, John W., to The Bendix Corp. Hydraulic pumping valve. 3,078,676. 2–26–63, Cl. 60—54.5.
Blair, Richard W.: *See*—
Morley, James P., and Blair. 3,072,449.
Blair, Robert H., to Helfrecht Machine Co. Welding circuitry. 3,102,976, 9–3–63, Cl. 321—9.
Blair, Robert O., to Collins Radio Co. Compression circuit. 3,109,993, 11–5–63, Cl. 330—108.
Blair, Ronald L. Undergarments. 3,115,880, 12–31–63, Cl. 128—567.
Blair, Royer R., to Bell Telephone Laboratories, Inc. Transistor trigger circuit. 3,114,049, 12–10–63, Cl. 307—88.5.
Blair, Winton B., to Schlumberger Well Surveying Corp. Strip gun improvements. 3,078,797, 2–26–63, Cl. 102—20.
Blair, Winton B., to Schlumberger Well Surveying Corp. Expendable perforating apparatus. 3,094,930, 6–25–63, Cl. 102—20.
Blaisdell, Donald, and T. J. Judge, to General Signal Corp. Dispatching system. 3,105,951, 10–1–63, Cl. 340—23.
Blaisdell, Kenneth L., to United States of America, Navy. Coaxial cable connectors. 3,076,169, 1–29–63, Cl. 339—89.
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Aubert, Roger, and Blaise. 3,082,376.
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Blake, Edward S., J. W. Edwards, and W. C. Hammann, to Monsanto Chemical Co. Isomeric mixtures of diphenoxy-, ditoloxy-, and phenoxytoloxybenzenes as functional fluids. 3,080,321, 3–5–63, Cl. 252—73.
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Blake, Frederick H., and F. M. Thorburn, to Sunnee Brand Ment Co., Inc. Mock chicken leg machine. 3,099,037, 7–30–63, Cl. 17—1.
Blake, John L. Indicator device. 3,115,710, 12–31–63, Cl. 33—172.
Blake, John T., to Scovill Mfg. Co. Fastener means. 3,094,757, 6–25–63, Cl. 24—265.
Blake, Leslie R., to United Kingdom Atomic Energy Authority. Apparatus for indicating the metal oxide content of a liquid metal. 3,078,412, 2–19–63, Cl. 324—64.
Blake, Leslie R., to United Kingdom Atomic Energy Authority. Fuel elements for nuclear reactors. 3,105,807, 10–1–63, Cl. 204—193.2.
Blake, Leslie R., to United Kingdom Atomic Energy Authority. Nuclear reactors. 3,109,802, 11–5–63, Cl. 204—193.2.
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Blake, William T., to Tew Mfg. Corp. Machine for separating articles according to size. 3,091,333, 5–28–63, Cl. 209—82.
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Haller, Augustine C. 3,082,097.
Blakely, Phyllis T.: *See*—
Haller, Augustine C. 3,082,097.
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Gaias, Charles P. 3,104,607.
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Blakesley, George R., Sr. Air conditioner apparatus. 3,097,506, 7–16–63, Cl. 62—263.
Blakewood, Charles H., D. C. Reynolds, and D. M. Warschauer, to United States of America, Air Force. Energy storage device. 3,093,735. 6–11–63, Cl. 250—83.
Blakey, Angus R., Jr., and R. T. Fields, to E. I. du Pont de Nemours and Co. Extrusion device. 3,114,170, 12–17–63, Cl. 18—12.
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Blanchard, Frederick W. Dishwashing machine. 3,114,375, 12–17–63, Cl. 134—188.
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Davis, Charles L., Blanchard, and Shira. 3,091,029.
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Blanchard, Samuel E., to The Borden Co. Method of adhering surfaces. 3,112,235, 11–26–63, Cl. 156—310.
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Bland, Albert N., and D. A. Davies, to Automotive Products Co. Ltd. Clutch operating mechanism for vehicles. 3,083,804, 4–2–63, Cl. 192—91.
Bland, George F., to International Business Machines Corp. Traveling wave parametric amplifiers. 3,093,801, 6–11–63, Cl. 330—5.
Bland, Richard E., J. E. Le Francois, W. J. Leiss, and H. F. Wegener, to United States of America, Navy. Directional underwater magnetostriction transducer. 3,082,401, 3–19–63, Cl. 340—11.
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Blanford, George W., 55% to J. H. Blocksom, 5% to S. J. Ginsberg, and 5% to G. A. Schwenzer. Self-service automatic vehicle-washing devices. 3,089,168, 5–14–63, Cl. 15—4.
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Blankenship, Paul V., and R. J. Pierce. to United States of America, Army. Variable die for strand cutting machine. 3,104,579, 9–24–63, Cl. 83—355.
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Blanshine, Allison W., to Sperry Rand Corp. Control device for adjusting a harvester platform. 3,100,373, 8–13–63, Cl. 56—214.
Blanton, James B. Electric air purifier. 3,094,400, 6–18–63, Cl. 55—102.
Blanton, John W., to Bell Aerospace Corp. Hydromechanical rate damped servo system. 3,101,650, 8–27–63, Cl. 91—433.
Blardinelli, Albert J., and W. H. Yanko, to Monsanto Chemical Co. Dimerization of dichloroethylene. 3,085,953, 4–16–63, Cl. 204—154.
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Blaser, Robert. Flat folding cup. 3,087,640, 4-30-63, Cl. 220—6.

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Blass, Judd, and H. M. Kintzel, to Maxson Electronics Corp. Three-port waveguide switch for selectively connecting one port to either of two other ports. 3,112,459, 11-26-63, Cl. 333—7.

Blaszkowski, Henry. Dynamic exercising apparatus. 3,081,634, 3-19-63, Cl. 73—379.

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Blatt, Leland F. Work extractor arm for a press. 3,080,983, 3-12-63, Cl. 214—1.

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Blau, Robert E., R. A. Evans, and L. J. Stephanoff, to Link-Belt Co. Power transmission coupling. 3,071,225, 1-1-63, Cl. 192—58.

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Blecker, Raymond H., to Simmons Co. Sofa bed construction. 3,079,613, 3-5-63, Cl. 5—13.

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Bleikamp, Roy H., Jr., to Olin Mathieson Chemical Corp. Rocket motor control system. 3,073,112, 1-15-63, Cl. 60—35.6.

Bleiler, Richard, R. M. Harries, N. C. Jeckel, and S. H. Lanport, to United States Catheter & Instrument Corp. Woven articles. 3,095,017, 6-25-63, Cl. 139—387.

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Blendinger, George W. Coin-carrying card. 3,075,638, 1-29-63, Cl. 206—.84.

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Bletso, Nelson C., to The Goodyear Tire & Rubber Co. Compositions of polyamides and sulfides of dialkylated phenols. 3,086,960, 4-23-63, Cl. 260—45.95.

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Blewitt, Roy E., Jr., to American Machine & Foundry Co. Bowling pin spotting machines. 3,082,001, 3-19-63, Cl. 273—43.

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Blews, Richard R., Jr., to Curtiss-Wright Corp. Powerplant transmission system. 3,115,936, 12-31-63, Cl. 170—135.2.

Bley, Rudolph S., to Beaunit Mills, Inc. Melt spinning apparatus. 3,080,607, 3-12-63, Cl. 18—8.

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Bloch, Herman S., to Universal Oil Products Co. Control of automotive exhaust gases. 3,074,391, 1-22-63, Cl. 123—122.

Bloch, Herman S., to Universal Oil Products Co. Method for multiple zone treating of waste gas streams. 3,086,839, 4-23-63, Cl. 23—2.

Bloch, Herman S., to Universal Oil Products Co. Polymerization of unsaturated organic compounds. 3,113,165, 12-3-63, Cl. 260—683.15.

Bloch, Herman S., and E. M. Geiser, to Universal Oil Products Co. Preparation of 1,2-diarylethanes. 3,082,266, 3-19-63, Cl. 260—668.

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Block, Charles, and A. O. Di Giulio, to Burroughs Corp. Motion stop assemblage. 3,085,668, 4-16-63, Cl. 192—149.

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Block, Donald E., to United States of America, Air Force. Binary storage element. 3,076,182, 1-29-63, Cl. 340—174.

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Block, Zenas, H. T. Hunter, and W. S. Hodges, to DCA Food Industries Inc. Comestible treating apparatus. 3,078,979, 2-26-63, Cl. 198—62.

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Blodgett, Edwin O., to Commercial Controls Corp. Motorized reader for record media. 3,084,857, 4-9-63, Cl. 235—61.11.

Blodgett, Edwin O., to Commercial Controls Corp. Coded-information translating system. 3,102,253, 8-27-63, Cl. 340—146.1.

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Blodgett, Edwin O., and J. V. Neel, to Commercial Controls Corp. Coded information translation system utilizing plural parallel to serial distributors. 3,108,253, 10-22-63, Cl. 340—146.1.

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Blodgett, William G., F. M. Cummings, and W. H. Fleming, to Space Equipment Corp. Force responsive electrical impulse generator. 3,116,428, 12-31-63, Cl. 310—15.

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Bloem, Jan: *See*—
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Blom, Leo M., Jr., and E. W. Pitzer, to Edcliff Instruments. Instrument shaft release clutch. 3,080,735, 3-12-63, Cl. 64—28.

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Blomberg, Le Roy C. Lever lock. 3,082,640, 3-26-63, Cl. 74—531.

Blomberg, Nils B. D., and S. S. Hedlund, to Oresundsvarret AB. Detachable tween deck construction. 3,109,402, 11-5-63, Cl. 114—76.

Blomberg, Richard N., to E. I. du Pont de Nemours and Co. Aqueous dispersion containing viscose and a polymer of acrylonitrile and process of preparing same. 3,087,903, 4-30-63, Cl. 260—17.4.

Blomborg, Karl G. Easy chair. 3,072,377, 1-8-63, Cl. 248—373.

Blomeke, Loren C., and W. G. Kautz, to The Aro Corp. Pump structure. 3,094,938, 6-25-63, Cl. 103—50.

Blomfield, Rodney A., to Wyandotte Chemicals Corp. Fabric softeners. 3,095,373, 6-25-63, Cl. 252—8.8.

Blomgren, Evert, to United States of America, Army. Spring-started generator. 3,093,076, 6-11-63, Cl. 102—70.2.

Blomgren, Oscar C., Jr.: *See*—
Blomgren, Oscar C., Sr. and O. C. Blomgren Jr. 3,105,446.

Blomgren, Oscar C., Sr. and O. C. Blomgren, Jr. Gear pump assembly. 3,105,446, 10-1-63, Cl. 103—126.

Blomquist, Arthur G., and W. F. Heins, to Northern Ordnance, Inc. Indicating push button type signal light assembly. 3,093,718, 6-11-63, Cl. 200—167.

Blomquist, Arthur G., L. Larsen, and P. G. Wermager, to United States of America, Navy. Missile contactor. 3,098,132, 7-16-63, Cl. 200—50.

Blomquist, Arthur G., and W. F. Heins, to Northern Ordnance, Inc. Tri-color indicator light. 3,113,303, 12-3-63, Cl. 340—378.

Blomqvist, Olle. Medical tipping tables. 3,089,692, 5-14-63, Cl. 269—323.

Blomstrand, John H., ½ to F. W. Nyquist. Self-centering tool holder. 3,098,283, 7-23-63, Cl. 29—96.

Blomstrom, Dale C.: *See*—
Acker, Donald S., and Blomstrom. 3,115,506.

Blonde, Howard J.: *See*—
Connors, Thomas W., Sr., and Blonde. 3,096,573.

Blondeau, Rene: *See*—
Feichtmeir, Edmund F., and Blondeau. 3,112,192.

Blonder, Charles, to Anchor Post Products, Inc. Terminal fitting. 3,092,407, 6-4-63, Cl. 287—54.

Blonder, Isaac S., to Blonder Tongue Electronics. Transmission-line clamp-and-connector. 3,083,349, 3-26-63, Cl. 339—98.

Blonder Tongue Electronics: *See*—
Blonder, Isaac S. 3,083,349.
Horowitz, Irving. 3,116,462.
Tongue, Ben H. 3,071,735.

Blondlau, Edgard, to Societe STOP. Deformable diaphragm apparatus. 3,099,189, 7-30-63, Cl. 137—784.

Blonn, William A., to General Electric Co. Apparatus for thermal treatment of metal. 3,102,009, 8-27-63, Cl. 34—159.

Blonski, George. Top with sounding means. 3,114,986, 12-24-63, Cl. 46—66.

Blonsky, Joseph E., to West Virginia Pulp and Paper Co. Tiltable load-carrying vehicle. 3,107,801, 10-22-63, Cl. 214—506.

Blonsky, Joseph E., to West Virginia Pulp and Paper Co. Side discharging containers and vehicles. 3,107,802, 10-22-63, Cl. 214—515.

Blood, Arthur J.: *See*—
Makowski, Alexander G., Blood, and Wathen. 3,097,593.

Blood, George.: *See*—
Watson, Wilfred H., and Blood. 3,071,946.

Blood, Perley T. Photoprint developing machines. 3,093,053, 6-11-63, Cl. 95—94.

Blood, Raymond, to William Cotton, Ltd. Straight bar knitting machines and variable control means primarily applicable thereto. 3,073,138, 1-15-63, Cl. 66—110.

Bloodgood, Claude F., Jr. Lamp fixture. 3,106,349, 10-8-63, Cl. 240—8.3.

Bloodworth, Henry D. Bed pan with disposable liner. 3,115,644, 12-31-63, Cl. 4—112.

Bloom, Aaron, to Sierra Engineering Co. Suffocation inhibiting inhalator-exhalator valve. 3,088,477, 5-7-63, Cl. 137—64.

Bloom, Aaron, and W. D. Morton, Jr., to Sierra Engineering Co. De-icer boot for breathing mask. 3,073,302, 1-15-63, Cl. 128—146.

Bloom, Arnold L.: *See*—
Bell, William E., and Bloom. 3,109,960.

Bloom, Barry M., and R. E. Carnahan, to Chas. Pfizer & Co., Inc. Certain substituted omega-hydrazine alkanoic acid amines. 3,113,946, 12-10-63, Cl. 260—295.

Bloom, Charles G., and I. A. Chauncey; said Chauncey assor. of ¼ to F. A. Chauncey, and ¼ to J. R. Chauncey. Flow indicator. 3,085,432, 4-16-63, Cl. 73—228.

Bloom Engineering Co., Inc.: *See*—
Bloom, Frederick S., and Hoffman. 3,079,910.
Conway, Leon F. 3,081,073.
McCutcheon, William N., Jr. 3,088,681.

Bloom, Frederick S. Temperature controlled forge furnace or the like and method of operating same. 3,099,457, 7-30-63, Cl. 263—43.

Bloom, Frederick S. Metal heating furnace. 3,100,811, 8-13-63, Cl. 266—5.

Bloom, Frederick S., and R. L. Hoffman; said Hoffman assor. to Bloom Engineering Co., Inc. Recuperative radiant tube burner mechanism 3,079,910, 3-5-63, Cl. 126—91.

Bloom, Martin S.: *See*—
Bradford, Bernard W., Heslop, Lord, and Bloom. 3,085,870.

Bloom, Murray, and R. M. Washburn, to American Potash & Chemical Corp. Reactions of boron halides and tetra-substituted boron compounds. 3,096,370, 7-2-63, Cl. 260—543.

Bloomer, Milton D. *See*—
Yerman, Alexander J., and Bloomer. 3,085,431.

Bloomer, Ward J., and S. W. Martin, deceased (by B. B. Martin, administratrix), to The Lummus Co. Process for producing substantially ash-free bituminous coal, subbituminous coal and lignite. 3,109,803, 11-5-63, Cl. 208—8.

Bloomfield, Peter R. Heat resistant article comprising phosphorus oxynitride. 3,082,120, 3-19-63, Cl. 117—126.

Bloomquist, Egner L. Wirework carrier. 3,100,059, 8-6-63, Cl. 220—117.

Bloomster, Clarence H.: *See*—
Ross, Wilfred T., Bloomster, and Bardsley. 3,102,850.

Bloomster, Clarence H., and Y. B. Katayama, to United States of America, Atomic Energy Commission. Alloy for fuel of neutronic reactors. 3,086,930, 4-23-63, Cl. 204—154.2.

Bloor, James H., and F. G. Chandler, to United Kingdom Atomic Energy Authority. Actuator for electrically operable device. 3,097,327, 7-9-63, Cl. 317—134.

Bloor, Robert R.: *See*—
Kehe, Henry J., Johnson, Driscoll, and Bloor. 3,071,619.

Blose, John A., to Grand Steel & Mfg. Co. Work conveyor apparatus for use with buffing or grinding or spray painting equipment and the like. 3,109,533, 11-5-63, Cl. 198—181.

Blosser, Howard W. Pin guide and stabilization bar. 3,094,-120, 6-18-63, Cl. 128—92.

Blount, Luther H. Controllable pitch propeller with hinging trailing edge. 3,074,488, 1-22-63, Cl. 170—160.1.

Blount, Luther H. Fairing for a controllable pitch propeller. 3,106,248, 10-8-63, Cl. 170—160.58.

Blount, Luther H. Controllable pitch propeller. 3,109,498, 11-5-63, Cl. 170—160.46.

Blout, Elkan R., S. Kasman, and M. S. Simon, to Polaroid Corp. Anthrapyridone dye developers. 3,076,808, 2-5-63, Cl. 260—278.

Blout, Elkan R., M. Green, H. G. Rogers, and M. S. Simon, to Polaroid Corp. Novel compounds and syntheses. 3,076,820, 2-5-63, Cl. 260—377.

Blout, Elkan R., S. G. Cohen, M. Green, and M. S. Simon, to Polaroid Corp. Photographic color processes, products and compositions. 3,077,402, 2-12-63, Cl. 96—29.

Blout, Elkan R., H. O. Buzzell, and L. C. Farney, to Polaroid Corp. Method of applying a mar-resistant surface coating to thermoplastic sheets. 3,097,106, 7-9-63, Cl. 117—64.

Blowers, Ivan L., to Kal-Equip Co. Compression tester. 3,115,033, 12-24-63, Cl. 73—116.

Blowney, David P., R. S. Brannin, J. J. Morrone, J. C. Wilcox, and J. E. Zupanick, to Sperry Rand Corp. Cooperative collision avoidance system. 3,097,354, 7-9-63, Cl. 343—6.5.

Blubaugh, Sylvester H., ½ to J. W. McCormick. Continuous sandblast apparatus. 3,075,319, 1-29-63, Cl. 51—8.

Blubaugh, Sylvester H., ½ to J. W. McCormick. Method of painting treated concrete surfaces. 3,075,854, 1-29-63, Cl. 117—37.

Blue, Charles V. Permanently installed battery charging system for automobile sales or display lots. 3,105,929, 10-1-63, Cl. 320—2.

Blue, Emerald R. Rule holder. 3,087,250, 4-30-63, Cl. 33—107.

Blue, John, Co., Inc.: *See*—
Johnston, Douglas. 3,107,638.

Blue, Robert D.: *See*—
Kroon, James L., and Blue. 3,072,544.

Blue, Sidney D. Shirts with attached collars. 3,114,152, 12-17-63, Cl. 2—116.

Blueberry Equipment, Inc.: *See*—
McKibben, Horace E., and Jones. 3,099,115.

Bluemle, Lewis W., Jr.: *See*—
Gobel, Charles, and Bluemle. 3,077,268.

Bluestein, Ben A., to General Electric Co. Pyridine derivatives. 3,071,561, 1-1-63, Cl. 260—46.5.

Bluestone, Henry, to Diamond Alkali Co. Method of killing microorganisms, plant pests, and plants with halogenated thiophene-1,1-dioxide compounds. 3,073,691, 1-15-63, Cl. 71—2.5.

Bluestone, Henry, to Diamond Alkali Co. Chemical compositions and process. 3,082,214, 3-19-63, Cl. 260—327.

Bluestone, Henry, to Diamond Alkali Co. Thianaphthene 1,1-dioxide compounds. 3,099,658, 7-30-63, Cl. 260—332.1.

Bluestone, Henry, and R. M. Bimber, to Diamond Alkali Co. Sulfone derivatives of mercaptohaloethylene. 3,101,377, 8-20-63, Cl. 260—607.

Bluhm, Elmer: *See*—
Vander Zee, Michiel, and Bluhm. 3,104,817.

Blum, Fred E., and F. O. Hough, to General Motors Corp. Electroplating apparatus. 3,103,483, 9-10-63, Cl. 204—242.

Blum, Louis, to Blumcraft of Pittsburgh. Ornamental railing structures. 3,076,636, 2-5-63, Cl. 256—65.

Blum, Louis, to Blumcraft of Pittsburgh. Rail post assembly. 3,114,941, 12-24-63, Cl. 20—10.

Blum, Robert J., to The Mead Corp. Packaging method and article. 3,112,826, 12-3-63, Cl. 206—65.

Blumberg, Morris: *See*—
Britt, Norman G., Engle, Carroll, and Blumberg. 3,085,-896.

Blumberg, Richard, and G. Moore. Length measuring and marking apparatus. 3,075,569, 1-29-63, Cl. 156—378.

Blumcraft of Pittsburgh: *See*—
Blum, Louis. 3,076,636.
Blum, Louis. 3,114,941.

Blümel, Johannes, to Rheinstahl Union Bruckenbau AG. Apparatus for transporting pipe sections in tunnels and like excavations. 3,094,942, 6-25-63, Cl. 104—138.

Blumenfeld, Arthur C.: *See*—
Hubka, Theodore, and Blumenfeld. 3,090,955.

Blumenfeld, Charles M. Swimming pool cleaner and filter. 3,078,998, 2-26-63, Cl. 210—169.

Blumenkopf, Norman, to General Aniline & Film Corp. Polypyrrolidone treatment of polyacrylonitrile gel fibers and the product thereof. 3,104,934, 9-24-63, Cl. 8—115.5.

Blumenkrans, James J., and R. O. Lightfoot, to Paddock Pool Equipment Co. Filter unit for swimming pool. 3,080,060, 3-5-63, Cl. 210—169.

Blumenshine, Hugh M., and L. Block, to The Siegler Corp. Furnace for hot air heating systems. 3,113,565, 12-10-63, Cl. 126—91.

Blumenstein, Walter K., and A. David, to The Otto Konigslow Mfg. Co. Ampoule applicator. 3,094,121, 6-18-63, Cl. 128—218.

Blumenthal, Edwin L., to Sperry Rand Corp. Card-to-tape converter. 3,085,229, 4-9-63, Cl. 340—172.5.

Blumenthal, Ernest, to Imperial Chemical Industries Ltd. Sodium carbonate manufacture. 3,103,413, 9-10-63, Cl. 23—63.

Blumenthal, Jack H., to International Flavors & Fragrances, Inc. Terpene alcohol, ester thereof and process for making same. 3,075,003, 1-22-63, Cl. 260—488.

Blumentritt, Wolfram, to Siemens-Electrogerate Aktiengesellschaft. Peltier cooling apparatus. 3,111,813, 11-26-63, Cl. 62—3.

Blumer, Max: *See*—
Scheller, Walter, and Blumer. 3,110,585.

Blunt, Julian A., to The American Tobacco Co. Cigarette ejecting system. 3,095,091, 6-25-63, Cl. 209—121.

Bluth, Edward J., and J. R. Green, to The Emerson Electric Mfg. Co. Connection for submersible motors. 3,084,210, 4-2-63, Cl. 174—65.

Bly, Donald A.: *See*—
Reber, John, Jr., Bly, and Fritsch. 3,071,920.

Bly, Donald A., to Hamilton Watch Co. Automatic regulator. 3,113,417, 12-10-63, Cl. 58—85.5.

Blydenburgh, John B. Surveyor's transit theodolite chaining attachment. 3,083,464, 4-2-63, Cl. 33—1.

Blydorp, Abraham A., to Halliburton Co. Well bore plugging apparatus. 3,079,997, 3-5-63, Cl. 166—134.

Blyth, John W.: *See*—
Godcharles, Charles A., Blyth, Jacobson, and Gabrielson. 3,100,942.

Blyth, Reginald A., deceased, by W. Harris, executor. Cam actuated ball valve. 3,090,595, 5-21-63, Cl. 251—258.

Blythe, Clarence M.: *See*—
Oxley, Leroy V., and Blythe. 3,094,144.

Blythe, James E., and P. E. Prince, to National Distillers and Chemical Corp. Apparatus and method for automatically wrapping and sealing articles in thermoplastic overwrap film material. 3,115,731, 12-31-63, Cl. 53—33.

Blythe, William R., and A. Klein, to The Regents of the University of California. Moisture measuring apparatus. 3,105,214, 9-24-63, Cl. 338—35.

Bo, Gilbert, E. Fichet, A. Perrot, and P. Perras, to Societe des Usines Chimiques Rhone-Poulenc. Production of ethylene polymers using a catalyst based on titanium tetrachloride and aluminum. 3,079,371, 2-26-63, Cl. 260—94.9.

Bo, Gilbert, and P. Perras, to Societe des Usines Chimiques Rhone-Poulenc. Process for the preparation of cyclohexylethyl alcohol. 3,109,863, 11-5-63, Cl. 260—617.

Boadway, John D.: *See*—
Vroom, Alan H., and Boadway. 3,086,717.

Boake, A., Roberts & Co. Ltd.: *See*—
Chatfield, Herbert W. 3,086,949.
Fysh, Derick. 3,109,827.

Board, Richard G. Football game with play-selecting cards. 3,103,361, 9-10-63, Cl. 273—94.

Boas Box Co.: *See*—
Ullger, Joseph W. 3,073,505.
Ullger, Joseph W. 3,073,506.
Ullger, Joseph W. 3,107,040.
Ullger, Joseph W. 3,112,858.

Boatman, Paul M., to The Bendix Corp. Oxygen determination. 3,088,809, 5-7-63, Cl. 23—232.

Boaz, Charles W., and C. J. Litz, Jr., to United States of America, Army. Sliding door opening mechanism. 3,107,-616, 10-22-63, Cl. 102—61.

Bobbi-Lou Shoe Co., Division of Shoo-Zees Mfg. Co.: *See*—
Frodge, Theodore, and R. W. 3,114,160.

Bobbitt, Eugene F. Combination supporting and pleating structure for curtains. 3,115,182, 12-24-63, Cl. 160—25.

Bobby, Leonard, to King-Seeley Thermos Co. Electrical control apparatus. 3,099,731, 7-30-63, Cl. 200—122.

Bobear, William J., to General Electric Co. Organopolysiloxane rubber stabilized with nickel, copper or tungsten salts or oxides. 3,098,836, 7-23-63, Cl. 260—37.

Bobear, William J., to General Electric Co. Radiation shielding compositions. 3,114,721, 12-17-63, Cl. 252—478.

Bobeck, Andrew H., to Bell Telephone Laboratories, Inc. Magnetic memory devices. 3,083,353, 3-26-63, Cl. 340—174.

Bobeck, Andrew H., to Bell Telephone Laboratories, Inc. Electrical information handling circuits. 3,090,946, 5-21-63, Cl. 340—173.

Bobeck, Andrew H., to Bell Telephone Laboratories, Inc. Magnetic core flip-flop. 3,093,745, 6-11-63, Cl. 307—88.

Bobeck, Andrew H., to Bell Telephone Laboratories, Inc. Magnetic memory arrays. 3,105,226, 9-24-63, Cl. 340—174.

Bobeck, Andrew H., to Bell Telephone Laboratories, Inc. Magnetic memory circuits. 3,105,962, 10-1-63, Cl. 340—174.

Bobeck, Andrew H., to Bell Telephone Laboratories, Inc. Electrical selection circuits. 3,109,161, 10-29-63, Cl. 340—166.

Bobo, Frank E., Jr.: *See*—
Lathem, James M., Bobo, and Matthews. 3,115,745.

Bobo, Frank E., Jr., and R. M. Matthews, to Chadbourn Gotham, Inc. Support stocking. 3,077,757, 2-19-63, Cl. 66—178.

Bobo, Roy A., to Phillips Petroleum Co. Method of drilling with high velocity jet cutter rock bit. 3,112,800, 12-3-63, Cl. 175—67.

Bobowich, Alex: *See*—
Kahn, Elliot, and Bobowich. 3,084,405.

Bobrick Mfg. Corp.: *See*—
Cowan, Arnold A. 3,107,025.

Bobrick, Mitchell, to Sunbeam Lighting Co. Wall mounted hospital bed light fixture and service console combination. 3,084,247, 4-2-63, Cl. 240—2.

Bobrick, Mitchell, to Sunbeam Lighting Co. Spotlight lamp. 3,112,076, 11-26-63, Cl. 240—47.

Bobrov, Boris S. Instrument for stitching gastric stump. 3,078,465, 2-26-63, Cl. 1—50.

Bobrov, Boris S., and J. J. Gritzman. Instrument for placing lateral gastro-intestinal anastomoses. 3,079,606, 3-5-63, Cl. 1—120.

Bobrow, Joseph A. Apparatus for molding an embedment within a plastic mass. 3,074,112, 1-22-63, Cl. 18—36.

Bobrowsky, Alfred R., to Engelhard Industries, Inc. Solid lubricant. 3,105,048, 9-24-63, Cl. 252—12.

Bobscott, Ronald J.: *See*—
Hunter, William H., Bobscott, Sherman, and Worthing. 3,078,286.

Bobst, J., and Son S.A.: *See*—
Frei, Arthur. 3,079,144.
Frei, Arthur. 3,110,232.

Bobula, Louis A., and K. A. Oplinger, to Westinghouse Electric Corp. Nonlinear electromagnetic motion responsive device. 3,099,823, 7-30-63, Cl. 340—199.

Boccaccio, Anthony A., and L. J. Kolodzeski, to Grumman Aircraft Engineering Corp. Machining work holding method. 3,114,201, 12-17-63, Cl. 29—424.

Boccoli, Temistocle. Manufacturing process for shoes of polymerizing elastomers. 3,113,830, 12-10-63, Cl. 18—59.

Boch, Robert F. E., E. A. Rios, and A. P. Lefort, to Societe des Usines Chimiques Rhone-Poulenc. Atomising discharge valves. 3,085,720, 4-16-63, Cl. 222—394.

Boch, Robert F. E., E. A. Rios, and A. P. Lefort, to Societe des Usines Chimiques Rhone-Poulenc. Atomising discharge valves. 3,104,061, 9-17-63, Cl. 239—337.

Bochan, John, to General Electric Co. Clothes washing machine with rinsing agent dispenser arrangement. 3,088,-304, 5-7-63, Cl. 68—12.

Bochan, John, to General Electric Co. Three-way valve. 3,089,515, 5-14-63, Cl. 137—610.

Bochan, John, to General Electric Co. Treating agent dispenser system for washing machines. 3,091,110, 5-28-63, Cl. 68—207.

Bochan, John, to General Electric Co. Clothes washing machine. 3,095,721, 7-2-63, Cl. 68—133.

Bochan, John, to General Electric Co. Clothes washing machine having unbalance sensing means. 3,098,372, 7-23-63, Cl. 68—24.

Bochan, John, to General Electric Co. Combination washer dryer with forced air drying system. 3,106,832, 10-15-63, Cl. 68—20.

Bochan, John, to General Electric Co. Clothes washing machine having vibration isolating means. 3,108,465, 10-29-63, Cl. 68—24.

Bochan, John, to General Electric Co. Three-way valve. 3,108,613, 10-29-63, Cl. 137—609.

Bochan, John, to General Electric Co. Rotation sensing device. 3,109,076, 10-29-63, Cl. 200—82.

Bochman, Harry L., Jr.: *See*—
Wing, George S., and Bochman. 3,071,903.

Bochumer Eisenhutte Heintzmann & Co.: *See*—
Heintzmann, Hans F., and Seix. 3,076,672.

Bochumer Verein fur Gusstahlfabrikation Aktiengesellschaft: *See*—
Sturmberg, Paul. 3,110,200.

Bocji Corp.: *See*—
Lang, Joseph C. 3,072,008.

Bock, Charles D.: *See*—
Miner, Richard Y., and Bock. 3,113,203.

Bock, Fred J., to Milprint, Inc. Tear tape spool. 3,116,033, 12-31-63, Cl. 242—118.4.

Bock, Henry. Retaining device. 3,073,421, 1-15-63, Cl. 189—88.

Bock, Jorgen, E. V. Hartman, and P. A. Tatusko, to International Business Machines Corp. Printing-roller etching machine of the spray type. 3,113,901, 12-10-63, Cl. 156—345.

Bock Laundry Machine Co.: *See*—
Clement, Carl H., Jr. 3,077,965.

Bock, Michael, II: *See*—
Bishop, Harold F., Wiley, and Bock. 3,103,719.
Bishop, Harold F., Wiley, and Bock. 3,103,721.

Bock, Willy, and H. Prohaska, to SWF-Spezialfabrik fur Autozubehoer Gustar Rau G.m.b.H. Securing device for windshield wiper blades. 3,082,463, 3-26-63, Cl. 15—250.32.

Bock, Willy, and H. Prohaska, to SWF-Spezialfabrik fur Autozubehor Gustav Rau G.m.b.H. Connecting device for windshield wiper. 3,085,277, 4-16-63, Cl. 15—250.32.

Bock, Willy, E. Mutschler, and F. Schreiber, to SWF-Spezialfabrik Für Autozubehör Gustav Rau G.m.b.H. Windshield washing pump with switch for windshield wiper motor for motor vehicles. 3,100,906, 8-20-63, Cl. 15—250.02.

Bockemuehl, Robert R., to General Motors Corp. Millivolt inverter. 3,076,129, 1-29-63, Cl. 321—8.

Bockemuehl, Robert R., to General Motors Corp. Direct analog converter. 3,085,237, 4-9-63, Cl. 340—347.

Bockemuehl, Robert R., and E. A. Hanysz, to General Motors Corp. Digital counter. 3,073,522, 1-15-63, Cl. 235—92.

Böcker, Ernst, D. Delfs, G. Unterstenhofer, and W. Behrenz, to Farbenfabriken Bayer Aktiengesellschaft. O-(2-isopropoxyphenyl)-N-methyl and -N,N-dimethylcarbamate. 3,111,-539, 11-19-63, Cl. 260—479.

Bockhold, Ralph O. Carton cutter. 3,092,903, 6-11-63, Cl. 30—2.

Bocobo, Gaudencio T.: *See*—
Movilla, Elpidio M., and Bocobo. 3,073,265.

Boddey, Ronald F., to Foseco International Ltd. Exothermic alloying composition for addition to molten steel. 3,104,-996, 9-24-63, Cl. 149—40.

Bode, Albert: *See*—
Schulthels, Werner, Schimmelschmidt, Hoffmann, Baier, and Bode. 3,089,790.

Bode, Harold C. Assembling tool. 3,104,462, 9-24-63, Cl. 29—271.

Bode, Harold E. Process for sizing textiles and the disposition of sizing wastes therefrom. 3,093,504, 6-11-63, Cl. 117—102.

Bode, Hendrik W., and H. J. McSkimin, to Bell Telephone Laboratories, Inc. Selective paging system. 3,114,142, 12-10-63, Cl. 340—311.

Bode, Robert H.: *See*—
Vincent, Darrell M., Brown, Lamade, Bode, and Maurer. 3,085,274.

Bodem, Roy C., R. H. Brandea, R. A. Hirsch, E. H. McDonald, and C. F. Wood, to General Motors Corp. Variable pitch propeller assembly for multi-power plant aircraft. 3,091,-295, 5-28-63, Cl. 170—160.31.

Bodenhamer, Roy H.: *See*—
Feinson, Milton M., Wise, and Bodenhamer. 3,115,962.

Bodenroder, Karl, to Record Automaten, A.G. Record changing mechanism. 3,085,805, 4-16-63, Cl. 274—10.

Bodenseewerk Perkin-Elmer & Co.: *See*—
Braunbeck, Josef. 3,096,387.

Bodenseewerk Perkin-Elmer & Co., G.m.b.H.: *See*—
Goldhammer, Albert. 3,079,850.
Möller, Waldemar. 3,079,803.
Moller, Waldemar. 3,082,628.

Bodge, Clifford A., to Texas Instruments Inc. Thermal relays. 3,112,384, 11-26-63, Cl. 200—122.

Bodi, Gilbert M., and D. Hauri, to Libbey-Owens-Ford Glass Co. Apparatus for pressing glass sheet and plastic assemblies. 3,071,066, 1-1-63, Cl. 100—171.

Bodian, Marcus, to Sunbeam Lighting Co. Movable arm for examination light. 3,072,374, 1-8-63, Cl. 248—278.

Bodine, Albert G. Sonic earth boring drill with jacket. 3,096,833, 7-9-63, Cl. 175—56.

Bodine, Albert G. Oscillatory fluid stream driven sonic generator with elastic autoresonator. 3,111,931, 11-26-63, Cl. 116—137.

Bodine, Albert G., Jr. Sonic materials separation apparatus. 3,076,544, 2-5-63, Cl. 209—1.

Bodine, Albert G., Jr. Sonic process for materials separation. 3,076,545, 2-5-63, Cl. 209—1.

Bodine, Albert G., Jr. Sonic apparatus for material separation. 3,076,547, 2-5-63, Cl. 209—20.

Bodine, Albert G., Jr. Sonic pump. 3,102,482, 9-3-63, Cl. 103—5.

Bodkin, Laurence G. Composition for the alleviation of pain in tumor growth. 3,105,007, 9-24-63, Cl. 167—58.

Bodkin, Lawrence E. Stylus and record protector and adapter therefor. 3,104,109, 9-17-63, Cl. 274—1.

Bodkins, Roy L., to Phillips Petroleum Co. Injection molding apparatus. 3,111,717, 11-26-63, Cl. 18—42.

Bodley, Robert W., to Union Tank Car Co. Valve structure for storage tank system. 3,095,113, 6-25-63, Cl. 220—85.

Bodmeier, Gottfried: *See*—
Gattnar, Anton, Schwausch, Bodmeier, and Zeitler. 3,085,787.

Bodmer, Maximiliaan H., to North American Philips Co., Inc. Double helical waveguide feed with linear slot array for frequency scanning. 3,105,968, 10-1-63, Cl. 343—771.

Bodnar, John J., and S. Lewis, to Melrose Hospital Uniform Co., Inc. Body restraint device for bed patients. 3,108,292, 10-29-63, Cl. 5—317.

Bodnar, Michael: *See*—
Dickstein, Jack, Bodnar, and Hoegerle. 3,094,554.

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Petrov, Vasily V., and Bodrov. 3,088,366.

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Body, Alfred C.: *See*—
Collings, David A. 3,075,664.
Boe, Carsten F., and L. I. Oslpow; said Oslpow, assor. to said Boe. Pressure-packed polymerizable materials. 3,096,-001, 7-2-63, Cl. 222—135.
Boecker, Bruce E.: *See*—
Hurdlow, William R., Boecker, and Johnson. 3,091,967.
Boeddeker, William T., and H. L. Frick, to Whirlpool Corp. Retractable knob device. 3,100,404, 8-13-63, Cl. 74—553.
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Fuhring, Heinrich. 3,104,936.
Boehler & Weber Kommanditgesellschaft: *See*—
Fuehring, Heinrich. 3,104,222.
Fuhring, Heinrich. 3,104,936.
Boehm, Hans, M. Fischer, F. Hanbach, G. Schiller, E. Umlauf, and H. Weber, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Production of olefine polymers. 3,116,274, 12-31-63, Cl. 260—94.9.
Boehm, Josef, to United States of America, Army. Cam producing apparatus. 3,106,868, 10-15-63, Cl. 90—13.
Boehm, Josef, and L. L. Mitchum. Vision skirt. 3,109,608, 11-5-63, Cl. 244—1.
Boehme, Carl A. Fish locating instrument. 3,111,762, 11-26-63, Cl. 33—64.
Boehme, Werner R., and E. T. Chinery, to Ethicon, Inc. Process for preparing soluble, sporicidally active solid polyglyoxals. 3,079,985, 3-5-63, Cl. 159—48.
Boehringer, C. F., & Soehne G.m.b.H.: *See*—
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Popelak, Alfred, and Lettenbauer. 3,108,107.
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Ruge, Ulrich. 3,100,149.
Boehringer, C. H., Sohn: *See*—
Zelle, Karl, and Freter. 3,101,339.
Boeljinga, Ruurd. Aligning devices for printing forms. 3,104,475, 9-24-63, Cl. 33—184.5.
Boeing Airplane Co.: *See*—
Adams, Clarence R. 3,101,224.
Adams, Clarence R. 3,112,140.
Champoux, Louis, and Siebol. 3,094,017.
Cook, Walter L. 3,092,361.
Cook, Walter L. 3,099,057.
Cook, Walter L., and McKelvey. 3,092,360.
Doss, Joseph H., and Graham. 3,099,261.
Edmunds, Arthur B., Jr. 3,095,873.
Evelyn, George B., Newell, and Peterson. 3,101,918.
Galli, Joseph R., and Johnson. 3,108,902.
Galli, Joseph R., Wheeler, and Johnson. 3,108,987.
Gerstine, Milton I. 3,099,421.
Gozinsky, John R. 3,087,159.
Hastings, Allan J., and Jullan. 3,081,059.
Hebeler, Henry K. 3,089,318.
Kero, Arthur L. 3,074,630.
Lunden, Clarence D. 3,090,020.
Miller, Glen E. 3,099,798.
Oh, Luis. 3,099,807.
Oh, Luis L. 3,113,267.
Oh, Luis L. 3,113,276.
Preikschat, Fritz K. 3,113,315.
Quenzler, Henry H. W. 3,081,964.
Quenzler, Henry H. W. 3,089,666.
Quenzler, Henry H. W., and Schmidt. 3,109,610.
Reinhart, William A. 3,095,697.
Reinhold, Richard S. 3,076,964.
Schmitt, Hubert A. 3,091,277.
Schreiber, Robert E. 3,070,998.
Smith, Raymond G. 3,109,285.
Steidl, Robert H. 3,109,614.
Streimer, Irving. 3,087,488.
Streimer, Irving. 3,097,638.
Streimer, Irving. 3,097,639.
Trifonoff, George T. 3,074,320.
Vetter, Earl E. 3,080,707.
Boeke, Jan, and J. N. Welch. Watermelon cutter-press. 3,094,062, 6-18-63, Cl. 100—94.
Boemle, Wayne A. Collar for preventing fur chewing. 3,072,098, 1-8-63, Cl. 119—106.
Boenau, Arthur H., to Socony Mobil Oil Co., Inc. Heated and cooled mixture of wax and polyethylene. 3,105,823, 10-1-63, Cl. 260—28.5.
Boenig, Hermann V., and D. S. Weir, to The Goodyear Tire & Rubber Co. N-di (piperazino carboxy alkyl) allyl carbamate. 3,072,657, 1-8-63, Cl. 260—268.
Boenig, Hermann V., and N. Walker, to Brookpark, Inc. Stain resistant aminoplast resins. 3,111,420, 11-19-63, Cl. 117—72.
Boenning, Robert A., and L. S. Otis, ½ to W. G. Finch. Contact switch device. 3,111,608, 11-19-63, Cl. 317—146.
Boensel, Donald W., to United States of America, Army. Reduced turn-off time transistor switch. 3,089,041, 5-7-63, Cl. 307—88.5.
Boerder, William R. Illuminated display fountain. 3,104,-814, 9-24-63, Cl. 239—18.
Boeryd, Arne G. T., to Telefonaktiebolaget L M Ericsson. Signalling arrangement for telephone instruments. 3,075,-048, 1-22-63, Cl. 179—84
Boesch, Moritz C., to Consolidated Cigar Corp., Distributing and conveying system. 3,105,587, 10-1-63, Cl. 198—79.
Boesch, Philip W.: *See*—
Hardinger, Kermit E., and Boesch. 3,109,172.
Boese, Arthur H. Flow control neck or head. 3,102,651, 9-3-63, Cl. 215—31.
Boese, Peter: *See*—
Lott, Heinz Günter, Bötz, and Boese. 3,109,092.
Boesel, Walter F., A. G. Carter, E. Oldfield, and G. L. Tiley, to Canadian Westinghouse Co., Ltd. Motor control system. 3,075,133, 1-22-63, Cl. 318—148.
Boeskool, Bernice L. Game apparatus having selectively movable cover elements for progressively exposing portions of a puzzle. 3,110,499, 11-12-63, Cl. 273—139.
Boettcher, Stephen A. Lapping machine fixture. 3,090,169, 5-21-63, Cl. 51—131.
Boettcher, Stephen A., to Speedlap Corp. Lapping machine. 3,110,988, 11-19-63, Cl. 51—131.
Boettcher, Stephen A., to Speedlap Corp. Device for feeding an abrasive mixture to a lapping machine. 3,110,991, 11-19-63, Cl. 51—263.
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Boettner, Fred E., and J. Dupré, to Rohm & Haas Co. Surfactants. 3,079,348, 2-26-63, Cl. 252—355.
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Aldrin, Henry W., and Johnson. 3,111,182.
Andersson, Gustav T., and Engman. 3,109,344.
Berge, Sven E. 3,101,028.
Gustafsson, Axel G. V., and P. O. L. 3,088,901.
Gustafsson, Per O. L. 3,106,066.
Kallin, Kurt G. L., and Olsson. 3,070,955.
Olér, Ernst B. 3,087,668.
Segerberg, Åke T. G. 3,091,994.
Thorildsson, Karl-John T. 3,087,427.
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Kushmuk, Walter P., and Bogaerts. 3,089,295.
Bogaerts, Leo C., to Ammco Tools, Inc. Brake lining groover. 3,110,990, 11-19-63, Cl. 51—181.
Bogan, Robert W., and M. C. Goodwin, to Burroughs Corp. Tape feed mechanism for a recording device. 3,112,871, 12-3-63, Cl. 234—129.
Bogar, Earl M., Jr. Folding cross rail and support leg structure for bedframes. 3,114,917, 12-24-63, Cl. 5—176.
Bogar, Lawrence A. Liquid aerating and agitating device. 3,076,976, 2-12-63, Cl. 4—180.
Bogardus, Kenneth W.: *See*—
Galther, Donald D., and Bogardus. 3,113,515.
Bogart, George A., 49% to A. J. Klein. Adjustable chair. 3,091,426, 5-28-63, Cl. 248—393.
Bogart, Marcel J. P., to The Lummus Co. Regenerative furnace. 3,087,797, 4-30-63, Cl. 23—277.
Bogdanski, John J., and J. V. Kubovy, to Pitney-Bowes, Inc. Carton handling apparatus. 3,084,490, 4-9-63, Cl. 53—67.
Bogdonoff, Harold: *See*—
Bickmore, John T., Bogdonoff, and Burris. 3,105,777.
Bogdonoff, Harold, and F. W. Hudson. Method of developing an electrostatic latent image on a xerographic plate. 3,103,-445, 9-10-63, Cl. 117—17.5.
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Turzek, Franz. 3,086,786.
Bogel, Graham D., and W. B. Wilson. Supplemental signalling system for special railway track equipment. 3,079,-496, 2-26-63, Cl. 246—167.
Bogert, Ernest H.: *See*—
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Bogert, John J., to National Laboratories and Mfg. Corp. Inspection equipment. 3,089,381, 5-14-63, Cl. 88—14.
Bogert, Thure B.: *See*—
Bollnder, Ludvig W., Bogert, and Sylven. 3,075,680.
Bogert, William M., and H. V. Johnson, to Westinghouse Electric Corp. Tap-changing equipment. 3,086,164, 4-16-63, Cl. 323—43.5
Boggis, Henry P., to Henry P. Boggis Co. Relieving fixture for grinding machines. 3,081,585, 3-19-63, Cl. 51—234.
Boggis, Henry P., Co.: *See*—
Boggis, Henry P. 3,081,585.
Boggs, Alben C., to Edwin L. Wiegand Co. Electric heaters. 3,080,543, 3-5-63, Cl. 338—273.
Boggs, Beryl A. Variable speed transmission. 3,114,273, 12-17-63, Cl. 74—679.
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Boggs, Herbert D., and Magoon. 3,112,530.
Boggs, Herbert D., and Magoon. 3,114,173.
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Wood, James R., and Boggs. 3,090,220.
Boggs, Herbert D., to H. D. Boggs Co. Ltd. Plastic articles and method of making same. 3,093,160, 6-11-63, Cl. 138—140.
Boggs, Herbert D., and F. L. Magoon, Jr., to H. D. Boggs Co., Ltd. Pipe casting apparatus. 3,112,530, 12-3-63, Cl. 18—26.
Boggs, Herbert D., and F. L. Magoon, Jr., to H. D. Boggs Co., Ltd. Apparatus for loading pipe casting molds. 3,114,173, 12-17-63, Cl. 18—26.

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Boggs, William E., to United States Steel Corp. Method of making tin plate resistant to oxidation. 3,105,022, 9-24-63, Cl. 204—37.
Boggus, James D., to Marble Products Co. of Georgia. Dyeing natural stones and shells with oil soluble dyes. 3,079,209, 2-26-63, Cl. 8—8.
Boggus, James D., to Marble Products Co. of Georgia. Pythalocyanine coloring of stone and aquatic animal shells, the materials so colored and structures made therefrom. 3,092,836, 6-4-63, Cl. 8—8.
Bogin, Herman: *See*—
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Bogle, Robert W., and J. W. Kiebler, to United States of America, Navy. Hot cathode video detector. 3,079,564, 2-26-63, Cl. 329—162.
Bogle, Robert W., and W. S. Knowles, to United States of America, Navy. Echo altimeter for a low level guidance system. 3,088,112, 4-30-63, Cl. 343—13.
Bognar, Etienne, and M. A. Maistre, to Compagnie de Saint-Gobain. Heat transfer apparatus. 3,085,626, 4-16-63, Cl. 165—11.
Bogner, Richard D., to General Bronze Corp. Composite antenna of the retarded surface wave type. 3,087,157, 4-23-63, Cl. 343—729.
Bogue Electric Mfg. Co.: *See*—
Herbst, John A. 3,083,469.
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Boguslawski, Rudolf, to Bayerische Motoren Werke A.G. Shifting control arrangement for change-speed gears. 3,076,350, 2-5-63, Cl. 74—336.5.
Bohannan, William R.: *See*—
Koch, Donald T., and Bohannan. 3,096,926.
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Hotop, Werner, Meese, Maajoshusmann, Böhle, and Ginzel. 3,097,598.
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Bohlin, Nils I., to Svenska Aeroplan Aktiebolaget. Device to protect an occupant against bodily injury during emergency escape from aircraft. 3,074,669, 1-22-63, Cl. 244—122.
Bohlmann, Ferdinand, H. Dexheimer, O. Fuchs, and H. Kramer, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Method for making a polymer semiconductor and article. 3,083,125, 3-26-63, Cl. 117—201.
Bohlsen, Albert J. Hammer holster. 3,100,590, 8-13-63, Cl. 224—5.
Bohm, George. Slotted garment boning for end stitching. 3,113,322, 12-10-63, Cl. 2—257.
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Bohm, Siegfried, W. Hahn, W. Hennig, K. Hintze, and J. Welse, to Kamera-und Kinowerke Dresden, VEB. Photographic camera. 3,072,031, 1-8-63, Cl. 95—10.
Böhm, Siegfried, F. Winkler, and H. Fischer, to VEB Kamera- und Kinowerke Dresden. Photographic cameras fitted with focal plane shutter. 3,101,657, 8-27-63, Cl. 95—42.
Bohm, Walter F., and C. D. Holton, to General Motors Corp. Method of making a composite article. 3,112,541, 12-3-63, Cl. 22—203.
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Plapper, Jürgen, and Dieckelmann. 3,101,238.
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Bohmert, William J., to Acme Manifolding Co., Inc. Improvement in manifold assembly. 3,107,929, 10-22-63, Cl. 282—11.5.
Bohn, Frank W. Glass washer. 3,086,241, 4-23-63, Cl. 15—511.
Bohn, Karl A. Metal stock cutting and bending tool. 3,087,-242, 4-30-63, Cl. 29—564.
Bohne, Leo J. Plumber's brush. 3,106,738, 10-15-63, Cl. 15—184.
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Bohor, Bruce F.: *See*—
Albright, James C., Sutton, Timko, and Bohor. 3,075,-142.
Bohr, Alexander H.: *See*—
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Bohr, George W. Record holding and storing rack. 3,090,-491, 5-21-63, Cl. 211—40.
Bohrer, John J., W. F. Ebling, Jr., and B. J. Patton, to International Resistance Co. Printed circuit unit. 3,077,-511, 2-12-63, Cl. 174—68.5.
Bohres, William C., R. T. Fields, and T. F. Jordan, to E. I. du Pont de Nemours and Co. Method for making thermoplastic pipes. 3,103,409, 9-10-63, Cl. 18—55.
Bohus, Theodore. Shuttle-moving mechanism for Schiffli embroidery apparatus. 3,104,635, 9-24-63, Cl. 112—95.
Bohus, Theodore, to E.M.I.C. Corp. Shuttle-moving mechanism for a Schiffli embroidering machine. 3,104,636, 9-24-63, Cl. 112—95.
Boicey, James H., and F. E. Henning, to Libbey-Owens-Ford Glass Co. Apparatus for pressing glass-plastic sandwiches. 3,100,173, 8-6-63, Cl. 156—579.
Boies, David B., J. Crowther, and W. J. Ryzner, to Nalco Chemical Co. Inhibiting corrosion with chromium-quaternary ammonium salt compositions. 3,079,220, 2-26-63, Cl. 21—2.7.
Boies, David B., J. Crowther, and W. J. Ryzner, to Nalco Chemical Co. Inhibition of corrosion of metal surfaces in contact with corrosive aqueous media. 3,081,146, 3-12-63, Cl. 21—2.7.
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Boissonnas, Roger, to Sandoz Ltd. (also known as Sandoz A.G.) Process for the preparation of L-(X)-glutamine. 3,105,852, 10-1-63, Cl. 260—534.
Boitel, Arwed C., to Alton Box Board Co. End cushioned paperboard container. 3,094,267, 6-18-63, Cl. 229—40.
Bolu, Rudolph R. Adjustable door hanger. 3,100,316, 8-13-63, Cl. 16—105.
Bok, Antonie, to Tervalon (Maatschappij voor voedingsmiddelen op Wetenschappelijke basis) N.V. Method of drying a lactulose-containing aqueous liquid. 3,110,600, 11-12-63, Cl. 99—203.
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Boldizar, Leslie, to American Cynamid Co. Electrical grade aminotriazine-aldehyde-amine resinous compositions. 3,082,-190, 3-19-63, Cl. 260—67.6.
Boldizar, Leslie, and L. C. Pounds, to American Cyanamid Co. Modified melamine-formaldehyde resin for decorative laminating and process for preparing same. 3,082,180, 3-19-63, Cl. 260—17.3.
Boldridge, Austin G., Jr., to J. J. Mascuch. Electron ballistic accelerometer. 3,114,268, 12-17-63, Cl. 73—517.
Boldrin, Luigi. Motor weeder, particularly for weeding road sides and the like. 3,094,831, 6-25-63, Cl. 56—25.4.
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Bolen, Kenneth E., to Phillips Petroleum Co. Method for the dehydration of liquids. 3,096,380, 7-2-63, Cl. 260—666.
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Bolesky, Richard C., to United States Rubber Co. Seat constructions and processes of producing the same. 3,099,844, 8-6-63, Cl. 5—354.
Bolfar, John L. Lock tumbler pin gauge device. 3,113,386, 12-10-63, Cl. 33—172.
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Fahlstrom, Per A. H. H., Lundberg, and Holmberg. 3,094,289.
Johansson, Karl S., and Rapp. 3,085,794.

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Bolkcom, Wilbur T., and W. E. Knapp, Additives for molten metals. 3,079,250, 2–26–63, Cl. 75—53.

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Kaufmann, Michael. 3,112,708.
Kirsch, Wilhelm. 3,073,994.
Schekulin, Hans. 3,109,497.
Senger, Horst. 3,090,582.
Zeyher, Fritz. 3,112,906.

Bollar, Leo C., to The Warner & Swasey Co. High energy impact machine. 3,103,136, 9–10–63, Cl. 78—42.

Bollard, Arthur W., to The Colonial Iron Works Co. Mixer. 3,080,151, 3–5–63, Cl. 259—99.

Bollefer, Dwight L., to Kodiak Inc. Machine for making chipped ice. 3,112,622, 12–3–63, Cl. 62—320.

Bollenbach, Willard M.: *See*—
Paullus, Clarence L., and Bollenbach. 3,101,526.

Boller, Arthur, H. Els, and A. Furst, to Hoffmann-La Roche Inc. Diallyl-nortoxiferine dihalides. 3,080,373, 3–5–63, Cl. 260—294.7.

Boller, Arthur, A. Furst, and W. Meier, to Hoffmann-La Roche Inc. Preparation of nitrogen heterocyclic compounds. 3,116,283, 12–31–63, Cl. 260—239.

Boller, Charles R., to Standard Conveyor Co. Carton unstacking machine. 3,074,595, 1–22–63, Cl. 221—221.

Bolles, Elmer R.: *See*—
Duncan, Richard A., Bolles, Adachi, and Anderson. 3,103,091.

Bolles, Elwood C., and J. Wind, Jr., to Chris-Craft Industries, Inc. Combination edge turning and welding die. 3,089,536, 5–14–63, Cl. 156—479.

Bollesen, Vernon P. Automatic restarting arrangement for electrically driven irrigation pumps. 3,078,392, 2–19–63, Cl. 317—13.

Bollier, Jacob C. Transmission. 3,089,348, 5–14–63, Cl. 74—688.

Bollinger, Frederick W.: *See*—
Chemerda, John M., Sletzinger, and Bollinger. 3,075,993.

Bollmeier, Emil W.: *See*—
Hervig, Harold C., and Bollmeier. 3,111,269.

Bollmeier, Emil W., and L. F. Vokaty, to Minnesota Mining and Mfg. Co. Combination package. 3,074,544, 1–22–63, Cl. 206—47.

Bollmeier, Emil W., and L. F. Vokaty, to Minnesota Mining & Mfg. Co. Package of inter-reactive materials. 3,087,606, 4–30–63, Cl. 206—47.

Bollum, Carl W., Sr., to Carwil Enterprises, Inc. Earth-skimming air vehicle. 3,078,938, 2–26–63, Cl. 180—7.

Bollum, Carl W., Sr., to Carwil Enterprises, Inc. Earth-skimming air vehicle. 3,078,939, 2–26–63, Cl. 180—7.

Bollum, Carl W., Sr., to Carwil Enterprises, Inc. Earth-skimming air vehicle with pressure responsive valve means. 3,106,260, 10–8–63, Cl. 180—7.

Bolmgren, Lester N., to Minneapolis-Honeywell Regulator Co. Temperature control apparatus with adjustable cycling. 3,075,130, 1–22–63, Cl. 317—153.

Bolstad, Richard: *See*—
Hamermesh, Charles L., Bolstad, and Del Franco. 3,077,427.

Bolt Beranek and Newman, Inc.: *See*—
Allen, Clayton H., and Klirtze. 3,113,635.
Baruch, Jordan J., and Watters. 3,087,572.
Baruch, Jordan J., and Watters. 3,087,575.
Fredkin, Edward. 3,105,593.
Kerwin, Edward M., Jr. 3,087,565.
Kerwin, Edward M., Jr. 3,087,571.
Kurtze, Guenther. 3,087,567.
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Watters, Bill G. 3,087,566.
Watters, Bill G. 3,087,574.
Watters, Bill G. 3,103,941.
Watters, Bill G. 3,113,634.
Watters, Bill G., and Kurtze. 3,087,570.

Bolt, Harry C., to Terrapin (Overseas) Ltd. Building structures. 3,103,709, 9–17–63, Cl. 20—2.

Bolt, Robert O.: *See*—
Denison, George H., Bolt, Kent, and Christiansen. 3,115,462.
Denison, George H., Bolt, Kent, Christiansen, and Carroll. 3,115,467.

Bolt, Robert O., and W. W. West, to United States of America, Atomic Energy Commission. Process for producing and recovering organic nuclear reactor coolant-moderators. 3,086,932, 4–23–63, Cl. 204—193.2.

Boltinghouse, Joseph C.: *See*—
Slater, John M., Scarborough, Boltinghouse, and Freebairn. 3,078,727.

Bolton, Andrew L.: *See*—
Arthur, Alexander A., Bolton, and Brown. 3,106,385.

Bolton, Benjamin A., to Standard Oil Co. Polyurethane compositions. 3,072,614, 1–8–63, Cl. 260—77.5.

Bolton, Benjamin A., to Standard Oil Co. Surface coating composition of a resin-polyester mixture. 3,075,936, 1–29–63, Cl. 260—29.6.

Bolton, Benjamin A., and R. L. Broadhead, to Standard Oil Co. Water soluble composition for baked surface coatings comprising a polyester resin and an amino resin. 3,102,868, 9–3–63, Cl. 260—45.3.

Bolton, Charles B.: *See*—
Parry, Robert D. 3,103,327.

Bolton, Frank H.: *See*—
Kent, Ray W., Jr., and Bolton. 3,097,186.

Bolton, Harold B., to California Research Corp. Mooring buoy assembly. 3,103,020, 9–10–63, Cl. 9—8.

Bolton, John W., & Sons, Inc.: *See*—
Danforth, Donald W. 3,103,336.
Danforth, Donald W., and de Reus. 3,085,756.

Bolton, Kenyon C.: *See*—
Parry, Robert D. 3,103,327.

Bolton, Michael R. H.: *See*—
Saxton, William R., Bolton, Rainville, and Petricola. 3,083,075

Bolton, Norman A.: *See*—
Kendall, Hugh C., Auer, Bolton, and Frielinghaus. 3,110,008.

Bolton, Norman A., to General Railway Signal Co. Multilane traffic counter. 3,079,077, 2–26–63, Cl. 235—99.

Bolton, Norman A., to General Signal Corp. Ultrasonic vehicle detector. 3,102,252, 8–27–63, Cl. 340—38.

Bolton, Norman A., to General Signal Corp. Directional traffic control system. 3,109,157, 10–29–63, Cl. 340—39.

Bolton, Norman A., to General Signal Corp. Toll estimation system. 3,109,926, 11–5–63, Cl. 235—92.

Bolton, Norman A., and G. Vande Sande, to General Signal Corp. Ultrasonic vehicle detector system. 3,110,009, 11–5–63, Cl. 340—38.

Bolton, Paul D. Ramp for airport passengers and freight. 3,110,048, 11–12–63, Cl. 14—71.

Bolton, Robert H.: *See*—
Hecht, Herbert, and Bolton. 3,082,388.

Bolton, Robert H., to Sperry Rand Corp. Electromagnetic transducer device. 3,089,044, 5–7–63, Cl. 310—36.

Bolton, Wilbur M.: *See*—
Breining, Elmer R., and Bolton. 3,111,731.

Bolz, Karl: *See*—
Dreher, Emil, Raeck, and Bolz. 3,075,894.

Bolz, Karl, and H. Hein, to Byk-Guiden Lomberg Chemische Fabrik G.m.b.H. Stable, bacteriostatic composition. 3,073,742, 1–15–63, Cl. 167—65.

Boman, Carl-Johan. Horizontally nestable chairs. 3,087,755, 4–30–63, Cl. 297—239.

Boman, Thomas G. Pie marker and crimper. 3,108,548, 10–29–63, Cl. 107—49.

Bombardier, Joseph A. Motor vehicle for cutting, loading and transporting trees. 3,074,447, 1–22–63, Cl. 144—3.

Bomberger, David C., to United States of America, Navy. Collision course vectoring computer. 3,078,041, 2–19–63, Cl. 235—187.

Bomberger, Howard B., and E. E. Knapek, to Crucible Steel Co. of America. Titanium alloy articles resistant to hydrogen absorption for dynamoelectric machines. 3,113,227, 12–3–63, Cl. 310—55.

Bo-Mer Mfg. Corp.: *See*—
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Bomm, Heinz, to Dorken & Mankel K. G. Automatic door closer, especially loft door closer. 3,108,315, 10–29–63, Cl. 16—55.

Bomm, Heinz, and K. Berghaus, to Dorken & Mankel K.G. Automatic door closer. 3,098,259, 7–23–63, Cl. 16—59.

Bonafide Mills, Inc.: *See*—
Rowe, William. 3,078,510.

Bonami, Ernest: *See*—
Connick, Francis G., Brendle, Strandine, and Bonami. 3,112,531.

Bonanni, Angelo P. Method of preparing a diisocyanate-based laminating resin. 3,088,934, 5–7–63, Cl. 260—77.5.

Bonanno, Joseph L.: *See*—
Cohn, Hugo, and Bonanno. 3,104,110.

Bonanno, Joseph L., to The Lionel Corp. Toy truck structure. 3,074,647, 1–22–63, Cl. 238—10.

Bonanno, Joseph L., to Walter E. Heller & Co. (Inc.). Telephone device. 3,113,186, 12–3–63, Cl. 179—101.

Bonanno, Joseph L., to Walter E. Heller & Co. (Inc.). Power control device. 3,113,258, 12–3–63, Cl. 321—24.

Bonanno, Joseph L., and F. Pettit, to Walter E. Heller Co. (Inc.). Track cleaning car. 3,103,897, 9–17–63, Cl. 104—279.

Bonarrigo, Paul J., and M. J. Ginsburg, to Pennsylvania Sewing Research Corp. Dolly for enabling a single operator to move a work table. 3,105,698, 10–1–63, Cl. 280—47.13.

Bonas Bros. Ltd.: *See*—
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Bond, Donald C., and L. R. W. Holm, to The Pure Oil Co. Improved flooding method for the recovery of petroleum. 3,072,185, 1–8–63, Cl. 166—11.

Bond, Donald C., and L. J. O'Brien, to The Pure Oil Co. Heat transfer petroleum recovery process. 3,072,191, 1–8–63, Cl. 166—39.

Bond, Donald S., to Radio Corp. of America. Radar tracking and display system. 3,085,243, 4–9–63, Cl. 343—7.3.

Bond, Elisabeth A., H. N. Gold, and J. S. Marran, to Chart-Pak Inc. Transparent sheet provided with characters and instrumentalities for using such characters. 3,099,089, 7–30–63, Cl. 33—1.

Bond, Harry L. F., to Davy and United Engineering Co., Ltd. Apparatus for coiling and uncoiling strip material. 3,073,543, 1–15–63, Cl. 242—78.4.

Bond, Harry L. F., to Davy and United Engineering Co. Ltd. Strip coiler. 3,100,606, 8–13–63, Cl. 242—80.

Bond, Harry L. F., to Davy and United Engineering Co. Ltd Expansible mandrel. 3,104,849, 9–24–63, Cl. 242—72.1.

Bond, James H.: *See*—
Harrington, Robert C., Jr., Smith, and Bond. 3,110,642.

Bond, Robert W., to Corn Products Co. Interrupted starch hydrolysis. 3,100,740, 8–13–63, Cl. 195—31.

Bond, Robert W., J. H. Ladd, R. L. Roberts, G. R. Keller, and H. G. Markey, to North American Aviation, Inc. Autopilot. 3,094,299, 6–18–63, Cl. 244—77.

Bondley, Ralph J., to General Electric Co. Method of making composite bodies. 3,100,339, 8–13–63, Cl. 29—473.1.

Bondonio, Ernesto. Means for heating by reflected infra-red rays. 3,075,064, 1–22–63, Cl. 219—34.

Bonds, Albert, to Preformed Line Products Co. Wire cutting mechanism. 3,091,988, 6–4–63, Cl. 83—355.

Bondy, Philip L., to General Cigar Co., Inc. Change dispensing device. 3,114,452, 12–17–63, Cl. 206—.81.

Bone, Arnold R., to Dennison Mfg. Co. Indicia-applying machine. 3,095,807, 7–2–63, Cl. 101—19.

Bone, Arnold R., to Dennison Mfg. Co. Tag attaching apparatus. 3,103,666, 9–17–63, Cl. 1—301.

Bone, Revella M. Illuminated water sprayer. 3,088,675, 5–7–63, Cl. 239—20.

Bonesa, Martin: *See*—
Kuhle, Engelbert, Grewe, Unterstenhofer, Bonesa, and Wegler. 3,096,237.

Bonetti, Nathaniel W. R., and R. James, Jr., to Esso Research and Engineering Co. Fluid delivery device. 3,097,671, 7–16–63, Cl. 141—116.

Bonewitz, Robert P., to General Motors Corp. Self-centering work holder. 3,107,522, 10–22–63, Cl. 73—103.

Bonewitz, Everett D. Exerciser. 3,100,639, 8–13–63, Cl. 273—57.

Bongard, Wilhelm: *See*—
Nischk, Gunther, Holtschmidt, Bongard, and Bayer. 3,096,296.

Bongartz, Heins: *See*—
Kabelitz, Hans, Lennartz, and Bongartz. 3,074,178.

Bonham, Don L. Electrical music system. 3,083,606, 4–2–63, Cl. 84—1.25.

Bonhomme, Francois R., to Curtiss-Wright Corp. Electrical connector socket. 3,107,966, 10–22–63, Cl. 339—241.

Bonia, Walter J., to United States of America, Navy. Current regulator with reinforced feedback. 3,093,800, 6–11–63, Cl. 328—267.

Bonic, Isaac. Device for clearing snow from the path of an automobile wheel. 3,088,230, 5–7–63, Cl. 37—53.

Bonifas, James L., and E. W. Onulak, to The Locke Steel Chain Co. Power operated pin removing device having automatic means for retracting the tool thereof. 3,075,347, 1–29–63, Cl. 59—7.

Bonin, George E., to Corning Glass Works. Flexible hone. 3,113,406, 12–10–63, Cl. 51—185.

Bonmartini, Francesco: *See*—
Panzer, Jerome, Beerbower, Bonmartini. 3,111,381.

Bonn, Erich: *See*—
Huboi, Karl A., Eicker, and Bonn. 3,081,643.

Bonn, Theodore H.: *See*—
Eckert, John P., Jr., and Bonn. 3,097,304.

Bonn, Theodore H., to Sperry Rand Corp. Opposite conducting type transistor control circuits. 3,097,307, 7–9–63, Cl. 307—88.5.

Bonn, Theodore H., and R. D. Torrey, to Sperry Rand Corp. Signal translating device. 3,071,694, 1–1–63, Cl. 307—88.

Bonn, Theodore H., and J. P. Eckert, Jr., to Sperry Rand Corp. Signal translating device. 3,087,072, 4–23–63, Cl. 307—88.

Bonnafe, Oliver W., to The Lapointe Machine Tool Co. Vertical broach. 3,087,389, 4–30–63, Cl. 90—91.

Bonnafe, Oliver W., to The Lapointe Machine Tool Co. Broaching apparatus. 3,103,852, 9–17–63, Cl. 90—97.

Bonnee, Arthur A., to Tee-Pak, Inc. Control for shirring machine. 3,112,516, 12–3–63, Cl. 17—42.

Bonnefoi, Antoine, to Institut Pasteur. Method for producing biological pest-destroying reagents. 3,071,519, 1–1–63, Cl. 195—96.

Bonner, John J., to Philco Corp. Washer-dryer with lint removing means. 3,111,018, 11–19–63, Cl. 68—20.

Bonner, Tom W., to Socony Mobil Oil Co., Inc. Sensitive low voltage proportional counter for neutron detection containing He^3 at superatmospheric pressure. 3,102,198, 8–27–63, Cl. 250—83.1.

Bonner, Willard H., Jr., to E. I. du Pont de Nemours and Co. Process for spinning and drawing polyalkylene isophthalamides. 3,088,794, 5–7–63, Cl. 18—64.

Bonnet, Georges, and J. Petit, to Commissariat a l'Energie Atomique. Process of operation of and window for a high-activity cell. 3,114,945, 12–24–63, Cl. 20—40.

Bonnet, Jacques: *See*—
Neukomm, Serge, and Bonnet. 3,096,773.

Bonnet, Yannik: *See*—
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Lafont, Pierre, and Bonnet. 3,085,109.
Lafont, Pierre, and Bonnet. 3,101,847.

Bonnett, George M., to Newport News Shipbuilding and Dry Dock Co. Moisture separator apparatus. 3,104,963, 9–24–63, Cl. 55—332.

Bonney, David W. Combined planting machine. 3,110,275, 11–12–63, Cl. 111—70.

Bonney, Roland W. Golf ball picker. 3,102,647, 9–3–63, Cl. 214—356.

Bonnierforetagen, AB: *See*—
Nilsson, Herman B. 3,088,604.

Bonnin, Louis E. Head mounting for contact microphones. 3,087,028, 4–23–63, Cl. 179—156.

Bono, Luigi, to Necchi Societa per Azioni. Control system for a sewing machine. 3,077,845, 2–19–63, Cl. 112—219.

Bono, Luigi, to Necchi Societa per Azioni. Arrangement for engaging and disengaging the mechanism controlling the movement of the needle-carrying bars in sewing machines provided with two needles. 3,077,846, 2–19–63, Cl. 112—221.

Bono, Luigi, to Necchi Societa per Azioni. Zig-zag sewing machine. 3,081,724, 3–19–63, Cl. 112—158.

Bono Luigi, to Necchi Societa per Azioni. Work holding device for use with sewing machines. 3,082,721, 3–26–63, Cl. 112—102.

Bono, Luigi, to Necchi Societa per Azioni. Rotary hook for sewing machines. 3,090,335, 5–21–63, Cl. 112—231.

Bono, Luigi, to Necchi Societa per Azioni. Change speed arrangement for sewing machines. 3,095,752, 7–2–63, Cl. 74—217.

Bono, Luigi, to Necchi Societa per Azioni. Fabric feeder mechanism for sewing machine. 3,096,737, 7–9–63, Cl. 112—204.

Bono, Luigi, to Necchi Societa per Azioni. Carrying case for sewing machines. 3,098,315, 7–23–63, Cl. 45—68.2.

Bono, Luigi, to Necchi Societa per Azioni. Attachment for the fastening of buttons which can be applied to zig-zag sewing machines. 3,098,459, 7–23–63, Cl. 112—114.

Bono, Luigi, to Necchi Societa per Azioni. Guide device for the automatic production of sewing designs with a sewing machine. 3,111,919, 11–26–63, Cl. 112—103.

Bono, Luigi, to Necchi Societa per Azioni. Work holding attachment for a sewing machine. 3,112,718, 12–3–63, Cl. 112—102.

Bono, Luigi, to Necchi Societa per Azioni. Device for driving the hook shaft of a double-stitch sewing machine. 3,112,720, 12–3–63, Cl. 112—200.

Bono, Luigi, to Necchi Societa per Azioni. Buttonhole foot with cutting blade for sewing machines. 3,113,535, 12–10–63, Cl. 112—68.

Bono, Luigi, to Necchi Societa per Azioni. Machine for sewing on designs including buttonholes. 3,113,537, 12–10–63, Cl. 112—158.

Bonora, Matthew J. Fingerprinting. 3,075,852, 1–29–63, Cl. 117—5.

Bonotto, Michele, to Tea Corp. Method for producing a concentrated tea extract. 3,080,237, 3–5–63, Cl. 99—77.

Bonsall, George, and A. Brody, to Bro-Dart Industries, Inc. Elastically expandable holder for cards. 3,112,859, 12–3–63, Cl. 229—71.

Bonser, Stanley W. Lawn mower blade. 3,093,952, 6–18–63, Cl. 56—295.

Bonsignore, Charles: *See*—
Medoff, Irving, and Bonsignore. 3,107,767.

Bonsor, David V., to Interstate Bag Co., Inc. Apparatus for making carrier bags. 3,101,033, 8–20–63, Cl. 93—8.

Bonvicini, Alberto, to Montecatini Societa Generale per l'Industria Mineraria e Chimica. Method for purifying olefin polymers. 3,080,353, 3–5–63, Cl. 260—93.7.

Bonvicini, Alberto, A. Monaci, and V. Cappuccio, to Montecatini societa generale per l'Industria Mineraria e Chimica. Shaped articles comprising isotactic polypropylene having a surface formed of a graft copolymer, and method of making the articles. 3,073,667, 1–15–63, Cl. 8—115.5.

Bonvicini, Alberto, and R. Postal, to Montecatini Societa Generale per l'Industria Mineraria e Chimica. Method for improving the dye-receptivity of articles formed of linear isotactic poly-propylene. 3,093,615, 6–11–63, Cl. 260—45.5.

Bonvicino, Guido E.: *See*—
Semb, Joseph, Bonvicino, and Hardy. 3,072,649.

Bonvicino, Guido E., to American Cyanamid Co. N-[4-phenyl-5,6 - dihydro - 1(2H) - pyridylalkyl]-3,4,5-trimethoxy-benzamides and -cinnamamides. 3,072,648, 1–8–63, Cl. 260—240.

Boode, Carl N.: *See*—
Bourns, Marlan E., Boode, and O'Brian. 3,085,217.
Bourns, Marlan E., Boode, and O'Brian. 3,092,801.

Booher, Charles F., II, to The Birtcher Corp. Tube socket mounting device. 3,113,821, 12–10–63, Cl. 339—131.

Book, Herbert W., to Westinghouse Electric Corp. Thermal indicator for electrical apparatus. 3,077,777, 2–19–63, Cl. 73—350.

Book, Herbert W., to Westinghouse Electric Corp. Electrical apparatus. 3,078,411, 2–19–63, Cl. 323—43.5.

Book, Herbert W., and R. E. Rood, to Westinghouse Electric Corp. Thermally responsive device for electrical apparatus. 3,106,842, 10–15–63, Cl. 73—343.
Book, William R. Ladder hoist. 3,074,508, 1–22–63, Cl. 182—129.
Booker, Clyde A., Jr., to Westinghouse Electric Corp. Totalizing system. 3,072,888, 1–8–63, Cl. 340—172.5.
Booker, Jaenette: *See*—
Peters, Ralph D. 3,113,461.
Booker, Sam F.: *See*—
Peters, Ralph D. 3,113,461.
Booker, Robert J., and H. G. Mullett, to Bradley Washfountain Co. Modular shower unit. 3,098,241, 7–23–63, Cl. 4—192.
Booker, William E., to Gustin-Bacon Mfg. Co. Journal box lubricator pad. 3,086,829, 4–23–63, Cl. 308—243.
Bookout, Charles C., and P. E. Taylor, to Ford Motor Co. Power steering system. 3,085,645, 4–16–63, Cl. 180—79.2.
Bookout, Floyd V.: *See*—
Johnson, Elmer C., and Bookout. 3,102,762.
Boomer, Merton E. Material reduction mill and classifier. 3,110,447, 11–12–63, Cl. 241—52.
Boone Box Co.: *See*—
Svendsen, James W. 3,072,313.
Boone, Claude T., Sr. Butterfly valve structure. 3,111,300, 11–19–63, Cl. 251—306.
Boone, Garret J. Game apparatus. 3,088,737, 5–7–63, Cl. 273—85.
Boone, George L. Towel hanger. 3,102,636, 9–3–63, Cl. 211—45.
Boone, James L., to American Potash & Chemical Corp. Production of tetraborane from pentaborane-11. 3,071,440, 1–1–63, Cl. 23—204.
Boone, James L., to American Potash & Chemical Corp. Preparation of boron hydrides. 3,109,710, 11–5–63, Cl. 23—204.
Boone, James L., to American Potash & Chemical Corp. Preparation of boron hydrides. 3,110,565, 11–12–63, Cl. 23—204.
Boone, Joseph, to M. Berghgracht. Machine for the production of pocket shaped containers. 3,114,298, 12–17–63, Cl. 93—12.
Boonstra, Bram B. S. T.: *See*—
Williams, Frank R., Perdigao, and Boonstra. 3,104,985.
Boonstra, Bram B. S. T., to Cabot Corp. Insulated conductors and method of making same. 3,096,210, 7–2–63, Cl. 117—216.
Boonstra, Richard N. Horticultural carrying apparatus. 3,078,020, 2–19–63, Cl. 224—45.
Boor, John, Jr.: *See*—
Youngman, Edward A., Nozaki, and Boor. 3,084,148.
Booth, Albert N.: *See*—
Bickoff, Emanuel M., Livingston, and Booth. 3,077,404.
Booth, Arthur, R. A. Pizzarello, and J. E. De Graff, to Interchemical Corp. Water-in-oil emulsion textile decorating compositions. 3,093,602, 6–11–63, Cl. 260—17.
Booth, Arthur P. Foot flush assemblies for use with a water closet. 3,095,582, 7–2–63, Cl. 4—249.
Booth, Clifford C., and R. B. Dean, to The Borden Co. Potentially reactive urea-formaldehyde adhesive system. 3,100,754, 8–13–63, Cl. 260—29.4.
Booth, Edmond P. O., and E. W. Innes, to Edward L. Bateman Ltd. Conveyor belt feeding mechanisms. 3,077,995, 2–19–63, Cl. 214—17.
Booth, Frank, and M. P. Latham, to Oldham & Son Ltd. Glass fiber reinforced battery separators. 3,092,509, 6–4–63, Cl. 117—76.
Booth, Frederick E., Jr.: *See*—
Irwin, Samuel N., and Booth. 3,087,421.
Booth, George H., to Lionel-Pacific, Inc. Flange seal. 3,080,171, 3–5–63, Cl. 277—112.
Booth, George M., to Wallace & Tierman Inc. Adjustable eccentric. 3,106,105, 10–8–63, Cl. 74—571.
Booth, Gerald, and F. Hall, to Imperial Chemical Industries Ltd. Process for the coloration of cellulose textile materials with reactive dyestuffs. 3,082,052, 3–19–63, Cl. 8—54.2.
Booth, Gerald, and D. P. Hudson, to Imperial Chemical Industries Ltd. Sulfon-gamma-halo-beta-hydroxy-propylamide-containing dyestuffs. 3,084,166, 4–2–63, Cl. 260—314.5.
Booth, Grant W.: *See*—
Helbig, Walter A., and Booth. 3,075,085.
Booth, Harvey J., R. P. Ernest, and J. W. Fostey, to Ford Motor Co. Lubricant sump. 3,100,028, 8–6–63, Cl. 184—106.
Booth, Henry. Hair and wool depilation method and composition. 3,097,912, 7–16–63, Cl. 8—94.16.
Booth, John M., to Moira, Ltd. Device for positioning nested cups. 3,104,018, 9–17–63, Cl. 214—1.
Booth, Joseph. Universal carriage. 3,084,947, 4–9–63, Cl. 280—11.
Booth, Nell S. Duplicate bridge card tray. 3,102,728, 9–3–63, Cl. 273—151.
Booth, Richard H.: *See*—
Phillips, James H., and Booth. 3,111,614.
Booth, Robert B., to American Cyanamid Co. Concentrated aqueous solutions of alkali and alkaline earth metal salts of phospho-organic compounds. 3,086,653, 4–23–63, Cl. 209—166.
Booth, William M. Indicator for direction of movement of a boat. 3,072,091, 1–8–63, Cl. 116—31.
Booth, William M., to John Wood Co. Magnetic ticket punching apparatus. 3,073,519, 1–15–63, Cl. 234—115.
Booth, William M. Measuring dispenser for liquids. 3,076,581, 2–5–63, Cl. 222—453.
Boothe, Merrill V. Elevating scraper. 3,076,275, 2–5–63, Cl. 37—118.
Boothroyd, Howard W., and L. S. Bostwick, to Sanders Associates, Inc. Gyroscope. 3,102,430, 9–3–63, Cl. 74—5.7
Boothroyd, Wilson P., to Philco Corp. Indexing system for color television. 3,109,886, 11–5–63, Cl. 178—5.4.
Boothroyd, Wilson P., to Philco Corp. Radio receiver means employing separable complementary units. 3,109,896, 11–5–63, Cl. 179—15.
Boothroyd, Wilson P., and E. M. Creamer, Jr., to Philco Corp. Color television system. 3,087,011, 4–23–63, Cl. 178—5.2.
Boots, David A., to F. L. Moseley Co. Position indication systems. 3,105,232, 9–24–63, Cl. 340—347.
Booty, Raymond G., to Pacific Resins & Chemicals, Inc. Method of separating aqueous solution of phenol-formaldehyde resin from polymerization system. 3,083,170, 3–26–63, Cl. 260—29.3.
Bopf, Edward C., to Deere & Co. Cotton receptacle. 3,074,552, 1–22–63, Cl. 209—250.
Bopf, Edward C., to Deere & Co. Flat spring standard mounting. 3,097,705, 7–16–63, Cl. 172—710.
Bopf, Edward C., and A. L. Hubbard, to Deere & Co. Cotton harvester. 3,108,416, 10–29–63, Cl. 56—14.
Bopp, Cecil W., to Bopp Mfg. Inc. Material handling apparatus. 3,082,889, 3–26–63, Cl. 214—75.
Bopp Mfg. Inc.: *See*—
Bopp, Cecil W. 3,082,889.
Boquist, Carl W., to Armour Research Foundation of Illinois Institute of Technology. Method of fabricating carbon and graphite structures. 3,107,153, 10–15–63, Cl. 23—209.4.
Bora, Ion. Portable fume exhaust fan apparatus. 3,096,933, 7–9–63, Cl. 230—235.
Bora, Nicola. Smoke and fume eliminator. 3,102,800, 9–3–63, Cl. 55—257.
Borah, John E. Container spout. 3,075,676, 1–29–63, Cl. 222—527.
Borah, John E. Retractable and extensible container spout. 3,093,273, 6–11–63, Cl. 222—527.
Borah, John E. Mold 3,095,611, 7–2–63, Cl. 18—36.
Boraks, Paul: *See*—
Skorupa, Paul. 3,109,685.
Borcherdt, Edward R., to The Anaconda Co. Haulage system for excavated material. 3,080,982, 3–12–63, Cl. 214—1.
Borcherdt, Walter O., to B. H. Hadley, Inc. Shearable atorage valve means. 3,074,421, 1–22–63, Cl. 137—68.
Borchert, Peter J., to Miles Laboratories, Inc. Prepolymers of acetyl triallyl citrate. 3,095,441, 6–25–63, Cl. 260—484.
Borchert, Peter J., to Miles Laboratories, Inc. Composition comprising reaction product of hydrolyzed vinyl acetate polymer and periodate oxidized polysaccharide and process for preparing same. 3,098,049, 7–16–63, Cl. 260—17.4.
Borchert, Peter J., to Miles Laboratories, Inc. Preparation of dialdehyde polysaccharide addition products. 3,098,869, 7–23–63, Cl. 260—233.3.
Borchert, Peter J., to Miles Laboratories, Inc. Aqueous dispersion of periodate oxidized polysaccharide-amino triazine reaction product and process of preparing same. 3,099,573, 7–30–63, Cl. 117—62.2.
Borchert, Peter J., to Miles Laboratories, Inc. Dialdehyde polysaccharide-acrylamide derivatives. 3,100,203, 8–6–63, Cl. 260—211.
Bord, Max. Carton pouring spout. 3,085,732, 4–16–63, Cl. 229—17.
Bordeau, Robert L.: *See*—
Kruger, James B., and Bordeau. 3,111,756.
Bordelon, Sidney A., Jr., to Hughes Aircraft Co. Gating network. 3,106,650, 10–8–63, Cl. 307—88.5.
Borden Co., The: *See*—
Baker, Edgar B. 3,074,897.
Blanchard, Samuel E. 3,112,235.
Blanken, Robert M., Carey, and Mook. 3,114,645.
Booth, Clifford C., and Dean. 3,100,754.
Boschert, Ulrich, and Dean. 3,083,183.
Dickstein, Jack 3,083,185.
Dickstein, Jack, Bodnar, and Hoegerle. 3,094,554.
Dickstein, Jack, and Halpern. 3,112,293.
Keifer, William L. 3,086,868.
McNaughtan, Thomas J. 3,108,978.
Borden, John V. Control unit for dental handpieces. 3,106,021, 10–8–63, Cl. 32—28.
Borden, Joseph L.: *See*—
McLaughlin, Robert D., Landsman, and Borden. 3,093,736.
Borden, Leland A. Fluid means. 3,072,065, 1–8–63, Cl. 103—128.
Bordenave, Joseph: *See*—
Cook, Frank M., and Bordenave. 3,105,993.
Borders, Alvin M., to Minnesota Mining and Mfg. Co. Polyamine cross-linked copolymer of a fluorine-substituted nitrosoalkane and an ethylenically unsaturated halogenated olefin and process therefor. 3,072,625, 1–8–63, Cl. 260—92.1.
Bordlein, Hans. Light transmitting building tile, plate, block or the like and method of making same. 3,091,899, 6–4–63, Cl. 50—265.
Boren, William M.: *See*—
Franklin, Robert K., Boren, and Oliphant. 3,110,171.
Boretti, Napoleon P., to General Motors Corp. Welding control circuit. 3,076,087, 1–29–63, Cl. 219—89.

Boretti, Napoleon P., to General Motors Corp. Hand welding gun. 3,092,713, 6–4–63, Cl. 219—89.
Borey, Daniel S., to Esso Research and Engineering Co. Mixing finely divided contact particles in a dense fluid bed. 3,091,594, 5–28–63, Cl. 252—417.
Borg, Arthur C., to Standard Oil Co. Lubricant grease. 3,102,097, 8–27–63, Cl. 252—49.9.
Borg, Arthur C., to Standard Oil Co. High temperature lubricants. 3,110,669, 11–12–63, Cl. 252—28.
Borg, Arthur C., to Standard Oil Co. Lubricant grease. 3,113,107, 12–3–63, Cl. 252—51.5.
Borg-Erickson Corp., The: *See*—
Johnson, Walter R. 3,106,976.
Johnson, Walter R. 3,097,712.
Borg, Erik B., to Svenska Aktiebolaget Gasaccumulator. Method and arrangement for fastening the wires of the shield of a coaxial cable to a contact cone. 3,111,746, 11–26–63, Cl. 29—155.55.
Borg, S. Edward, to Northrop Corp. Automatic welding apparatus. 3,100,256, 8–6–63, Cl. 219—124.
Borg-Warner Corp.: *See*—
Barbee, Marion A. 3,085,349.
Behrens, Curtis E. 3,106,831.
Behrens, Curtis E. 3,108,464.
Behrens, Curtis E., and Geibel. 3,103,112.
Boss, Harold O. 3,107,530.
Bowers, Roy C. 3,080,027.
Calvert, William C. 3,074,906.
Canfield, Carl R., Jr. 3,107,631.
Dahl, Einar S. 3,100,449.
Edwards, James D., Harrington, and Shapter. 3,114,252.
Farrell, Eugene F. 3,079,756.
Ferris, Ernest A 3,095,954.
Flinn, George E. 3,103,991.
Gatewood, Sidney U., and Koontz. 3,090,475.
Gile, William B. 3,100,594.
Hallberg, Irving H. 3,079,901.
Harlow, Willis E., and Rice. 3,085,419.
Harnish, James R. 3,109,298.
Hendry, James W. 3,115,681.
Hoar, Brooks. 3,079,800.
Kelbel, Donald W., and Armantrout. 3,097,546.
Knerr, Carl J., and Waldrop. 3,086,403.
Kurtz, Curtis E. 3,090,248.
Kruzan, Albert W. 3,114,653.
Latham, Allen, Jr. 3,095,907.
Lebourg, Maurice P. Re. 25,407.
McWald, John A. 3,071,725.
Mamo, Anthony C. 3,090,252.
Marrujo, Fernando G. 3,100,523.
Newton, Alwin B. 3,094,850.
Poulter, Thomas C. 3,100,445.
Poulter, Thomas C., and Poncelet. 3,076,408.
Reed, Harold V. 3,086,634.
Schmidt, Edward M. 3,091,729.
Settimi, Raymond J. 3,105,580.
Smirl, Richard L. 3,082,018.
Smirl, Richard L. 3,095,716.
Smirl, Richard L., and Waclawek. 3,090,255.
Stokely, Raymond E. 3,095,715.
Stromberg, Clinton V. 3,101,600.
Tanny, Simon. 3,082,733.
Taylor, Raymond G. Jr. 3,099,877.
Thoren, Theodore R., and Marsh. 3,107,626.
Tracy, Herbert E. 3,101,200.
Wade, Daniel M. 3,104,744.
Wade, Daniel M., and Ferris. 3,086,632.
Waldrop, Charles R. 3,115,218.
Woolley, Samuel J. 3,074,294.
Zeidler, Reinhold C. 3,083,662.
Zeidler, Reinhold C., and Barnes. 3,071,228.
Borgaes, Edeltraut E.: *See*—
Berger, Arthur, and Borgaes. 3,090,810.
Borgard, Glenn E., to Wagner Electric Corp. Automatic brake adjuster. 3,103,261, 9–10–63, Cl. 188—79.5.
Borgard, Glenn E., to Wagner Electric Corp. Self-centering brake device. 3,115,954, 12–31–63, Cl. 188—78.
Borger, Jack W.: *See*—
Gutridge, Jack E., and Borger. 3,094,226.
Borges, Alberto. Building roofing structure. 3,089,281, 5–14–63, Cl. 50—61.
Borghard, Allan A., and P. Siskind, to Sperry Rand Corp. Servo system having accelerometer responsive filtering of spurious mechanical signal component. 3,077,553, 2–12–63, Cl. 318—28.
Borghesani, Robert S., to Polaroid Corp. Camera mechanism. 3,103,151, 9–10–63, Cl. 95—40.
Borghetti, Joseph C., to Microwave Development Laboratories, Inc. Waveguide to coaxial "L" transition. 3,087,127, 4–23–63, Cl. 333—34.
Borglin, Nils A., and A. M. E. Applegren, to Trelleborgs Gummifabriks Aktiebolag. Apparatuses for placing and positioning bead cores in tire building machines. 3,082,811, 3–26–63, Cl. 156—403
Borglin, Nils A., and A. M. E. Appelgren, to Trelleborgs Gummifabriks Aktiebolag. Tire building machines. 3,112,237, 11–26–63, Cl. 156—403.
Borgman, Arthur C.: *See*—
Nesslinger, Frits T., and Borgman. 3,105,572.
Borgman, Arthur C., to The Patent Scaffolding Co., Inc. Brace lock. 3,105,710, 10–1–63, Cl. 287—58.
Borgstrom, Gote I., to Urfabriken, AB. Fish lure. 3,077,047, 2–12–63, Cl. 43—42.17.
Borig, Walter A., to The Sharples Corp. Centrifuge discharge means. 3,105,045, 9–24–63, Cl. 233—22.
Boris, John A., to U.S. Industries, Inc. Vibratory parts feeding device. 3,114,448, 12–17–63, Cl. 198—33.
Boris, Sonia, to Societe Technique de Puverisation (par Abreviation S.T.E.P.). Sprayer device. 3,082,959, 3–26–63, Cl. 239—329.
Borisof, Bernard, to H. Press, and B. Borisof. Adhesive device. 3,102,634, 9–3–63, Cl. 206—56.
Borisof, Bernard. Roller applicators. 3,103,689, 9–17–63, Cl. 15—504.
Bork, Karl-Heinz: *See*—
Mannhardt, Heinz-Jurgen, Bork, Bruckner, and Metz. 3,074,977.
Bork, Karl-Heinz, K. Bruckner, H.-J. Mannhardt, F. Von Werder, U. Jahn, H. J. Bertram, and R. Hotovy, to E. Merck Aktiengesellschaft. Steroid-3-enol-acylates. 3,113,143, 12–3–63, Cl. 260—397.4.
Borka, Vincent T.: *See*—
Degorski, Stanislaw D., and Borka. 3,098,314.
Borkmann, Frank F.: *See*—
Grover, Victor T., Jakob, Kluesener, and Borkmann. 3,111,874.
Borkovitz, Henry S., to Lindberg Engineering Co. Electrical power control circuits. 3,080,517, 3–5–63, Cl. 323—66.
Borkovitz, Henry S., to Fostoria Corp. Power control circuit. 3,102,226, 8–27–63, Cl. 323—22.
Borland, James B.: *See*—
Iknayan, Alfred N., Batts, and Borland. 3,114,409.
Borman, August H., Jr., C. W. Cline, and L. M. Fiteny, to General Motors Corp. Transmission control system. 3,110,198, 11–12–63, Cl. 74—688.
Born, Klaus: *See*—
Sennewald, Kurt, Born, Erpenbach, and Döbek. 3,079,420.
Sennewald, Kurt, Born, and Rehberg. 3,090,804.
Born, Lester K., Jr., and W. D. Welkart, to Rockwell Mfg. Co. Workplece gauging stop for metal cut-off machine. 3,095,673, 7–2–63, Cl 51—98.
Born, Raymond W., to Hydraulic Engineering, Inc. Pump-up pump-down hydraulic jack. 3,071,927, 1–8–63, Cl. 60—52.
Born, Robert E., to The American Well Works. Diffuser swing mechanism. 3,116,021, 12–31–63, Cl. 239—588.
Bornarth, Dennis M., to Charles Bruning Co., Inc. Processes of producing lithographic electrostatic printing plates. 3,107,169, 10–15–63, Cl. 96—1.
Borne, Jean P. G., and A. J. P. Charles-Georges, to North American Phillips Co., Inc. Automatic decimal-point indicator tor computers. 3,074,635, 1–22–63, Cl. 235—156.
Borneman, Paul R., to Allegheny Ludlum Steel Corp. Low alloy-air hardening die steel. 3,077,397, 2–12–63, Cl. 75—126.
Bornemann, William, R. H. Bechtold, H. D. Phillips, P. D. J. Freeman, N. F. Loretz, and G. O. Neuman, to Eastman Kodak Co. Apparatus for reproducing and recording information. 3,099,199, 7–30–63, Cl. 95—73.
Borner, James E.: *See*—
Oppenheim, Richard D., and Borner. 3,114,650.
Borner, Manfred, to Telefunken G.m.b.H. Mechanical frequency filters. 3,086,182, 4–16–63, Cl. 333—71.
Bornhöft, Theodor, to Bolkow-Entwicklungen K.G. Launching racks for flying bodies. 3,076,385, 2–5–63, Cl. 89—1.7.
Borogenics, Inc.: *See*—
Gerard, George, and Brayman. 3,093,862.
Borowiec, Richard A., E. V. Ruda, and E. S. Rusiniak, to Sylvania Electric Products Inc. Electronic assembly packaging. 3,091,722, 5–28–63, Cl. 317—100.
Borowka, Georg E. F., to Guldner-Motoren-Werke Asschaffenburg, branch of Gesellschaft fur Linde's Eismaschinen Aktiengesellschaft. Piston for a piston pump. 3,113,491, 12–10–63, Cl. 92—158.
Borras, Jose N., to Fundiciones Industriales Sociedad Anonima. Method for the manufacture of piston rings. 3,087,842, 4–30–63, Cl. 148—3.
Borrell, Joaquin C. Circular loom for weaving a number of separate fabrics simultaneously. 3,105,523, 10–1–63, Cl. 139—13.
Borrevang, Poul, to Lovens Kemishe Fabrik Ved A. Kongsted. Estradiol derivatives. 3,096,328, 7–2–63, Cl. 260—239.55.
Borrows, Edward T., and D. Y. Waddan, to Shell Oil Co. Separation of catalysts from alkylene resins. 3,112,299, 11–26–63, Cl. 260—93.7.
Borsa, Clelio C. Control and alarm system for brake shoe linings of motor cars and the like. 3,088,549, 5–7–63, Cl. 188—1.
Borsig Aktiengesellschaft: *See*—
Luck, Friedrich. 3,082,747.
Luck, Friedrich W. 3,083,894.
Luck, Friedrich W. 3,097,478.
Lück, Friedrich W. 3,115,871.
Hägglund, Sven E. 3,098,429.
Borst, Henry V., to Curtiss-Wright Corp. Aircraft and method of operating same. 3,106,369, 10–8–63, Cl. 244—7.
Borst, Lyle B., to North American Phillips Co., Inc. Temperature measuring method and apparatus. 3,099,745, 7–30–63, Cl. 250—83.1.
Borsuk, Alvin: *See*—
Vedvik, Andrew H., and Borsuk. 3,091,798.

Borsuk, Harold. Dental cavity filling device. 3,088,207, 5-7-63, Cl. 32—60.

Borsy, Joseph, B. Dumbovich, L. Vargha, L. Farkas, J. Kuszmann, and E. Kastreiner, to Egyesult Gyogyszer-es Tapszergyar. Benzoic acid derivatives and process for producing same. 3,086,976, 4-23-63, Cl. 260—247.7.

Bortnick, Newman M., to Rohm & Haas Co. Lactams and methods of preparation. 3,077,477, 2-12-63, Cl. 260—325.

Bortnick, Newman M., to Rohm & Haas Co. Process of making esters of acrylic and methacrylic acids. 3,087,962, 4-30-63, Cl. 260—486.

Bortnick, Newman M., and M. F. Fegley, to Rohm & Haas Co. Process for preparing the cyano and carboxy substituted derivatives of 2-piperidinone and 2-pyrrolidinone. 3,073,834, 1-15-63, Cl. 260—294.

Bortnick, Newman M., and M. F. Fegley, to Rohm & Haas Co. 5-hydrocarbon-amino-2-pyrrolidinones and piperidones. 3,077,478, 2-12-63, Cl. 260—326.5.

Bortnick, Newman M., and M. F. Fegley, to Rohm & Haas Co. Substituted iminopyrrolines and iminopyrrolidines. 3,109,848, 11-5-63, Cl. 260—313.

Bortnick, Newman M., and M. F. Fegley, to Rohm & Haas Co. Hexahalocarbonylbutylcarbonylbicycloheptenes. 3,113,960, 12-10-63, Cl. 260—468.

Bortoletto, Bruno: *See*—
Monelli, Riccardo, **and Bortoletto.** 3,082,387.

Bortolini, Paolo, and G. Guerrieri, to Sicedison S.p.A. Distillation process for mixtures of pyridines. 3,087,867, 4-30-63, Cl. 202—48.

Borton, Robert O., and G. L. Beck, to United States Rubber Co. Apparatus for making sheets of foam rubber. 3,076,226, 2-5-63, Cl. 18—4.

Borup, Herbert H., to Kaiser Aluminum & Chemical Corp. Panel assembly. 3,111,206, 11-19-63, Cl. 189—36.

Borutzke, Irvin W.: *See*—
Runde, Byron, **and Borutzke.** 3,083,900.

Borutzke, Irvin W., to Burroughs Corp. Item counter. 3,092,316, 6-4-63, Cl. 235—92.

Borutzke, Irvin W., and J. H. Eisenmann, to Burroughs Corp. Printing apparatus control system. 3,092,020, 6-4-63, Cl. 101—93.

Borvali, Mehmed Y., P. Grolla, P. Hubscher, and F. Reynaud, two-thirds to Societe d'Electro-Chimie d'Electro-Metallurgie et des Acieries Electriques d'Ugine and ⅓ to Societe de Produits Chimiques Bozel-Maletra. Process of sulphonitric attack of arsenicureted and/or sulpharsenicureted ores or materials, particularly of cobalt and/or of nickel. 3,107,977, 10-22-63, Cl. 23—144.

Boryszewski, Ralph. Beach toga. 3,079,611, 3-5-63, Cl. 2—89.

Borzoni, John M., to Littelfuse Inc. Miniature electrical fuse. 3,110,787, 11-12-63, Cl. 200—113.

Bos, Louis B.: *See*—
Child, Edward T., Lafferty, Millendort, **and Bos.** 3,109,041.

Bosack, Irwin A., to American Optical Co. Professional chair arm rest and control. 3,116,093, 12-31-63, Cl. 297—417.

Bosc, Paul F., to Etablissements Youpa-La. Pneumatic mattress. 3,089,153, 5-14-63, Cl. 5—348.

Bosch, Carl, and I. Fredricks, to Sperry Rand Corp., Ford Instrument Co. Division. Two-stage frequency detecting device employing a radiation sensitive input means. 3,081,433, 3-12-63, Cl. 325—364.

Bosch, Franz M.: *See*—
Humphrey, Watts S., Jr., Terzian, **and Bosch.** 3,094,610.

Bosch, Karl, to Adolf Diener Apparate und Maschinenbau. Blind riveting apparatus. 3,082,898, 3-26-63, Cl. 218—47.

Bosch & La Tour: *See*—
Bosch, Lester L., **and Fanthrop.** 3,071,262.

Bosch, Lester L., and A. J. Fanthrop; said Fanthrop assor. to said Bosch and R. W. La Tour, d.b.a. Bosch & La Tour. Automatic production-conveying and warehousing systems. 3,071,262, 1-1-63, Cl. 214—16.4.

Bosch, Robert, G.m.b.H.: *See*—
Baumann, Gunther. 3,073,422.
Doimann, Helmut. 3,106,673.
Heiser, Joachim. 3,101,057.
Hoyler, Alfred. 3,094,734.
Issler, Jorg. 3,094,202.
Koester, Claus. 3,115,838.
Lindae, Gerhard. 3,083,315.
Luscher, Jakob. 3,074,003.
Luscher, Jakob. 3,105,930.
Möller, Heinz. 3,104,291.
Schäfer, Fridolin, and Wick. 3,079,520.
Stoll, Hermann. 3,093,583.
Straub, Karl. 3,073,879.
Weigert, Wilhelm. 3,073,251.

Bosch, Robert, Gesellschaft mit beschrankter Haftung: *See*—
Knapp, Heinrich, Krauss, **and Heiser.** 3,091,405.

Boschert, Ulrich, and R. B. Dean, to The Borden Co. Process for producing phenolic resins using zinc borates as condensing agents. 3,083,183, 3-26-63, Cl. 260—57.

Boschi, Antonio, to Societa Applicazioni Gomma Antivibranti "SAGA" S.p.A. Flexible transmission coupling. 3,094,853, 6-25-63, Cl. 64—14.

Boschi, Antonio, and G. Pennati, to Societa Applicazioni Gomma Antivibranti "SAGA" S.p.A. Sound-absorbing wall covering. 3,103,255, 9-10-63, Cl. 181—33.

Bosco, Charles G.: *See*—
Dillon, Paul W., Stewart, Bosco, **and Robinson.** 3,078,325.

Bosco, Nicholas J.: *See*—
Ellis, Charles W., III, Bossler, **and Bosco.** 3,109,496.

Bosen, Lynn R., to Collins Radio Co. Encoder with one frequency indicating one binary logic state and another frequency indicating other state. 3,102,238, 8-27-63, Cl. 328—27.

Boser, Herman G. Plumber's helper. 3,086,767, 4-23-63, Cl. 269—10.

Boser, Ronald: *See*—
Chalfin, William L., **and Boser.** 3,114,374.

Boser, Ronald, and W. L. Chalfin, to Regina Enterprises, Inc. Garment stiffener. 3,101,483, 8-27-63, Cl. 2—260.

Bosher, Benjamin A. Automobile utility trunk. 3,082,033, 3-19-63, Cl. 296—26.

Bosker, Cornelius D., to Conch International Methane Ltd. Stave secured sectional insulated conduit. 3,095,014, 6-25-63, Cl. 138—151.

Bosland, James M., to Ketcham & McDougall, Inc. Marine speedometer. 3,082,623, 3-26-63, Cl. 73—182.

Bosley, Thomas W. Crankcase evacuation system. 3,092,091, 6-4-63, Cl. 123—119.

Bosma, Harry I. Silo blower pipe attachment. 3,072,373, 1-8-63, Cl. 248—74.

Bosmajian, George, to Cities Service Research and Development Co. Polymerization and coating processes and products. 3,081,283, 3-12-63, Cl. 260—78.5.

Bosmajian, George, to Cities Service Research and Development Co. Preparation of an alkyl lithium-catalyzed liquid polymer having predominately trans-1,4-unsaturation and containing 1,3-butadiene, and coating metals with such polymers. 3,097,108, 7-9-63, Cl. 117—132.

Bosmajian, George, to Cities Service Research and Development Co. Polymerization and coating processes and products. 3,108,709, 10-29-63, Cl. 220—64.

Bosmajian, George, to Cities Service Research & Development Co. Liquid or solid terpolymers of butadiene, vinyltoluene, and isobutylene, preparation thereof and metals coated therewith. 3,113,695, 12-10-63, Cl. 220—64.

Bosoni, Achille, to Montecatini Societa Generale per l'Industria Mineraria e Chimica. Dispersion consisting of polypropylene containing isotactic macromolecules and water. 3,073,790, 1-15-63, Cl. 260—29.6.

Bosoni, Achille, to Montecatini Societa Generale per l'Industria Mineraria e Chimica. Thermoplastic tubing and method for producing the same. 3,111,964, 11-26-63, Cl. 138—118.

Boss, Harold O., to Borg-Warner Corp. Temperature sensing apparatus. 3,107,530, 10-22-63, Cl. 73—355.

Bossard, Bernard B., to United States of America, Army. Variable frequency oscillator. 3,102,978, 9-3-63, Cl. 321—69.

Bossard, Werner, J. Voltz, and F. Favre, to J. R. Geigy, A.G. Process for the dyeing of polymeric synthetic material and material dyed therewith. 3,101,988, 8-27-63, Cl. 8—41.

Bosse, Joachim: *See*—
Wagner, Josef, **and Bosse.** 3,110,711.

Bosset, Clebert J., and F. J. Hughes, to Sylvania Electric Products Inc. Microwave circulator. 3,105,206, 9-24-63, Cl. 333—1.1.

Bossetti, Adriano. Passage continuous kiln for firing ceramic material. 3,110,075, 11-12-63, Cl. 25—142.

Bosshard, Ernst, to Sulzer Freres, S.A. Double seal including means for indicating leaks. 3,101,953, 8-27-63, Cl. 277—2.

Bosshard, Hans: *See*—
Dussy, Paul, Bosshard, **and Leutenegger.** 3,085,849.

Bosshart, Marvin L. V. Adjustable mounting supports for television sets and the like. 3,096,062, 7-2-63, Cl. 248—289.

Bossler, Robert B., Jr.: *See*—
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Bossler, Robert B., Jr., to Kaman Aircraft Corp. Hydraulic system for aircraft landing gear and hydraulic actuator therefor. 3,107,886, 10-22-63, Cl. 244—102.

Bossu, Pierre, to Compagnie Generals d'Electricite. Fluid-tight lead-out device for an electric conductor. 3,104,277, 9-17-63, Cl. 174—151.

Bostetter, Ernest H.: *See*—
Fiegel, Charles E., **and Bostetter.** 3,086,482.

Bostic, Virgil R. Thread cutter and clamp mechanism for looms. 3,112,774, 12-3-63, Cl. 139—268.

Bostick, Francis X., Jr.: *See*—
Smith, Harold W., Duesterhoeft, **Bostick, and Garner.** 3,096,477.

Bostick, Lewis M.: *See*—
Polhemus, William L., **and Bostick.** 3,109,588.

Bostick, Louis D. Fish tape. 3,110,478, 11-12-63, Cl. 254—134.3.

Bostick, R. E.: *See*—
Truelove, James E. 3,091,290.

Bostitch, Inc.: *See*—
Allen, Howard G. 3,078,533.
Peterson, William J. 3,083,369.

Bostitch Industrial Stampling Machine Co.: *See*—
Tobias, Darrell R. 3,087,466.

Bostock, James H., to Otis Engineering Corp. Well tools. 3,090,443, 5-21-63, Cl. 166—224.

Boston, Farwell C.: *See*—
Dillman, Edward E., Ringo, **and Boston.** 3,085,380.
Dillman, Edward E., Ringo, and Boston. 3,086,065.

Boston Machine Works Co.: *See*—
Vachon, **Hubert J. 3,076,212.**

Boston, William T., and K. R. Johnson, to Bartelt Engineering Co., Inc. Food package. 3,114,643, 12-17-63, Cl. 99—171.

Boström, Allan G., S. Y. Ek, and L. A. M. Lindnér. Process for the preparation of lead azide. 3,095,268, 6-25-63, Cl. 23—101.

Bostrom Corp.: *See*—
Simons, Allison K. 3,098,676.
Simons, Allison K., Radke, **and Tengler.** 3,109,621.

Bostrom, John D., to Poster Packaging, Inc. Plastic container. 3,104,776, 9-24-63, Cl. 220—72.

Bostrom, John D., to Poster Packaging, Inc. Reclosable container. 3,111,220, 11-19-63, Cl. 206—47.

Bostrom Mfg. Co.: *See*—
Radke, Arthur O., **and Tengler.** 3,100,617.
Tengler, Harvey N., **and Radke.** 3,100,618.

Bostwick, Lewis S.: *See*—
Boothroyd, Howard W., **and Bostwick.** 3,102,430.

Boswell, Clay C., Jr.: *See*—
Amer, Kenneth B., Chris, **and Boswell.** 3,096,826.

Boswell, George A., to Shell Oil Co. Production of alkenylamines. 3,110,731, 11-12-63, Cl. 260—583.

Boswell, George T., to United States of America, Navy. Rod producing warhead. 3,081,704, 3-19-63, Cl. 102—67.

Bosworth, Cyrus M.: *See*—
Ashley, Carlyle M., **and Bosworth.** 3,070,969.

Botany Industries, Inc.: *See*—
Moss, Hoyle G., **and Schwartz.** 3,108,332.
Moss, Hoyle G., Schwartz, **and Allen.** 3,110,182.

Botden, Theodoor P. J.: *See*—
Van Tol, Martinus, **and Botden.** 3,085,174.

Botden, Theodoor P. J., to North American Philips Co., Inc. Apparatus for printing positives of a coloured negative. 3,077,823, 2-19-63, Cl. 95—73.

Botden, Theodoor P. J., and S. M. Frouws, to North American Philips Co., Inc. Glow-discharge indicator tube. 3,075,119, 1-22-63, Cl. 313—109.5.

Boteler, Henry W., to Grinnell Corp. Diaphragm valves. 3,091,427, 5-28-63, Cl. 251—77.

Boteler, Henry W., to Grinnell Corp. Diaphragm valve. 3,103,342, 9-10-63, Cl. 251—331.

Botes, Sven R., to John Robertson Co., Inc. Method for continuous extrusion of metals. 3,088,589, 5-7-63, Cl. 207—10.

Bothe, Henry B., and E. L. Wurdeman. Grain aerator and dryer. 3,106,148, 10-8-63, Cl. 98—57.

Bothwell, James W., to Johnson & Johnson. Process for preparing tanned collagenous material with dialdehyde starch. 3,095,439, 6-11-63, Cl. 8—94.11.

Bothwell, James W., to Johnson & Johnson. Process for preparing collagenous material tanned with polyacrolein. 3,093,140, 6-11-63, Cl. 8—94.11.

Bothwell, Raymond P. Fluid pressure actuated motor. 3,078,829, 2-26-63, Cl. 121—50.

Botkin, Lawrence A., to Buckeye Iron & Brass Works. Automatic chemical handling nozzle. 3,075,563, 1-29-63, Cl. 141—209.

Botkin, Lawrence A., to Buckeye Iron & Brass Works. Axial flow booster pump. 3,083,644, 4-2-63, Cl. 103—89.

Botkin, Lawrence A., to Buckeye Iron & Brass Works. Floating restrictor for dispensing nozzle. 3,102,555, 9-3-63, Cl. 137—630.15

Bott, Adolf H., to Radio Corp. of America. Multiplex control system. 3,106,711, 10-8-63, Cl. 343—228.

Bott, Delmar H. and M. O. Movable animal restraining platform for milking station. 3,095,854, 7-2-63, Cl. 119—14.04.

Bott, Marvin O.: *See*—
Bott, Delmar H. **and M. O.** 3,095,854.

Bottasso, Carlo, to Pirelli S.p.A. Pneumatic tire having a separate and removable tread and a complementary carrying carcass. 3,091,273, 5-28-63, Cl. 152—187.

Bottcher, Herman F.: *See*—
Gerow, Clarence C., **and Bottcher.** 3,095,581.
Gerow, Clarence C., Bottcher, Moizen, **and Landell.** 3,095,579.

Bottenbruch, Ludwig, and H. Schnell, to Farbenfabriken Bayer Aktiengesellschaft. Production of linear crystallized polycarbonates. 3,112,292 11-26-63, Cl. 260—47.

Botter, Fernande: *See*—
Dirian, Gregoire, **Sack, Botter, and Lefrancois.** 3,098,020.

Botterill, John R., to Girling Ltd. Actuator for a spot type disc brake acting over a partial area of a disc brake friction pad, said area spaced circumferentially from the axis of the actuator. 3,113,643, 12-10-63, Cl. 188—73.

Bottlander, Wilfried. Ventilating arrangement for buildings, more especially greenhouses. 3,078,780, 2-26-63, Cl. 98—37.

Bottner, Joseph A., to Phillips Cooling Tower Co., Inc. Cooling towers. 3,115,534, 12-24-63, Cl. 261—24.

Bottoms, Robert R., to Chemetron Corp. Production of menthol. 3,078,316, 2-19-63, Cl. 260—631.

Bottone, Arthur A., to Westinghouse Electric Corp. Electric lamp. 3,082,345, 3-19-63, Cl. 313—113.

Bottorf, Donald T., J. L. Hecht, and V. E. James, to E. I. du Pont de Nemours and Co. Hazy polyvinyl fluoride film and process. 3,081,208, 3-12-63, Cl. 154—46.

Bottum, Edward W., and F. H. Rockwell, to Refrigeration Research, Inc. Refrigeration component. 3,084,523, 4-9-63, Cl. 62—296.

Boubel, Richard W.: *See*—
Elger, Gerald W., **and Boubel.** 3,071,459.

Bouchard, George H., to Sylvania Electric Products Inc. Encapsulated electroluminescent device. 3,114,853, 12-17-63, Cl. 313—108.

Bouchard, Irvine H. Pivoted snap lock to space antenna from reflector. 3,102,267, 8-27-63, Cl. 343—881.

Bouchard, John R., to Minneapolis-Honeywell Regulator Co. Control apparatus. 3,104,552, 9-24-63, Cl. 73—497.

Boucher, Claude, to J. T. Cloutier, Inc. Horizontally slidable sashless window. 3,077,011, 2-12-63, Cl. 20—52.

Boucher, Donald F., to E. I. du Pont de Nemours and Co. Pumping process. 3,087,435, 4-30-63, Cl. 103—89.

Boucher, Frank G., to Jersey Production Research Co. Color recording for seismogram frequency analysis. 3,072,907, 1-8-63, Cl. 346—1.

Boucher, Henry G.: *See*—
Kotarski, Lester R., **and Boucher.** 3,093,449.

Boucher, John B., and V. K. McHugh, to Rinshed-Mason Co. Method for cleaning surfaces. 3,079,284, 2-26-63, Cl. 134—4.

Boucher, Reginald C., to E.P.S. (Research & Development) Ltd. Protective containers. 3,088,619, 5-7-63, Cl. 220—1.5.

Boucher, Richard C. Machine and method for filling containers. 3,105,525, 10-1-63, Cl. 141—61.

Boucher, William A.: *See*—
Sullivan, Edward M., **and Boucher.** 3,105,137.

Boudouris, Angelo. Signaling system employing a remotely controlled switch. 3,087,146, 4-23-63, Cl. 340—332.

Boudreau, John L. Pistol with slidable and fixed breech block. 3,088,378, 5-7-63, Cl. 89—161.

Bougeard, Arthur. Pneumatic device constituting suspension and damping means. 3,100,635, 8-13-63, Cl. 267—65.

Boughey, George E.: *See*—
Harris, Frederick J., **and Boughey.** 3,097,833.

Boughton, Roger C., to Joslyn Mfg. & Supply Co. Coupling nut assembly. 3,074,747, 1-22-63, Cl. 285—342.

Boulanger, Francis: *See*—
Clarke, James P., **and Boulanger.** 3,080,999.

Boulay, Edward A. Vent control. 3,101,838, 8-27-63, Cl. 199—32.

Boulet, Francis, P. Plurien, M. Quenault, and R. Rigot, to Commissariat a l'Energie Atomique. Methods of making thin reinforced diaphragms and in diaphragms made according to these methods. 3,089,235, 5-14-63, Cl. 29—527.

Boulet, Francis, and R. Petit, to Compagnie Generale de Telegraphie Sans Fil. Storage tube targets. 3,102,847, 9-3-63, Cl. 204—15.

Bouligny, R. H., Inc.: *See*—
Hassler, Francis J. 3,105,713.
Hassler, Francis J. 3,110,326.
Wilson, Robert W. 3,083,517.
Wilson, Robert W. 3,094,082.
Wilson, Robert W. 3,108,551.

Boulsover, Geoffrey, to The Amalgamated Dental Co. Ltd. Hoist. 3,112,676, 12-3-63, Cl. 91—4.

Boulsover, Geoffrey, and E. O. Muller, to The Amalgamated Dental Co. Ltd. Dental handpiece. 3,094,779, 6-25-63, Cl. 32—27.

Boulton, William, Ltd.: *See*—
Podmore, Henry L., **and Fahey.** 3,100,088.

Boulware, Oliver L.: *See*—
Landrum, Ira T., Kennedy, Shanklin, Cummins, Steward, Boulware, Kleypas, **and Evans.** 3,106,735.

Bounin, Claude, to Deka S.A. Process and apparatus for evacuating heavy solids from a decanter. 3,084,801, 4-9-63, Cl. 210—528.

Bounin, Claude, to Deka S.A. Method and apparatus for the pressure filtration of suspensions of solids in liquids. 3,084,987, 4-9-63, Cl. 210—73.

Bounsall, Norman F., to Ampex Corp. Editing systems for television recordings. 3,084,215, 4-2-63, Cl. 178—6.6.

Bouracier, Cyril E. Automatic vending machine. 3,071,231, 1-1-63, Cl. 194—10.

Bouracier, Cyril E. Automatic vending machine. 3,096,907, 7-9-63, Cl. 221—113.

Bouraer de Carbon, Christian M. L. L.: *See*—
Heckethorn, John E. 3,081,587.

Bourcier de Carbon, Christian M. L. L.: *See*—
Dowling, William E., **and Heckethorn.** 3,104,916.

Bourcier de Carbon, Christian M. L. L., and J. E. Heckethorn; said Heckethorn assor. to said Bourcier de Carbon. Shock absorbers. 3,078,965, 2-26-63, Cl. 188—88.

Bourcier de Carbon, Christian M. L. L., and J. E. Heckethorn; said Heckethorn assor. to said Bourcier de Carbon. Hydraulic pneumatic shock absorber. 3,101,131, 8-20-63, Cl. 188—88.

Bourdeau, Romeo G., to Alloyd Research Corp. Bonding process and product thereof. 3,078,564, 2-26-63, Cl. 29—498.

Bourdelais, Chesman H.: *See*—
Kuck, Juljus A., **and Bourdelais.** 3,084,031.

Bourdon, Simon. Post pointing machine. 3,073,362, 1-15-63, Cl. 144—30.

Bourdon, Thomas E. Marine dock. 3,100,968, 8-20-63, Cl. 61—48.

Bourgeas, Pierre. Spindle-holder. 3,100,375, 8-13-63, Cl. 57—134.

Bourgeaux, Maurice, and F. Naudin, to Compagnie de Saint-Gobain. Sheet, bricks, blocks or similar articles made of transparent material, especially glass. 3,085,473, 4-16-63, Cl. 88—57.5.

Bourgeaux, Maurice, and F. Nandin, to Compagnie de Saint-Gobain. Articles made of a transparent material such as glass sheets, bricks or blocks, and having variable transparency or coloration. 3,085,474, 4–16–63, Cl. 88—60.

Bourgerie, Richard D., to P. R. Mallory & Co., Inc. Capacitor protection. 3,087,093, 4–23–63, Cl. 317—12.

Bourgraf, George, to G. J. Bourgraf. Paperboard body form. 3,097,361, 7–16–63, Cl. 2—64.

Bourgraf, George J.: *See*—
Bourgraf, George. 3,097,361.

Bourke, John D., to Robbins & Myers, Inc. Helical gear pump with stator compression. 3,084,631, 4–9–63, Cl. 103—117.

Bourne, Alan A.: *See*—
Scott, Alfred F., and Bourne. 3,115,702.

Bourne, Douglas J., and W. H. Park, to Duval Sulphur and Potash Co. Sampling device. 3,098,390, 7–23–63, Cl. 73—424.

Bourne, Henry A., Jr., to Continental Oil Co. Subsurface well tubing safety valve. 3,094,170, 6–18–63, Cl. 166—224.

Bourne, Henry A., Jr., and P. L. Gant, to Continental Oil Co. Fluid analyzing tool. 3,103,812, 9–17–63, Cl. 73—155.

Bourne, Henry A., Jr., E. W. Sutton, and J. C. Albright, to Continental Oil Co. Method and apparatus for sampling production of subterranean reservoirs. 3,103,813, 9–17–63, Cl. 73—155.

Bourne, Kenneth H., and P. T. White, to The British Petroleum Co. Ltd. Catalytic reforming of hydrocarbons. 3,114,697, 12–17–63, Cl. 208—136.

Bourns, Inc.: *See*—
Bourns, Marlan E., Boode, and O'Brian. 3,085,217.
Bourns, Marlan E., Boode, and O'Brian. 3,092,801.
Bourns, Marlan E., and Caddock. 3,089,110.
Caddock, Richard E., and Hulbert. 3,107,336.
Ferrell, Robert L., and Hardison. 3,105,217.
Mathison, Victor G., and Kruse. 3,099,809.

Bourns, Marlan E. Electrical resistor. Re. 25,412, 7–9–63, Cl. 338—150.

Bourns, Marlan E., C. N. Boode, and E. D. O'Brian; said Boode and O'Brian assors. to Bourns, Inc. Adjustable electrical instruments. 3,085,217, 4–9–63, Cl. 338—41.

Bourns, Marlan E., and R. E. Caddock; said R. E. Caddock assor. to Bourns, Inc. Variable resistors. 3,089,110, 5–7–63, Cl. 338—183.

Bourns, Marlan E., C. N. Boode, and E. D. O'Brian, said Boode and said O'Brian assors to Bourns, Inc. Adjustable electrical instruments. 3,092,801, 6–4–63, Cl. 338—180.

Bourque, Theodore E.: *See*—
Varadi, Louis E., Bourque, and Pesarek. 3,098,355.
Varadi, Louis E., Bourque, and Judge. 3,107,897.

Bourquin, Jean-Pierre: *See*—
Renz, Jany, Bourquin, and Schwarb. 3,084,161.

Bourquin, Jean-Pierre, A. Brack, E. Schenker, R. Griot, and W. Steffen, to Sandoz Ltd. Antiseptic composition. 3,100,175, 8–6–63, Cl. 167—33.

Bourquin, Pierre Eugene, and C.-E. Schlatter, to Seitz & Co. Shock-absorbing pivot bearing. 3,099,502, 7–30–63, Cl. 308—159.

Bourseaux, Friedrich: *See*—
Arnold, Herbert, Brock, and Bourseaux. 3,074,992.

Boussu, Gabriel X. R., L. P. F. A. Neuville, and L. H. N. Saint-Frison, to Michelin & Cie. Elastic wire cables. 3,090,189, 5–21–63, Cl. 57—139.

Boussu, Gabriel X. R., L. P. F. A. Neuville, and L. H. N. Saint-Frison, to Michelin & Cie. Elastic cables. 3,090,190, 5–21–63, Cl. 57—139.

Boussu, Gabriel X. R., L. P. F. A. Neuville, and J.-M. C. Massoubre, to Michelin & Cie. Methods of preparing elastomers of the polyurethane type. 3,100,759, 8–13–63, Cl. 260—77.5.

Boutefoy, Jean R. H., to Societe Generale de Constructions Electriques et Mecaniques (Alsthom). Telescopic shock absorbers. 3,091,449, 5–28–63, Cl. 267—67.

Boutelle, Allen O., to Thomas Industries Inc. Lighting fixture. 3,093,322, 6–11–63, Cl. 240—78.

Boutet, Camille L. J. Apparatus for the production of moulds, in particular for aluminothermal welding. 3,082,493, 3–26–63, Cl. 22—9.

Boutin, Auguste M.: *See*—
Laffetay, Louis A., and Boutin. 3,097,129.

Bouton, George M., and J. H. Heiss, Jr., to Bell Telephone Laboratories, Inc. Press for tubular extrusion. 3,095,089, 6–25–63, Cl. 207—4.

Boutros, Richard D., and M. Dykman, to Mixing Equipment Co., Inc. Chuck for drive shafts. 3,091,474, 5–28–63, Cl. 279—97.

Boutwell, Charley H. Knot tying devices. 3,073,636, 1–15–63, Cl. 289—17.

Boutwell, Daniel W.: *See*—
Hinz, Walter W., Stansbury, Parkison, and Boutwell. 3,103,068.

Boutwell, J. H.: *See*—
Cook, Julian L. 3,113,327.

Boutwell, Lloyd M.: *See*—
Brown, James C., and Boutwell. 3,091,506.

Boutwell, Louie J. Hitch. 3,093,395, 6–11–63, Cl. 280—478.

Bouvy, Christiaan H., and J. Dolza; said Bouvy assor. to said Dolza. Overhead camshaft engine valve mechanism. 3,096,750, 7–9–63, Cl. 123—90.

Bouwers, Albert: *See*—
Nieuwenhoven, Hendricus J. C., and Bouwers. 3,114,306.

Bouyoucos, John V. Hydroacoustic oscillator-amplifier. 3,105,460, 10–1–63, Cl. 116—137.

Bovard, Charles M., to The Cooper-Bessemer Corp. Cylinder construction for internal combustion engines. 3,086,505, 4–23–63, Cl. 123—41.8.

Bovard, Robert M., to MSA Research Corp. Oxygen liberating composition. 3,089,855, 5–14–63, Cl. 252—186.

Bovenkerk, Harold P., to General Electric Co. Method for production of etched diamond. 3,083,080, 3–26–63, Cl. 23—209.1.

Boving and Co. Ltd.: *See*—
Moore, Walter L. 3,100,104.

Bovitz, Richard S.: *See*—
Adams, Paul R., Bovitz, Speen, and Hall. 3,073,168.

Bowan, Walter J., J. J. Smith, W. R. Leopold, Jr., and F. H. Mueller, to Mueller Co. Insulated pipe coupling. 3,115,354, 12–24–63, Cl. 285—52.

Bowater Board Co.: *See*—
Meller, John G. 3,071,822.
Meller, John G. 3,098,785.

Bowater Research and Development Co., Ltd.: *See*—
Underhay, George F., Franklin, and Wells. Re. 25,358.

Bowden, Bertram V. F. Koenigsberger, and J. K. Royle, to National Research Development Corp. Plural motor apparatus for controlling the movement of an object. 3,090,896, 5–21–63, Cl. 318—19.

Bowden, Eldred R., to Stant Mfg. Co., Inc. Valved gasoline cap. 3,083,862, 4–2–63, Cl. 220—44.

Bowden, Eldred R., to Stant Mfg. Co., Inc. Safety radiator cap with shittable latch. 3,102,659, 9–3–63, Cl. 220—40.

Bowden, Eldred R., to Stant Mfg. Co., Inc. Safety radiator cap with lift-type latch. 3,102,660, 9–3–63, Cl. 220—40.

Bowden, George F., and R. E. Ruth, to Symons Mfg. Co. Tie rod for concrete wall form panels. 3,074,141, 1–22–63, Cl. 25—131.

Bowden, Howard J., and H. G. Schwartzberg, to General Foods Corp. Coffee extraction process. 3,089,772, 5–14–63, Cl. 99—71.

Bowden, J. E. Well-logging control system for regulating the tension in a drill line. 3,076,635, 2–5–63, Cl. 254—173.

Bowden, Roy N. Device for indicating short circuits. 3,074,013, 1–15–63, Cl. 324—51.

Bowdish, Meredith E. Rotary compressor or engine. 3,101,700, 8–27–63, Cl. 123—12.

Bowditch, Harold G.: *See*—
Williams, Frederick, and Bowditch. 3,107,921.

Bowditch, Hoel L., to The Foxboro Co. Pneumatic servo control. 3,084,550, 4–9–63, Cl. 73—407.

Bowditch, Hoel L., to The Foxboro Co. Pneumatic force balance computing apparatus. 3,086,702, 4–23–63, Cl. 235—61.

Bowditch, Hoel L., and A. Allen, to The Foxboro Co. Strip chart recording apparatus. 3,080,561, 3–5–63, Cl. 346—116.

Bowditch, Hoel L., and A. Allen, to The Foxboro Co. Pneumatic relay. 3,105,508, 10–1–63, Cl. 137—82.

Bowdoin, Loder L. Carrier carton made of waterproof material for cans and bottles. 3,105,627, 10–1–63, Cl. 229—52.

Bowe, John. Spinner head for candy cotton machine. 3,073,262, 1–15–63, Cl. 107—8.

Bowen, Delbert G.: *See*—
Knudson, Melvin R., and Bowen. 3,070,896.

Bowen, Edward H., Jr., to Baxter Laboratories, Inc. Method of treating dermatological conditions. 3,090,724, 5–21–63, Cl. 167—55.

Bowen-Itco, Inc.: *See*—
Kinzbach, Robert B. 3,095,039.
Lee, William T., Osmun, and Newman. 3,108,637.

Bowen, Kenneth H.: *See*—
Cowles, Edwin, and Bowen. 3,096,036.

Bowen, Kermit A. Instrument for inscribing an ellipse. 3,084,441, 4–9–63, Cl. 33—30.

Bowen, Lloyd R.: *See*—
Vukasin, John P., and Bowen. 3,106,149.

Bowen, Richard L., Jr. Viscometer spindle. 3,115,769, 12–31–63, Cl. 73—59.

Bowen, Stuart W., and M. L. Marks, to Consolidated Electrodynamics Corp. Chromatography. 3,097,517, 7–16–63, Cl. 73—23.

Bowen, Tom, to S. Smith & Sons (England) Ltd. Time control switch mechanism. 3,081,638, 3–19–63, Cl. 74—3.5.

Bowen, Tom, to S. Smith & Sons (England) Ltd. Adjustable clockwork driven mechanism for moving an actuating member at pre-selected times from one limit of movement to another. 3,091,126, 5–28–63, Cl. 74—3.54.

Bowen, William M., III, to Certain-Teed Products Corp. Means for applying slate granules to shingles. 3,101,281, 8–20–63, Cl. 118—7.

Bower, Alvin L. Movable-wall coke oven. 3,073,756, 1–15–63, Cl. 202—105.

Bower, Clark D., to Layne & Bowler Pump Co. Pump shaft bearing means. 3,098,450, 7–23–63, Cl. 103—108.

Bower, Harmon J., and D. F. Freeman, to Commercial Automotive Corp. Rack structure for freight vehicles. 3,111,234, 11–19–63, Cl. 214—10.5.

Bower, Howard W. Banner support construction. 3,082,989, 3–26–63, Cl. 248—286.

Bower, Inc.: *See*—
Close, Sam. 3,082,714.

Bower, John L.: *See*—
Beers, Kenneth H., and Bower. 3,086,177.

Bower, John L., to North American Aviation, Inc. Cutter size correction for machine tool control. 3,073,998, 1–15–63, Cl. 318—162.

Bower, Richard R., to Raytheon Co. Article handling. 3,084,422, 4–9–63, Cl. 29—203.

Bower, Richard R., to Raytheon Co. Vibratory orienting. 3,084,782, 4–9–63, Cl. 198—33.

Bower, Richard R., to Raytheon Co. Article handling. 3,084,811, 4–9–63, Cl. 214—1.

Bower, Richard R., to Raytheon Co. Article handling. 3,086,681, 4–23–63, Cl. 221—2.

Bowerman, Edwin R., Jr., to Sylvania Electric Products Inc. Electroluminescent device. 3,087,068, 4–23–63, Cl. 250—209.

Bowerman, Edwin R., Jr., to General Telephone and Electronics Laboratories, Inc. Electroluminescent switching circuit. 3,108,189, 10–22–63, Cl. 250—209.

Bowerman, Edwin R., Jr., to General Telephone and Electronics Laboratories, Inc. Electroluminescent circuit element. 3,112,405, 11–26–63, Cl. 250—213.

Bowerman, Hulie E. Closured end split clutch tube. 3,110,230, 11–12–63, Cl. 92—92.

Bowers, Albert: *See*—
Orr, James C., Bowers, and Edwards. 3,086,015.
Orr, James C., Edwards, and Bowers. 3,080,395.
Ringold, Howard J., and Bowers. 3,099,664.
Ringold, Howard J., Bowers, Mancera, and Rosenkranz. 3,084,157.
Ringold, Howard J., Bowers, and Rosenkranz. 3,084,173.
Ringold, Howard J., Mancera, and Bowers. 3,080,391.
Rosenkranz, George, and Bowers. 3,105,843.
Zderic, John A., Bowers, Halpern, and Berkoz. 3,080,383.
Zderic, John A., Bowers, Halpern, and Berkoz. 3,086,990.

Bowers, Albert, to Syntex Corp. 5α-Fluoro androstanes. 3,071,602, 1–1–63, Cl. 260—297.3.

Bowers, Albert, to Syntex Corp. 6, 19-amino androstanes. 3,079,381, 2–26–63, Cl. 260—239.5.

Bowers, Albert, to Syntex Corp. Process for the preparation of 5α,6α-difluoro steroids. 3,097,199, 7–9–63, Cl. 260—239.55.

Bowers, Albert, to Syntex Corp. 19-halo androstenes. 3,101,356, 8–20–63, Cl. 260—397.4.

Bowers, Albert, to Syntex Corp. 19-halo androstenes. 3,101,357, 8–20–63, Cl. 260—397.4.

Bowers, Albert, to Syntex Corp. 19-halo androstenes. 3,101,358, 8–20–63, Cl. 260—397.4.

Bowers, Albert, to Syntex Corp. 19-methylene-androstane derivatives. 3,102,127, 8–27–63, Cl. 260—397.4.

Bowers, Albert, and J. Edwards, to Syntex Corp. Thiazoloandrostanes. 3,076,801, 2–5–63, Cl. 260—239.5.

Bowers, Albert, and P. G. Holton, to Syntex Corp. 17α-(1'-fluoroethyl) and 17α-(1',1'-difluoroethyl) androstane derivatives and process therefor. 3,076,825, 2–5–63, Cl. 260—397.4.

Bowers, Albert, J. Edwards, and J. A. Zderic, to Syntex Corp. 3-halo-19 nor-$\Delta^{5(10)}$-androsten-17β-ol derivatives. 3,076,827, 2–5–63, Cl. 260—397.5.

Bowers, Albert, J. Edwards, and J. C. Orr, to Syntex Corp. 2-formyl androstanes and process therefor. 3,077,484, 2–12–63, Cl. 260—397.4.

Bowers, Albert, J. Edwards, and J. Orr, to Syntex Corp. 2-formyl-Δ^1-androstenes. 3,077,485, 2–12–63, Cl. 260—397.4.

Bowers, Albert, and P. G. Holton, to Syntex Corp. 16-formyl-16-androstenes. 3,080,389, 3–5–63, Cl. 260—397.3.

Bowers, Albert, J. Edwards, and J. C. Orr, to Syntex Corp. 2-formyl-4-halo-Δ^4-androstenes. 3,080,394, 3–5–63, Cl. 260—397.4.

Bowers, Albert, and L. H. Knox, to Syntex Corp. 11-unsubstituted $\Delta^{1,4}$-pregnadiene-17α-ol-1,20-diones. 3,080,397, 3–5–63, Cl. 260—397.4.

Bowers, Albert J. Edwards, and J. C. Orr, to Syntex S.A. 2-halomethyl-Δ^2-androstenes and derivatives thereof. 3,080,398, 3–5–63, Cl. 260—397.4.

Bowers, Albert, J. Edwards, and J. C. Orr, to Syntex Corp. 2-hydroxymethyl androstanes. 3,080,400, 3–5–63, Cl. 260—397.5.

Bowers, Albert, J. Edwards, and J. C. Orr, to Syntex Corp. 2 cyano-3 desoxy androstane derivatives and process therefor. 3,080,401, 3–5–63, Cl. 260—397.5.

Bowers, Albert, and B. Berkoz, to Syntex Corp. $\Delta^{5,9}$-steroids of the androstane and pregnane series and process therefor. 3,082,220, 3–19–63, Cl. 260—397.3.

Bowers, Albert, J. Edwards, and J. C. Orr, to Syntex Corp. 2 methylene-androstanes. 3,082,223, 3–19–63, Cl. 260—397.5.

Bowers, Albert, and J. C. Orr, to Syntex Corp. 2-hydroxymethyl-Δ^2 corticoids. 3,086,012, 4–16–63, Cl. 260—235.55.

Bowers, Albert, and J. C. Orr, to Syntex Corp. 2-formyl-Δ^2-corticoids. 3,086,013, 4–16–63, Cl. 260—239.55.

Bowers, Albert, and P. Crabbe, to Syntex Corp. 16,16-difluoro estrogens. 3,086,014, 4–16–63, Cl. 260—239.55.

Bowers, Albert, and H. J. Ringold, to Syntex Corp. 1β-cyano derivatives of Δ^4-3-keto pregnenes. 3,088,952, 5–7–63, Cl. 260—397.3.

Bowers, Albert, and P. Crabbe, to Syntex Corp. Spirolactones. 3,092,629, 6–4–63, Cl. 260—239.57.

Bowers, Albert, and J. Edwards, to Syntex Corp. 2-formyl-Δ^1-androstenes and $\Delta^{1,4}$-androstadienes. 3,101,353, 8–20–63, Cl. 260—397.4.

Bowers, Albert, E. Volkov, and H. Martinez, to Syntex Corp. Process for 3-keto-$\Delta^{1,4}$-steroids. 3,101,355, 8–20–63, Cl. 260—397.4.

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Bowers, Albert, and P. Crabbe, to Syntex Corp. $\Delta^{1,3,5(10),9(11)}$-estratetraene-16β, 17β-diols and 16α-lower hydrocarbon derivatives thereof. 3,103,524, 9–10–63, Cl. 260—397.5.

Bowers, Albert, and H. J. Ringold, to Syntex Corp. Process for the production of 6-fluoro steroids. 3,115,492, 12–24–63, Cl. 260—239.55.

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Bowers, Eric H., and O. Thoma, to Dowty Hydraulic Units Ltd., and Unipal A.G. High pressure hydraulic pumps or motors. 3,075,778, 1–29–63, Cl. 277—3.

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Bowers, Melville D., to McGraw-Edison Co. Control circuits. 3,087,109, 4–23–63, Cl. 323—69.

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Bowers, Roy C., to Borg-Warner Corp. Clutch. 3,080,027, 3–5–63, Cl. 192—26.

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Bowers, William E. Mortar spreading apparatus and method of conveying. 3,093,419, 6–11–63, Cl. 302—50.

Bowersett, Charles F., to United States of America, Navy. Rocket engine. 3,099,959, 8–6–63, Cl. 102—49.

Bowerson, Joseph W., Jr., to W. C. Bradshaw. Vertical lift aircraft. 3,073,551, 1–15–63, Cl. 244—23.

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Hoffman, Joseph A., and Bowkley. 3,097,120.

Bowkley, Herbert L., and J. P. Merryweather, to American Cyanamid Co. Powdered ammonium nitrate explosive containing polyacrylamide and an inorganic cross-linking agent. 3,097,121, 7–9–63, Cl. 149—60.

Bowler, Raymond M., and A. R. Hubbard, to United Shoe Machinery Corp. Lasting machines. 3,082,449, 3–26–63, Cl. 12—12.

Bowles, Elton P., and P. D. McNew. Fifth wheel for truck trailers. 3,096,099, 7–2–63, Cl. 280—125.

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Bowles, Vernon O., and W. F. Read, to Socony Mobil Oil Co. Inc. Sequential high pressure-low pressure reforming. 3,111,480, 11–19–63, Cl. 208—65.

Bowman, Alfred, to Egen Electric Ltd. Aerial coupler for coaxial lead-in. 3,106,687, 10–8–63, Cl. 333—24.

Bowman, Barbara M.: *See*—
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Bowman, Darl F., and S. A. Hays, to North American Aviation, Inc. Etching process. 3,108,919, 10–29–63, Cl. 156—18.

Bowman, David F., to I-T-E Circuit Breaker Co. Wave signal rotary joint. 3,108,235, 10–22–63, Cl. 333—1.

Bowman, Horace A., to United States of America, Commerce. Substitution balance. 3,092,193, 6–4–63, Cl. 177—151.

Bowman, Horace A., and L. B. Macurdy, to United States of America, Commerce. Device for minimizing the effects of malcentered balance pan loading. 3,074,498, 1–22–63, Cl. 177—255.

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Bowman, Joe, to Kingston Products Corp. Interval timer. 3,094,593, 6–18–63, Cl. 200—38.

Bowman, Mark M., Jr., and R. W. Matthews, to Phillips Petroleum Co. Removal of internal flash from welded sections of conduit. 3,108,374, 10–29–63, Cl. 30—130.

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Bowman, Robert L., and J. R. Hinkley, to Minnesota Mining and Mfg. Co. Liquid anhydride hardner compositions for epoxy resins. 3,078,235, 2–19–63, Cl. 252—182.

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Bowman, William G.: *See*—
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Bowman, William G., and R. O. Kerr, to Petro-Tex Chemical Corp. Preparation of aliphatic dicarboxylic acid anhydrides. 3,094,539, 6-18-63, Cl. 260—346.8.

Bowman, William G., and T. G. Reed, Jr., to Petro-Tex Chemical Corp. Stabilized cyclic anhydride compositions. 3,115,477, 12-24-63, Cl. 260—346.8.

Bowmer, Thomas, to Rolls-Royce Ltd. Blades for fluid flow machines. 3,094,310, 6-18-63, Cl. 253—39.15.

Bowmer, Thomas, to Rolls-Royce Ltd. Blades for fluid flow machines. 3,111,302, 11-19-63, Cl. 253—39.15.

Bown, Delos E., to Esso Research and Engineering Co. Poly alpha monoolefins stabilized with alkylated trisphenolic ether. 3,109,829, 11-5-63, Cl. 260—45.85.

Bown, Delos E., T. P. Gorman, and A. T. Watson, to Esso Research and Engineering Co. Catalyst preparation. 3,073,766, 1-15-63, Cl. 204—154.

Bown, Delos E., H. G. Schutze, and A. T. Watson, to Esso Research and Engineering Co. Method for preparing purified titanium trichloride. 3,078,144, 2-19-63, Cl. 23—87.

Bowne, Charles P., to General Motors Corp. Means for assembling printed circuits with components. 3,108,360, 10-29-63, Cl. 113—95.

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Rogers, John F. 3,076,561.

Bowness, Colin, to Raytheon Co. Reciprocal microwave switching device using non-reciprocal components. 3,094,676, 6-18-63, Cl. 333—7.

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Bowser, Ernest R., to Bowser and Associates, Inc. Stop motion for narrow fabric looms. 3,103,236, 9-10-63, Cl. 139—371.

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Soderquist, Frederick J., Boyce, and Amos. 3,091,652.
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Boyd, Alton R., to Ferro Corp. Glass fiber size comprising an aqueous dispersion of a film forming polymer, a coupling agent and polyvinyl pyrrolidone. 3,082,183, 3-19-63, Cl. 260—29.6.

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Boyd, David R., and Y. T. Sihvonen, to General Motors Corp. Process of applying ohmic contacts to crystals. 3,073,011, 1-15-63, Cl. 29—155.5.

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Boyd, Halbert H., to Seaboard Allied Milling Corp. Ventilating system for bulk carriers. 3,092,007, 6-4-63, Cl. 98—6.

Boyd, James A., and C. R. Possell. Fluid moving device. 3,080,824, 3-12-63, Cl. 103—117.

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Boyle, John A., and J. G. Garnett, to Associated Electrical Industries Ltd. Locking means for compressor and turbine blades. 3,076,634, 2-5-63, Cl. 253—77.

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Braconier, Frederic F. A., and J. J. L. E. Riga, to Societe Belge de l'Azote et des Produits Chimiques du Marly. Process for preparation of acetylene. 3,073,875, 1-15-63, Cl. 260—679.

Braconier, Frederic F. A., and J. J. L. E. Riga, to Societe Belge de L'azote et des Produits Chimiques du Marly. Gas mixing apparatus. 3,081,818, 3-19-63, Cl. 158—99.

Bradbury, James G., to Hays Mfg. Co. Inverted plug type valve. 3,079,675, 3-5-63, Cl. 29—157.1.

Bradbury, Joseph, & Sons Ltd.: *See*—
Powell, Vernon. 3,078,961.

Bradbury, Rudolph A., to United States of America, Air Force. Redundant multivibrator circuit. 3,116,477, 12-31-63, Cl. 340—248.

Bradbury, Wilburn F., to SCM Corp. Ball perforator. 3,096,015, 7-2-63, Cl. 234—107.

Braddon, Ralph E. Bar joists. 3,111,207, 11-19-63, Cl. 189—37.

Braddy, De Carr C.: *See*—
Ammon, Johannes H., Braddy, and Kessler. 3,071,119.

Braden, Arthur B., Jr.: *See*—
Close, Patrick B., Coulter, Ditmer, Fahrenbruck, Goldammer, Goodrick, Gulden, Holloran, Jenkins, Kilheffer, Kinker, Lyons, Manor, Marvin, Miller, O'Brian, Randall, Garner, Sather, Yost, and Braden. 3,112,394.

Brader, Walter H., Jr.: *See*—
Krane, Herbert G., and Brader. 3,085,972.

Brader, Walter H., Jr., to Standard Oil Co. Preparation of di-tertiary-alkyl sulfates. 3,083,221, 3-26-63, Cl. 260—459.

Bradford, Bernard W., J. R. W. Heslop, L. W. Lord, and M. S. Bloom, to Imperial Chemical Industries Ltd. Granular materials. 3,085,870, 4-16-63, Cl. 71—64.

Bradford Dyers' Association Ltd., The: *See*—
Wilford, Ernest. 3,104,445.

Bradicich, John B.: *See*—
Crathern, Charles F. H., III, Bradicich, and Reen. 3,096,692.

Bradley, Chester D., to A. H. Emery Co. Hydraulic load cell for weighing machines. 3,089,518, 5-14-63, Cl. 137—778.

Bradley, Chester D., to A. H. Emery Co. Load cells for hydraulic weighing machines. 3,089,519, 5-14-63, Cl. 137—778.

Bradley, Guy D., to General Electric Co. Bearing assembly. 3,089,737, 5-14-63, Cl. 308—187.

Bradley, Guy D., to General Electric Co. Bearing lubrication arrangement. 3,107,956, 10-22-63, Cl. 308—187.

Bradley, James K., to Philco Corp. Color television receiver. 3,109,887, 11-5-63, Cl. 178—5.4.

Bradley, John J., Jr., to Agrashell, Inc. Modified tall oil-polyol esters and adducts, and coating compositions containing the same. 3,112,209, 11-26-63, Cl. 106—123.

Bradley, John R., to The British Oxygen Co. Ltd. Motion transmission mechanism of the screw and nut type. 3,094,011, 6-18-63, Cl. 74—441.

Bradley, Mrs. John W: *See*—
Denison, Ruth C. 3,102,909.

Bradley, Marion W. Combination insulation stripper and wire splicer. 3,094,019, 6-18-63, Cl. 81—9.5.

Bradley, Milton, Co.: *See*—
Fischer, Edmund F., and Pottern. 3,089,373.
Taft, Millens W., Jr. 3,114,548.

Bradley, Norman, to United Kingdom Atomic Energy Authority. Nuclear reactor systems. 3,091,582, 5-28-63, Cl. 204—193.2.

Bradley, Robert A. Automatic control for the movement of carriages. 3,083,296, 3-26-63, Cl. 246—32.

Bradley, Russell G.: *See*—
Cassatt, Wayne A., Jr., and Bradley. 3,078,220.

Bradley, Stephen D., to Detroit Macoid Corp. Waterstop. 3,114,219, 12-17-63, Cl. 50—346.

Bradley Washfountain Co.: *See*—
Booker, Robert J., and Mullett. 3,098,241.

Bradley, William E., to Philco Corp. Method of fabricating transistor devices. 3,085,055, 4-9-63, Cl. 204—143.

Bradley, William E., and J. Roschen, to Philco Corp. Jet-electrolytic etching and measuring method. 3,075,902, 1-29-63, Cl. 204—143.

Bradley, Wilson, Jr., and G. B. Bergman, to Endevco Corp. Annular accelerometer. 3,104,334, 9-17-63, Cl. 310—8.4.

Bradmiller, Richard W.: *See*—
Plogstedt, Allen E., and Bradmiller. 3,078,379.
Plogstedt, Allen E., and Bradmiller. 3,110,851.

Bradsell, Peter, to A. C. Cossor, Ltd. Radar receivers. 3,108,224, 10-22-63, Cl. 325—321.

Bradshaw, Edward F.: *See*—
Edwards, Aubrey P., Foster, and Bradshaw. 3,083,258.

Bradshaw, Franklin C., to Gould-National Batteries, Inc. Multiple cell battery case. 3,110,634, 11-12-63, Cl. 136—173.

Bradshaw, Robert W., R. J. Fitzpatrick, and J. Teufel, Jr., to Grumman Aircraft Engineering Corp. Folding chair. 3,083,995, 4-2-63, Cl. 297—39.

Bradshaw, Wilbert C.: *See*—
Bowersox, Joseph W. 3,073,551.

Bradshaw, William R.: *See*—
Smith, John C., Bradshaw, Raff, and Bressler. 3,095,429.

Bradt, Lynn, and J. G. Dorrance, to S.I. Handling Systems, Inc. Dragline system. 3,078,810, 2-26-63, Cl. 104—88.

Bradt, Lynn, and J. G. Dorrance, to S.I. Handling Systems, Inc. Tow truck system. 3,094,944, 6-25-63, Cl. 104—172.

Bradt, Lynn, and J. G. Dorrance, to SI Handling Systems Inc. Tow truck system. 3,103,895, 9-17-63, Cl. 104—88.

Bradway, Joseph. Illuminating apparatus for vehicle hub caps. 3,113,727, 12-10-63, Cl. 240—8.12.

Brady, Charles A.: *See*—
Benseman, Eugene E., and Brady. 3,106,259.

Brady, Charles V.: *See*—
Williams, Russell J., and Brady. 3,081,929.

Brady, Eugene N. Garment hanger. 3,102,669, 9-3-63, Cl. 223—95.

Brady, James J., to Technical Oil Tool Corp. High angle inclination and directional recorder. 3,087,252, 4-30-63, Cl. 33—205.5.

Brady, James J., to United States of America, Army. Non-lethal discarding device. 3,107,615, 10-22-63, Cl. 12—38.

Brady, James V. Cutting board. 3,106,236, 10-8-63, Cl. 146—215.

Brady, John G.: *See*—
Szabo, Karoly, and Brady. 3,073,858.
Szabo, Karoly, and Brady. 3,097,997.
Szabo, Karoly, and Brady. 3,100,735.
Szabo, Karoly, and Brady. 3,105,001.
Szabo, Karoly, and Brady. 3,106,510.

Brady, Lynn J., to Kearfott Co., Inc. Microwave tube construction. 3,106,659, 10-8-63, Cl. 313—84.

Brady, Richard R., and K. G. Brickner, to United States Steel Corp. High-strength age-hardenable stainless steel. 3,108,870, 10-29-63, Cl. 75—124.

Brady, Samuel G., and W. Dralle, to Ex-Cell-O Corp. Work holding fixture for grinding half round grooves. 3,089,296, 5-14-63, Cl. 51—227.

Brady, W. H. C.: *See*—
Powers, Howard A. 3,098,782.

Brady, William A., Jr., to General Motors Corp. Paint spray machine. 3,081,736, 3-19-63, Cl. 118—323.

Braeburn Alloy Steel Division Continental Copper and Steel Industries: *See*—
Harvey, Richard F., and Schuck. 3,113,862.

Braendigam, Jean L., to Hughes Aircraft Co. Electrical ribbon cable connector. 3,084,302, 4-2-63, Cl. 339—17.

Bragg, Leslie R., to Packed Column Corp. Packing for vapor-liquid contact apparatus. 3,081,072, 3-12-63, Cl. 261—106.

Bragg, Robert W.: *See*—
Kreithen, Alexander and Bragg. 3,080,101.

Bragg, Stephen L., and W. R. Gibbings, to Rolls-Royce Ltd. Rocket motor. 3,106,822, 10-15-63, Cl. 60—35.6.

Braginetz, Paul A., ½ to A. Berman. Ellipse compass. 3,114,974, 12-24-63, Cl. 33—30.

Brahm, Charles R., to United Aircraft Corp. Air conditioning control. 3,112,791, 12-3-63, Cl. 165—28.

Braid, Milton: *See*—
Hauptschein, Murray, and Braid. 3,089,911.
Hauptschein, Murray, and Braid. 3,091,648.
Hauptschein, Murray, and Braid. 3,102,915.
Hauptschein, Murray, and Braid. 3,106,589.
Hauptschein, Murray, and Braid. 3,116,337.
Hauptschein, Murray, Braid, and Lawlor. 3,083,238.
Hauptschein, Murray, Braid, and Lawlor. 3,100,228.
Lawlor, Francis E., and Braid. 3,102,139.

Braid, Milton, F. Lawlor, to Pennsalt Chemicals Corp. Oxidation of trifluoroethanol. 3,088,896, 5-7-63, Cl. 204—158.

Brailowsky, Vladimir, to General Motors Corp. Method of fabricating ferrite bodies. 3,110,675, 11-12-63, Cl. 252—62.5.

Brainard, Wallace E., and K. R. Merner, to Kearney & Trecker Corp. Shuttle operated tape controlled machine tool. 3,099,873, 8-6-63, Cl. 29—26.

Braine, Michael V.: *See*—
Holt, William J., Jr., and Braine. 3,073,445.
Holt, William J., Jr., and Braine. 3,074,712.

Braine, Michael V. Engines. 3,078,832, 2-26-63. Cl. 123—41.65.

Brainin, Samuel M., to North American Aviation, Inc. Space stabilization of a search pattern. 3,078,455, 2-19-63, Cl. 343—7.

Braithwaite, Isaac, & Son Engineers Ltd.: *See*—
Howlett, Edward J. 3,100,978.

Brake, David G., to Technicolor Corp. of America. Smoothing spatially discontinuous images. 3,095,475, 6-25-63, Cl. 178—7.85.

Brake, William R., to BTR Industries Ltd. Resilient units. 3,114,540, 12-17-63, Cl. 267—1.

Brakebill, Elvin K.: *See*—
Formaini, Robert L., and Brakebill. 3,113,966.

Brakel, Lewis H., and J. B. Jones, Jr., to Cameron and Jones, Inc. Anti-segregation charge feeder for shaft kilns and the like. 3,071,230, 1-1-63, Cl. 193—23.

Brakemaster Corp.: *See*—
George, Robert H. 3,106,430.

Brakhage, Charles. Tractor-mounted folding drag hitch. 3,072,201, 1-8-63, Cl. 172—456.

Bräm, Walter, to Paliz Holding A.G. Device for positioning the needle cams of a hand-operated knitting machine. 3,090,214, 5-21-63, Cl. 66—60.

Braman, Robert S., to Callery Chemical Co. Preparation of trialkanolamine borates. 3,103,531, 9-10-63, Cl. 260—462.

Bramble, Lloyd F.: *See*—
Morrow, Franklin C., and Bramble. 3,073,710.

Bramlett, Merlin F., to Bramlett Oil Field Service, Inc. Access valve for completing oil wells. 3,095,040, 6-25-63, Cl. 166—224.

Bramlett Oil Field Service, Inc.: *See*—
Bramlett, Merlin F. 3,095,040.

Bramming, Carl, to Aladdin Industries, Inc. Economy vacuum bottle with plastic jacket. 3,110,408, 11-12-63, Cl. 215—13.

Bramson, Marvin A. Automatic tool changer. 3,114,964, 12-24-63, Cl. 29—212.

Bran & Luebbe: *See*—
Hofmeister, Werner, Godenrath, and Kindler. 3,091,186.

Branch, Clarence R., Jr. Hand truck. 3,104,889, 9-24-63, Cl. 280—30.

Branch, Gerald L., J. E. Richardson, and R. Y. Scapple, to Hughes Aircraft Co. Electrical connection of microminiature circuit wafers. 3,105,869, 10-1-63, Cl. 174—68.5.

Branchereau, Maurice, and M. Navez, to Compagnie de Saint-Gobain. Furnace adapted for use in dilatometry. 3,086,385, 4-23-63, Cl. 73—16.

Branco, Flavio S. C., to Minnesota Mining and Mfg. Co. Motor control circuit. 3,086,157, 4-16-63, Cl. 318—314.

Brand, Charles, & Son Ltd.: *See*—
Clark, James A. M. 3,075,359.

Brand, Daniel. Line spooling and measuring apparatus. 3,091,038, 5-28-63, Cl. 33—129.

Brand, Frank A.: *See*—
Jacobs, Harold, Brand, Meindl, and Benanti. 3,096,494.

Brand, George W.: *See*—
Hartmann, Philip, Brand, Bowman, and Buckelbaum. 3,112,677.

Brand, Harry R., to Sylvania Electric Products Inc. Nuclear fuel element assembly and method of fabricating same. 3,087,878, 4-30-63, Cl. 204—154.2.

Brand, John R., and J. H. Hearne, to The Wurlitzer Co. Tone filters. 3,098,407, 7-23-63, Cl. 84—1.11.

Brand, Ronald S. Positive displacement pump. 3,095,823, 7-2-63, Cl. 103—117.

Branda, Robert W., S. M. Davey, R. J. Ebbert, and W. R. McBride, said Branda, Ebbert and McBride assors. to said Davey. Sorting device. 3,076,548, 2-5-63, Cl. 209—88.

Brandberg, Åke R. L., to Svenska Skifferolje Aktiebolaget. Method of gasifying combustible material in a fluidized bed. 3,086,853, 4-23-63, Cl. 48—197.

Brandberg, Åke R. L., to Svenska Skifferolje Aktiebolaget. Retort furnace for pyrolysis of fuels. 3,108,930, 10-29-63, Cl. 202—114.

Brandel, Albert J., and G. B. De May, to California Research Corp. Method for measuring oil on refinery oil water separators. 3,106,841, 10-15-63, Cl. 73—302.

Brandenberg, Karl A., to Modernair Corp. Multi-way pneumatic valve. 3,076,477, 2-5-63, Cl. 137—622.

Brandenberg, Karl A., to Modernair Corp. Fluid pressure-operated multi-way valve. 3,080,887, 3-12-63, Cl. 137—622.

Brandenburg, John T., and M. C. Throckmorton, to Texaco Inc. Process of preparing esters from olefins. 3,076,840, 2-5-63, Cl. 260—497.

Brandenburg, Thomas E., to International Business Machines Corp. Sequence comparing unit. 3,090,945, 5-21-63, Cl. 340—172.5.

Brandes, Arthur: *See*—
Craig, Burnie M., and Brandes. 3,074,750.

Brandes, Ernest E. Heat dispersing structure. 3,083,632, 4-2-63, Cl. 98—40.

Brandes, Frank A.: *See*—
Treer, Ross B. 3,081,725.

Brandes, Lothar, and J. Michael, to Nordischer Maschinenbau Rud. Baader. Method of filleting fish. 3,077,632, 2-19-63, Cl. 17—45.

Brandes, Roy H.: *See*—
Bodem, Roy C., Brandes, Hirsch, McDonald, and Wood. 3,091,295.

Brandestini, Antonio. Method of anchoring wire bundles for prestressed concrete constructions. 3,107,983, 10-22-63, Cl. 25—154.

Brandhorst, Willem, to Fabriek Van Electrische Apparaten Voorheen F. Hazemeijer & Co., N.V. Contact jaw for a blade contact. 3,082,399, 3-19-63, Cl. 339—259.

Brandin, Werner, to Innocenti Soc. Gen. per L'Industria Metallurgica e Meccanica. Hose and flexible transmission support. 3,085,135, 4-9-63, Cl. 191—12.

Brandl, Ernst: *See*—
Margreiter, Hans, Brunner, and Brandl. 3,093,547.

Brandl, Ernst, and W. Kleiber, to Biochemie Gesellschaft mit beschrankter Haftung. Process for the production of 6-aminopenicillanic acid. 3,109,779, 11-5-63, Cl. 195—36.

Brandl, Joseph W. Domestic hot beverage making appliance. 3,075,452, 1-29-63, Cl. 99—281.

Brandl, Wilhelm. Safety device for heating appliances. 3,073,940, 1-15-63, Cl. 219—20.

Brandl, Wilhelm. Water heating installation. 3,078,044, 2-19-63, Cl. 237—56.

Brandle, William J., to Olin Mathieson Chemical Corp. Self-locking telescoping container. 3,093,291, 6-11-63, Cl. 229—35.

Brandlin, John M., N. Iaquinta, and J. F. Inco, to The Inco Co. Adjustable and foldable bed frame. 3,100,304, 8-13-63, Cl. 5—202.

Brandner, John D.: *See*—
Baer, Byron N., Brandner, and Le Maistre. 3,077,375.

Brandon Equipment Co., Inc.: *See*—
McDowell, Thomas E., and Whiteford. 3,092,368.

Brandon, Frank R., and A. R. Taylor, to Parke, Davis & Co. Antigen products and means for producing the same. 3,105,012, 9-24-63, Cl. 167—78.

Brandt Automatic Cashier Co.: *See*—
Buchholz, Arnold R. 3,080,115.

Brandt, Bernardus J., to The International Nickel Co., Inc. Electrorefining nickel. 3,114,687, 12-17-63, Cl. 204—112.

Brandt, Bertil: *See*—
Svensson, Assar N., and Brandt. 3,107,867.

Brandt, Edgar W., deceased (by P. E. Denoix, executor), to Anstalt fur die Entwicklung von Erfindungen und gewerblichen Anwendungen ENERGA. Practice grenade. 3,085,509, 4-16-63, Cl. 102—41.

Brandt, Edgar W., deceased, by P. E. Denoix, executor, to Anstalt fur die Entwicklung von Erfindungen und gewerblichen Anwendungen ENERGA. Fuse. 3,105,440, 10-1-63, Cl. 102—52.

Brandt, Edgar W., deceased (P. E. Denoix, executor), to Anstalt fur die Entwicklung von Erfindungen und gewerblichen Anwendungen. Percussion fuze for projectiles. 3,106,893, 10-15-63, Cl. 102—78.

Brandt, Edison R., to Polaroid Corp. Photoflash unit. 3,077,534, 2-12-63, Cl. 240—1.3.

Brandt, Edison R., to Polaroid Corp. Folding camera. 3,087,400, 4-30-63, Cl. 95—40.

Brandt, Edison R., to Polaroid Corp. Photographic apparatus. 3,091,164, 5-28-63, Cl. 95—54.

Brandt, Edison R., and R. C. Casselman, to Polaroid Corp. Photographic apparatus. 3,113,495, 12-10-63, Cl. 95—11.5.

Brandt, Fritz W., and A. Dolde, to Chemische Fabrik Kalk G.m.b H. Process for the production of densely adhering layers of a powder agent on the surface of granulated and crystallized fertilizers. 3,113,015, 12-3-63. Cl. 71—64.

Brandt, Gotlieb H.: *See*—
Wojciechowski, Walter J., and Brandt. 3,096,710.

Brandt, Hans-Ado, to Agfa Aktiengesellschaft. Changeable marking apparatus with electromagnetic actuation. 3,072,909, 1-8-63, Cl. 346—33.

Brandt, Herbert. Shaking device for electric filters and a method for operating same. 3,086,341, 4-23-63, Cl. 55—112.

Brandt, Peter M.: *See*—
Behrens, Albert, Kolzow, and Brandt. 3,088,548.

Brandt, Raymond W., A. A. Shoup, and R. J. Ziehlke, to Gibbs Mfg. & Research Corp. Swell control. 3,075,423, 1-29-63, Cl. 84—1.27.

Brandt, Robert E.: *See*—
Schaab, Rudolph S., and Brandt. 3,114,957.

Brandt, Roger, to American Can Co. Labeling of blown plastic containers. 3,108,850, 10-29-63, Cl. 18—55.

Brandt, Theodore C., to General Electric Co. Convertible self contained cooling unit for air conditioning. 3,089,315, 5-14-63, Cl. 62—326.

Brandt, Thomas F., Jr., to General Electric Co. Open and reverse phase protective system for polyphase electric apparatus. 3,110,844, 11-12-63, Cl. 317—47.

Brandts, Theodorus G., to Consolidated Paper Corp. Ltd. Flameproofing of organic materials. 3,092,537, 6-4-63, Cl. 162—159.

Branham, Robert J., to Central Supply Co. Flaring machine. 3,089,190, 5-14-63, Cl. 18—19.

Branick, Charles E. Sealing ring for mounting tubeless pneumatic tires. 3,081,816, 3-19-63, Cl. 157—1.1.

Branick, Charles E. Method of wrapping pneumatic tire casings. 3,085,373, 4-16-63, Cl. 53—13.

Branick, Charles E. Apparatus for forming preshaped wrappers for pneumatic tire casings. 3,104,422, 9-24-63, Cl. 18—19.

Branick, Charles E. Wrapper for pneumatic tire casing and method of forming same. 3,114,454, 12-17-63, Cl. 206—46.

Branick, Charles E. Collapsible curing rim. 3,114,937, 12-24-63, Cl. 18—15.

Branker, Hoffman E. Vehicular course indicator. 3,071,761, 1-1-63, Cl. 340—282.

Branker, Hoffman E., to Republic Aviation Corp. Electromagnetic apparatus for sensing discontinuities in structural members. 3,109,139, 10-29-63, Cl. 324—34.

Branman, Solomon, and R. J. Melchione, to Aerojet-General Corp. Starting device. 3,111,810, 11-26-63, Cl. 60—39.47.

Brannen, Charles H.: *See*—
Kao, Paul W., and Brannen. 3,098,764.

Brannin, Richard S.: *See*—
Blowney, David P., Brannin, Morrone, Wilcox, and Zupanick. 3,097,354.

Brannin, Richard S., and J. E. Zupanick, to Sperry Rand Corp. Myoelectric control system. 3,106,371, 10-8-63, Cl. 244—83.

Brannock, Kent C., to Eastman Kodak Co. Process of manufacturing branched-chain mono-olefinic aliphatic acids and intermediates therefor. 3,082,251, 3-19-63, Cl. 260—526.

Brannon, Donald E.: *See*—
Adams, Paul R., Speen, and Brannon. 3,110,187.

Brannon, Hezzie R., Jr., to Jersey Production Research Co. Spectrometer. 3,090,866, 5-21-63, Cl. 250—71.5.

Brannon, Roland L.: *See*—
Martin, Lynn P., Thompson, Brannon, and Ross. 3,073,286.

Brannstrom, Olav H.: *See*—
Hansen, Andre M., Norman, and Brannstrom. 3,111,389.

Branscomb, Charles E., and H. F. Martin, to International Business Machines Corp. Clipping level control apparatus. 3,088,665, 5-7-63, Cl. 235—61.11.

Branscum, Tony E., to Phillips Petroleum Co. Self-centering extrusion die. 3,111,714, 11-26-63, Cl. 18—14.

Branscum, Tony E., and J. E. Havely, to Phillips Petroleum Co. Extrusion of thermoplastic resins. 3,097,058, 7-9-63, Cl. 18—55.

Branson, Herman R., to S. & S. Hosiery Mills. Method and means for circular multi-feed knitting. 3,111,826, 11-26-63, Cl. 66—42.

Branson Instruments, Inc.: *See*—
Henry, Elliott A. 3,115,771.

Branstner, Rudolf, to Hesser, Fr., Maschinenfabrik-Aktiengesellschaft, Firma. Infusion bag. 3,115,967, 12-31-63, Cl. 206—5.

Braren, Rudolf. Planetary gear. 3,073,184, 1-15-63, Cl. 74—804.

Brasch, Benjamin F., to Blazon, Inc. Sled or boat. 3,079,617, 3-5-63, Cl. 9—310.

Brasco Mfg. Co.: *See*—
Scott, Robert G. 3,083,560.
Scott, Robert G. 3,086,383.
Shults, George W. 3,089,569.
Wheeler, James D., and Anderson. 3,091,819.
Wheeler, James D., and Anderson. 3,115,685.

Brasefield, Charles J., to Research Corp. Apparatus and method for production of carbon black. 3,091,069, 5-28-63, Cl. 55—5.

Brasen, Wallace R., to E. I. du Pont de Nemours and Co. 4,4,5,5-tetrafluoro-1,3-cyclopentane dicarboxylic acid, its esters, and preparation thereof. 3,092,655, 6-4-63, Cl. 260—468.

Brash, Reginald P.: *See*—
Plaistowe, Donald L., and Brash. 3,115,629.

Brashear, Roy T.: *See*—
Oglesby, Minor W., Jr., and Brashear. 3,088,664.

Brashear, Turner G., Jr., to L & B Welding Equipment, Inc. Double ended work positioner. 3,110,279, 11-12-63, Cl. 113—130.

Brashears, Richard S., to United States of America, Navy. Clamping ring release mechanism. 3,115,836, 12-31-63, Cl. 102—49.

Brass, Edward A., to Avco Corp. Multi-speed split-power reduction gear. 3,100,405, 8-13-63, Cl. 74—764.

Brassaw, Alden J.: *See*—
Fegley, Donald R., Brassaw, and Weller. 3,083,508.

Brastad, William A., to General Mills, Inc. Combination liner and carton flap end closure. 3,071,304, 1-1-63, Cl. 229—14.

Bratoljic, Tihomir: *See*—
Felber, Fritz, and Bratoljic. 3,105,943.

Bratt, Axel E., to Svenska Kullagerfabriken, Aktiebolaget. Cage for rolling bearings. 3,075,278, 1-29-63, Cl. 29—148.4.

Bratumyl, Willy: *See*—
Schiöer, Karl, and Pratumyl. 3,090,341.

Bratz, Otto J., to American Chain & Cable Co., Inc. Steering devices. 3,110,193, 11-12-63, Cl. 74—501.

Brauchle, Edwin J. Cutlery grinding apparatus. 3,110,985, 11-19-63, Cl. 51—102.

Braudeau, Georges: *See*—
Ailleret, Pierre, and Braudeau. 3,080,655.

Brauer, Frederick N., to Philco Corp. Binary counter producing output signals by transmission of alternate input signals through a preconditioned gate, and multivibrator system for said counter. 3,093,750, 6-11-63, Cl. 307—88.5.

Brauer, Joseph B., to United States of America, Air Force. Microwave acoustic delay line. 3,071,741, 1-1-63, Cl. 333—30.

Brauer, Joseph B., to United States of America, Air Force. Microwave delay line and method of fabrication. 3,098,204, 7-16-63, Cl. 333—30.

Brauer, Walter. Torque tube control device. 3,099,953, 8-6-63, Cl. 100—258.

Braulick, Wilfred J.: *See*—
Griffin Lindsay L., Jr., Draeger, and Braulick. 3,087,977.

Brault, Andre R., to Optomechanisms, Inc. Precision ways. 3,076,682, 2-5-63, Cl. 308—6.

Brault, Robert G.: *See*—
McElroy, Albert D., Brault, and Shepherd. 3,088,979.

Braunmann, Gundokar to Siemens & Halske Aktiengesellschaft. Relay set comprising two relays. 3,078,359, 2-19-63, Cl. 200—103.

Braun Aktiengesellschaft: *See*—
Braun, Artur, Mayer, and Laing. 3,109,582.
Fütterer, Bodo. 3,093,899.
Futterer, Bodo, and Messinger. 3,111,755.

Braun, Alexander, to The Standard Oil Co. Tube coupling for heat exchanger and the like. 3,109,671, 11-5-63, Cl. 285—133.

Braun, Anton, to Queen's University. Free piston engine. 3,081,756, 3-19-63, Cl. 123—46.

Braun, Arthur R.: *See*—
Braun, Harry L. and A. R. 3,085,753.

Braun, Artur, R. Mayer, and N. Laing, to Braun Aktiengesellschaft. Portable space ventilators. 3,109,582, 11-5-63, Cl. 230—117.

Braun, Carl. Camerawerk: *See*—
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Braun, Carl K., to Skill Tool, Inc. Transfer device. 3,077,259, 2-12-63, Cl. 198—218.

Braun, Dieter, E. Focke, and K. Hacker, to Fortuna-Werke Spezialmaschinenfabrik A.G. Splitting machine for sheet material. 3,109,339, 11-5-63, Cl. 83—4.

Braun, Ernst, to Patentauswertung Vogelbusch Gesellschaft m.b.H. Apparatus for gasifying liquids. 3,092,678, 6-4-63, Cl. 261—30.

Braun, Günther: *See*—
Nischk, Günther, Hoppe, Braun, and Paffrath. 3,092,592.

Braun, Harry L. and A. R., to E. J. McKernan, and N. W. Sequist. Aerosol dispenser. 3,085,753, 4-16-63, Cl. 239—337.

Braun, Helmut: *See*—
Schulten, Rudolf, Guth, Setzwein, Brann, and Berberich. 3,089,835.

Braun, Herbert D., to Toledo Scale Corp. Unit weight mechanism for weighing scales. 3,081,834, 3-19-63, Cl. 177—176.

Braun, Kurt: *See*—
Bauder, Ulrich, and Braun. 3,073,400.

Braun, Martin: *See*—
Weisheit, Georg, and Braun. 3,104,550.

Braun, Oskar, and K. Winz, to G. M. Pfaff, AG. Electronic control system for sewing machines and the like. 3,074,-632, 1-22-63, Cl. 235—132.

Braun, Philip N., and J. F. Filsinger, to Tag-O-Matic Machine Co., Inc. Error-proof garment marking machine. 3,086,429, 4-23-63, Cl. 93—88.

Braun, Philip N., and J. F. Filsinger, to Tag-O-Matic Machine Co., Inc. Garment marking machine. 3,114,667, 12-17-63, Cl. 156—384.

Braun, Poul B., and W. Kwestroo, to North American Philips Co., Inc. Ferromagnetic material. 3,114,714, 12-17-63, Cl. 252—62.5.

Braun, Robert A., to E. I. du Pont de Nemours and Co. 2,4,5,7,8-pentavinyl-1,3,6-trioxacyclooctane and process for its production. 3,090,790, 5-21-63, Cl. 260—338.

Braun, Theodor H., to The Superior Oil Co. Method and apparatus for determining information relative to oil and gas formations. 3,106,638, 10-8-63, Cl. 235—179.

Braun, William H.: *See*—
Cliff, George J., Parshall, Braun, Feldkamp, and Hager. 3,095,678.

Braun, Willy, and E. Hartwig, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Dyestuffs of the anthraquinone series and their production. 3,078,281, 2-19-63, Cl. 260—372.

Braun, Willy, M. Ruske, and K. Maier, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Production of anthraquinone dyes. 3,086,024, 4-16-63, Cl. 260—326.

Braunbeck, Josef, to Bodenseewerk Perkin-Elmer & Co. Radioactivity detection training. 3,096,387, 7-2-63, Cl. 35—10.4.

Braunholtz, John T., and F. C. Peacock, to Imperial Chemical Industries Ltd Nematocides. 3,085,930, 4-16-63, Cl. 167—30.

Braunlich, Richard H., and T. S. Matter, to FMC Corp. Method of producing shaped bodies of regenerated cellulose from viscose and spinning solution and bath therefor. 3,112,158, 11-26-63, Cl. 18—54.

Brauns, Otto L. J., and L. B. Jordansson, to Stiftelsen Pappersbrukens Forskningsinstitut. Method of dewatering pulp webs. 3,093,535, 6-11-63, Cl. 162—199.

Braunschweigische Maschinenbauanstalt A.G.: *See*—
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Braunstein, Rubin, and E. E. Loebner, to Radio Corp. of America. Semiconductor device for generating modulated infrared radiation. 3,102,201, 8-27-63, Cl. 250—199.

Braunwarth, John B., and G. W. Crosby, to The Pure Oil Co. Process for preparing dicycloalkylidene diperoxides. 3,116,-300, 12-31-63, Cl. 260—340.

Braus, Harry, and O. A. Homberg, to National Distillers and Chemical Corp. Ring chlorinated 2,5-diphenyl-adipic acid. 3,088,973, 5-7-63, Cl. 260—515.

Braus, Harry, and O. A. Homberg, to National Distillers and Chemical Corp. Diarylthiophene sulfonic acids. 3,098,848, 7-23-63, Cl. 260—329.

Braus, Harry, and H. J. Cohen, to National Distillers and Chemical Corp. Preparation of metal oxychlorides. 3,111,-380, 11-19-63, Cl. 23—85.

Brause, Jacob L., and W. W. Burns. Package of outer unsterile and inner sterile covers for enclosing a substantial portion of an object having an unsterile surface. 3,092,252, 6-4-63, Cl. 206—63.2.

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Bravenec, Frank R., to Halliburton Co. Means and techniques for producing a reciprocal of an electrical quantity. 3,092,719, 6-4-63, Cl. 235—193.

Bravenec, Frank R., and R. H. Huddleston, Jr., to Halliburton Co. Logging system using electrostatically shielded coil. 3,094,658, 6-18-63, Cl. 324—6.

Braverman, Murray, to Bulova Research and Development Laboratories, Inc. Adjustable pulse generator. 3,082,357, 3-19-63, Cl. 317—141.

Braverman, Robert. Containers. 3,077,281, 2-12-63, Cl. 220—4.

Bravos, George T., and J. W. Evans, to American Maize Products Co. Dry gelatinized starch product adapted for use in an oil well drilling fluid. 3,078,187, 2-19-63, Cl. 127—33.

Brawerman, Marvin: *See*—
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Bray, John R., to Monsanto Chemical Co. Control circuit. 3,098,920, 7-23-63, Cl. 219—20.

Bray Oil Co.: *See*—
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Bray, Walter J., Jr., to Shawinigan Resins Corp. Spray drying of resin emulsions and products obtained thereby. 3,104,234, 9-17-63, Cl. 260—41.

Bray, William W., Jr., and F. J. Ponzek, to Esso Research and Engineering Co. Process for the dehydrogenation of olefins. 3,092,674, 6-4-63, Cl. 260—680.

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Hubel, Karl W., and Braye. 3,096,265.
Hubel, Karl W., and Braye. 3,096,266.
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Brayman, Jacob: *See*—
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Gerard, George, and Brayman. 3,091,804.
Gerard, George, and Brayman. 3,093,862.
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Gerard, George, and Brayman. 3,105,994.

Braymer, Noel B., to Beckman Instruments, Inc. Multiple switching circuit. 3,105,223, 9-24-63, Cl. 340—147.

Brazee, John A., to The Whitney Blake Co. Multiple-pair electric cable construction. 3,105,108, 9-24-63, Cl. 174—112.

Brazier, Horace J., to The Sandall Precision Co. Ltd. Interface detector. 3,082,620, 3-26-63, Cl. 73—54.

Braznell, George S., and R. E. McIlvaney, to Braco Engraving Co. Printing plates. 3,103,168, 9-10-63, Cl. 101—401.1.

Breadner, Robert L., to The General Electric Co. Ltd. Glass-to-metal seals. 3,107,757, 10-22-63, Cl. 189—36.5.

Brealey, Edward R.: *See*—
Pope, Geoffrey A. K., Brealey, and Kent. 3,107,690.

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Aleks, Vytant. 3,101,804.
Provi, Mike A. 3,097,966.

Breau, Wilfred. Gasket cutting device. 3,101,637, 8-27-63, Cl. 82—24.

Breault, Homer H., to General Electric Co. Gas production. 3,116,116, 12-31-63, Cl. 23—212.

Breazeale, Hershel T., and F. and G. May, to FMC Corp. Tire changing apparatus. 3,086,578, 4-23-63, Cl. 157—1.24.

Breazeale, Hershel T., and F. and G. May, to FMC Corp. Pneumatic wheel lock for tire changing apparatus. 3,094,-156, 6-18-63, Cl. 144—288.

Breazeale, Hershel T., and F. and G. May, to FMC Corp. Wheel lock for tire changing apparatus. 3,099,300, 7-30-63, Cl. 144—288.

Brech, Frederick: *See*—
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Brecht, George, to Johnson & Johnson. Tampon applicator. 3,090,985, 5-21-63, Cl. 128—263.

Brecht, George, to Johnson & Johnson. Catamenial device. 3,103,929, 9-17-63, Cl. 128—263.

Brecht, George, and G. C. Graham, Jr., to Johnson & Johnson. Absorbent product. 3,079,921, 3-5-63, Cl. 128—285.

Breckenridge, Robert A. Blast actuated ventilator valve. 3,111,078, 11-19-63, Cl. 98—119.

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Breckon, Haldred C.: *See*—
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Bredehorn, George J. Word game. 3,096,092, 7-2-63, Cl. 273—135.

Bredt, Lynn, and J. G. Dorrance, to S.I. Handing Systems, Inc. Tow truck systems with automatic switching means. 3,103,183, 9-10-63, Cl. 104—88.

Breidtschneider, Kurt B., to Crane Co. High pressure valve. 3,073,566, 1-15-63, Cl. 251—362.

Breidtschneider, Kurt B., E. P. De Craene, G. E. Hansen, and F. D. Cotterman, to Crane Co. Lubricated plug valve. 3,094,136, 6-18-63, Cl. 137—246.11.

Breidtschneider, Kurt B., J. A. Englert, and J. P. Doelger, to Crane Co. Motor or gear unit adapter. 3,115,786, 12-31-63, Cl. 74—432.

Breidtschneider, Kurt B., and J. A. Englert, to Crane Co. Motor or gear unit adapter. 3,115,787, 12-31-63, Cl. 74—432.

Bredzs, Nikolajs T., to Armour Research Foundation of Illinois Institute of Technology. Aluminum base brazing alloy. 3,081,534, 3-19-63, Cl. 29—494.

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Fauth, Frederick E., and Breeback. 3,088,831.

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Broederveld, Heyme, and H. I. Waterman, to Shell Oil Co. Cyclopentadienyl and di-ethyl malonyl titanium compounds. 3,089,886, 5-14-63, Cl. 260—429.5.

Breedlove, James G., to American Lava Corp. High hardness porcelain enamel composition, method of coating therewith and article produced thereby. 3,095,321, 6-25-63, Cl. 117—129.

Breedon, David B., J. T. Carleton, and R. W. Ferguson, to Westinghouse Electric Corp. Control apparatus. 3,086,-162, 4-16-63, Cl. 322—25.

Breen, Alvin L., and M. V. Sussman, to E. I. du Pont de Nemours and Co. Fluid twister apparatus for twisting yarn. 3,079,745, 3-5-63, Cl. 57—34.

Breen, Henry D., to Unarco Industries, Inc. Railway refrigerator car. 3,108,452, 10-29-63, Cl. 62—187.

Breen, Maurice M. Automatic livestock barn evacuation device. 3,113,557, 12-10-63, Cl. 119—112.

Breen, Stanley, and S. J. Mason, to Forte-Fairbairn Inc. Method and apparatus for measuring capacitivity of materials. 3,090,004, 5-14-63, Cl. 324—61.

Breer, Carl. Body liquid collector appliance. 3,112,061, 11-26-63, Cl. 230—79.

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Weinbrenner, Erwin, Hoppe, and Breer. 3,088,172.

Breer, Karl, to Farbenfabriken Bayer Aktiengesellschaft. Apparatus for the manufacture of plastics. 3,100,506, 8-13-63, Cl. 137—567.

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Breese, Lemuel R.: *See*—
Hinkle, Glenher L., and Breese. 3,076,918.

Breese, Lemuel R., to North Electric Co. Toll collecting device. 3,090,941, 5-21-63, Cl. 340—31.

Breese, Lemuel R., to North Electric Co. Supervisory control and communications system. 3,110,013, 11-5-63, Cl. 340—163.

Breese, Robert F., and A. C. Zagotta, to Chicago, Rock Island and Pacific Railroad Co. Flashing light systems. 3,113,-293, 12-3-63, Cl. 340—50.

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Breeze, Marvin M., Jr., and J. O. Etchison, Jr., to Western Electric Co., Inc. Drill plate and methods of making a drill plate. 3,098,401, 7-23-63, Cl. 77—62.

Breffle, Helen H. Multi-strand cable fabricating apparatus and method. 3,094,833, 6-25-63, Cl. 57—1.

Bregenzer, Robert N., to Soboroff Sons Co. Cap design. 3,077,607, 2-19-63, Cl. 2—172.

Bregman, Frank, to North American Philips Co., Inc. Transistor means for obtaining the product of two inputs. 3,075,090, 1-22-63, Cl. 307—88.5.

Bregman, Frank, to North American Philips Co., Inc. Pulse amplitude discriminator. 3,098,938, 7-23-63, Cl. 307—88.5.

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Brehm, Lyle W., to International Business Machines Corp. Ultra speed printer. 3,087,420, 4-30-63, Cl. 101—93.

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Brehmer, Eugene. Transmission line wrench. 3,111,049, 11-19-63, Cl. 81—57.

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Breidert, George M., to The G. C. Breidert Co. Marine ventilator. 3,072,039, 1-8-63, Cl. 98—82.

Breig, Kurt, and H. Gutjahr, to Farbenfabriken Bayer Aktiengesellschaft. Diazoamino compounds and process for the production of ice colors in textile printing. 3,088,789, 5-7-63, Cl. 8—45.

Breil, Heinz: *See*—
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Breiling, Robert W., to General Electric Co. Method of and apparatus for making punch-board wiring circuits. 3,088,191, 5-7-63, Cl. 29—155.5.

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Breining, Elmer R., and W. M. Bolton, to Union Carbide Corp. Die construction. 3,111,731, 11-26-63, Cl. 22—193.

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Breitenstein, Charles T., to The Seeburg Corp. Piston structure. 3,102,455, 9-3-63, Cl. 92—155.

Breitenstein, Charles T., to The Seeburg Corp. Beverage brewer. 3,103,159, 9-10-63, Cl. 99—289.

Breitenstein, Charles T., to The Seeburg Corp. High-speed beverage brewer. 3,103,873, 9-17-63, Cl. 99—289.

Breiter, Samuel, and H. Heinemann, to The M. W. Kellogg Co. Separation of acetylenic impurities from olefins by selective polymerization. 3,086,066, 4-16-63, Cl. 260—677.

Breithaupt, Joe J., to Collins Radio Co. Picture communication system. 3,080,556, 3-5-63, Cl. 343—6.

Breitinger, August F., to Jared Knitting Mills, Inc. Pleated knit fabric. 3,093,989, 6-18-63, Cl. 66—200.

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Krämer, Rolf, Breitinger, and Gerber. 3,098,845.

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Brekvik, Arne J., to Norsk Jernverk, A/S. Method and apparatus for stacking, handling and bundling rod-shaped materials, especially structural steel shapes. 3,112,038, 11-26-63, Cl. 214—6.

Brekvik, Orville N., and W. R. Johnston, to Standard Brands Inc. Instant coffee and tea. 3,100,151, 8-6-63, Cl. 99—71.

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Stanley, William L., Brekke, and Teranishi. 3,113,031.

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Welnecke, Laurence A., and Brekke. 3,103,287.

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Brembeck, Howard S. Bulk feed bin bottom. 3,100,052, 8-6-63, Cl. 214—17.

Bremer, John W.: *See*—
Newhouse, Vernon L., and Bremer. 3,076,102.

Bremer, Robert D., to General Motors Corp. Domestic electric appliance. 3,110,795, 11-12-63, Cl. 219—37.

Bremer, Robert D., and H. E. Van Scoyk, to General Motors Corp. Cooking unit. 3,110,796, 11-12-63, Cl. 219—37.

Bremigan, Richard O.: *See*—
Johnson, Ernest H., Bremigan, and Kiberl. 3,090,019.

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Connick, Francis G., Brendle, Strandine, and Bonami. 3,112,331.
Lis, Stephen W., Van Dolah, and Brendle. 3,115,667.

Breneman, James C. Portable backstop for arrows. 3,100,-115, 8-6-63, Cl. 273—102.4.

Breneman, Joseph C., to Rubbermaid Inc. Container assembly. 3,096,900, 7-9-63, Cl. 220—4.

Breneman-Hartshorn, Inc.: *See*—
Anderson, James A. 3,092,172.
Anderson, James A., Ash, and Bushnell. 3,098,286.

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Brenne, Walter. Container devices for cosmetics. 3,103,-032, 9-10-63, Cl. 15—523.

Brenneck, William A.: *See*—
Rively, Clair M., and Brenneck. 3,088,572.
Rively, Clair M., and Brenneck. 3,088,602.

Brenneman, Clifford D. Animated figure toy. 3,100,949, 8-20-63, Cl. 46—241.

Brenneman, John H. Electrical outlet and switch. 3,092,698, 6-4-63, Cl. 200—67.

Brenneman, Theron F.: *See*—
Hagerty, Andrew T., Bailey, and Brenneman. 3,076,535.

Brennemann, Andrew E., to International Business Machines Corp. Cryogenic ring circuit. 3,098,159, 7-16-63, Cl. 307—88.5.

Brennemann, Andrew E., and R. T. Tsui, to International Business Machines Corp. Superconductor circuit. 3,090,-023, 5-14-63, Cl. 338—32.

Brenner, Abner, and W. E. Reid, Jr., to United States of America, Navy. Vapor deposition of tungsten. 3,072,-983, 1-15-63, Cl. 22—200.

Brenner, Al. Awning window. 3,070,853, 1-1-63, Cl. 20—42.

Brenner, Al. Extensible vent link for awning windows. 3,110,486, 11-12-63, Cl. 267—71.

Brenner, Bernard M., to Ampex Corp. Tape tension system. 3,109,604, 11-5-63, Cl. 242—55.14.

Brenner, Carl M., and M. A. Stevens, to J. R. Geigy A.-G. New process for the preparation of α-amino-ε caprolactam and novel intermediates formed thereby. 3,107,239, 10-15-63, Cl. 260—239.3.

Brenner, John B., J. B. Force, E. C. McMurray, J. A. McDougal, and H. H. Harada, to General Motors Corp. Vehicle speed warning and cruise control system. 3,088,538, 5-7-63, Cl. 180—82.1.

Brenner, Max, to Ciba Corp. Process for manufacture of acylamino-carboxylic acid amides. 3,072,723, 1-8-63, Cl. 260—561.

Brenner, Paul, to Vereinigte Leichtmetall-Werke, Gesellschaft mit Beschrankter Haftung. Process and means relating to manufacture of hollow cast bodies. 3,079,654, 3-5-63, Cl. 22—57.2.

Brenner, Robert A., and C. A. Cobb, to Whirlpool Corp. Wringer assembly. 3,105,377, 10-1-63, Cl. 68—253.

Brenner, Ronald J., to McNeil Laboratories, Inc. Pharmaceutical tablet containing wheat gluten. 3,089,825, 5-14-63, Cl. 167—82.

Brenner, William, and S. Koslow. Magnetic envelope means. 3,083,904, 4-2-63, Cl. 235—61.12.

Brent, Barry. Bouncing hobby horse with leg action. 3,090,-618, 5-21-63, Cl. 272—53.2.

Brentlinger, Cecil R., to Armco Steel Corp. Dry wall nail with a frusto-conical walled head and a serrated shank. 3,112,667, 12-3-63, Cl. 85—28.

Brenton, William P., Jr., 33⅓% to R. L. Griffiths, 33⅓% to E. E. Larson, and 33⅓% to D. P. McIntosh. Convertible bed and couch. 3,114,155, 12-17-63, Cl. 5—17.

Bresenoff, Stanley W., to North American Aviation, Inc. Precision pressure generator system. 3,092,305, 6-4-63, Cl. 230—2.

Bresette, George E., ⅓ to P. L. Parrish. Process for purifying salt and product thereof. 3,097,952, 7-16-63, Cl. 99—143.

Bresler, Sidney A., and A. W. Francis, to Chemical Construction Corp. Process for removal of acid gas from gas streams. 3,101,996, 8-27-63, Cl. 23—2.

Breslow, David S., to Hercules Powder Co. Stabilization of polyolefins. 3,072,601, 1-8-63, Cl. 260—45.75.

Breslow, David S., and A. S. Matlack, to Hercules Powder Co. Hydrogenation of unsaturated hydrocarbons. 3,113,986, 12-10-63, Cl. 260—683.9.

Bresser, Robert E.: *See*—
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Bressler, Robert E., to M. J. McGinn. Pressure compensated ionization chamber fire detector system. 3,078,450, 2-19-63, Cl. 340—237.

Bressler, Wilbur L.: *See*—
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Smith, John C., and Bressler. 3,088,980.
Smith, John C., Bradshaw, Raff, and Bressler. 3,095,429.

Brestel, Pliny C., to Aeronca Mfg. Corp. Parachute control apparatus. 3,113,752, 12-10-63, Cl. 244—147.

Breting, Ulysses A.: *See*—
Christenson, Howard W., and Breting. 3,088,552.

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Bretschneider, Hermann, and W. Klöker, to Hoffmann-La Roche Inc. Sulfa compounds and processes. 3,091,610, 5-28-63, Cl. 260—259.75.

Brett, John J. Time punch recorder apparatus. 3,084,013, 4-2-63, Cl. 346—89.

Brette, Alfred, to Compagnie pour la Fabrication des Compteurs et Material d'Usines a Gaz. Vertical turbine fluid meter. 3,071,003, 1-1-63, Cl. 73—229.

Brettell, George A.: *See*—
Seisted, Walter T., and Brettell. 3,084,229.

Bretthauer, Frank N. Band saw guard. 3,104,688, 9-24-63, Cl. 143—159.

Bretthauer, Herman: *See*—
Heidecke, Reinhold, Bretthauer, and Madge. 3,073,230.

Brettrager, Henry J., and J. F. McDonald, to Brettrager Mfg. Co. Earth conditioning and seeding trailer. 3,083,652, 4-2-63, Cl. 111—8.

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Brettrager, Henry J., and McDonald. 3,083,652.

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Schmitz, Rudolf, and Brettschneider. 3,073,140.

Bretzner, Hans S., to General Motors Corp. Door hinging arrangement for vehicle bodies. 3,095,600, 7-2-63, Cl. 16—163.

Breuer, Erich, and W. Klelhorn, to Brown, Boveri & Cie Aktiengesellschaft. Apparatus for heating metallic billets, bars or the like by direct passage of current. 3,114,034, 12-10-63, Cl. 219—152.

Breuer, Hermann: *See*—
Hoehn, Hans, and Breuer. 3,083,207.
Hoehn, Hans, and Breuer. 3,097,242.

Breuer, Hermann, and H. Hoehn, to Olin Mathieson Chemical Corp. Sulfonylurea compounds. 3,102,115, 8-27-63, Cl. 260—239.

Breuer, Hermann, and H. Höhn, to Olin Mathieson Chemical Corp. Method for production of indoline-6-sulfonyl ureas. 3,102,120, 8-27-63, Cl. 260—319.

Breuer, Hermann, and H. Höhn, to Olin Mathieson Chemical Corp. Novel cumaransulfonylureas and 2,3-dihydrothionaphthenesulfonylureas. 3,102,121, 8-27-63, Cl. 260—330.5.

Breuer, Peter, to The Rauland Corp. Semi-conductor mounting apparatus. 3,080,510, 3-5-63, Cl. 317—234.

Breuers, Theo P. C., and M. D. P. Swenker, to Chemische Fabriek L. van der Grinten N. V. Device for separating by means of friction two superimposed sheets of laminar material. 3,083,959, 4-2-63, Cl. 271—18.

Breuing, Wilhelm, E. P. Franke, and R. Spolders, to W. C. Heraeus G.m.b.H. and Ruhrstahl A.G. Apparatus for degassing molten steel. 3,099,699, 7-30-63, Cl. 266—34.

Breunich, Theodore R., to Controlex Corp. of America. Steering apparatus for outboard motors. 3,095,849, 7-2-63, Cl. 115—18.

Breunich, Theodore R., to Controlex Corp. of America. Clevis for push-pull control devices. 3,106,415, 10-8-63, Cl. 287—91.

Breuning, Erich E., to On Mark Couplings, Inc. Quick disconnect coupling for high pressure fluids. 3,074,670, 1-22-63, Cl. 244—130.

Brevard, Procter, to Freeman Burdett Gas Burner Co. Radiant atmospheric gas burner. 3,101,774, 8-27-63, Cl. 158—113.

Breves, Wilhelm: *See*—
Helming, Bernd, and Breves. 3,079,701.

Brevets Aero-Mecaniques S.A.: *See*—
Ammann, Rudolf. 3,071,073.
Dournow, Frederic. 3,110,218.
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Guerne, William. 3,076,410.
Hosli, Hansjakob. 3,098,447.
Meisser, Marc A. 3,076,305.
Paschoud, Louis-David. 3,0900,308.
Ramseyer, Robert. 3,082,667.

Brevik, Elmer L., to Purex Corp. Process for removal of radioactive contaminants. 3,108,080, 10-22-63, Cl. 252—137.

Brewer, Alice K. Self-heating composite container. 3,094,981, 6-25-63, Cl. 126—263.

Brewer, Carl T. Drive-tensioning apparatus. 3,071,980, 1-8-63, Cl. 74—242.1.

Brewer, Claire N., to International Typographical Union of North America. Apparatus for operating a tape perforating machine particularly for setting type for telephone directory listings. 3,112,065, 11-26-63, Cl. 234—4.

Brewer, Claire N., to International Typographical Union of North America. Apparatus for effecting sequential operation of the keys of a tape perforating machine. 3,113,718, 12-10-63, Cl. 234—13.

Brewer, Claire N., and C. C. Smith, Jr., to International Typographical Union of North America. Machine for cleaning the matrices of a photographic line composing machine. 3,090,069, 5-21-63, Cl. 15—308.

Brewer, Clifford E. Rivet feeding apparatus. 3,101,858, 8-27-63, Cl. 218—1.

Brewer, Delbert W., and A. E. Laughlin. Motion translating device. 3,106,848, 10-15-63, Cl. 74—110.

Brewer, Jade D. X-ray collimator with shutter track and actuation means on each side of guide means. 3,115,580, 12-24-63, Cl. 250—105.

Brewer, John H., to Hynson, Westcott & Dunning Inc. Serological test card with color solid as visualizing agent. 3,074,853, 1-22-63, Cl. 167—84.5.

Brewer, John H. Apparatus and method for culturing microorganisms. 3,102,082, 8-27-63, Cl. 195—139.

Brewer, Leonard, to Olin Mathieson Chemical Corp. Rocket propellent. 3,080,196, 5-21-63, Cl. 60—35.6.

Brewer, Margaret W.: *See*—
Brewer, Nicholas L. 3,103,757.
Brewer, Nicholas L. 3,106,033.

Brewer, Nathaniel: *See*—
Ollivier, Louis, and Brewer. 3,077,767.

Brewer, Nathaniel, to Wilson Products, Inc. Control means for solid dispensing apparatus. 3,110,420, 11-12-63, Cl. 222—56.

Brewer, Nathaniel, to Fischer & Porter Co. Flow controller. 3,115,892, 12-31-63, Cl. 137—501.

Brewer, Nathaniel, E. D. Haigler, and E. D. Woodring, to Fischer & Porter Co. Pneumatic controllers. 3,098,498, 7-23-63, Cl. 137—86.

Brewer, Nicholas L., deceased, by M. W. Brewer, executrix, to Savage Arms Corp. Bolt action rifle with ejector housing on magazine box. 3,103,757, 9-17-63, Cl. 42—25.

Brewer, Nicholas L., deceased; by M. W. Brewer, executrix, to Savage Arms Corp. Firing mechanism with sear safety indicator. 3,106,033, 10-8-63, Cl. 42—69.

Brewer, Ralph L., Jr., to Armco Steel Corp. Automatic chain removing device. 3,079,193, 2-26-63, Cl. 294—75.

Brewer, William L., Jr., to Dealer Associates, Inc. Pivotal connecting means for rotary disk cutter. 3,112,599, 12-3-63, Cl. 56—295.

Brewin, Grant H., to Proctor Hydro-Set Co. Form movement control system. 3,091,377, 5-28-63, Cl. 223—76.

Brewing Patents Ltd.: *See*—
Hough, James S., and Ricketts. 3,078,166.
Learner, Sydney E., A. J. and H. O. Bennett, and Davis. 3,113,027.

Brewster, Arthur E., to International Standard Electric Corp. Electric pulse frequency dividers. 3,087,073, 4-23-63, Cl. 307—88.

Brewster, Arthur E., to International Standard Electric Corp. Pulse coding and decoding arrangements. 3,094,626, 6-18-63, Cl. 307—88.

Brewster, Arthur E., to International Standard Electric Corp. Coders for electric pulse code modulation systems. 3,110,895, 11-12-63, Cl. 340—347.

Brewster, Selah S., Jr.: *See*—
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Brewster, Spencer. Gear shift attachment for outboard motors. 3,073,278, 1-15-63, Cl. 115—18.

Brey, Wilhelm, to The Firestone Tire & Rubber Co. Method and apparatus for joining sheet material. 3,100,731, 8-13-63, Cl. 156—157.

Breza, Cyril J., to E. I. du Pont de Nemours and Co. Explosive composition. 3,093,521, 6-11-63, Cl. 149—19.

Brezosky, Bernard J., and D. S. Cushing, to General Electric Co. Comminuting means for liquid spraying system of dishwashers. 3,079,094, 2-26-63, Cl. 241—46.

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Redmond, Eugene R. 3,114,628.

Brian, Percy W., and M. E. Radley, to Imperial Chemical Industries Ltd. Malting of barley. 3,104,207, 9-17-63, Cl. 195—70.

Briar, Jack E.: *See*—
McLean, Robert E., Chappell, and Briar. 3,078,568.

Brice, George H., to United States Rubber Co. Vulcanization of butyl rubber with a methylene-bridged triphenoldimethanol. 3,102,104, 8-27-63, Cl. 260—43.

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Flomen, Edward, Brich, and Osberg. 3,115,240.

Brichard, Edgard, E. Plumat, G. Meunier, and E. Deliere, to Union des Verreries Mecaniques Belges, Societe Anonyme. Process and apparatus for obtaining electrically conductive coatings on the surface of objects consisting of glass or ceramic materials. 3,088,850, 5-7-63, Cl. 117—211.

Brick, Robert M., C. E. Maier, and E. J. Ripling, to Continental Can Co., Inc. Art of producing expandable laminate strips with use of flattened tubes for cores. 3,105,296, 10-1-63, Cl. 29—528.

Brick, Robert M., and C. E. Maier, to Continental Can Co., Inc. Production of laminate composite material by roll bonding procedures. 3,106,014, 10-8-63, Cl. 29—470.9.

Brick, Robert M., C. E. Maier, and E. J. Ripling, to Continental Can Co., Inc. Ingot and the mold and core structure for casting the same. 3,116,121, 12-31-63, Cl. 29—187.

Bricker, Lester J. Human body heater. 3,110,301, 11-12-63, Cl. 126—208.

Bricker, Samuel R., and A. D. Smith, to Westinghouse Electric Corp. Steam iron. 3,103,079, 9-10-63, Cl. 38—77.

Brickman, Alan E. Apparatus for making post-stressed reinforced cement-concrete structures. 3,072,994, 1-15-63, Cl. 25—118.

Brickner, Kenneth G.: *See*—
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Brickner, William H., and J. Rodish, to The Mead Corp. Molded foamed plastic egg carton. 3,093,286, 6-11-63, Cl. 229—2.5.

Briemont, Robert J., to H. H. Robertson Co. Fire extinguishing system and apparatus. 3,104,060, 9-17-63, Cl. 239—209.

Brideau, James. Tool guide. 3,097,891, 7-16-63, Cl. 308—4.

Bridgeford, Douglas J., to Tee-Pak, Inc. Method of depositing a polymer of olefinically unsaturated monomer within a polymeric material and the resulting product. 3,083,118, 3-26-63, Cl. 117—47.

Bridgeport Machines, Inc., The: *See*—
Wahlstrom, Magnus, and Hoddinott. 3,112,117.

Bridgeport Metal Goods Mfg. Co., The: *See*—
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Bridger, Grover L., and N. K. Alfrey, to W. R. Grace & Co. Mixing apparatus. 3,111,304, 11-19-63, Cl. 259—6.

Bridges, Elmer H. Visual instructing device. 3,091,152, 5-28-63, Cl. 84—478.

Bridges, George A. Shower utility bag. 3,074,452, 1-22-63, Cl. 150—1.

Bridges, Ronald P., to A. B. Chance Co. Electrical protective devices. 3,076,076, 1-29-63, Cl. 200—114.

Bridges, Ronald P., to Hubbard and Co. Bypass switch for automatic circuit reclosure. 3,103,560, 9-10-63, Cl. 200—2.

Bridgewater, Thomas E., to Adams Engineering Co. Impact crushing apparatus. 3,074,657, 1-22-63, Cl. 241—275.

Bridgewater, Thomas E. Breaker plate structure for impact crusher and retaining means therefor. 3,088,685, 5-7-63, Cl. 241—300.

Bridgewater, Thomas E. Breaker plate structure. 3,093,329, 6-11-63, Cl. 241—275.

Bridgewater, Thomas E. Breaker plate structure. 3,110,449, 11-12-63, Cl. 241—291.

Bridgforth, Robert M., Jr., to Rocket Research Corp. Triplex propulsion system and method. 3,112,608, 12-3-63, Cl. 60—35.4.

Bridgforth, Robert M., Jr., to Rocket Research Corp. Triplex propulsion system and method having thermal radiation suppression aspects. 3,112,609, 12-3-63, Cl. 60—35.4.

Bridle, Edgar A., B. W. Firth, and J. S. Mitchell, to The Parsons and Marine Engineering Turbine Research and Development Association. Turbine and like rotor blades. 3,076,633, 2-5-63, Cl. 253—77.

Bridwell, Harold C.: *See*—
Hildebrandt, Alexander B., and Bridwell. 3,095,935.

Bridwell, Robert A., and J. H. Hanson, to Northrop Corp. Movement for heat exchange assembly. 3,073,172, 1-15-63, Cl. 74—110.

Briede, Arthur F., to Dover Corp. Automatic dispensing nozzles. 3,085,600, 4-16-63, Cl. 141—209.

Brieger, Emmet F., to Schlumberger Well Surveying Corp. Core taker devices. 3,072,202, 1-8-63, Cl. 175—4.

Brieger, Emmet F., to Schlumberger Well Surveying Corp. Core taker devices. 3,101,797, 8-27-63, Cl. 175—4.

Briem, Frau Maria: *See*—
Hoelle, Alfred, and Vollmar. 3,092,497.

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Brierley, Albert E., to The English Electric Co. Ltd. Oil-immersed electrical apparatus having oil-impregnated main insulation partly covered by liquid-impervious material. 3,098,113, 7-16-63, Cl. 174—26.

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Briggs, George E., Jr., to Halliburton Co. Wire line hydraulic fracturing tool. 3,090,436, 5-21-63, Cl. 166—63.

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Briggs, Merle A. Apparatus for cutting and planting seed potatoes. 3,090,414, 5-21-63, Cl. 146—59.

Briggs, Roger L.: *See*—
Rittenhouse, William E., Briggs, and Price. 3,096,300.

Briggs, Rolley L. Back brushing device. 3,078,484, 2-26-63, Cl. 15—21.

Briggs, Southwick W. Filter medium. 3,096,230, 7-2-63, Cl. 162—138.

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Brown, Hugh S., and Svendsen. 3,084,679.
Harkness, Joseph R. 3,090,875.
Jacobi, Edward N. 3,077,101.
Santi, John D. 3,114,851.

Briggs, Thomas L., Jr., to United Aircraft Corp. Ducted fan engine. 3,095,166, 6-25-63, Cl. 244—53.

Briggs, Walton E., and A. C. Jones, to General Electric Co. Combination leak detector and vacuum gauge. 3,085,198, 4-9-63, Cl. 324—33.

Briggs, William L., to Window Products, Inc. Heat-insulated metal-framed closure. 3,114,179, 12-17-63, Cl. 20—56.5.

Brigham, Leonard R., and P. L. Warddell. Cash register-information storage assembly. 3,088,661, 5-7-63, Cl. 235—2.

Bright, Forbe E., 40% to C. D. Draucker. Machine for precision bending of electrical conduit. 3,075,568, 1-29-63, Cl. 153—39.

Bright, Gordon S.: *See*—
Coons, William R., Jr., Hencke, and Bright. 3,079,341.

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Bright, Richard L., to Westinghouse Electric Corp. Resistor coupled transistor logic circuitry. 3,073,970, 1-15-63, Cl. 307—88.5.

Bright, Robert H.: *See*—
Vaughan, James R., and Bright. Re. 25,420.

Bright, Roy A., to Du Bois Plastic Products, Inc. Nozzle arrangement for hot runner plastic molds. 3,113,346, 12-10-63, Cl. 18—30.

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Brightman, Barrie, and J. G. Pearce, to General Dynamics Corp. Automatic communication system. 3,087,022, 4-23-63, Cl. 179—18.

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Brignac, Edmond P., P. E. Sikorski, and R. T. Wright, to Monsanto Chemical Co. Multi-stage drawing of nylon filaments. 3,083,412, 4-2-63, Cl. 18—48.

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Bril, Kazimierz J., and P. Krumholz. Process for separating yttrium and rare earths. 3,078,142, 2-19-63, Cl. 23—22.

Bril, Kazimierz J., and J. B. Madjar. Process for the recovery of europium from low grade europium mixtures with other rare earths. 3,092,449, 6-4-63, Cl. 23—22.

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Briles Mfg.: *See*—
Briles, Paul R. 3,106,862.

Briles, Paul R., to Briles Mfg. High torque fastener. 3,106,862, 10-15-63, Cl. 85—45.

Briles, Paul R., Inc.: *See*—
Briles, R. 3,106,862.

Briles Products, Inc.: *See*—
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Brilhart, Arnold R., to Brilhart Musical Instrument Corp. Woodwind instrument mouthpiece. 3,094,891, 6-25-63, Cl. 84—383.

Brilhart Musical Instrument Corp.: *See*—
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Brill, Edward F., to Fiber-Foam Marine Products, Inc. Float assembly. 3,073,271, 1-15-63, Cl. 114—.5.

Brill, Richard H., and H. J. Biczel, to Philco Corp. Laundry apparatus. 3,091,974, 6-4-63, Cl. 74—242.15.

Brill, Samuel. Optical guidance system. 3,072,010, 1-8-63, Cl. 88—2.6.

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Brill, William F.: *See*—
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Brill, William F., to Petro-Tex Chemical Corp. Process for producing chloroacetone. 3,114,773, 12-17-63, Cl. 260—593.

Brillhart, Morris F.: *See*—
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Brim, Jefferson K. Thermal jacket for beverage container. 3,092,277, 6-4-63, Cl. 215—13.

Brimberg, Torsten, to Electrolux, Aktiebolaget. Air filter. 3,082,587, 3-26-63, Cl. 55—495.

Briney, Gerald S., and W. H. Kliever, to Minneapolis-Honeywell Regulator Co. Averaging or integrating device. 3,079,084, 2-26-63, Cl. 235—183.

Briney, James W.: *See*—
Briney, Ottis R., Jr. and J. W. Briney. 3,079,815.

Briney Mfg. Co.: *See*—
Briney, Ottis R., Jr. and J. W. Briney. 3,079,815.

Briney, Ottis R., Jr. and J. W. Briney, to Briney Mfg. Co. Boring head. 3,079,815, 3–5–63, Cl. 77—58.

Bringewald, August R. Combination safety razor and honing device. 3,101,536, 8–27–63, Cl. 30—36.

Bringman, Grace S.: *See*—
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Bringman, John M., deceased; G. S. Bringman, administratrix. Aqua bowl. 3,110,047, 11–12–63, Cl. 9—310.

Bringolf, Richard G. Resilient lining for light weight hose. 3,112,771, 12–3–63, Cl. 138—129.

Brink, David E.: *See*—
Zabel, Norman R., and Brink. 3,074,170.

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Brink, Paul L., and C. D. McGillem, to United States of America, Navy. Low level means of weapon delivery. 3,088,372, 5–7–63, Cl. 89—1.5.

Brink, Paul L., C. E. Graves, and C. D. McGillem, to United States of America, Navy. Dive-toss air-to-ground delivery system. 3,091,993, 6–4–63, Cl. 89—1.5.

Brink, Velma: *See*—
Volker, Trillis, and Brink. 3,093,276.

Brink, Virginia W.: *See*—
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Brink, Wilbur H., and M. V. Podlusky, to Motorola, Inc. Voltage regulating system. 3,083,332, 3–26–63, Cl. 323—66.

Brinkel, Edwin P., to Ross Operating Valve Co. Valve. 3,080,888, 3–12–63, Cl. 137—623.

Brinkel, Edwin P., to Ross Operating Valve Co. Solenoid operated valve. 3,092,145, 6–4–63, Cl. 137—625.27.

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Brinkerhoff, Joris M., W. C. Hadley, V. E. Ragosine, and J. W. Shearer, to Laboratory For Electronics, Inc. Apparatus for producing neutrons. 3,113,213, 12–3–63, Cl. 250—84.5.

Brinkley, Edwin T., Jr. Control handle. 3,089,278, 5–14–63, Cl. 46—77.

Brinkman To Broxten, Rudolf. Looseleaf folder. 3,111,126, 11–19–63, Cl. 129—25.

Brinkmann, Franz, to SKB Schuechtermann & Kremer-Baum Aktiengesellschaft Fuer Aufbereitung. Drum sink separators. 3,101,312, 8–20–63, Cl. 209—172.

Brinkworth, Dennis W., and G. L. Smith, Jr., to Lockheed Aircraft Corp. Ejection seat and personnel separation device. 3,083,938, 4–2–63, Cl. 244—122.

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Brion, Dalton F., C. F. Norbeck, and T. B. Winkler, to Bethlehem Steel Co. Open hearth steelmaking process. 3,088,821, 5–7–63, Cl. 75—52.

Brisbin, Philip H., and W. J. Heffernan, to General Electric Co. Method for the preparation of alumina fibers. 3,094,385, 6–18–63, Cl. 23—142.

Brisco, Harold A. Lamp fixtures. 3,089,025, 5–7–63, Cl. 240—25.

Briscoe, William J., and C. R. Beach. Combination back hoe and shovel. 3,107,790, 10–22–63, Cl. 214—145.

Briskin, Theodore S., R. L. Moore, and R. A. Rom, to Revere Camera Co. Automatic camera. 3,076,397, 2–5–63, Cl. 95—64.

Briskin, Theodore S., R. L. Moore, and R. A. Rom, to Revere Camera Co. Pointer for a slide projector. 3,081,669, 3–19–63, Cl. 88—24.

Briskin, Theodore S., R. L. Moore, and R. A. Rom, to Revere Camera Co. Iris type shutter. 3,084,607, 4–9–63, Cl. 95—63.

Briskin, Theodore S., R. L. Moore, and R. A. Rom, to Revere Camera Co. Dual purpose shutter arrangement for a slide projector. 3,094,038, 6–18–63, Cl. 88—28.

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Brissette, Richard S., to Union Carbide Corp. Papers with improved absorbent properties. 3,104,198, 9–17–63, Cl. 162—146.

Brisson, Alton A. Therapeutic apparatus. 3,078,843, 2–26–63, Cl. 128—52.

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Baker, William A., and Thompson. 3,107,698.
Baker, William A., Thompson, Lane, and Poslett. 3,100,458.

Bristol Aircraft Ltd.: *See*—
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Bristol, Benedict, III. Tool for removing a plugged-in article from a plug-in receptacle. 3,103,836, 9–17–63, Cl. 81—3.

Bristol, Billy L., to Ametek, Inc. Fans. 3,090,545, 5–21–63, Cl. 230—117.

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Buckwalter, Frank H., Kaplan, and Granatek. 3,074,849.
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Marchant, Francis C. I., and Batchelor. 3,088,275.
Rainbow, Horace S. 3,087,691.
Sargent, Raymond F. 3,078,658.
Sargent, Raymond F., and Lane. 3,103,102.
Seltan, William E., and Orchard. 3,088,281.
Vivian, William E. D. 3,104,091.

Bristow, Gilbert W.: *See*—
Lowe, Keith B., and Bristow. 3,071,248.

Bristow, Howard A. S., to Laporte Titanium Ltd. Process for the purification of titanium tetrachloride. 3,102,785, 9–3–63, Cl. 23—87.

Britains Ltd.: *See*—
Selwyn-Smith, Roy. 3,078,616.

British Aluminium Co. Ltd., The: *See*—
Pearson, William K. J. 3,078,747.
Thomas, Robert W., and Young. 3,085,950.

British Celanese Ltd.: *See*—
Olpin, Henry C., and Bright. 3,116,104.
Pool, William. 3,087,685.

British Cellophane Ltd.: *See*—
Hood, John L. L. 3,086,145.

British Dielectric Research Ltd.: *See*—
Hall, Michael M. J. 3,090,895.

British Drug Houses Ltd., The: *See*—
Kirk, David N., and Petrow. 3,076,822.
Kirk, David N., and Petrow. 3,084,159.
Kirk, David N., and Petrow. 3,095,411.
Kirk, David N., and Petrow. 3,112,305.
Kirk, David N., and Petrow. 3,114,750.
Petrow, Vladimir, Stephenson, and Thomas. 3,091,616.
Petrow, Vladimir, Stephenson, and Wild. 3,088,873.

British Federal Welder & Machine Co. Ltd.: *See*—
Tribe, Thomas F. 3,082,288.
Tribe, Thomas F. 3,089,448.

British Industrial Plastics Ltd.: *See*—
Vale, Corwyn P., Gutter, and Wilson. 3,093,608.

British Insulated Callender's Cables Ltd.: *See*—
Barr, Harvey, and Wardley. 3,110,452.
Stott, Clifford, and Harthman. 3,080,544.

British Internal Combustion Engine Research Assn., The: *See*—
Tryhorn, Donald W. 3,102,381.
Tryhorn, Donald W. 3,103,780.

British Iron and Steel Research Association, The: *See*—
Carlisle, Samuel S., and Boxall. 3,097,971.
Garber, Sidney. 3,099,592.
Gill, Hedley. 3,101,016.
Littlewood, Geoffrey, and Morton. 3,088,181.
Pearson, John, Savage, and Ball. 3,080,625.

British Nylon Spinners Ltd.: *See*—
Deeley, John C., and Burgess. 3,094,834.
Freeman, Ronald F. J. 3,093,445.
Hezzlewood, Alan. 3,093,282.
Mackinnon, Hugh M. 3,071,808.
Nott, Conan C. 3,115,744.

British Oxygen Co. Ltd., The: *See*—
Adams, Harold R. H. 3,093,871.
Armstrong, Michael, and Smith. 3,094,402.
Black, Geoffrey D. 3,088,455.
Bradley, John R. 3,094,011.
Casey, Edward T. 3,094,081.
Glover, Jack H. 3,088,905.
Harper, Raymond, and Snell. 3,106,070.
Lucey, John A. 3,072,780.
Miller, Samuel, Mash, and Tebboth. 3,094,492.
Pullen, Dennis I. 3,094,249.
Robb, James. 3,088,595.
Robb, James. 3,103,791.
Schuftan, Paul M. 3,110,155.
Swan, Allan H. B. 3,094,232.
Templer, Charles E., Hardy, and Lainchbury. 3,093,974.
Wills, Robert J. 3,094,624.

British Petroleum Co. Ltd., The: *See*—
Billett, Michael G., and Gibson. 3,113,054.
Bourne, Kenneth H., and White. 3,114,697.
Champagnat, Alfred. 3,085,868.
Champagnat, Alfred. 3,104,755.
Dean, Ronald A., and Girdler. 3,098,816.
Evans, Norman, Wicks, and Smith. 3,111,837.
Evans, Norman, Wicks, and Smith. 3,111,839.
Groszek, Aleksander, and Hairsine. 3,103,493.
Nathan, Wilfred S. 3,109,782.
Pethrick, Samuel R., and Welch. 3,089,853.

British Petroleum Co. Ltd., The: *See*—Continued
Pomper, Boris. 3,095,462.
Porter, Frederick W. B., and White. 3,071,537.
Porter, Frederick W. B., and White. 3,071,539.
Porter, Hubert T., Renshaw, and White. 3,104,957.
Topham, William H. 3,094,468.
White, Peter T. 3,113,096.
White, Peter T., and Aitken. 3,098,829.
White, Peter T., and Olive. 3,113,097.
White, Peter T., and Porter. 3,071,629.
Yeo, Alan A., Hambling, and Alderson. 3,084,206.

British Ropes Ltd: *See*—
Campbell, Robert E. 3,083,817.
Harding, Denys F., Campbell, and Baker. 3,077,809.

British Tabulating Machine Co. Ltd., The: *See*—
Williams, Emrys J. 3,099,822.

British Telecommunications Research Ltd.: *See*—
Mann, Victor E., and Baker. 3,106,613.

British Titan Products Co. Ltd.: *See*—
Ancrum, Robert W., and Groves. 3,073,092.
Arkless, Kenneth. 3,097,923.
Arkless, Kenneth, and Whayman. 3,088,840.
Evans, Arthur W., and Groves. 3,086,843.
Groves, James D. 3,105,736.

British Uralite Ltd.: *See*—
Phare, Derek H. 3,111,204.

British Xylonite Co. Ltd., The: *See*—
Senior, Henry. 3,103,243.

Britnell, Clive, to The Sperry Gyroscope Co. Ltd. Navigation arrangement. 3,095,567, 6–25–63, Cl. 343—112.

Britt, Horace J., to Atlantic Research Corp. Measuring device. 3,084,220, 4–2–63, Cl. 178—69.

Britt, James E., to Atlantic Research Corp. Pulse distortion measuring devices. 3,106,608, 10–8–63, Cl. 178—69.

Britt, Norman G., L. S. Engle, F. P. Carroll, and M. Blumberg, to Interchemical Corp. Method of making foamed polyurethanes. 3,085,896, 4–16–63, Cl. 117—33.

Brittain, Armond J. Fuel can holder. 3,104,860, 9–24–63, Cl. 248—313.

Brittain, Edward G., and W. A. Stein, to Aerojet-General Corp. Two stage timing circuit. 3,107,320, 10–15–63, Cl. 317—148.5.

Britten, George C. Blow-pipe for fabricating plastic resin articles. 3,101,901, 8–27–63, Cl. 239—132.

Brittenham, James D., J. H. Carpenter, and J. H. Winniford, ½ to J. H. Carpenter, and ½ to J. H. Winniford. Precise stadia rod. 3,110,109, 11–12–63, Cl. 33—74.

Britton, Harold E., Jr.: *See*—
Bell, Leo R., and Britton. 3,105,361.

Britton, Roscoe C., and G. Carse. Apparatus for stacking slab-like elongated articles on edge. 3,090,504, 5–21–63, Cl. 214—7.

Britton, Sylvester C., and R. M. Schirmer, to Phillips Petroleum Co. Method and apparatus for providing improved combustion in jet engines. 3,101,593, 8–27–63, Cl. 60—39.71.

Brixner, Lothar H., to E. I. du Pont de Nemours and Co. Rare-earth arsenides. 3,077,792, 4–30–63, Cl. 23—204.

Brixner, Lothar H., to E. I. du Pont de Nemours and Co. Ferromagnetic material produced from ferric oxide and barium halide or strontium halide, and process for making same. 3,113,109, 12–3–63, Cl. 252—62.5.

Brixner, Lothar H., to E. I. du Pont de Nemours and Co. Composition of matter. 3,116,253, 12–31–63, Cl. 252—62.3.

Brixner, Lothar H., to E. I. du Pont de Nemours and Co. Thermoelectric composition of matter containing silver, titanium and a chalkogen. 3,116,261, 12–31–63, Cl. 252—514.

Brkich, Alexander: *See*—
Hornschuch, Hanns, and Brkich. 3,071,077.

Brkich, Alexander, to Ingersoll-Rand Co. Self-priming centrifugal pump. 3,082,694, 3–26–63, Cl. 103—113.

Broad, Charles S.: *See*—
Morley, Frederick W. W., Wilkinson, and Broad. 3,082,010.

Broad, Michael J.: *See*—
Moss, Norman, and Broad. 3,106,224.

Broad, Michael J., to The Plessey Co. Ltd. Servo operated actuating devices. 3,110,321, 11–12–63, Cl. 137—596.15.

Broadbent, Kent D., to Broadbent Laboratories, Inc. Magnetic device. 3,092,813, 6–4–63, Cl. 340—174.

Broadbent Laboratories, Inc.: *See*—
Broadbent, Kent D. 3,092,813.

Broadbent, Norman, to J. Blakeborough & Sons Ltd. Valves. 3,078,069, 2–19–63, Cl. 251—173.

Broadhead, Ronald L.: *See*—
Bolton, Benjamin A., and Broadhead. 3,102,868.

Broadhead, Ronald L., to Standard Oil Co. Mono-glyceride-benzene tricarboxylic acid smear resistant waxy resin. 3,106,533, 10–8–63, Cl. 260—22.

Broadhead, Ronald L., to Standard Oil Co. Polyester resin based on a tetracarboxylic acid. 3,108,085, 10–22–63, Cl. 260—22.

Broadhurst, Albert J.: *See*—
Morgan, William G., Broadhurst, and McLean. 3,114,525.

Broadnax, Alex E.: *See*—
Gordon, Percy. 3,104,059.

Broadrick, Ed B.: *See*—
Batty, Harry A., and Broadrick. 3,109,395.

Broadrick, Ed B., to James Lees, and Sons Co. Apparatus for the production of wave line constant height rows of tufts. 3,100,465, 8–13–63, Cl. 112—79.

Broadrick, Ed B., and G. J. Ledford, to James Lees and Sons Co. Industrial apparatus. 3,074,362, 1–22–63, Cl. 112—79.

Broadrick, Ed B., G. J. Ledford, and H. S. McDowell, to James Lees and Sons Co. Tufting machine yarn feeding means. 3,103,903, 9–17–63, Cl. 112—79.

Broadway, Barbara: *See*—
Stallings, Robert W. 3,074,081.

Broadwell, Robert J.: *See*—
Hastings, Robert M., Vickerman, and Broadwell. 3,107,694.

Broadwell, Robert J., to The Gabriel Co. Hydro-pneumatic vehicle suspension system. 3,083,026, 3–26–63, Cl. 280—6.

Broadwell, Robert J., to Aurora Corp. of Illinois. Valve mechanism. 3,107,695, 10–22–63, Cl. 137—636.1.

Broadwell, Robert J., to Aurora Corp. of Illinois. Valve mechanism. 3,112,769, 12–3–63, Cl. 137—627.5.

Broadworth, Max R.: *See*—
Larsen, Eric R., and Broadworth. 3,095,354.

Broan Mfg. Co., Inc.: *See*—
Banlow, Fred H. 3,075,335.

Broberg, Elmer E., to Elco Tool and Screw Corp. Piercing and tapping screw with groove to facilitate tapping. 3,094,894, 6–25–63, Cl. 85—47.

Broberg, Elmer E., to Elco Tool and Screw Corp. Combination piercing, reaming and tapping screw. 3,094,895, 6–25–63, Cl. 85—47.

Broberg, Leonard E., to The T. L. Smith Co. Mixer drum support structure for truck concrete mixer. 3,081,982, 3–19–63, Cl. 259—176.

Brock, Eugene W., and G. W. Onksen, to General Motors Corp. Switch mechanism. 3,082,304, 3–19–63, Cl. 200—88.

Brock, George D., and E. W. Topping, to General Electric Co. Sequence controller mechanism. 3,096,408, 7–2–63, Cl. 200—38.

Brock, Hendrikus J. W., to Lever Brothers Co. Dispensing device. 3,074,603, 1–22–63, Cl. 222—455.

Brock, Henry W., and F. J. Hattan, to The Standard Products Co. Windshield assembly. 3,093,844, 6–18–63, Cl. 9—1.

Brock, Henry W., and F. J. Hattan, to The Standard Products Co. Windshield structure. 3,093,845, 6–18–63, Cl. 9—1.

Brock, Joseph. Toe-weight assembly for horses. 3,078,924, 2–26–63, Cl. 168—25.

Brock, Kenneth E., to American Mat Corp. Floor mat with interlocking links. 3,093,870, 6–18–63, Cl. 20—78.3.

Brock, Kenneth G. Signal device for skiing tow ropes. 3,091,757, 5–28–63, Cl. 340—213.

Brock, Leo. Apparatus for detecting sheet material in a carton machine. 3,091,063, 5–28–63, Cl. 53—64.

Brock, Marlyn J.: *See*—
Louth, George D., and Brock. 3,100,773.

Brock, Norbert: *See*—
Arnold, Herbert, Brock, and Bourseaux. 3,074,992.
Arnold, Herbert, Kühas, and Brock. 3,102,072.

Brock, Russell E., Jr. Simultaneous position switch. 3,089,924, 5–14–63, Cl. 200—5.

Brockbank, Robert A., to Her Majesty's Postmaster General. Grapnels for submarine cables. 3,097,874, 7–16–63, Cl. 294—66.

Brockbank, Robert A., J. Piggott, E. F. S. Clarke, R. J. Jury, and E. W. E. Taylor, to Her Majesty's Postmaster General. Submarine cable-laying apparatus. 3,105,676, 10–1–63, Cl. 254—190.

Brockel, Ernst, to Maschinenfabrik Augsburg-Nurnberg A.G. Casting stereotype plates. 3,074,128, 1–22–63, Cl. 22—2.

Brocklehurst, Peter, and P. J. Pengilly, to The Procter & Gamble Co. Substituted peroxybenzoic acid bleaching agents. 3,075,921, 1–29–63, Cl. 252—99.

Brockman, Frank G., and K. E. Matteson, to North American Philips Co., Inc. Method of manufacturing an anisotropic ferromagnetic body. 3,114,715, 12–17–63, Cl. 252—62.5.

Brockman, Lyle, to General Signal Corp. Control system for railway car classification yard. 3,110,461, 11–12–63, Cl. 246—182.

Brockmann, Virgil C., to Henderson-Reed Bros. Co., Inc. Package and feeder for bird feed. 3,089,462, 5–14–63, Cl. 119—52.

Brockway, Arthur L., Jr., to The Bendix Corp. Ground controlled approach indicator system. 3,100,891, 8–13–63, Cl. 343—11.

Brockway, Charles E., R. R. Estes, and D. R. Smith, to A. E. Staley Mfg. Co. Amylaceous graft copolymers and process for preparing same. 3,095,391, 6–25–63, Cl. 260—17.4.

Brockway, Ellsworth M., to Bausch & Lomb Inc. Contour projector or the like with internal focusing and object scanning means. 3,076,380, 2–5–63, Cl. 88—24.

Brockway Engineering Co. Ltd.: *See*—
Wooldridge, Lawson C. 3,096,874.

Brockway Glass Co., Inc.: *See*—
Lagally, Paul. 3,108,920.
McMackin, John J., and Paruolo. 3,092,728.
Park, Robert H. 3,078,507.
Park, Robert H. 3,089,186.
Paruolo, Miller, and Miles. 3,071,247.

Brockway, William R., F. A. Loving, and G. A. Noddin, to E. I. du Pont de Nemours and Co. Fluid pressure responsive firing device. 3,095,815, 7–2–63, Cl. 102—70.

Brockway, William R., and D. L. Coursen, to E. I. du Pont de Nemours and Co. Pressure responsive boosters. 3,099,215, 7–30–63, Cl. 102—16.

Brockwell, Richard E., to United States of America, Atomic Energy Commission. Novel flow device. 3,111,963, 11-26-63, Cl. 138—39.

Bro-Dart Industries, Inc.: *See*—
Bonsall, George, and Brody. 3,112,859.

Brodbeck, Willy, to Alfred Gauthier, G.m.b.H. Angularly and rectilinearly adjustable tool carrier. 3,086,426, 4-23-63, Cl. 90—17.

Broder, Alan, and H. H. Wakeland, to Sperry Rand Corp. Vibration analyzing system. 3,070,995, 1-1-63, Cl. 73—67.

Broderick, Alan T. Magnetic concentration of low grade ores containing magnetic ore minerals. 3,083,830, 4-2-63, Cl. 209—222.

Broderick, Frank W. Rotary register embossing press. 3,088,399, 5-7-63, Cl. 101—23.

Broderick, John E., and O. M. Behr, to Martin-Marietta Corp. Tool for contouring honeycomb core. 3,104,694, 9-24-63, Cl. 153—70.

Broderick, Richard J., to Microware Electronic Tube Co., Inc. Insulated electron tube tuning device. 3,105,167, 9-24-63, Cl. 315—5.53.

Broders, Claude O., and T. H. Holmes, to United Aircraft Corp. Afterburner shutoff valve. 3,073,335, 1-15-63, Cl. 137—340.

Brodeur, Edouard A., to United States Rubber Co. Wickproofing of synthetic fabric. 3,073,713, 1-15-63, Cl. 117—7.

Brodie, George H., to The Cleveland Trust Co. (trustee). Automatic pinfall detecting apparatus for bowling game. 3,091,456, 5-28-63, Cl. 273—54.

Brodie, Mike. Combination reversible puller. 3,089,229, 5-14-63, Cl. 29—261.

Brodie, Nathan. Automotive service building. 3,079,871, 3-5-63, Cl. 104—44.

Brodie, Ralph N., Co.: *See*—
Berek, William F. 3,094,004.
Berek, William F. 3,101,924.

Brodl, Edward J.: *See*—
Dobrikin, Harold L., and Brodl. 3,088,311.

Brodl, Edward J., H. L. Dobrikin, and V. Mastis, to Berg Airlectro Products Co. Manual release structure. 3,109,347, 11-5-63, Cl. 92—113.

Brodowski, Frank S., ½ to J. A. Di Lorenzo. Releasable lace fastener device. 3,074,135, 1-22-63, Cl. 24—117.

Brodsky, Michael M., to Panel-Lift Door Corp. Panel door with screw drive means. 3,103,246, 9-10-63, Cl. 160—188.

Brodtmann, Edgar, to Vereinigte Glanzstoff-Fabriken Aktiengesellschaft. Supporting means for a thread turning tube. 3,115,743, 12-31-63, Cl. 57—77.45.

Brody, Aaron L.: *See*—
Bedrosian, Karaklan, and Brody. 3,102,777.

Brody, Aaron L., and J. W. Thomas, to Whirlpool Corp. Apparatus and method of preserving animal and plant materials. 3,102,779, 9-3-63, Cl. 21—58.

Brody, Aleta: *See*—
Brody, Ira and A. 3,099,568.

Brody, Arthur: *See*—
Bonsall, George, and Brody. 3,112,859.

Brody, Arthur. Book covering device. 3,080,178, 3-5-63, Cl. 281—34.5.

Brody, Frederick: *See*—
Scalera, Mario, and Brody. 3,116,293.

Brody, Gerald, to Moorman Mfg. Co. Anthelmintic 5-arylazo rhodanines. 3,098,007, 7-16-63, Cl. 167—53.1.

Brody, Ira and A. Confection package. 3,099,568, 7-30-63, Cl. 99—180.

Brody, Julius. Method of preparing a liquid meat product. 3,113,030, 12-3-63, Cl. 99—108.

Broecker, Ernst R. A. F., to Bahco, Aktiebolaget. Heating devices, especially for motor vehicles. 3,078,838, 2-26-63, Cl. 126—110.

Broekema, Heiko: *See*—
Edens, Jan W., and Broekema. 3,110,003.

Broerman, Arthur B., to Phillips Petroleum Co. Vaporizer. 3,102,512, 9-3-63, Cl. 122—32.

Broerman, Arthur B., to Phillips Petroleum Co. Liquid sample injection in a chromatographic apparatus. 3,103,807, 9-17-63, Cl. 73—23.

Broerman, Arthur B., to Phillips Petroleum Co. Fluid sampling system and process. 3,106,096, 10-8-63, Cl. 73—422.

Broerman, Arthur B., to Phillips Petroleum Co. Pneumatic amplifier sampling valve for chromatographic analyzers. 3,111,849, 11-26-63, Cl. 73—422.

Broffitt, Wilgus S. Turbine nozzle. 3,071,346, 1-1-63, Cl. 253—78.

Brofsky, Louis R.: *See*—
Szostak, Jan, and Brofsky. 3,105,449.

Brogan, John E., to United States of America, Army. Quick release, link-type clamp for multiple shaft clusters. 3,101,027, 8-20-63, Cl. 89—12.

Bröge, Kurt, to Rud. A. Hartmann Gross-Apparate und Spezialmaschinen G.m.b.H. & Co., Firma. Cleaning means and more particularly cleaning of hypodermic needles of syringes. 3,092,121, 6-4-63, Cl. 134—58.

Bröge, Kurt, to Rud. A. Hartmann, Gross-Apparate und Spegealmaschinen & Co., G.m.b.H. Apparatus for the cleaning and sterilization of instruments, in particular medical instruments. 3,101,728, 8-27-63, Cl. 134—99.

Brohaugh, Paul D., to Allis-Chalmers Mfg. Co. Voltage regulator for generators. 3,093,789, 6-11-63, Cl. 322—20.

Brois, Stanley J., and A. J. Rutkowski, to Esso Research and Engineering Co. Reactions of organo boranes. 3,101,376, 8-20-63, Cl. 260—606.5.

Brok, Wilhelm F.: *See*—
Schramel, Franz J., Den Hertog, and Brok. 3,112,363.

Brokaw, Adrian P.: *See*—
Engle, Allen W., Casey, and Brokaw. 3,112,466.

Brokaw, Adrian P., to Dresser Industries, Inc. Trigger generator for acoustic well logging systems. 3,113,289, 12-3-63, Cl. 340—18.

Brolin, Stephen J., to Bell Telephone Laboratories, Inc. Switching regulator. 3,115,600, 12-24-63, Cl. 323—22.

Brolin, Wade E. Moldboard mounted disk paving cutter. 3,083,954, 4-2-63, Cl. 262—20.

Brolin, Walter H. Ice cutting apparatus. 3,080,006, 3-5-63, Cl. 175—18.

Broman, Cyrus R.: *See*—
Gewecke, Theodore H., and Broman. 3,112,746.
Gewecke, Theodore H., Broman, and Morris. 3,087,491.
Harrison, Robert R., and Broman. 3,079,919.

Broman, Cyrus R., to Baxter Laboratories, Inc. Blood handling equipment. 3,074,402, 1-22-63, Cl. 128—214.

Broman, Cyrus R., to Baxter Laboratories, Inc. Oxygenator. 3,087,490, 4-30-63, Cl. 128—214.

Broman, Cyrus R., to Baxter Laboratories, Inc. Roller clamp for parenteral solution equipment. 3,099,429, 7-30-63, Cl. 251—6.

Broman, Cyrus R. Flow device. 3,103,928, 9-17-63, Cl. 218—214.

Broman, Cyrus R., and M. K. Hardison, to Sidney A. Tarrson Co. Combination exercise and amusement device. 3,110,497, 11-12-63, Cl. 273—95.

Bromberg, Menashe, to Western Electric Co., Inc. Cable guiding apparatus. 3,098,639, 7-23-63, Cl. 254—190.

Brömer, Heinz and N. Meinert, to Ernst Leitz, G.m.b.H. Optical crown glasses. 3,100,714, 8-13-63, Cl. 106—54.

Bromfield, Morton S. Method of manufacturing shoes. Re. 25,411, 7-9-63, Cl. 12—142.

Bromfield, William R.: *See*—
Wallace, Robert H., and Bromfield. 3,092,856.

Bromley, James E., and W. H. Hills, to Monsanto Chemical Co. Textured multilobal filament yarn. 3,092,890, 6-11-63, Cl. 28—81.

Bromley, Walter T., ½ to D. A. Fagan. Gas cutting machine. 3,081,990, 3-19-63, Cl. 266—23.

Bromstead, Edward J., and Y. Himelbloom, to Midland Industrial Finisher Co. Meat release compositions and the use of same. 3,084,051, 4-2-63, Cl. 99—187.

Bromwell, Fred K., 90% to T. G. Hendershot. Bow-and-arrow fishing tackle. 3,084,467, 4-9-63, Cl. 43—19.

Bronaugh, Hugh J., and P. R. Kruesi, to Vitro Corp. of America. Concentration of rare earths. 3,089,759, 5-14-63, Cl. 23—296.

Bronikowski, Raymond J., to McGraw-Edison Co. Fuse tube construction. 3,102,178, 8-27-63, Cl. 200—120.

Bronleewe, Robert H. Spring tooth harrows. 3,103,980, 9-17-63, Cl. 172—390.

Bronson, Gail M., Sr. Fishing pole handle assembly with enclosed signal light means. 3,074,196, 1-22-63, Cl. 43—17.

Bronstein, Harry. Swaging tool. 3,078,744, 2-26-63, Cl. 80—11.

Bronstein, Leonard: *See*—
Kratt, Henry J., and Bronstein. 3,079,737.

Bronstert, Franz, to Varta Aktiengesellschaft. Storage cell element connecting strap and method for its production. 3,072,984, 1-15-63, Cl. 22—210.

Brook, Arthur F. Universal gage. 3,075,290, 1-29-63, Cl. 33—169.

Brook, Leonard, and R. Walker, to The Forgrave Machinery Co. Ltd. Wrapping apparatus. 3,110,142, 11-12-63, Cl. 53—177.

Brooke, LeRoy J., to Wildman Jacquard Co. Straight bar knitting machine and method. 3,111,828, 11-26-63, Cl. 66—88.

Brooke, Norman E. Garment hangers. 3,073,491, 1-15-63, Cl. 223—96.

Brookens, Ronald G.: *See*—
Havens, Carl B., and Brookens. 3,080,340.

Brookes, Albert E.: *See*—
Armitage, Philip G., and Brookes. 3,088,418.

Brookes, Albert E. Machine for plucking hops or like plants. 3,079,925, 3-5-63, Cl. 130—30.

Brookes, Frederick D.: *See*—
Stuchbery, Arthur L., and Brookes. 3,094,092.

Brooklyn Products: *See*—
Nelson, Richard L. 3,104,413.

Brookman, Roger S.: *See*—
Morris, Lewis D., and Brookman. 3,083,515.

Brookpark, Inc.: *See*—
Boenig, Hermann V., and Walker. 3,111,420.
Teplansky, George J., Grass, Welsend, and Lewis. 3,074,840.

Brooks, Bernard, and A. A. Sylvane. Dental drilling and apparatus therefor. 3,083,463, 4-2-63, Cl. 32—48.

Brooks, Bruce E., to Olin Mathieson Chemical Corp. Paper having a high coefficient of friction. 3,080,260, 3-5-63, Cl. 117—152.

Brooks, Charles, and T. A. Sutton, to Cee-Bee Mfg. Co., Inc. Reinforced protected decorative strip materials. 3,086,216, 4-23-63, Cl. 2—278.

Brooks, Charles E., H. J. O'Neill, and W. M. Stover, to Bell Telephone Laboratories, Inc. Circuit for detecting and restoring off-normal selectors. 3,086,084, 4-16-63, Cl. 179—18.

Brooks, Charles P., and H. F. Livers; said Livers assor. to said Brooks. Apparatus for forming holes in sewer mains. 3,090,260, 5-21-63, Cl. 77—14.

Brooks, Chester E., G. B. Crofutt, Jr., and W. C. Sand, to Bell Telephone Laboratories, Inc. Distributed line concentrator system. 3,115,550, 12-24-63, Cl. 179—18.

Brooks, Donald H.: *See*—
De Hart, Harold, and Brooks. 3,099,493.

Brooks, Donald H., to Indevco Ltd. Spray coating. 3,109,680, 11-5-63, Cl. 302—11.

Brooks, Egan R. Hypodermic syringes. 3,090,383, 5-21-63, Cl. 128—216.

Brooks, Eric. Rotors for mixing, pulverising and like machines. 3,074,658, 1-22-63, Cl. 241—291.

Brooks, Eugene H., to Continental Gin Co. Method of tramping and bat feeding mechanism. 3,075,455, 1-29-63, Cl. 100—39.

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Brooks, Frank W., and J. O. Helvern, to General Motors Corp. Brake booster control valve mechanism. 3,081,744, 3-19-63, Cl. 121—41.

Brooks, Frank W., and J. O. Helvern, to General Motors Corp. Brake booster reaction mechanism. 3,102,453, 9-3-63, Cl. 91—369.

Brooks, Fred A., Jr., to Jersey Production Research Co. Cementing composition. 3,079,268, 2-26-63, Cl. 106—90.

Brooks, Hallie V. and V. A., and J. M. and M. N. Fushle, to Mity-Didy Corp. Diaper. 3,081,772, 3-19-63, Cl. 128—287.

Brooks, Harold E. Bumper for furniture or the like. 3,089,276, 5-14-63, Cl. 45—137.

Brooks, Harold, J. I. M. Forsyth, and G. I. Lewis, to National Research Development Corp. Rolling of titanium base alloys. 3,070,881, 1-1-63, Cl. 29—528.

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Brooks, Herbert B., and K. E. Walker; said Walker assor. to H. B. Brooks. Average-responding meter. 3,093,794, 6-11-63, Cl. 324—111.

Brooks, Hugh, Jr. Boat storage hangar. 3,082,887, 3-26-63, Cl. 214—16.4.

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Haus, Joseph B., Brooks, and Price. 3,098,004.

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Brooks, John R. Garbage can holder. 3,079,119, 2-26-63, Cl. 248—146.

Brooks, Kenneth A., to International Business Machines Corp. Wire wrapping tool. 3,077,211, 2-12-63, Cl. 140—124.

Brooks, Kenneth R., to Ford Motor Co. Windshield wiper. 3,090,068, 5-21-63, Cl. 15—250.17.

Brooks, Lionel H., to United Kingdom Atomic Energy Authority. Recovery of hydrogen fluoride from its azeotrope with water. 3,107,148, 10-15-63, Cl. 23—153.

Brooks, Norman C., to Miehle-Goss-Dexter, Inc. Folding machine roller adjusting mechanism. 3,089,695, 5-14-63, Cl. 270—68.

Brooks, Oran W. Multiple string centralizer. 3,108,639, 10-29-63, Cl. 166—241.

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Kirkpatrick, James S., and Ban. 3,077,819.
Kirkpatrick, James S., and Studer. 3,103,294.

Brooks, Richard E., J. F. Cogdell, Jr., and C. K. Rosenbaum, to E. I. du Pont de Nemours and Co. Process for fabrication of shaped articles from linear superpolycarbonamides to provide improved products. 3,080,345, 3-5-63, Cl. 260—78.

Brooks, Robert A., and R. Dessauer, to E. I. du Pont de Nemours and Co. Process for coloring anodized aluminum. 3,110,616, 11-12-63, Cl. 117—127.

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Brooks, H. V. and V. A., and J. M. and M. N. Fushie. 3,081,772.

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Brooks, Wesley M., and E. W. Hoffsis, to Globe-Wernicke Industries, Inc. Convertible seat-bed assembly. 3,095,234, 6-25-63, Cl. 297—65.

Brooks, Wesley M., and E. W. Hoffsis, to Globe-Wernicke Industries, Inc. Convertible chair-couch assembly. 3,107,940, 10-22-63, Cl. 297—63.

Brooks, William N., Jr., and J. R. Dohogne, to Sperry Rand Corp. Gyro magnetic compass system. 3,106,025, 10-8-63, Cl. 33—222.

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Brose, Harlan F., and R. J. Coburn, to United Aircraft Corp. Refrigeration system for low temperature operation. 3,081,606, 3-19-63, Cl. 62—197.

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Brosseau, Don A., to Vapor Corp. Switching device. 3,085,137, 4-9-63, Cl. 200—112.

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Brossi, Arnold, and E. Kyburz, to Hoffmann-La Roche Inc. Synthesis of griseofulvin and analogues, and intermediates therefor. 3,090,791, 5-21-63, Cl. 260—346.2.

Brossi, Arnold, M. Gerecke, and E. Kyburz, to Hoffmann-La Roche Inc. Process for the manufacture of spirocyclic polyketones. 3,114,753, 12-17-63, Cl. 260—346.2.

Brotchie, Walter J., to United Shoe Machinery Corp. Toe lasting machines. 3,071,789, 1-8-63, Cl. 12—8.8.

Brotchie, Walter J., and C. F. Fitzgerald, to United Shoe Machinery Corp. Shoe supporting mechanisms. 3,076,210, 2-5-63, Cl. 12—8.8.

Brothers, Jack, to United States of America, Army. Arming switch. 3,092,697, 6-4-63, Cl. 200—61.53.

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McCloskey, Allen L., Brotherton, and Petterson. 3,103,514.
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Broudo, Saul, to United States of America, Navy. Flexible cylinder launcher. 3,089,669, 5-14-63, Cl. 244—63.

Brouer, Orville A., and F. M. Meckel, to Swift & Co. Rail loader and hanger for truck trailer. 3,084,636, 4-9-63, Cl. 104—111.

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Brower, Paul V., to Beaunit Corp. Spinning viscose. 3,116,353, 12-31-63, Cl. 264—189.

Brower, Paul V., to Beaunit Corp. Viscose spinning process. 3,116,354, 12-31-63, Cl. 264—190.

Brown, Adolph M., 20% to E. C. Wood, and 20% to R. G. Le Vaux. Surgical clip applicator. 3,098,232, 7-23-63, Cl. 1—349.

Brown, Alastair A. True air speed computer. 3,110,800, 11-12-63, Cl. 235—151.

Brown, Albert M., to G. Stibbe & Co. Ltd. Method of knitting fine gauge stockings. 3,093,985, 6-18-63, Cl. 66—42.

Brown, Albert M., to G. Stibbe & Co., Ltd. Needle selecting mechanisms in knitting machines. 3,097,510, 7-16-63, Cl. 66—50.

Brown, Alexander, C. N. Merriam, and W. A. Miller, to Union Carbide Corp. Process for producing polystyrene fibers. 3,078,139, 2-19-63, Cl. 18—54.

Brown, Alexander M. Sealing separable fastener. 3,082,501, 3-26-63, Cl. 24—25.1.

Brown, Alfred W., to Owens-Corning Fiberglas Corp. Production of sheet structures comprising fibrous materials and glass flakelets. 3,108,926, 10-29-63, Cl. 162—156.

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Brown, Arthur E., and E. C. Ehlke, to General Motors Corp. Fuel control device for a gas turbine engine. 3,092,167, 6-4-63, Cl. 158—36.4.

Brown, Arthur E., E. G. Gaeke, J. D. Hiller, and H. C. Zelsloft, to General Motors Corp. Afterburner fuel control. 3,095,702, 7-2-63, Cl. 60—39.28.

Brown, Arthur J., Jr.: *See* Cook, Carl C. 3,102,478.

Brown, Arthur K., Jr.: *See* Hruska, Howard E., Burt, and Brown. 3,075,501.

Brown, Arthur S., Mfg. Co.: *See* Sedgley, Robert H. 3,103,124.

Brown, Arthur W., and K. E. Pope. Exhaust attachment for toilet bowls. 3,083,377, 4-2-63, Cl. 4—215.

Brown, Arvill B., to The Maco Corp. Glazing stop. 3,090,085, 5-21-63, Cl. 20—56.4.

Brown, Benjamin F., Jr., and E. C. Nelsen. Moving vehicle photo-electric timing device. 3,079,553, 2-26-63, Cl. 324—70.

Brown, Bently B. Fishing tackle. 3,081,577, 3-19-63, Cl. 43—54.5.

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Brown, Bonlard L., to General Dynamics Corp. High rate actuators. 3,093,118, 6-11-63, Cl. 121—38.

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Breuer, Erich, and Kielhorn. 3,114,034.
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Darrieus, Georges, and Milliner. 3,100,271.
Eggmann, Jean. 3,113,809.
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Brown-Bridge Mills, Inc., The: *See* Holt, Frederick W., Jr., Lorenz, and Relf. 3,090,353.

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Brown, Carl D., to Ashby Metal Forming Corp. Concealed adjustment mechanisms for adjustable furniture. 3,075,811, 1-29-63, Cl. 297—350.

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Brown, Carl F., Jr., and R. W. Wilson, to Wald Industries, Inc. Road striping apparatus. 3,092,325, 6-4-63, Cl. 237—12.3.

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Brown, Cicero C. Safety joint device. 3,083,767, 4-2-63, Cl. 166—46.

Brown, Cicero C. Well packers. 3,083,769, 4-2-63, Cl. 166—120.

Brown, Cicero C., to Brown Oil Tools, Inc. Hydraulic pipe snubber for oil wells. 3,096,075, 7-2-63, Cl. 254—29.

Brown, Cicero. Gripping devices. 3,096,824, 7-9-63, Cl. 166—210.

Brown, Cicero C., to Brown Oil Tools, Inc. Methods of and apparatus for completing multiple zone wells. 3,098,524, 7-23-63, Cl. 166—48.

Brown, Cicero C., to Brown Oil Tools, Inc. Well apparatus and methods of running a plurality of tubing strings in a well bore or pipe. 3,100,531, 8-13-63, Cl. 166—114.

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Brown, Cicero C., to Brown Oil Tools, Inc. Methods of and apparatus for selectively producing fluids from a plurality of subsurface fluid zones. 3,115,187, 12-24-63, Cl. 166—224.

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Brown, Clifford K. Magnetic direction and inclination indicating device. 3,100,350, 8-13-63, Cl. 33—205.5.

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Brown, David M., and R. H. Colley, to Rolls-Royce Ltd. Aircraft jet propulsion apparatus with thrust reversing means. 3,076,309, 2-5-63, Cl. 60—35.54.

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Brown, David M., and H. Spooner, to Rolls-Royce Ltd. Jet noise silencing apparatus for an aircraft. 3,113,636, 12-10-63, Cl. 181—43.

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Brown, Donald D. Water ski towline retriever. 3,098,463, 7-23-63, Cl. 114—235.

Brown, Donald K., 2/3 to W. H. Kintzinger. Children's ride device. 3,084,935, 4-9-63, Cl. 272—33.

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Brown, Eldon E. Jet propulsion apparatus for boats. 3,087,302, 4-30-63, Cl. 60—35.54.

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Brown, Elmer V. Induction signal system. 3,093,812, 6-11-63, Cl. 340—58.

Brown, Emil. Pushcart-type tree and brush cutting machine. 3,080,896, 3-12-63, Cl. 143—43.

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Brown, Ernest H. Water silencing and saving means for ball cock valve assembly in toilet flush tank. 3,086,540, 4-23-63, Cl. 137—436.

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Brown, Gaylord B.: *See* Yurkinas, Joseph W., and Brown. 3,085,263.

Brown, Gaylord W., to Brown Machine Co. Sheet conveying mechanism. 3,100,637, 8-13-63, Cl. 271—79.

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Bibolet, Aubert H., Brown, Richter, and Fellmann. 3,078,244.
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Brown, Gordon E., to Monsanto Chemical Co. Method for end-gluing wood members. 3,074,448, 1-22-63, Cl. 144—316.

Brown, Gordon H., to Whirlpool Corp. Fluid metering device for a water softening apparatus. 3,113,101, 12-3-63, Cl. 210—98.

Brown, Graydon L., to Continental Oil Co. Hydraulic motor port design. 3,073,659, 1-15-63, Cl. 309—2.

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Brown, H. H., Shoe Co., Inc.: *See* Schlecht, Frederick H. 3,076,274.

Brown, Hamlin S.: *See* Veres, Edward W., and Brown. 3,078,007.

Brown, Harold, H. S. Tuft, and M. Kaplan. Swimming shoes. 3,107,372, 10-22-63, Cl. 9—309.

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Brown, Harold P., M. R. Walters, and J. F. Anderson, to The B. F. Goodrich Co. Polymeric adhesives and method of preparation. 3,100,760, 8-13-63, Cl. 260—86.1.

Brown, Harry W., T. A. Jacoby, and C. F. Kruger, to Texas Instruments Inc. Thermal motor protective means. 3,083,309, 3-26-63, Cl. 310—68.

Brown, Henry, to The Udylite Research Corp. Composite nickel electroplate. 3,090,733, 5-21-63, Cl. 204—40.

Brown, Henry, and D. H. Becking, to The Udylite Research Corp. Electrodeposition of nickel. 3,075,898, 1-29-63, Cl. 204—49.

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Brown, Herbert C. Process for the production of organoborn compounds. 3,078,308, 2-19-63, Cl. 260—606.5.

Brown, Herbert C. Preparation of organoboron compounds. 3,078,309, 2-19-63, Cl. 260—606.5.

Brown, Herbert C. Isomerization of primary, secondary or tertiary organoboron compounds into isomers thereof. 3,078,310, 2-19-63, Cl. 260—606.5.

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Brown, Herbert C. Preparation of hydrocarbon boron compounds. 3,085,112, 4-9-63, Cl. 260—606.5.

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Brown, Horace D. Vehicle speed control device. 3,088,005, 4-30-63, Cl. 200—56.

Brown, Horace D., to Merck & Co., Inc. Anthelmintic compositions and method of employing same. 3,102,074, 8-27-63, Cl. 167—53.

Brown, Horace D., and L. H. Sarett, to Merck & Co., Inc. 21-carbamate derivatives of 21-hydroxy steroids. 3,083,197, 3-26-63, Cl. 260—239.5.

Brown, Horace D., A. R. Matzuk, and L. H. Sarett, to Merck & Co., Inc. Certain N-(2-thiazolyl)-carbamic acid aryl esters. 3,107,251, 10-15-63, Cl. 260—306.8.

Brown, Howard C., to The Hayes Corp. Towed target launching and retrieval apparatus. 3,088,693, 5-7-63, Cl. 244—3.

Brown, Howard D. High speed hydraulically actuated device. 3,112,678, 12-3-63, Cl. 91—342.

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Brown, Howard M., to Union Carbide Canada Ltd. Flat dry cell and battery. 3,080,445, 3-5-63, Cl. 136—111.

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Brown, Hugh S., and I. H. Svendsen, to Briggs & Stratton Corp. Power lawn mower with built-in engine starter. 3,084,679, 4-9-63, Cl. 123—179.

Brown, Jack C., to General Motors Corp. Universal drilling machine. 3,077,128, 2-12-63, Cl. 77—5.

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Brown, James, to The American Ship Building Co. Stern tube construction. 3,072,447, 1-8-63, Cl. 308—76.

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Brown, James C., and L. M. Bontwell, to McDonnell Aircraft Corp. Data recorder. 3,091,506, 5-28-63, Cl. 346—107.

Brown, James D., to Toledo Scale Corp. Feed pan arrangement for meat choppers. 3,115,173, 12-24-63, Cl. 146—182.

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Brown, James H., to Ling-Temco-Vought, Inc. Radar system. 3,090,954, 5-21-63, Cl. 343—17.1.

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Ingham, Robert M., Jr., Ferguson, and Brown. 3,103,054.

Brown, James L. Glide vehicle. 3,080,584, 3–12–63, Cl. 9–11.

Brown, James R., J. N. Adam, Jr., and W. G. Whitney, to Dade Reagents, Inc. Microbiological testing method and structure therefor. 3,107,204, 10–15–63, Cl. 195—103.5.

Brown, James W., to National Mfg. Co. Collapsible display rack. 3,101,148, 8–20–63, Cl. 211—148.

Brown, James W., and R. J. Black, to The Bendix Corp. Shock strut with linear damper. 3,078,967, 2–26–63, Cl. 188—96.

Brown, Jerome E., E. G. De Witt, and H. Shapiro, to Ethyl Corp. Preparation of cyclomatic nickel nitrosyls. 3,080,034, 4–16–63, Cl. 260—439.

Brown, Jerome E., H. Shapiro, and E. G. De Witt. Fuel oil compositions. 3,110,577, 11–12–63, Cl. 44—68.

Brown, Jerome U., to The National Cash Register Co. Check-out counter. 3,077,950, 2–19–63, Cl. 186—1.

Brown, Joe B., and R. E. Place, to Planet Corp. Article transfer system. 3,092,262, 6–4–63, Cl. 214—1.

Brown, John B., and D. W. Stammers, to Ilford Ltd. Colour photography. 3,114,634, 12–17–63, Cl. 96—20.

Brown, John K., to Sperry Rand Corp. Engagement mechanism. 3,077,245, 2–12–63, Cl. 188—42.

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Brown, John W., Jr., to Brown Fintube Co. Heat exchanger. 3,083,763, 4–2–63, Cl. 257—239.

Brown, John W., Jr., to Brown Tintube Co. Recuperator. 3,105,544, 10–1–63, Cl. 165—142.

Brown, John W., Jr., and F. J. Samerdyke, to Brown Fintube Co. Heat exchanger. 3,074,480, 1–22–63, Cl. 165—154.

Brown, Joseph R., and C. B. Cochran, to C. C. Brown. Full opening safety valve for pipe strings. 3,092,135, 6–4–63, Cl. 137—458.

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Bedrosian, Karaklan, and Brown. 3,102,780.

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Brown, Kenneth L., to Union Carbide Corp. Polyether polyurethane foams stabilized with tartaric acid. 3,087,901, 4–30–63, Cl. 260—2.5.

Brown, Kenneth M., and R. J. J. Hamblin, to Universal Oil Products Co. Catalytic gas oxidizing and fluid heating apparatus. 3,110,300, 11–12–63, Cl. 126—109.

Brown, Larry T., to Chrysler Corp. Gas lubricated bearing system. 3,107,129, 10–15–63, Cl. 308—122.

Brown, Laurence R., to Drexel Dynamics Corp. Coding apparatus. 3,084,453, 4–9–63, Cl. 35—2.

Brown, Laurence R., to Drexel Dynamics Corp. Character selection device. 3,085,226, 4–9–63, Cl. 340—146.3.

Brown, Laurence R., to Drexel Dynamics Corp. Detection of characters. 3,085,227, 4–9–63, Cl. 340—146.3.

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Brown, Maurice H., and L. R. Glattino, to United States of America, Navy. Electric barrier device. 3,097,281, 7–9–63, Cl. 200—153.

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Brown, Norman M., Jr., to The Garrett Corp. Pitot static pressure compensator. 3,086,599, 4–23–63, Cl. 73—178.

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Broyhill, Roy F. Adjustable sprayer boom. 3,073,530, 1–15–63, Cl. 239—168.

Broyles, Neva I. Hair dryer. 3,109,437, 11–5–63, Cl. 132—9.

Brozlat, Horst. Motor-driven cable winding device. 3,077,320, 2–12–63, Cl. 242—86.5.

Brozo, Donald E., to Burroughs Corp. Stack conditioning apparatus. 3,089,697, 5–14–63, Cl. 271—34.

Brozowski, Vincent: *See*—
Klass, Donald L., and Brozowski. 3,091,587.
Klass, Donald L., and Brozowski. 3,109,846.

Brubaker, Chadwick D., to Western Electric Co., Inc. Wire-wrapping apparatus. 3,087,684, 4–30–63, Cl. 242—7.

Brubaker, Robert F.: *See*—
Bullock, Norman J., Brubaker, and Billings. 3,091,954.
Martin, John C., Brubaker, Bullock, and Stutrud. 3,091,108.

Brubaker, Wilson M., and F. P. Pickett, to Consolidated Vacuum Corp. Cold-cathode discharge ion pump. 3,107,044, 10–15–63, Cl. 230—69.

Brubaker, Wilson M., and C. E. Berry, to Consolidated Vacuum Corp. Ion pump. 3,112,863, 12–3–63, Cl. 230—69.

Bruce, Carl L., ½ to A. E. Slocum. Muffler. 3,105,752, 10–1–63, Cl. 55—302.

Bruce, Donald M., W. T. Cowhig, and K. J. Butler, to Cotton Silk and Man-Made Fibres Research Assn. Automatic machinery. 3,089,322, 5–14–63, Cl. 66—154.

Bruce, Donald S., J. R. Dickson, and V. Koljonen, to Signal-Stat Corp. Cab lamp for automotive vehicles. 3,096,026, 7–2–63, Cl. 240—7.1.

Bruce, Everett A., to Pennsalt Chemicals Corp. Control of hydrogen ion concentration in crystallization of calcium hypochlorite. 3,094,380, 6–18–63, Cl. 23—86.

Bruce, George D., and R. A. Henle, to International Business Machines Corp. Inverter with output clamp and R-C circuit. 3,089,964, 5–14–63, Cl. 307—88.5.

Bruce, Ian B.: *See*—
Trubey, Philip W., and Bruce. 3,085,858.

Bruce, James S.: *See*—
Fillius, Milton F., and Bruce. 3,086,900.

Bruce, John A., to Forspads Inc. Protective cushion for packaging cans. 3,101,847, 8–27–63, Cl. 206—65.

Bruce, John K., to Albert Van Luit & Co. Device for applying liquid coating to a moving web. 3,076,430, 2–5–63, Cl. 118—413.

Bruce, John K. Apparatus for short term accumulation of conveyed articles. 3,114,449, 12–17–63, Cl. 198—40.

Bruce, John K., to Albert Van Luit & Co. Means for unidirectional photo enlarging and reducing. 3,115,081, 12–24–63, Cl. 95—75.

Bruce, John N., to United States of America, Army. Pyrophoric slug flame thrower. 3,106,238, 10–8–63, Cl. 158—28.

Bruce Molded Plastic Products, Inc.: *See*—
Louik, Leonard and Frank. 3,115,228.

Bruce, Robert A. Milk bottle carrier and enclosure. 3,071,279, 1–1–63, Cl. 220—1.

Bruce, William F., F. L. Muehlmann, and J. M. Glassman, to American Home Products Corp. Phenothiazines with antihistaminic and antipsychotic activity. 3,081,229, 3–12–63, Cl. 167—65.

Bruchas, Edward R.: *See*—
Bruchas, George R. 3,096,523.

Bruchas, George R., to G. R. and E. R. Bruchas. Football glove. 3,096,523, 7–9–63, Cl. 2—159.

Bruck, George, to Avco Corp. Noise factor measurement system. 3,72,845, 1–8–63, Cl. 324—57.

Brucken, Byron L., to General Motors Corp. Dishwasher. 3,080,874, 3–12–63, Cl. 134—115.

Brucken, Byron L., to General Motors Corp. Agitating and spinning mechanism. 3,087,321, 4–30–63, Cl. 68—23.

Brucken, Byron L., T. H. Fogt, and J. W. Light, to General Motors Corp. Clothes washing machine having a dry type agitate and spinning mechanism. 3,091,956, 6–4–63, Cl. 68—23.

Brucken, Byron L., and T. H. Fogt, to General Motors Corp. Multi-speed motor for domestic appliance. 3,110,852, 11–12–63, Cl. 318—221.

Bruckmann, Maurice E. Reed cases. 3,092,243, 6–4–63, Cl. 206—13.

Bruckner, Klaus: *See*—
Bork, Karl-Heinz, Bruckner, Mannhardt, Von Werder, Jahn, Bertram, and Hotovy. 3,113,143.
Irmscher, Klaus, and Bruckner. 3,086,033.
Irmscher, Klaus, Mannhardt, Brückner, and Gillissen. 3,103,505.
Mannhardt, Heinz-Jurgen, Bork, Bruckner, and Metz. 3,074,977.

Bruckner, Klaus, K. Irmscher, and J. Gillissen, to E. Merck Aktiengesellschaft. Preparation of anabolic agents. 3,087,942, 4–30–63, Cl. 260—397.4.

Bruckner, Klaus, K. Irmscher, and J. Gillissen, to E. Merck Aktiengesellschaft. Anabolic alkylthio-steroids. 3,098,084, 7–16–63, Cl. 260—397.4.

Brucksch, William F., Jr., to United States Rubber Co. Vinylpyridine copolymer rubber composition containing metallic halide. 3,087,907, 4–30–63, Cl. 260—41.5.

Bruder, Werner K., to Daimler-Benz Aktiengesellschaft. Support arrangement. 3,105,355, 10–1–63, Cl. 60—39.31.

Bruderlin, Henry H. Wire forming machine. 3,076,491, 2–5–63, Cl. 153—2.

Brudney, Harry, to Dollac Corp. Doll eye having movable lid. 3,086,318, 4–23–63, Cl. 46—166.

Brudney, Harry, to Dollac Corp. Tearing eye. 3,091,891, 6–4–63, Cl. 46—135.

Brudney, Harry, to Dollac Corp. Dolls' eyes. 3,105,326, 10–1–63, Cl. 46—169.

Brudney, Harry, and R. S. Turshen, to Dollac Corp. Rolling and sleeping eye for dolls. 3,091,893, 6–4–63, Cl. 46—168.

Bruecker, George B. Wall drive silo unloader. 3,071,263, 1–1–63, Cl. 214—17.

Bruecker, John. Movable cutter for a dry shaver having saw tooth design cutting edge. 3,092,904, 6–11–63, Cl. 30—43.

Brueckman, Arthur O.: *See*—
Christensen, Robert C., Bement, and Brueckman. 3,093,826.

Brueckmann, Helmut, to United States of America, Army. Broad band vertical antenna with adjustable impedance matching network. 3,100,893, 8–13–63, Cl. 343—713.

Brueckner, Alexander W., and J. G. Lewis, Jr., to Cox Instrument Corp. Hydraulic switching system. 3,088,481, 5–7–63, Cl. 137—117.

Brueckner, Herbert U., E. E. Fluskey, and W. Werbyckyj, to Minnesota Mining and Mfg. Co. Slide transfer mechanism. 3,114,286, 12–17–63, Cl. 88—28.

Brueder, Antoine, to Andre Citroen, Societe Anonyme. Seat structure. 3,081,131, 3–12–63, Cl. 297—455.

Brueder, Antoine, to Andre Citroen Societe Anonyme. Longitudinal-elasticity suspension system. 3,089,558, 5–14–63, Cl. 180—64.

Brueder, Antoine, to Societe Anonyme Andre Citroen. Switching devices for hydraulic pumps and motors. 3,094,078, 6–18–63, Cl. 103—162.

Brueggenjohann, Georgia: *See*—
Taylor, Thomas D. 3,099,236.
Taylor, Thomas D. 3,100,468.
Taylor, Thomas D. 3,105,450.

Bruemmer, Herman L. Dovetailing machine and method. 3,078,888, 2–26–63, Cl. 144—326.

Bruengger, Heinrich: *See*—
Weber, Kurt, Ulrich, Bruengger, and Staenble. 3,110,541.
Weber, Kurt, Ulrich, Hugelshofer, Bruengger, and Staenble. 3,083,068.

Bruenig, Matthias. Pendulum centrifuge. 3,078,035, 2–19–63, Cl. 233—24.

Brueschweiler, Hans: *See*—
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Zuppinger, Paul, and Brueschweiler. 3,072,606.

Bruff Mfg. Co. Ltd.: *See*—
Armitage, Philip G., and Brookes. 3,088,418.

Brugge, Walter J., C. J. Hueber, and W. J. Hampton, to Addressograph-Multigraph Corp. Address printing machine with roller inker. 3,077,828, 2–19–63, Cl. 101—56.

Brugger, Franz. Multiple compartment refrigeration installation. 3,075,670, 1–29–63, Cl. 221—76.

Brugger, Otto, and W. Posch, to Semperit Osterreichisch-Amerikanische Gummiwerke Aktiengesellschaft. Process and apparatus for manufacturing seamless endless rubber tubes. 3,087,847, 4–30–63, Cl. 156—122.

Brugger, Wilhelm, to Th. Goldschmidt, A.-G. Manufacture of crystalline zirconium tetranecate. 3,076,831, 2–5–63, Cl. 260—429.3.

Bruin, Pieter: *See*—
Ramscheldt, Gottfried E., and Bruin. 3,114,731.

Brukner, Clayton J. Log splitter. 3,077,214, 2–12–63, Cl. 144—193.

Brukner, John S., to Texaco Inc. Drilling fluid. 3,091,589, 5–28–63, Cl. 252—8.5.

Bruma, Marc: *See*—
Tardy, Pierre A., Bruma, and Magat. 3,084,245.

Brumbaugh, Robert M., and W. J. Cheney, to Ampex Corp. Magnetic tape machine. 3,074,661, 1–22–63, Cl. 242—55.12.

Brumbaugh, Robert T., to Goodman Mfg. Co. Conveyor weighing apparatus. 3,115,201, 12–24–63, Cl. 177—16.

Brumbaugh, Webster, to Weyerhaeuser Co. Packaging apparatus and method. 3,077,062, 2–12–63, Cl. 53—37.

Brumby, Jack B. Automatic pressing machine. 3,112,817, 12–3–63, Cl. 223—2.

Brumby, Lawrence R.: *See*—
Suggs, Thomas F., Browne, and Brumby. 3,081,511.

Brumley, Corwin H., to Bausch & Lomb Inc. Ratio measuring spectrophotometer. 3,071,037, 1–1–63, Cl. 88—14.

Brumlik, George C. Molecular model set. 3,080,662, 3–12–63, Cl. 35—18.

Brummer, Richard S.: *See*—
Caldwell, Frank A., and Brummer. 3,078,758.

Brummer, Stephen. High explosive mixtures. 3,111,439, 11–19–63, Cl. 149—92.

Brunberg, Karl G., R. A. Dahlblom, and B. Lillsunde, to Telefonaktiebolaget LM Ericsson. Circuit arrangement for controlling cross-bar selectors in a telephone system. 3,088,999, 5–7–63, Cl. 179—22.

Brunberg, Karl G., B. Lillsunde, and J. S. Lindenhall, to Telefonaktiebolaget L M Ericsson. Telephone system. 3,101,392, 8–20–63, Cl. 179—22.

Brun-Buisson, Robert, to Inventions Finance Corp. Combined coffee-pot and coffee-mill. 3,107,600, 10–22–63, Cl. 99—286.

Brundage, Clinton F., to Minnesota Mining and Mfg. Co. Apparatus for mounting inserts. 3,085,618, 4–16–63, Cl. 156—530.

Brune, William L., A. F. Perkins, and J. C. Perkins, Jr., to General Dynamics Corp. Carrier transmission system for reducing impulse noise. 3,105,937, 10–1–63, Cl. 325—50.

Bruneau, Louis O.: *See*—
Bishop, Donald R., and Bruneau. 3,091,379.

Brunelle, Thomas E.: *See*—
Crecelius, Samuel R., and Brunelle. 3,098,065.

Bruner Corp.: *See*—
Rudellick, John. 3,073,674.
Rudellick, John. 3,090,396.
Rudellick, John. 3,095,008.
Rudellick, John. 3,098,578.
Rudellick, John. 3,114,968.

Bruner, Leonard R., to Dow Corning Corp. One component room temperature vulcanizable organopolysiloxane elastomers. 3,077,465, 2–12–63, Cl. 260—46.5.

Bruner, Leonard R., to Dow Corning Corp. Diorganopolysiloxane polymerization. 3,105,061, 9–24–63, Cl. 260—46.5.

Brunette, Fredrick F., to Brilliant Products Inc. Display rack. 3,104,626, 9–24–63, Cl. 108—106.

Brunette, Kenneth W., and W. L. Wuster, to United States of America, Navy. Voltage regulator. 3,076,130, 1–29–63, Cl. 321—18.

Brunig, William D., to Bennett-Ireland Inc. Fireplace screen mounting bar. 3,103,280, 9–10–63, Cl. 211—105.3.

Bruning, Charles, Co., Inc.: *See*—
Bornarth, Dennis M. 3,107,169.
Kucera, Thomas J. Re. 25,444.
Wells, Edward C., and Robertson. 3,077,316.

Bruninga, John H.: *See*—
Mottin, Glenn F. 3,083,849.

Brünnée, Kurt, to Atlas-Werke Aktiengesellschaft. Ion source for mass spectrometer. 3,115,591, 12–24–63, Cl. 313—23.1.

Brunner, Alfred, to Societe Anonyme Sulzer Freres. Steam power plant. 3,100,967, 8–20–63, Cl. 60—73.

Brunner, Alfred, to Sulzer Freres, S.A. Heat exchange control apparatus. 3,111,936, 11–26–63, Cl. 122—479.

Brunner, Alfred, to Sulzer Freres, Societe Anonyme. Remote data transmission and position control apparatus. 3,116,444, 12–31–63, Cl. 318—28.

Brunner, Carl F., to Murray Mfg. Corp. Arc attenuator. 3,102,957, 9–3–63, Cl. 200—147.

Brunner, Cedric D.: *See*—
Bissell, Don W., and Brunner. 3,103,443.

Brunner, George M., W. V. Hauck, and A. Adams, to International Minerals & Chemical Corp. Method for the purification of potassium carbonate. 3,079,227, 2–26–63, Cl. 23—63.

Brünner, Helmut: *See*—
Wagner, Ernst, and Brünner. 3,103,495.

Brunner, Richard: *See*—
Margreiter, Hans, Brunner, and Brandl. 3,093,547.

Brunner, Robert. Apparatus for providing a finished knitted fabric with predetermined dimensions. 3,098,279, 7–23–63, Cl. 26—18.5.

Brunner, Walter H., and A. Halasz. Method of dyeing keratinaceous materials with p-phenylene diamine compositions. 3,088,877, 5–7–63, Cl. 167—88.

Brunner, Walter H., and A. Halasz. Method of dyeing keratinaceous materials with nitro-substituted para-phenylene diamine compositions. 3,088,878, 5–7–63, Cl. 167—88.

Brunner, Walter H., and A. Halasz. Catalytic hydrogenation of 2,4-dinitrophenyl-amines. 3,088,978, 5–7–63, Cl. 260—580.

Brunner, Wilber C.: *See*—
Anderson, Wallace A., Brunner, Hornberger, and Stanley. 3,093,956.

Bruno, Angel. Fast current breaker switch. 3,106,621, 10–8–63, Cl. 200—67.

Bruno, Enrico, to Maidenform, Inc. Brassieres. 3,082,771, 3–26–63, Cl. 128—494.

Bruno, Gunter: *See*—
Koster, Roland, Bruno, and Lehmkuhl. 3,097,066.

Bruno, John. Means to preclude wind flexing of a storm sash. 3,095,617, 7–2–63, Cl. 20—55.

Bruno, John O.: *See*—
Giampapa, Cirino, Paleschuck, and Bruno. 3,070,959.

Bruno, Kurt: *See*—
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Brunot, Albert W., to General Electric Co. Dynamoelectric machine. 3,101,422, 8–20–63, Cl. 310—86.

Bruns, Edward C.: *See*—
Wiatt, James G., Bruns, and Travis. 3,109,265.

Bruns, William H., to Otis Elevator Co. Extended roller guide for elevators. 3,087,583, 4–30–63, Cl. 187—95.

Brunschweiger, Alfred, to International Business Machines Corp. Limiting amplifier employing non-saturating transistors for providing in-phase square wave output from distorted wave input. 3,078,377, 2–19–63, Cl. 307—88.5.

Brunson, Bruce W., to Werner Machinery Co. Milk handling apparatus. 3,088,483, 5–7–63, Cl. 137—355.12.

Brunson, Marion O., and J. E. Huffaker, to Eastman Kodak Co. Process for utilizing steam as a release agent in embossing. 3,110,608, 11–12–63, Cl. 117—10.

Brunson, Thomas H., ½o each to J. M. Dubiel and J. Giesler. Safety screen for swimming pools. 3,092,844, 6–11–63, Cl. 4—172.

Brunson, Ward L. Bag clip. 3,112,542, 12–3–63, Cl. 24—30.5.

Brunswick Corp.: *See*—
Albrecht, Alexander J. 3,096,090.
Albrecht, Alexander J. 3,108,806.
Anderson, Robert L., and Sewell. 3,109,648.
Anderson, Robert L., and Sewell. 3,109,649.
Bernd, Julea P. 3,084,887.
Brown, Milton E. 3,110,064.
Higgins, John L. 3,110,309.
Isenberg, Sampson, Moon, and Shaw. 3,099,447.
Jolitz, William L., Satchell, and Berry. 3,104,105.
Lappin, Richard J., and Marshall. 3,103,707.
Lappin, Richard J., and Wurn. 3,094,186.
Morrow, John B. 3,074,665.
Reineman, Richard G., and Schaefer. Re. 25,414.
Roehr, Zbislaw M. 3,074,541.
Roehr, Zbislaw M. 3,093,134.
Roehr, Zbislaw M. 3,097,647.
Roehr, Zbislaw M. 3,107,785.
Schaefer, George E. 3,072,434.
Sharp, Annabel R., Higgins, and Roehr. 3,072,120.
Shaw, Albert E., Isenberg, and Moon. 3,093,375.
Simbulan, Raymond F. 3,111,981.
Steeman, Raymond V., and Gren. 3,099,446.
Stevens, Peter A. 3,073,307.
Torresen, Robert. 3,109,650.
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Torresen, Robert, and Gretzky. 3,094,325.
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Varney, Philip L. 3,085,705.
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Brunswick, Lawrence F. Long-lived photographic film with conditioning and cleaning means therefor. 3,078,759, 2–26–63, Cl. 88—19.5.

Brunswick-MacGregor Inc.: *See*—
Kelly, Joseph W. 3,087,163.

Brunswick Union Inc.: *See*—
Ludd, John. 3,081,106.
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Brunt, John B., to Fairchild Camera and Instrument Corp. Automatic plate changing mechanism for printing press. 3,112,696, 12–3–63, Cl. 101—217.

Brunton, Arthur F. Formation testing device. 3,087,549, 4–30–63, Cl. 166—142.

Brunton, Donald C., to Curtiss-Wright Corp. Holder for movable radioactive source material. 3,088,032, 4–30–63, Cl. 250—106.2.

Brunton, Phillip E., and I. Morrison. Container for beverages. 3,092,275, 6–4–63, Cl. 215—1.

Bruscа, Joseph L., to Colgate Bearings, Inc. Shaft bearing. 3,113,810, 12–10–63, Cl. 308—36.1.

Bruscaglioni, Raffaello, to Filotecnica Salmoiraghi S.p.A. Portable free arm type sewing machine. 3,077,169, 2–12–63, Cl. 112—220.

Bruscaglioni, Raffaello, to Filotechnica Salmoiraghi S.p.A. Stitch regulating device. 3,088,427, 5–7–63, Cl. 112—210.

Bruschini, Albert, and W. A. Sheninger, to American Can Co. Container and closure therefor. 3,104,045, 9–17–63, Cl. 229—43.

Brush Beryllium Co., The: *See*—
Melvin, John R. 3,109,232.

Brunson, Herman A., and W. I. Denton, to Olin Mathieson Chemical Corp. Isomerization of alkylene oxide. 3,092,668, 6–4–63, Cl. 260—632.

Brussard, Jan M., and J. W. Hekkert, to North American Philips Co., Inc. Method of longitudinally prepolarizing bodies consisting of at least one layer of piezoelectric material. 3,071,841, 1–8–63, Cl. 29—25.35.

Brust, Harry F., to The Dow Chemical Co. N-(trisaminophosphoranylidene)-haloacylamides. 3,071,574, 1–1–63, Cl. 260—239.

Brust, Harry F., to The Dow Chemical Co. O-haloalkyl O-alkyl phosphoramidothioates. 3,087,955, 4–30–63, Cl. 260—461.

Brust, Harry F., to The Dow Chemical Co. Substituted urea-acid complexes. 3,095,407, 6–25–63, Cl. 260—96.5.

Brustad, John T.: *See*—
Savit, Carl H., Brustad, and Sider. 3,096,846.

Brutten, Eugene J., B. B. Gray, and D. E. Rose, to Southern Illinois University Foundation. Fingerprinting apparatus. 3,083,682, 4–2–63, Cl. 118—31.5.

Bruun, Otto J., to Andersen & Brunn's Fabrikker A/S. Apparatus for the removal one by one of bottle-caps from a stack and positioning them. 3,099,120, 7–30–63, Cl. 53—313.

Bruyning, Eugene L.: *See*—
Kornbluh, Abraham J., and Bruyning. 3,114,874.

Bry, Thomas S.: *See*—
Fried, John, and Bry. 3,072,646.
Fried, John, and Bry. 3,096,353.

Bryan, George J., to United States of America, Navy. Method of thrust vector control. 3,099,960, 8–6–63, Cl. 102—50.

Bryan, Harvard J., to Harvest Queen Mill & Elevator Co. Pipeline vehicle governing device. 3,099,227, 7–30–63, Cl. 104—139.

Bryan, Joan D.: *See*—
Agius, Peter J. V. J., Bryan, and Garbett. 3,087,893.

Bryan, John A.: *See*—
Parr, Bernard A., Lowe, and Bryan. 3,115,918.

Bryan, John L., Jr.: *See*—
Parker, Paul T., Bryan, Small, Pugh, and Buckmann. 3,099,644.

Bryan, Lloyd. Portable and collapsible cooking device. 3,105,483, 10–1–63, Cl. 126—9.

Bryan, Paul A., to United States of America, Air Force. System for locating modulator malfunction. 3,095,557, 6–25–63, Cl. 340—248.

Bryand, Edward T., to Metal-Tech, Inc. Honeycomb openwork. 3,100,928, 8–20–63, Cl. 29—121.

Bryant, Austin W., to Grove Valve and Regulator Co. Valve construction having resilient sealing means. 3,109,623, 11–5–63, Cl. 251—172.

Bryant, Burl E., to The Dow Chemical Co. Clathrate compound of methyl bromide. 3,076,742, 2–5–63, Cl. 167—39.

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Lovely, John W. 3,075,293.

Bryant, Clifford A.: *See*—
Hamilton, R. E. Harris, and Bryant. 3,112,717.
Payne, Otis C., and Bryant. 3,108,554.

Bryant, Edward T.: *See*—
Watts, Richard M., and Bryant. 3,082,930.

Bryant, Edward T., to Reynolds Metals Co. Cutter carton. 3,093,279, 6–11–63, Cl. 225—43.

Bryant, Edward T., and J. T. McNeally, to Reynolds Metals Co. Carton. 3,096,012, 7–2–63, Cl. 229—52.

Bryant, Edwin E., to Nelson Muffler Corp. Exhaust muffler. Re. 25,384, 5–14–63, Cl. 181—57.

Bryant Electric Co., The: *See*—
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Wiley, Roy O. 3 110,781.
Wiley, Roy O. 3,114,016.

Bryant, Ernest, Jr. Gear shift lever cover and attaching bracket therefor. 3,086,609, 4–23–63, Cl. 180—90.6.

Bryant, Frederick. Bulk fluid transport. 3,112,845, 12–3–63, Cl. 222—129.

Bryant, Glenn B., Jr., to Hosiery Research Corp. Adjustable hosiery form. 3,072,305, 1–8–63, Cl. 223—77.

Bryant, Glenn D., and A. W. Stewart, to M. W. Raspet. Variable-camber airfoil. 3,109,613, 11–5–63, Cl. 244—44.

Bryant, Irvin E., to The Lufkin Rule Co. Instrument for measuring linear dimensions. 3,101,551, 8–27–63, Cl. 33—164.

Bryant, Irvin E., to The Lufkin Rule Co. Thread diameter measuring device. 3,111,766, 11–26–63, Cl. 33—167.

Bryant, John A., II, and G. D. Pierce, to The Cross Co. Rotary latch mechanism for machine tools. 3,097,724, 7–16–63, Cl. 188—82.7.

Bryant, John J. Rotary wiper improvements. 3,072,947, 1–15–63, Cl. 15—250.2.

Bryant, Marvin R., to Hosiery Research Corp. Ornamented knit fabric. 3,085,409, 4–16–63, Cl. 66—180.

Bryant, Paul C. Building structures. 3,075,655, 1–29–63, Cl. 214—16.1.

Bryant, Paul M., to The Marquardt Corp. Combined noise suppressor, thrust reverser and variable area nozzle for exhaust exit system for jet engines. 3,096,617, 7–9–63, Cl. 60—35.54.

Bryant, Raymond W., ½ to J. L. Massingill. Aluminum removing wheel. 3,079,669, 3–5–63, Cl. 29—78.

Bryant, Raymond W., to L. W. Jeffries, d.b.a. Jackson Fluid Power Co. Index table. 3,103,825, 9–17–63, Cl. 74—116.

Bryant, William R. Process and means for controlling the moisture regain and moisture content in seed cotton. 3,114,175, 12–17–63, Cl. 19—66.

Bryant, William R. Method of controlling moisture content in cotton processing. 3,114,938, 12–24–63, Cl. 19—66.

Brydon, Edward W. Anchor securing device. 3,101,067, 8–20–63, Cl. 114—210.

Bryl, Stephen. Frying pan. 3,106,887, 10–15–63, Cl. 99—425.

Brymner, Robert, to N.G.N. Ltd. Rotary pumps. 3,111,260, 11–19–63, Cl. 230—147.

Bryner, Hans, to Setar Aktiengesellschaft. Process for the manufacture of stable single-thread twist-compensated yarns. 3,098,348, 7–23–63, Cl. 57—157.

Brzyiarski, Chester, and Z. Oborski. Grinding fixtures. 3,107,462, 10–22–63, Cl. 51—221.

Brynko, Carl, and J. A. Bakan, to The National Cash Register Co. Encapsulation process and its product. 3,116,206, 12–21–63, Cl. 167—82.

Brys, Harry E., to Armco Steel Corp. Signal impulse integrator with variable time delay. 3,109,966, 11–5–63, Cl. 317—157.

Brys, Louis S., and E. W. Lynn, to Celluplastic, Inc. Bottom closure for a plastic container. 3,107,838, 10–22–63, Cl. 229—5.5.

Bryson, William. Adjustable locking sleeve for a nut. 3,077,913, 2–19–63, Cl. 151—54.

Bua, Ettore, L. Luciani, and A. Negromanti, to Montecatini Societa Generale per l'Industria Mineraria e Chimica. Production of polymers of olefines. 3,110,707, 11–12–63, Cl. 260—93.7.

Bub, Oscar, to Knoll A.-G. Therapeutic phthalimidines for relieving cough and producing anesthesia. 3,091,568, 5–28–63, Cl. 167—55.

Bub, Robert A., to Mine Safety Appliances Co. Mist removing device. 3,070,937, 1–1–63, Cl. 55—387.

Bub, Robert A., to Mine Safety Appliances Co. Filter coil. 3,076,554, 2–5–63, Cl. 210—487.

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Buc, Saul R., to General Aniline & Film Corp. Chloromethylation process. 3,083,233, 3–26–63, Cl. 260—612.

Bucalo, Louis, to The Kinemotive Corp. Viscosity sensor. 3,111,838, 11–26–63, Cl. 73—54.

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Bucek, Adolf, to Strojosvit, narodni podnik. Automatic machine for continuous treatment of hides and leather. 3,085,421, 4–16–63, Cl. 69—42.

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Ustin, George V. Re. 25,446.
Ustin, George, and Haucke. 3,094,702.

Buchanan, James B., to E. I. du Pont de Nemours and Co. Aliphatic sulfonyl fluoride fungicide. 3,085,041, 4–9–63, Cl. 167—22.

Buchanan, James B., to E. I. du Pont de Nemours and Co. 1,1'-methylene-(1-methyl-3-phenyl)-ureas. 3,101,370, 8–20–63, Cl. 260—553.

Buchanan, Leslie B. M., to Westinghouse Electric Corp. Thermopile apparatus. 3,086,067, 4–16–63, Cl. 136—4.

Buchanan, Merlyn B. Releasable hitch. 3,110,331, 11–12–63, Cl. 114—235.

Buchanan, Royal S., and W. R. Cobb, to Westinghouse Electric Corp. Frozen food compartment for domestic refrigerator. 3,081,608, 3–19–63, Cl. 62—419.

Buchanan, Sylvester C. Method of recovering selenium and/or germanium from their ores. 3,090,671, 5–21–63, Cl. 23—209.

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Buchele, Wesley F. Powered soil sampler. 3,104,725, 9–24–63, Cl. 175—244.

Buchele, Wesley F., and K. R. Waltz. Torque indicator. 3,108,471, 10–29–63, Cl. 73—136.

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Buchholz, Arnold R., to Brandt Automatic Cashier Co. Remote control for coin dispensing machine. 3,080,115, 3–5–63, Cl. 235—145.

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Buchholz, Werner, and L. E. Kanter, to International Business Machines Corp. Logical clearing of memory devices. 3,108,256, 10–22–63, Cl. 340—172.5.

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Buchner, Marvin K., and C. R. Thompson, to FMC Corp. Pear feeding, seed celling and splitting machine. 3,078,889, 2–26–63, Cl. 146—42.

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Buchsbaum, Walter H. Combination lint removing, tape dispensing, and personal grooming device. 3,089,170, 5–14–63, Cl. 15—105.

Buchsbaum, Walter H., to Hazeltine Research, Inc. Method of assembling components on printed wiring boards. 3,098,287, 7–23–63, Cl. 29—155.5.

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Buck, Daniel C., to United States of America, Navy. Magnetron cavity resonator assembly. 3,114,074, 12–10–63, Cl. 315—39.73.

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Buck, Steward T. Actuating mechanism for hoisting machine. 3,075,618, 1–29–63, Cl. 187—32.

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Nomine, Gerard, Bucourt, and Vignau. 3,085,099.

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Budnick, Gunther, deceased; by T. Budnick, nee Wujanz, heir, H. Hack, R. Alffen, and L. Arras, to Carl Schenck Maschinenfabrik G m b H. Method and apparatus for dynamically determining unbalance of rotors. 3,091,125, 5-28-63, Cl. 73—462

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Drubel, Richard B., and Buege. 3,097,183.

Buegeleisen, Joseph, Co.: *See*—
Zbikowski, Ted. 3,082,427.
Zbikowski, Ted. 3,082,428.

Buehl, Arnold L., to Mor-Flo Industries, Inc. Water heaters. 3,110,302, 11-12-63, Cl. 126—363.

Buehler, Albert C. Horse and pony harness. 3,077,710, 2-19-63, Cl. 54—78.

Buehler, Arthur, and R. Casty, to Ciba Ltd. Process for dyeing nitrogenous fibers and preparations for carrying out the process. 3,071,427, 1-1-63, Cl. 8—22.

Buehler, Arthur, and R. Casty, to Ciba Ltd. Process for dyeing nitrogenous fibers. 3,097,039, 7-9-63, Cl. 8—43.

Buehler Corp., The: *See*—
Basso, John E. 3,070,954.
Basso, John E. 3,071,101.
Buehler, John L. 3,071,102.
Christensen, Warren C. 3,070,956.
Cochran, Richard L., and Engel. 3,093,965.
Englehart, Theodore M., and Cochran. 3,093,966.
Lerwick, Howard P. 3,093,967.
Nickerson, George R., Shull, and Dininger. 3,080,774.

Buehler, Fritz A., and H. J. Andress, Jr., to Socony Mobil Oil Co., Inc. Grease. 3,108,962, 10-29-63, Cl. 252—33.6.

Buehler, Gebrueder: *See*—
Berger, Wilhelm. 3,110,573.
Danlotti, Mario. 3,075,628.
Eppenberger, Paul. 3,083,805.
Fehlmann, Werner. 3,108,949.
Thaler, Anton, and Siebert. 3,097,390.

Buehler, John L., to The Buehler Corp. Tiller for jet boat. 3,071,102, 1-1-63, Cl. 115—12.

Buehler, Karl, and M. L. Rollins, to General Foods Corp. Apparatus for forming food portions of uniform weight by volumetric measurement. 3,101,761, 8-27-63, Cl. 146—158.

Buell, Alvin E., to A-C Tee Co., Inc. Golf ball teeing device. 3,075,774, 1-29-63, Cl. 273—201.

Buell Engineering Co., Inc.: *See*—
Nagel, Lester L. 3,086,099.
Vandenhoeck, Jean-Paul. 3,097,075.

Buerger, Martin J. Precession instrument for use in the photography of the reciprocal lattice of a crystal. 3,108,185, 10-22-63, Cl. 250—51.5.

Buesing, Arthur C., and F. T. Kaiser, to Brown Fintube Co. Furnace charging apparatus. 3,087,633, 4-30-63, Cl. 214—2.

Buesink, Hendrik: *See*—
Kooijman, Pieter L., and Buesink. 3,097,218.

Buessem, Wilhelm R., K. S. Forland, and P. A. Marshall, Jr., to United States of America, Army. Method of treating a titanate dielectric body. 3,111,414, 11-19-63, Cl. 106—39.

Buetow, Ralph W., and R. P. Cox, to United States of America, Army. Marking method. 3,096,197, 7-2-63, Cl. 117—33.5.

Bufalini, Charles J. Heat exchanging attachment for receptacles. 3,089,317, 5-14-63, Cl. 62—457.

Buffalo Machinery Co., Inc.: *See*—
Symmonds, Daniel B., Jr. 3,073,439.

Buffalo Meter Co., Inc.: *See*—
Wetjen, Russell W. 3,100,993.

Buffelen Sales Co. Inc.: *See*—
Orth, George O., Jr. 3,090,695.

Bufford, Allan S.: *See*—
Grant, Nicholas J., Zwilsky, and Bufford. 3,105,760.

Buffington, Herman L. Leg and caster construction for portable cooler cabinets. 3,106,434, 10-8-63, Cl. 312—255.

Buffington, John R., and R. G. Hawkins, to United States of America, Navy. Gate circuit. 3,072,853, 1-8-63, Cl. 328—99.

Bugge, Erling P. Micrometer screw measuring instrument. 3,092,913, 6-11-63, Cl. 33—166.

Bugge, Erling P. Snap action latch. 3,115,358, 12-24-63, Cl. 292—78.

Bugge, Harry, to Loewe Opta Aktiengesellschaft. Driving device for sound recording and reproducing apparatus using sound carrier tapes or wires. 3,107,872, 10-22-63, Cl. 242—55.12.

Buggiani, Pietro: *See*—
Novelli, Alberto, and Buggiani. 3,078,846.
Novelli, Alberto, and Buggiani. 3,085,571.

Bugosh, John, to E. I. du Pont de Nemours and Co. Colloidal, anisodiametric transition aluminas and processes for making them. 3,108,888, 10-29-63, Cl. 106—62.

Bugosh, John, and E. F. Izard, to E. I. du Pont de Nemours and Co. Elastomeric foam having its pore walls coated with fibrous boehmite. 3,094,433, 6-18-63, Cl. 117—98.

Buhle, Emmett L., to E. I. du Pont de Nemours and Co. Polymer emulsion containing sulfonium emulsifier. 3,102,867, 9-3-63, Cl. 260—29.6.

Buhler, Gebruder: *See*—
Marchetti, Augusto. 3,103,421.

Buhler, Karl J., to Brown, Boveri & Cie., Aktiengesellschaft. Arrangement for shifting over step switches on transformers under load. 3,112,438, 11-26-63, Cl. 323—43.5.

Buhler, Peter M. System for testing telephone lines. 3,084,230, 4-2-63, Cl. 179—175.

Buhler, Peter M. Testing and half-tapping means for telephone lines. 3,084,232, 4-2-63, Cl. 179—175.

Buhler, Rolf D.: *See*—
Ducati, Adriano C., and Buhler. 3,075,065.

Buhrendorf, Frederick G., to Bell Telephone Laboratories, Inc. Magnetic recording and reproducing system. 3,108,260, 10-22-63, Cl. 340—174.1.

Building Products Ltd.: *See*—
Newton, Leslie J., and De Jong. 3,113,065.
Newton, Leslie J., and Oldfield. 3,079,729.

Buitkus, Thomas J. Photoelectric tone generator. 3,098,889, 7-23-63, Cl. 84—1.18.

Buivid, George M., to United States of America, Army. Transistor clamp. 3,109,620, 11-5-63, Cl. 248—361.

Buivid, Michel D., to United Aircraft Corp. Blade folding mechanism. 3,097,701, 7-16-63, Cl. 170—160.12.

Bujan, Albert F., to Abbott Laboratories. Spring scale. 3,107,745, 10-22-63, Cl. 177—233.

Bukata, Stephen. Furnace. 3,093,104, 6-11-63, Cl. 113—99.

Bukata, Stephen. Vacuum pump. 3,096,928, 7-9-63, Cl. 230—101.

Buker, Harvey A., to The Jones Metal Products Co. Safety device. 3,108,491, 10-29-63, Cl. 74—615.

Bukoff, Peter, to The Bendix Corp. Process for installing liners in fluid actuators. 3,094,773, 6-25-63, Cl. 29—156.4.

Bulat, Thomas J., to The Bendix Corp. Accelerating microorganism physiological activity and reproduction. 3,080,299, 3-5-63, Cl. 195—113.

Bulat, Thomas J., to The Bendix Corp. Sonic cleaning method. 3,105,779, 10-1-63, Cl. 134—1.

Bulger, John T. Safety guard for vehicles having automatic transmissions. 3,110,354, 11-12-63, Cl. 180—82.

Bulk, Robert A., to Harris-Intertype Corp. Selectively releasable overcenter means for slitter mechanism. 3,091,146, 5-28-63, Cl. 83—433.

Bulkley, William L., and S. F. Kapff, to Standard Oil Co. Liquid phase oxidation process. 3,086,993, 4-23-63, Cl. 260—524.

Bull, Arthur W.: *See*—
Dunnabeck, Donald F., and Bull. 3,074,009.

Bull, Glen C. Methods and apparatus for conditioning hollow articles against corrosion and storing fluent materials. 3,111,371, 11-19-63, Cl. 21—2.5.

Bullard, Brad. Method and apparatus for temperature modifying pressure dispensed materials. 3,111,967, 11-26-63, Cl. 141—11.

Bullard Co., The: *See*—
Bullard, Edward P., III. 3,074,295.
Bullard, Edward P., III. 3,086,493.
Bullard, Edward P., III. 3,088,335.
Bullard, Edward P., III, and E. P. Bullard IV. 3,115,796.
Wilterdink, Meredith W., and Hursen. 3,081,728.

Bullard, E. D., Co.: *See*—
Ruggiero, Alfred J. 3,114,914.

Bullard, Edward P., IV: *See*—
Bullard, Edward P., III, and E. P. Bullard IV. 3,115,796.

Bullard, Edward P., III, to The Bullard Co. Transmission. 3,074,295, 1-22-63, Cl. 74—687.

Bullard, Edward P., III, to The Bullard Co. Indicating device. 3,086,493, 4-23-63, Cl. 116—124.

Bullard, Edward P., III, to The Bullard Co. Machine tool positioning control. 3,088,335, 5-7-63, Cl. 74—675.

Bullard, Edward P., III, and E. P. Bullard, IV, to The Bullard Co. Bearing. 3,115,796, 12-31-63, Cl. 77—3.

Bullard, George H., Co., Inc.: *See*—
Bullard, Robert A. 3,081,584.

Bullard, Harold P., to Continental Motors Corp. Vapor phase cooling system for internal combustion engine. 3,082,753, 3-26-63, Cl. 123—41.08.

Bullard, Robert A., to George H. Bullard Co., Inc. Abrasive wheel. 3,081,584, 3-19-63, Cl. 51—209.

Bullard, Robinson D. Electro-magnetically actuated pilot and main valve. 3,100,103, 8-6-63, Cl. 251—30.

Bullen, Clark V., to Barber-Coleman Co. Mechanically rebalanced condition control servosystem. 3,102,217, 8-27-63, Cl. 318—28.

Bullinger, Hans B.: *See*—
Binzek, Robert J., and Bullinger. 3,110,836.

Bulloch, Charles E.: *See*—
Stewart, Joe W., and Bulloch. 3,111,567.

Bulloch, David K., and D. S. Thomas, to Eastman Kodak Co. Silver recovery from photographic fixing solutions. 3,082,079, 3-19-63, Cl. 75—108.

Bullock, Byrell W.: *See*—
Kuck, John H., and Bullock. 3,090,917.

Bullock, Howard W. Clothes hangers. 3,091,344, 5-28-63, Cl. 211—113.

Bullock, John W., and P. D. Rowan, to Briles Products, Inc. Circuit breaker with temperature compensating bimetal element. 3,108,164, 10-22-63, Cl. 200—116.

Bullock, Kenneth R.: *See*—
Ansell, George E., Bullock, and Sortland. 3,085,388.

Bullock, Luther B.: *See*—
Mozlek, John, and Bullock. 3,076,637.

Bullock, Norman J.: *See*—
Martin, John C., Brubaker, Bullock, and Stutrud. 3,091,108.

Bullock, Norman J., to General Motors Corp. Domestic appliance. 3,088,596, 5-7-63, Cl. 210—382.

Bullock, Norman J., R. F. Brubaker, and C. K. Billings, to General Motors Corp. Free-piston pump for washing apparatus. 3,091,954 6-4-63, Cl. 68—18.

Bulloff, Jack J.: *See*—
Whitacre, John R., and Bulloff. 3,097,962.

Bulls, James W.: *See*—
Claassen, Edwin J., Jr., Bulls, and Normand. 3,076,695.

Bulman, E. O., Mfg. Co., Inc.: *See*—
Waltz, Edward. 3,085,727.
Waltz, Edward. 3,097,775.
Waltz, Edward. 3,105,622.
Waltz, Edward. 3,108,923.

Bulova Research and Development Laboratories, Inc.: *See*—
Bibbero, Robert J. 3,076,961.
Braverman, Murray. 3,082,357.
Fisch, Jerome. 3,087,158.
Goddard, George W. 3,076,189.
Heller, Oscar. 3,105,199.

Bulova Watch Co., Inc.: *See*—
Edelstein, Arthur. 3,086,434.
Hetzel, Max. 3,070,951.

Bulovic, Bozdar, to Wm. Wrigley, Jr. Co. Laminated package wrapper with tear strip. 3,106,333, 10-8-63, Cl. 229—87.

Bulow, Richard L., to The Interstate Sanitation Co. Dryer. 3,076,887, 2-5-63, Cl. 219—39.

Bulson, Walter T., to Armstrong Cork Co. Sag-resistant fiberboard and method of making same. 3,090,699, 5-21-63, Cl. 117—62.2.

Bultfabriks Aktiebolaget: *See*—
Lejdegard, Sixten H. 3,103,833.

Bumiller, Jacques, to Sami, S. A. Societa d'Applications de Recherches Minieres et Industrielles. Fixing guns adapted to drive nails and the like, such as for example studs and plugs in hard compact materials. 3,072,911, 1-15-63, Cl. 1—44.5.

Bumiller, Jacques, to Societe de Prospection et d'Inventions Techniques Spit. Munitions. 3,078,800, 2-26-63, Cl. 102—38.

Bumm, Leonard M.: *See*—
Halls, Lawrence M., and Bumm. 3,100,367.

Bumm, Leonard M., and H. G. McCarty, to Sperry Rand Corp. Hay conditioner. 3,082,589, 3-26-63, Cl. 56—1.

Bunch, Harry J. Hitch and trailer having improved wheel suspension of the tandem type. 3,071,267, 1-1-63, Cl. 214—505.

Bunch, Tillman T., to Western Electric Co., Inc. Feed for centripetal extruders. 3,082,476, 3-26-63, Cl. 18—12.

Bunch, Tillman T., to Western Electric Co., Inc. Methods of and apparatus for multicycle twisting a wire-like member. 3,096,610, 7-9-63, Cl. 57—34.

Bunch, Warren E., to Harnischfeger Corp. Fluid power assist device for brake apparatus. 3,110,522, 11-12-63, Cl. 303—9.

Bundrick, Daniel A. Payment remainder device for self-service racks. 3,077,689, 2-19-63, Cl. 40—308.

Bundus, Robert H.: *See*—
North, Gerald C., Noznick, and Bundus. 3,105,763.
Noznick, Peter P., Bundus, and Eggen. 3,090,688.

Bundy, Francis P., to General Electric Co. Plural cavity press for high pressure. 3,075,245, 1-29-63, Cl. 18—16.5.

Bundy, Francis P., to General Electric Co. High pressure high temperature apparatus. 3,107,395, 10-22-63, Cl. 18—16.

Bundy Marine S.p.A.: *See*—
Torre, Pier L. 3,096,058.

Bundy, Maurice G., to The Industrial Fumigant Co. Liquid measuring and dispensing device. 3,095,125, 6-25-63, Cl. 222—309.

Bundy, Robert W., to E. I. du Pont de Nemours and Co. Polymeric sheet material and method of making same. 3,100,733, 8-13-63, Cl. 162—108.

Bundy Tubing Co.: *See*—
Gondek, Stanley. 3,094,107.
Gondek, Stanley. 3,101,402.

Bundy, Wayne M., to Georgia Kaolin Co. Coated mineral filler for organic polymers, and method of forming the coated filler. 3,080,256, 3-5-63, Cl. 117—72.

Bunge, Wilhelm: *See*—
Windemuth, Erwin, Bunge, and Mielke. 3,115,479.

Bunger, Dennen J., F. V. Emery, A. A. Cavalier, J. R. Ferguson, Jr., H. R. Schmider, and H. A. Alexanderson, to The Bendix Corp. Turbine, wheel containment. 3,097,824, 7-16-63, Cl. 253—77.

Bunger, Fritz, and H. Schucke, to Dr. A. Sommer. Apparatus for smoothing and compacting plastic layers. 3,091,158, 5-28-63, Cl. 94—45.

Bungeroth, Adolf, and H. Schrewe, to Mannesmann Aktiengesellschaft. Continuous casting ingot mold. 3,082,496, 3-26-63, Cl. 22—57.2.

Bunin, Morey, to Aniforms, Inc. Puppet like figure and animation apparatus. 3,070,920, 1-1-63, Cl. 46—126.

Bunk, Hugo, to National Lead Co. Method and apparatus for forming generally cylindrical parts from thick metal stock. 3,098,292, 7-23-63, Cl. 29—412.

Bunke, Frederick H., and J. C. Blakley. Can crusher. 3,077,827, 2-19-63, Cl. 100—215.

Bunke, Horst, to A. Eckerfeld. Electrical snap-action switch. 3,111,565, 11-19-63, Cl. 200—67.

Bunke, Karl A. A., to United Shoe Machinery Corp. Applicator tubes. 3,072,953, 1-15-63, Cl. 15—592.

Bunker, Henry L., Jr., E. F. Lewis, and W. J. Powers, Jr., to E. I. du Pont de Nemours and Co. Elastomeric anti-skid traction device. 3,092,163, 6-4-63, Cl. 152—221.

Bunker, Robert C.: *See*—
Davis, Stevens, and Bunker. 3,116,244.

Bunn, B. H., Co.: *See*—
Bunn, Benjamin H., and Nyberg. 3,107,603.
Wimmer, Glen E. 3,085,501.

Bunn, Benjamin H., and C. E. Nyberg, to B. H. Bunn Co. Hold-down and forming mechanism for tying machine. 3,107,603, 10-22-63, Cl. 100—14.

Bunn, George P., and W. Hartmann, to Phillips Petroleum Co. Marine vessels for volatile liquids. 3,083,669, 4-2-63, Cl. 114—74.

Bunn, George R. Coffee making machine. 3,100,434, 8-13-63, Cl. 99—282.

Bunnell, Edward D.: *See*—
Wells, William W., and Bunnell. 3,110,976.

Bunnelle, Philip R.: *See*—
Abbott, John A., Bunnelle, Roberts, Brooks, and Fowler. 3,096,837.

Bunny Bear Inc.: *See*—
Linden, Samuel. 3,107,120.

Bunoedlere, Andre, and L. Peras, to Compagnie Generale de Telegraphie Sans Fils and Regie Nationale des Usines Renault. Internal combustion engines ignition systems. 3,078,391, 2-19-63, Cl. 315—205.

Bunt, John P., to Elliott Brothers (London) Ltd. Magnetic core delay circuit for use in digital computers. 3,074,052, 1-15-63, Cl. 340—174.

Bunting Co., Inc., The: *See*—
Hartman, William F. 3,094,358.
Pearlstine, Morton. 3,098,678.
Pearlstine, Morton. 3,099,478.

Bunting, Ernest V., to Massey-Ferguson Inc. Hydraulic control system. 3,095,933, 7-2-63, Cl. 172—491.

Bunting, William W., Jr.: *See*—
Ashby, William C., Bunting, Meagher, Nelson, and Swayne. 3,094,262.

Bunting, William W., Jr., and T. L. Nelson, to E. I. du Pont de Nemours and Co. Process for producing compact interlace yarn. 3,110,151, 11-12-63, Cl. 57—157.

Bunting, William W., Jr., and T. L. Nelson, to E. I. du Pont de Nemours and Co. Apparatus for interlacing multi-filament yarn. 3,115,691, 12-31-63, Cl. 28—1.

Bunyan, Thomas W. Reciprocating engines. 3,101,621, 8-27-63, Cl. 74—60.

Bunzl, Rudolph H., and R. M. Berger, to U.S. Filter Corp. Marking device. 3,094,736, 6-25-63, Cl. 15—563.

Bunzl, Thomas F., to Rotax Ltd. Apparatus for dispensing packaged goods. 3,103,989, 9-17-63, Cl. 186—1.

Buonauro, Frank A. Convertible container construction. 3,089,605, 5-14-63, Cl. 215—99.5.

Buono, Frank S., to Becton, Dickinson and Co. Disposable urinary drainage bag assembly. 3,090,968, 5-28-63, Cl. 4—110.

Buono, Frank S., to United States Rubber Co. Telescoping expansion joint. 3,114,568, 12-17-63, Cl. 285—235.

Buras, Edmund M., Jr.: *See*—
Miller, Alfred L., Buras, and Berch. 3,116,164.

Burbach, Henry E., and O. T. Hipp, to Combustion Engineering, Inc. Gas recirculation duct. 3,090,332, 5-21-63, Cl. 110—49.

Burbach, John C., to Union Carbide Corp. Refractory ramming mix. 3,116,157, 12-31-63, Cl. 106—69.

Burbine, William G.: *See*—
Cole, Harvey M., Burbine, Jordan, and Petterson. 3,107,980.
Jordan, Merrill E., Cole, Burbine, and Petterson. 3,088,896.

Burch, Alvan V., to Burch Plow Works, Inc. Disc ridger. 3,088,527, 5-7-63, Cl. 172—579.

Burch, Archie E. Tape measure. 3,100,937, 8-20-63, Cl. 33—137.

Burch, Byron F., Jr., to General Electric Co. Document sorting system. 3,098,566, 7-23-63, Cl. 209—111.5.

Burch, Charles J., to United States Steel Corp. Hinged heat shield for metal teeming ladle bottoms. 3,087,212, 4-30-63, Cl. 22—84.

Burch, Hadley K., and M. K. Parkhurst. Snap-acting mechanisms. 3,105,886, 10-1-63, Cl. 200—67.

Burch, Henry E.: *See*—
Burch, Loren P. 3,114,535.

Burch, John S., to Union Carbide Corp. Recovery of olefins from C_7 to C_9 corresponding olefin-paraffin mixtures. 3,087,866, 4-30-63, Cl. 202—42.

Burch, Loren P., deceased, by H. E. Burch, executor, to Burchcraft Boat Co., Inc. Boat lifts. 3,114,535, 12-17-63, Cl. 254—127.

Burch, Oren P. Portable, power hand-guided saw mounting device. 3,078,885, 2-26-63, Cl. 143—43.

Burch Plow Works, Inc.: *See*—
Burch, Alvan V. 3,088,527.

Burch, Roy P., Jr., to United States of America, Atomic Energy Commission. Apparatus for grinding spherical bodies. 3,104,502, 9-24-63, Cl. 51—135.

Burch, William E., to International Telephone and Telegraph Corp. Encapsulated diode assembly. 3,081,374, 3-12-63, Cl. 174—52.

Burchard, Clarence M. Convertible nether outer garment. 3,110,903, 11-19-63, Cl. 2—221.

Burchard, Friedrich: *See*—
Raab, Karl, and Burchard. 3,101,680.

Burchcraft Boat Co., Inc.: *See*—
Burch, Loren P. 3,114,535.

Burckhalter, A. Rey. Portable desk. 3,074,745, 1-22-63, Cl. 281—44.

Burckhalter, Joseph H., to University of Kansas Research Foundation. 3-[4-hydroxy - 3 - (aminomethyl)-phenyl]-4-oxyphenyl)-alkanes and alkenes. 3,077,470, 2-12-63, Cl. 260—239.

Burckhalter, Joseph H., to University of Kansas Research Foundation. 3-[4-aminoalkoxy)-phenyl]-4-(4-oxyphenyl)-alkanes and alkenes. 3,077,472, 2-12-63, Cl. 260—247.7.

Burckhalter, Robert S., to Commercial Filter Corp. Shunt type filter. 3,080,973, 3-12-63, Cl. 210—90.

Burd, Samuel L., and J. G. Lord, to Prestige, Inc. Looping machine. 3,094,854, 6-25-63, Cl. 112—27.

Burd, Wayne D.: *See*—
Kacalieff, Christ D., and Burd. 3,077,224.

Burda, Josef. Draft excluding strip for door. 3,072,977, 1-15-63, Cl. 20—68.

Burden, Edward R. Machine for folding paper boxes. 3,101,653, 8-27-63, Cl. 93—49.

Burden, Norman E. Boat anchor. 3,111,106, 11-19-63, Cl. 114—208.

Burdg, Charles E., to Combustion Engineering, Inc. Vacuum lock. 3,073,951, 1-15-63, Cl. 250—41.9.

Burdg, Charles E., to Combustion Engineering, Inc. Ion generating and focusing mechanism. 3,096,435, 7-2-63, Cl. 250—41.9.

Burdg, Charles E., to Combustion Engineering, Inc. Ion lens system. 3,096,436, 7-2-63, Cl. 250—41.9.

Burdick Corp., The: *See*—
Rasmussen, Sherrill K. 3,082,970.

Burdick, Dean L., Associates, Inc.: *See*—
Hall, Robert E. 3,088,470.

Burdick, Duane P., and K. E. Polmanteer, to Dow Corning Corp. Silicone rubber compositions. 3,094,446, 6-18-63, Cl. 154—2.7.

Burdick, George E.: *See*—
Shurtleffm, Harold R., Judd, and Burdick. 3,095,499.

Burdick, Ralph V., and R. V. Burdick, Jr. Box. 3,089,608, 5-14-63, Cl. 220—43.

Burdick, Ralph V., Jr.: *See*—
Burdick, Ralph V., and R. V. Burdick, Jr. 3,089,608.

Burdine, Roy R., to Stant Mfg. Co., Inc. Safety radiator pressure caps. 3,074,588, 1-22-63, Cl. 220—44.

Bureau d'Etudes Armand Malchair Societe Anonyme: *See*—
Malchair, Armand. 3,103,763.

Burelbach, Martin L., and C. C. McFadden. Plywood edge filler. 3,071,106, 1-1-63, Cl. 118—2.

Buren Watch Co. S.A.: *See*—
Kocher, Hans. 3,106,818.

Burg, Anton B., to American Potash & Chemical Corp. Phosphorus and boron-containing polymers. 3,071,552, 1-1-63, Cl. 260—2.

Burg, Anton B., and R. J. Wagner, to American Potash-Chemical Corp. Phosphinaborine compounds and their preparation. 3,071,553, 1-1-63, Cl. 260—2.

Burg, Fred J.: *See*—
Salton, Lewis L., and Burg. 3,098,924.

Burg, Joseph L., to Burgmaster Corp. Spring-pressed turret head. 3,115,051, 12-24-63, Cl. 77—25.

Burg, Martin S.: *See*—
Bain, Lewis A., Jr., and Burg. 3,079,672.

Burg, Roland L. Connector having twin camming surfaces. 3,107,571, 10-22-63, Cl. 85—7.

Burgarella, John P., and D. S. Oliver, to Minneapolis-Honeywell Regulator Co. Direct current amplifier system with feedback controlled high impedance input circuit. 3,101,451, 8-20-63, Cl. 330—10.

Burge, Anthony R.: *See*—
Harbor, William H., and Burge. 3,115,963.

Burge, Joseph. Sealing and securing means for turbomachine blading. 3,079,128, 2-26-63, Cl. 253—78.

Burgener, Karl L., to Automatic Electric Laboratories, Inc. Intercommunicating telephone systems. 3,089,000, 5-7-63, Cl. 179—42.

Burgeni, Alfred A., to Johnson & Johnson. Absorbent pad and wrapper therefor. 3,111,948, 11-26-63, Cl. 128—290.

Burger, Adolf. Carrying and planting plate for bulbs and the like. 3,112,577, 12-3-63, Cl. 47—37.

Burger, Alex: *See*—
Schubert, Friedrich, Lang, Schabacher, and Burger. 3,077,376.

Burger, Edwin M.: *See*—
Bain, Bruce K., Blair, Burger, Ross, Vorachek, and Wolcott. 3,106,373.

Burger, Jerome H., to The Ohio Art Co. Popping ball top. 3,084,478, 4-9-63, Cl. 46—233.

Burgermeister Brewing Corp.: *See*—
Sariotti, Victor A., and Tonna. 3,115,150.
Tonna, Arthur J., and Sariotti. 3,115,149.

Burgert, Billy E., to The Dow Chemical Co. Latent gaseous catalysis. 3,075,943, 1-29-63, Cl. 260—38.

Burgess, Frank H., G. Mathus, and O. Morningstar, to Morningstar Corp. Reel case. 3,074,546, 1-22-63, Cl. 206—52.

Burgess, Glen W., to Clark Equipment Co. Steering system. 3,084,951, 4-9-63, Cl. 280—91.

Burgess, John L.: *See*—
Deeley, John C., and Burgess. 3,094,834.

Burgess-Manning Co.: *See*—
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Burgess, Mary T.: *See*—
Suen, Tzeng J., and Burgess. 3,107,227.

Burgess-Norton Mfg. Co.: *See*—
Waller, Gustav M. 3,096,579.

Burgess, Peter J., to The General Electric Co. Ltd. Method of cold bonding metallic parts. 3,090,116, 5-21-63, Cl. 29—470.1.

Burgess Products Co. Ltd.: *See*—
Riddell, William. 3,102,177.

Burgess Vibrocrafters Inc.: *See*—
Bell, George R., Oberto, and Fraser. 3,112,885.

Burghoff, Louis R.: *See*—
Kohlhagen, Walter, and Burghoff. 3,098,681.

Burgin, Kermit H., 50% to F. B. Cline. Torsion bar multiple section door balance. 3,085,622, 4-16-63, Cl. 160—191.

Burgin, Kermit H., 50% to F. B. Clive. Boat propelling water jet nozzle. 3,090,348, 5-21-63, Cl. 115—12.

Burgin, Kermit H., 50% to F. B. Cline. Pump intake weed shearing structure. 3,094,965, 6-25-63, Cl. 115—5.

Burgmaster Corp.: *See*—
Burg, Joseph L. 3,115,051.

Burgner, Josef. Manifolding writing set with sheets glued together at the heads thereof. 3,088,754, 5-7-63, Cl. 282—29.

Burgwin, Stephen L., to Minneapolis-Honeywell Regulator Co. Magnetic torquer. 3,076,111, 1-29-63, Cl. 310—266.

Burgwin, Stephen L., and C. Green, to Minneapolis-Honeywell Regulator Co. Control apparatus. 3,101,424, 8-20-63, Cl. 310—217.

Burgy, Raymond A., to Toledo Scale Corp. System for controlling movements of elevator doors. 3,092,209, 6-4-63, Cl. 187—52.

Burk, Emmett H., Jr.: *See*—
Hoffman, William D., and Burk. 3,113,159.
Mool, John, Thomas, and Burk. 3,085,971.

Burk, Emmett H., Jr., T. H. Korelitz, and R. H. Jordan, to Sinclair Research, Inc. Process for converting alkylated aromatic hydrocarbons. 3,116,340, 12-31-63, Cl. 260—671.

Burk, Lonnie C.: *See*—
Culpepper, Arthur C., Orr, and Burk. 3,082,884.

Burk, Marvin C., to Phillips Petroleum Co. Rubber bale moisture analyzer. 3,077,770, 2-19-63, Cl. 73—73.

Burk, Marvin C., to Phillips Petroleum Co. Chromatographic analyzer peak reader. 3,094,862, 6-25-63, Cl. 73—23.

Burkall, Alvin E.: *See*—
Scott, William F., and Burkall. 3,080,059.

Burkart, Edward H.: *See*—
George, Melvin F., Jr., Simon, and Burkart. 3,079,289.

Burke, Arthur J., to Richardson Corp. Rotary feeder for bulk material. 3,072,301, 1-8-63, Cl. 222—342.

Burke, Donald J. Self-punching T fittings. 3,094,137, 6-18-63, Cl. 137—318.

Burke, Donald J., to Continental Industries, Inc. Molds for composite casting. 3,113,359, 12-10-63, Cl. 22—116.

Burke, Frank J. Amusement device. 3,078,091, 2-19-63, Cl. 272—30.

Burke, Glen F. Guitar construction. 3,072,007, 1-8-63, Cl. 84—267.

Burke, Irvin D.: *See*—
Cholvin, Robert L., and Burke. 3,073,338.

Burke, Jerry A., Jr.: *See*—
Barnes, Vernon M., Jr., Burke, King, and Wolf. 3,114,318.

Burke, John D. Final anode supply systems for cathode-ray tubes. 3,086,142, 4-16-63, Cl. 315—106.

Burke, Joseph E.: *See*—
Beyer, Raymond H., Burke, and Hasley. 3,089,417.

Burke, Lawrence F. Automobile mechanic's creeper with adjustable headrest. 3,092,394, 6-4-63, Cl. 280—32.6.

Burke, Mary. Child's car seat. 3,094,356, 6-18-63, Cl. 297—254.

Burke, Maurice P. Return mechanism for swivels. 3,107,891, 10-22-63, Cl. 248—417.

Burke, Oliver W., Jr.: *See*—
Kizer, Austin J., Klopfer, and Burke. 3,074,924.
Kizer, Austin E., Klopfer, and Burke. 3,091,518.

Burke, Oliver W., Jr., and O. M. Grace, said Grace assor. to said Burke. Aqueous dispersions of halogenated, polymer modified butyl rubber, process of making same and vulcanization thereof. 3,085,074, 4-9-63, Cl. 260—3.5.

Burke, Thomas F., to Atlas General Industries, Inc. Devices for forming hinge cover folding boxes. 3,097,576, 7-16-63, Cl. 93—49.

Burke, Wilfred: *See*—
Barry, Thomas J., and Burke. 3,076,926.

Burkel, Heinrich: *See*—
Hensen, Theo, and Burkel. 3,075,715.

Burker, Henry R. Inflatable float device for sinkable objects. 3,071,787, 1-8-63, Cl. 9—8.

Burkhard, Hans. Apparatus for applying a substance to a road surface. 3,102,731, 9-3-63, Cl. 275—7.

Burkhardt, Edgar G.: *See*—
Johnson, Kenneth V., and Burkhardt. 3,094,229.

Burkhardt, George C.: *See*—
Hamilton, Joseph P., and Burkhardt. 3,114,399.

Burkhardt, Gisbert, and K. Kirsch, to Telefunken G.m.b.H. Photoelectric sorting method and apparatus. 3,105,908, 10-1-63, Cl. 250—219.

Burkhardt, Hermann, to Richard Hirschmann Radiotechnisches Werk. Connectiou element for ignition cables having a tubular internal conductor. 3,109,691, 11-5-63, Cl. 339—100.

Burkhardt, Horst, to Wenczler & Heidenhain. Electro-optical and electromagnetic determination of the position of scale divisions. 3,096,441, 7-2-63, Cl. 250—209.

Burkhardt, Horst, to Wenczler & Heidenhain. Devices for adjusting and measuring lengths and angles. 3,100,345, 8-13-63, Cl. 33—1.

Burkhardt, Horst, to Fa. Wenczler & Heidenhain. Photoelectric process for measuring and adjusting the position of objects, particularly of scale lines. 3,100,846, 8-13-63, Cl. 250—219.

Burkhardt, Joseph A.: *See*—
Robinson, Leon H., Jr., Mosier, and Burkhardt. 3,104,715.

Burkhardt, Joseph A., B. Mosier, L. H. Robinson Jr., and J. A. Caldwell, to Jersey Production Research Co. Method and apparatus for injecting treating liquids in wells. 3,104,716, 9-24-63, Cl. 166—165.

Burkhardt, Kenneth W., to American Radiator & Standard Sanitary Corp. Centrifugal fans. 3,085,741, 4-16-63, Cl. 230—127.

Burkholder, Alden H., to Midland-Ross Corp. Apparatus for the manufacture of variable denier yarn. 3,072,064, 1-8-63, Cl. 103—126.

Burkholder, Donald A.: *See*—
Holdeman, Eugene J., and Burkholder. 3,099,283.

Burkle, Robert. Varnish pouring machine. 3,074,374, 1-22-63, Cl. 118—324.

Burkley, Ralph A., to Goodyear Aircraft Corp. Strain detection apparatus. 3,080,748, 3-12-63, Cl. 73—88.5.

Burklin, Adolf J., to A. O. Smith Corp. Gas burner. 3,091,284, 5-28-63, Cl. 158—106.

Burklo, Donald C.: *See*—
Reynolds, Charles B., Eklund, and Burklo. 3,083,453.

Burks, Howard L., and T. E. Stewart, Jr., to Hilson Industries, Inc. Dispenser apparatus for paper containers. 3,075,324, 1-29-63, Cl. 53—29.

Burks, Robert E., Jr.: *See*—
Franko-Filipasic, Borivoj R. 3,113,138.

Burks, Roland H. Filter cartridge and method and means for making the same. 3,106,528, 10-8-63, Cl. 210—496.

Burleigh, Bertie G. S. B., to Firestone Burleigh Marine Pneumatic Fendering Co. Ltd. Fender. 3,106,182, 10-8-63, Cl. 114—220.

Burleigh, Elmer G. Automatic identification marker for restricted equipment. 3,096,940, 7-9-63, Cl. 239—272.

Burleson, Aaron.: *See*—
Butler, Vaughn H., and Burleson. 3,079,779.

Burleson, Aaron, and M. N. Holmes, to Burlington Industries, Inc. Compressive stocking. 3,098,369, 7-23-63, Cl. 66—178.

Burleson, Aaron, and M. N. Holmes, to Burlington Industries, Inc. Compressive stocking. 3,098,389, 7-23-63, Cl. 66—178.

Burleson, James C.: *See*—
Hughes, Lawrence J., McMinn, and Burleson. 3,114,775.

Burley, Cameron H., and R. E. Pospisil, to Lockheed Aircraft Corp. Electronic multiplexer system for converting multi-channel data into a single channel composite signal. 3,078,378, 2-19-63, Cl. 307—88.5.

Burlington Industries, Inc.: *See*—
Burleson, Aaron, and Holmes. 3,098,369.
Burleson, Aaron, and Holmes. 3,098,389.
Graves, Thomas L. 3,087,449.
Isley, John V., and Gilliam. 3,094,858.
Isley, John V., and Gilliam. 3,094,859.
Ortheil, Hans. 3,105,732.
Sherer, George H. 3,078,994.
Smith, Horace L., Jr. 3,097,831.

Burlington Rerailers, Inc.: *See*—
Alderman, Harry M. 3,112,711.

Burman, Lawrence C.: *See*—
Barney, Greenlief H., and Burman. 3,098,024.

Burmeister, Albert J., to Richards-Wilcox Mfg. Co. Sealing mechanism for movable partition panels, doors and the like. 3,072,975, 1-15-63, Cl. 20—19.

Burmeister, Albert J., to Richards-Wilcox Mfg. Co. Sealing mechanism for partition panels and the like. 3,073,381, 1-15-63, Cl. 160—40.

Burmeister, Henry. Pressure spray containers. 3,107,827, 10-22-63, Cl. 222—394.

Burndept Ltd.: *See*—
Jones, Kenneth. 3,102,058.

Burndy Corp.: *See*—
Adkins, Allen. 3,079,655.
Anderson, James D. 3,109,333.
Buchalter, Lloyd A. 3,080,779.
Chickvary, William S., and Dibble. 3,071,831.
Cornell, Edward S., Jr. 3,097,036.
Dibner, David. 3,086,192.
Dibner, David. 3,097,683.

Burndy Corp.: *See*—Continued
Edwards, Aubrey T., Foster, and Bradshaw. 3,083,258.
Fanwick, Ernest. 3,070,860.
Hood, George E. 3,102,766.
Lazar, Michael. 3,079,582.
Long, James G., and Noschese. 3,112,977.
Malkin, Bruce M., Reischer, and Buchalter. 3,101,017.
Matthysse, Irving F., and Osborn. 3,088,993.
Price, Thomas C. 3,086,194.
Raila, Edward S., and Greco. 3,105,870.
Reischer, Walter, Frank, and Malkin. 3,087,530.
Schwamb, George T. 3,102,768.
Solorow, Russell S., and Badner. 3,107,965.
Wicks, Grace I. 3,089,115.

Burnell & Co., Inc.: *See*—
Burnell, Norman. 3,100,882.

Burnell, David G., to James Lees and Sons Co. Adjustable knock off for winding machines. 3,082,969, 3–23–63, Cl. 242—39.

Burnell, Norman, to Burnell & Co., Inc. Encapsulated variable inductor. 3,100,882, 8–13–63, Cl. 336—96.

Burner, Andre H., and B. T. Symes, to The French Oil Mill Machinery Co. Method of recovery of juice from sucrose bearing materials. 3,093,064, 6–11–63, Cl. 100—37.

Burner, Willard C., S. L. Hersh, and C. Lucas, to United States of America, Army. Photographic processing apparatus. 3,093,052, 6–11–63, Cl. 95—94.

Burness, Donald M.: *See*—
Henn, Richard W., and Burness. 3,103,437.

Burness, Donald M., to Eastman Kodak Co. Hardening of photographic layers. 3,091,537, 5–28–63, Cl. 96—111.

Burness, Donald M., to Eastman Kodak Co. Hardeners for gelatin. 3,106,468, 10–8–63, Cl. 96—111.

Burnet, William B. to The Strong-Scott Mfg. Co. Rotary mixing device. 3,090,606, 5–21–63, Cl. 259—109.

Burnett, Alice W. Window structure. 3,099,865, 8–6–63, Cl. 20—40.

Burnett, Harvey L. Portable shower bath assembly. 3,080,568, 3–12–63, Cl. 4—145.

Burnett, James H., to Electrons, Inc. Half Frequency power supply for vibrating machines. 3,102,223, 8–27–63, Cl. 321—38.

Burnett, James H., to Electrons, Inc. Motor control system. 3,105,180, 9–24–63, Cl. 318—138.

Burnett, Kenneth J., to General Electric Co. Cathode ray tube having a plurality of interchangeable cathodes. 3,109,953, 11–5–63, Cl. 313—226.

Burnett, Lionel C., to Ericsson Telephones Ltd. Counting tube stepped according to potential differences on guide electrodes controlled by charging-discharging RC circuit. 3,096,463, 7–2–63, Cl. 315—84.6.

Burnett, Richard T.: *See*—
Mossey, Joseph L., and Burnett. 3,074,514.

Burnett, Richard T., to The Bendix Corp. Disk applied duoservo. 3,088,551, 5–7–63, Cl. 188—70.

Burnett, Richard T., to The Bendix Corp. S cam brake with segmented cam follower. 3,096,856, 7–9–63, Cl. 188—78.

Burnett, Royce P.: *See*—
Alexander, John E., Comstock, Burnett, and McKinney. 3,076,426.

Burnett, Thomas H., to Acme Steel Co. Folding serving cart. 3,099,356, 7–30–63, Cl. 211—132.

Burnett, Thomas H., to Acme Steel Co. Hand truck. 3,102,733, 9–3–63, Cl. 280—36.

Burnette, Richard T., to The Bendix Corp. Disk brake. 3,096,855, 7–9–63, Cl. 188—72.

Burnham, Harold F., to Johnson & Johnson. Belt. 3,095,879, 7–2–63, Cl. 128—291.

Burnham, John. Electrolytic capacitors. 3,098,182, 7–16–63, Cl. 317—230.

Burnham, John B., Jr., to General Motors Corp. Fuel element for nuclear reactors. 3,085,059, 4–9–63, Cl. 204—193.2.

Burnham, Robert J. Dispensing magazine for ball point refill cartridges. 3,097,739, 7–16–63, Cl. 206—56.

Burnham, Virgil A., to Saco-Lowell Shops. Magnetic drafting mechanism. 3,079,646, 3–5–63, Cl. 19—272.

Burnight, Thomas R.: *See*—
Baker, Slade H., R. J. Baker, Jr., and Burnight. 3,096,604.

Burniston, Raymond J., to The Thomas & Betts Co. Unitary sheet metal tie-clip. 3,100,922, 8–20–63, Cl. 24—73.

Burnop, Victor C. E., to Esso Research and Engineering Co. Extreme pressure lubricant additive. 3,087,950, 4–30–63, Cl. 260—429.9.

Burns, Alan N.: *See*—
Hirst, Arthur A., and Burns. 3,083,942.

Burns, Albert S. Surfacing material composition. 3,081,186, 3–12–63, Cl. 106—235.

Burns, Arthur A. Spiral excavating bucket. 3,102,348, 9–3–63, Cl. 37—118.

Burns, Arthur G., to General Precision, Inc. Modulated oscillator. 3,108,234, 10–22–63, Cl. 332—59.

Burns, Arthur H., Jr., to Olin Mathieson Chemical Corp. Training cartridge. 3,090,309, 5–21–63, Cl. 102—41.

Burns, Donald F.: *See*—
Bennett, Earnest L., and Burns. 3,100,670.

Burns, Erwin. Liner hanger and packer construction. 3,108,638, 10–29–63, Cl. 166—124.

Burns, Erwin, and P. J. Fiel. Cementing head. 3,076,509, 2–5–63, Cl. 166—70.

Burns, Jabez, & Sons, Inc.: *See*—
Saint, T. Ralph. 3,080,810.

Burns, John P. Can puncturing device. 3,074,160, 1–22–63, Cl. 30—6.4.

Burns, John R., and C. J. McDowall, to General Motors Corp. Method and means for applying lubricant to propeller slip rings. 3,112,970, 12–3–63, Cl. 339—5.

Burns, John S., to Van Waters & Rogers, Inc. Process for making cellulosic materials water repellent. 3,085,902, 4–16–63, Cl. 117—76.

Burns, Kay N., and W. A. Alexander, to Jersey Production Research Co. Analog computer. 3,104,469, 9–24–63, Cl. 35—97.

Burns, Leo C., F. G. Warrick, and C. N. De Bruin, to Sealed Power Corp. Piston ring assembly. 3,105,695, 10–1–63, Cl. 309—4.

Burns, Leslie L., Jr.: *See*—
Ahrens, Richard W., and Burns. 3,072,741.

Burns Lumber and Mfg. Co.: *See*—
Goodwin, Wayne M. 3,091,498.

Burns, Richard H., and R. S. Hartley, to The Hobart Mfg. Co. Food handling apparatus. 3,091,269, 5–28–63, Cl. 146—78.

Burns, Robert E.: *See*—
Kurth, Herbert. 3,099,896.
Littley, John J., and Burns. 3,098,261.

Burns, Robert H.: *See*—
Zagar, Peter G., Burns, Falcioni, and Kleiber. 3,070,970.

Burns, Robert V., to Automatic Electric Laboratories, Inc. Proximity operated loudspeaking telephone. 3,109,893, 11–5–63, Cl. 179—1.

Burns, Robert V., and R. T. Cleary, to Automatic Electric Laboratories, Inc. Electronic pulse correction circuit. 3,092,691, 6–4–63, Cl. 179—16.

Burns and Roe, Inc.: *See*—
Roe, Ralph C. 3,097,486.
Roe, Ralph C., Lichtenstein, and Mullen. 3,108,577.

Burns, Sam. Rotary tiller. 3,074,490, 1–22–63, Cl. 172—62.

Burns, Thagrus A. Removable pan lifter and handle. 3,112,948, 12–3–63, Cl. 294—27.

Burns, Walter W.: *See*—
Brause, Jacob L., and Burns. 3,092,252.

Burns, William C., to Shell Oil Co. Turbine pump. 3,111,901, 11–26–63, Cl. 103—96.

Burnside, John L., III. Kaleidoscopic viewer. 3,096,681, 7–9–63, Cl. 88—15.

Buros, Melvin S., to Diebold, Inc. Drive-in service unit for bank tellers having a service drawer adjustable as to height. 3,077,243, 2–12–63, Cl. 186—1.

Buros, Melvin S. Method of implementing magnetic ink character recognition corrections. 3,112,151, 11–26–63, Cl. 346—1.

Burr, Francis K., to Metal Hydrides Inc. Washing cotton fabrics. 3,081,265, 3–12–63, Cl. 252—105.

Burr, Harvey, to Anaconda Wire and Cable Co. Apparatus and method for stranding and packaging. 3,079,747, 3–5–63, Cl. 57—58.67.

Burr, Harvey, and B. J. Wardley, to British Insulated Callender's Cables Ltd. Haul-off and coiling device. 3,110,452 11–12–63, Cl. 242—82.

Burr, Robert P., and R. L. Swiggett, to Circuit Research Co. Method of making an endless electrical winding. 3,081,420, 4–9–63, Cl. 29—155.5.

Burrage, Lawrence M., and D. D. McStrack, to McGraw-Edison Co. Overvoltage protective device. 3,096,496, 7–2–63, Cl. 338—21.

Burrage, Lawrence M., and D. D. McStrack, to McGraw-Edison Co. Lightning arrester. 3,106,661, 10–8–63, Cl. 313—174.

Burrell, Basil S., to American Hospital Supply Corp. Dispenser. 3,085,679, 4–16–63, Cl. 206—42.

Burrell, Frederick S., to The Budd Co. Ship sound simulator. 3,083,664, 4–2–63, Cl. 114—5.

Burri, Alceste, to Montecatini Societa Generale per l'Industria Mineraria e Chimica. Thermoplastic compositions comprising vinyl chloride polymer, styrene copolymer, and acrylonitrile-1,3 butadiene copolymer. 3,108,988, 10–29–63, Cl. 260—45.5.

Burris, Merton R.: *See*—
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Burris, William A., to American Cyanamid Co. Process for preparing 4,5 - dialkoxy - 1,3 - dialkyl-2-imidazolidinones. 3,091,617, 5–28–63, Cl. 260—309.7.

Burris, William J.: *See*—
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Burris, William M. Support device. 3,099,101, 7–30–63, Cl. 45—82.

Burriss, Stanley W.: *See*—
Nagey, Tibor F., Burriss, Spooner, and Maxwell. 3,113,089.

Burriss, William L., to The Garrett Corp. Gas generator regulating system. 3,078,668, 2–26–63, Cl. 60—39.25.

Burrough, Herbert R. Method of repairing a valve stem or tube with an adapter coupling. 3,101,529, 8–27–63, Cl. 29—401.

Burroughs Corp.: *See*—
Ayers, Earl D. 3,101,429.
Bancroft, Walter H. 3,108,205.
Bergland, Harry R., and Wagner. 3,072,048.
Bergland, Harry R., and Wagner. 3,088,400.
Bewley, Lawrence L., and Foster. 3,072,328.
Block, Charles, and Di Giulio. 3,085,668.
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Burroughs Corp.: *See*—Continued
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Brozo, Donald E. 3,089,697.
Campbell, Robert V. D., and Epstein. 3,076,393.
Caspari, Georg K. 3,112,873.
Chen, Tung C., and Stram. 3,112,474.
Chen, Tung C., and Tracy. 3,102,239.
Chow, Chao K., and Rosenberg. 3,096,506.
Cruzen, Larry L. 3,098,648.
Cruzen, Larry L. 3,098,649.
Cullis, John, Jr. 3,077,022.
Daugherty, Samuel S. 3,103,074.
Davidson, James C. 3,115,587.
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Disson, Stanley B., and Winsor. 3,074,058.
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Ehrhart, Dale L. 3,071,521.
Elmore, William C. 3,101,417.
Engelman, Joseph H. Re. 25,440.
Fettig, Arthur J., Jenks, Lasdine, Maidment, and Runde. 3,089,641.
Frederick, Harold M. 3,075,760.
Frederick, Harold M. 3,109,924.
Frederick, Harold M., and Sheaffer. 3,091,669.
Gavasso, Louis J. 3,114,500.
Gottschalk, Juan M., White, and Chow. 3,104,381.
Greenberg, David R. 3,091,751.
Hanstein, Walter, Jr., and Delghton. 3,074,629.
Hepner, Neal. 3,075,403.
Hespenheide, Wilbur G. 3,096,271.
Hoberg, George G., and Holinecker. 3,090,947.
Howard, John H. 3,071,755.
Howell, Richard S. 3,094,429.
Howell, Richard S. 3,103,606.
Howell, Richard S. 3,108,895.
Jansch, Ernest A. 3,075,283.
Johnson, Edward M. 3,090,302.
Joyce, Cecil R. 3,071,685.
Kelchner, Harley E. 3,072,397.
Klehm, William G., Jr., and Tanguy. 3,080,560.
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Kuchinsky, Saul. 3,087,084.
Kuchinsky, Saul. 3,088,045.
La Beaume, Paul E. 3,076,118.
La Patka, Lawrence T., and Schmidt. 3,071,743.
Leckey, Kenneth L. 3,107,089.
Maldment, Earl P. 3,078,083.
Maidment, Earl P. 3,079,151.
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McCauley, John H., and Gavurnik. 3,101,427.
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Tanguy, Lewis L., Jr. 3,114,902.
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Templeton, William B., and Kondur. 3,107,090.
Templeton, William B., and Siegel. 3,077,304.
Thompson, Lyle G. 3,090,872.
Thompson, Lyle G. 3,104,378.
Wendell, Douglas C., Jr. 3,098,043.
Wendell, Douglas C., Jr. 3,108,931.
Wolfe, Roger W. 3,092,752.
Wolfe, Roger W. 3,097,322.
Wolfe, Roger W., and Grobe. 3,112,423.
Wright, Gerard C. 3,114,491.
Yetter, Edward W. 3,114,102.
Zyber, Kenneth F. 3,101,942.

Burroughs, Cyril E., I. B. Topp, and J. M. Kingsland, to S. Smith & Sons (England) Ltd. Resetting mechanisms for meters. 3,089,642, 5–14–63, Cl. 235—144.

Burroughs, John H. Automatic corn popper. 3,087,413, 4–30–63, Cl. 99—238.1.

Burroughs, Paul H., and D. L. Kingston, to Sylvania Electric Products Inc. Apparatus for assembling electrical contacts. 3,104,457, 9–24–63, Cl. 29—203.

Burroughs Wellcome & Co. (U.S.A.) Inc.: *See*—
Baltzly, Richard, Russell, and Mehta. 3,098,076.
Coker, Geoffrey G., and Copp. 3,092,547.
Copp, Frederick C., and Hodson. 3,099,599.
Copp, Frederick C., McCoubrey, and Billinghurst. 3,090,725.
De Beer, Edwin J. Re. 25,502.
Hitchings, George H., Elion, and Mackay. 3,098,074.
Hitchings, George H., and Goodman. 3,074,929.
Hitchings, George H., and Goodman. 3,074,930.
Phillips, Arthur P., and Burrows. 3,075,975.
Phillips, Arthur P., and Burrows. 3,085,935.
Polinger, Martin E. 3,091,571.

Burrows, Arthur T. C., to Geo. W. King, Ltd. Drive transmitting mechanisms. 3,106,828, 10–15–63, Cl. 64—30.

Burrows, Robert B.: *See*—
Phillips, Arthur P., and Burrows. 3,075,975.
Phillips, Arthur P., and Burrows. 3,085,935.

Burrus, Henry L.: *See*—
Ranby, Peter W., and Burrus. 3,110,560.

Burson, Benard, Jr. Electronic canceller for automobile turn indicators. 3,110,011, 11–5–63, Cl. 340—56.

Burson, Bob O., to Elcl Products Corp. Electrical power supply system. 3,105,932, 10–1–63, Cl. 322—90.

Burstlein, Eugène M.: *See*—
Paris, Michel B. L. M., and Burstlein. 3,097,945.

Burstow, Pierre, to Compagnie Industrielle des Telephones. Electronic coding and decoding device. 3,085,163, 4–9–63, Cl. 307—88.5.

Burstow, Pierre, and C. Monin, to Compagnie Industrielle des Telephones. Transistor switching devices in a gas tube coincidence matrix selector. 3,079,588, 2–26–63, Cl. 340—166.

Burstow, Pierre, and C. Monin, to Compagnie Industrielle des Telephones. Magnetostatic device. 3,093,746, 6–11–63, Cl. 307—88.

Burt, Farlow B.: *See*—
Hruska, Howard E., Burt, and Brown. 3,075,501.

Burt, Farlow B., and J. L. Vickers, to The Bendix Corp. Power steering mechanism. 3,100,550, 8–13–63, Cl. 180—79.2.

Burt, Fred E. Automatically operated protective system for covering ground areas. 3,099,444, 7–30–63, Cl. 273—27.

Burt Machine Co., Inc.: *See*—
Neer, Clifford H. 3,102,628.

Burt, Ralph D., to The Link-Belt Co. Electro magnet self-attaching vibrator. 3,106,652, 10–8–63, Cl. 310—17.

Burt, Robert V., to The Procter & Gamble Co. Filling nozzle. 3,073,358, 1–15–63, Cl. 141—59.

Burt, Robert V., to The Procter & Gamble Co. Package structure. 3,073,436, 1–15–63, Cl. 206—46.

Burt, Robert V., to The Procter & Gamble Co. Container for thixotropic products. 3,094,252, 6–18–63, Cl. 222—410.

Burt, Robert V., V. E. Gex, and N. J. Franz, to The Procter & Gamble Co. Dust-proof carton. 3,097,783, 7–16–63, Cl. 229—37.

Burt, William G., Jr., to General Communication Co. Switches. 3,076,883, 2–5–63, Cl. 200—153.

Burtch, Fred W.: *See*—
Parks, Christ F., Strassner, and Burtch. 3,096,777.

Burtenshaw, Ordeen L.: *See*—
Lemyre, Joseph R., Burtenshaw, and Ketchum. 3,093,897.

Burthe, Jack H., I. J. Kenner, and J. D. Woermbke, to United States of America, Navy. Keep-alive cones and method of making same. 3,098,172, 7–16–63, Cl. 315—58.

Burtis, Wilson A., to Aero-Flow Dynamics, Inc. Butterfly valve with radially shiftable and fluid pressure responsive seat. 3,077,331, 2–12–63, Cl. 251—173.

Burtis, Wilson A., to Aero-Flow Dynamics, Inc. Butterfly valve having radially shiftable and fluid pressure responsive seat. 3,077,332, 2–12–63, Cl. 251—173.

Burtness, Roger W., to Stewart-Warner Corp. Conveyor unloading mechanism. 3,071,239, 1–1–63, Cl. 198—188.

Burton, Alvin R.: *See*—
Feustel, George H., and Burton. 3,096,135.

Burton, Arthur F.: *See*—
Sprague, Stephen B., and Burton. 3,072,357.

Burton, Charles D.: *See*—
Croxall, Willard J., and Burton. 3,073,863.

Burton-Dixie Corp.: *See*—
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Sevcik, John G. 3,089,151.

Burton, Elwin E. Storm window and screen retaining strip. 3,102,579, 9–3–63, Cl. 160—90.

Burton, George, Jr., D. Rosner, J. G. Landkrohn, and R. L. Machett, to Westinghouse Electric Corp. Electron beam welding apparatus. 3,093,726, 6–11–63, Cl. 219—117.

Burton, George T., Jr.: *See*—
Williams, Sam B., and Burton. 3,077,038.

Burton, Henry S.: *See*—
Florey, Howard W., Abraham, Newton, Burton, Kelly, Hale, and Miller. 3,094,527.

Burton, Joe M.: *See*—
Henderson, Charles B., and Burton. 3,073,120.
Henderson, Charles B., and Burton. 3,087,306.
Rumbel, Keith E., Burton, and Sullivan. 3,082,659.

Burton, Joe M., to Atlantic Research Corp. Thixotropic heterogeneous nonpropellant compositions. 3,113,894, 12-10-63, Cl. 149—19.

Burton, John, Machinery Corp.: *See*—
Rice, Harold B., and Aguilar. 3,097,554.

Burton, John W., and D. A. Hoyt, to United States of America, Navy. Panoramic camera. 3,099,946, 8-6-63, Cl. 95—16.

Burton, Paul F., and P. F. Fleagle, to Dixie-Narco, Inc. Vending machine. 3,115,274, 12-24-63, Cl. 221—125.

Burton, Robert G., to Well Surveys Inc. Plural channel time sharing multiplex system. 3,103,644, 9-10-63, Cl. 340—18.

Burton, Robert G., J. P. Lamb, and J. R. Schopper, to Dresser Industries, Inc. Focus logging system with subsurface transformer sampling means. 3,103,626, 9-10-63, Cl. 324—1.

Burton, Robert W., to General Motors Corp. Differential assembly. 3,103,132, 9-10-63, Cl. 74—607.

Burton, Roy L.: *See*—
Cox, Robert M., and Burton. 3,111,962.

Burton, William E. Dental equipment. 3,089,741, 5-14-63, Cl. 312—223.

Burton, William E. Water skier safety device. 3,104,644, 9-24-63, Cl. 116—114.

Burton, William E. Attachment of headrest to chairback by magnetic means. 3,104,914, 9-24-63, Cl. 297—407.

Burwell, Stanley J. Collapsible motor scooter. 3,079,172, 2-26-63, Cl. 280—278.

Burwen, Richard S., to Minneapolis-Honeywell Regulator Co. Electronic apparatus. 3,088,076, 4-30-63, Cl. 330—9.

Burzlaff, Karl H., to Ritter Co., Inc. Apparatus for controlling the flow of fluids. 3,099,440, 7-30-63, Cl. 269—325.

Busby, Terence S., and M. W. Davies, to The General Electric Co. Ltd. Control rod materials. 3,088,898, 5-7-63, Cl. 204—193.2.

Busch, Dieter, F. Eicher, and A. Kramer, to Henkel & Cie. G.m.b.H. Hand pressure roller. 3,098,783, 7-23-63, Cl. 156—579.

Busch, Gerhard, and W. Lenffer. Jarring machine for feeding and straightening stacks of paper. 3,092,382, 6-4-63, Cl. 271—89.

Busch, Heinrich, and H. Eggert, to Busch-Jaeger Durener Metallwerke Aktiengesellschaft. Hydraulic temperature sensing devices for electric heating appliances. 3,114,027, 12-10-63, Cl. 219—37.

Busch-Jaeger Durener Metallwerke Aktiengesellschaft: *See*—
Busch, Heinrich, and Eggert. 3,114,027.

Busch, Paul A., A. B. Mewhinney, and F. E. Wirtz, to General Motors Corp. Stator winding apparatus. 3,072,349, 1-8-63, Cl. 242—1.1.

Busch-Petersen, Bent, and R. G. Craig, to Air Products and Chemicals, Inc. Treatment of dehydrogenation vapor effluent. 3,100,745, 8-13-63, Cl. 208—310.

Busch, Richard E.: *See*—
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Scozzafave, Milton V., and Busch. 3,101,806.

Busch, Richard E., to Clary Corp. Registering apparatus. 3,080,112, 3-5-63, Cl. 235—60.31.

Busch, Richard E., to Addmaster Corp. Crawl carry register controls. 3,113,719, 12-10-63, Cl. 235—60.31.

Busch, Theodore N., to The DoAll Co. Determining reference plane for surface plate inspection. 3,087,246, 4-30-63, Cl 33—1.

Busch, Theodore N., to The DoAll Co. Determining reference plane for surface plate inspection. 3,087,247, 4-30-63, Cl. 33—1.

Buschbom, Floyd E., to Vandale Corp. Leveling structure. 3,090,506, 5-21-63, Cl. 214—17.

Buschbom, Floyd E., to Vandale Corp. Silo unloader conveyor structure. 3,095,985, 7-2-63, Cl. 214—17.

Buscher, Harold K. Gauge amplifier. 3,092,914, 6-11-63, Cl. 33—169.

Büscher, Johann. Stationary body exercising appliance. 3,075,766, 1-29-63, Cl. 272—73.

Buschhorn, Walther, to Klein, Schanzlin & Becker Aktiengesellschaft. Impellers, especially single vane impellers for rotary pumps. 3,082,695, 3-26-63, Cl. 103—115.

Buschman, Nathan H. Comminuting machine. 3,111,278, 11-19-63, Cl. 241—257.

Bush, Austin L., Jr.: *See*—
Long, James A., Bush, and Pears. 3,091,750.

Bush, Catherine: *See*—
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Bush, Donald R., T. E. Howarth, and R. Lawrence, to Ferro Corp. Composition for and method of applying ceramic color. 3,089,782, 5-14-63, Cl. 117—38.

Bush, Freeman, to The American Sugar Refining Co. Method of preparing sugar-coated dicalcium phosphate particles. 3,085,048, 4-9-63, Cl. 167—93.

Bush, Freeman, to The American Sugar Refining Co. Process for agglomerating brown sugar. 3,098,767, 7-23-63, Cl. 127—63.

Bush, George B., and L. J. Viernstein. Electrical analogue. 3,099,741, 7-30-63, Cl. 235—61.6.

Bush, Harold. Exercise machine. 3,079,914, 3-5-63, Cl. 128—25.

Bush, Harold E.: *See*—
Foster, Lawrence H., and Bush. 3,100,383.
Small, Marvin, Jayna, Bush, and Griffiths. 3,115,904.

Bush, Jack D.: *See*—
Carpenter, Richard A., Hughes, and Bush. 3,072,704.

Bush, Jerome J., to General Motors Corp. Rotatable poppet valve. 3,077,874, 2-19-63, Cl. 123—188.

Bush, John E., to Birdsboro Corp. Hydraulic press. 3,078,540, 2-26-63, Cl. 25—91.

Bush, John J., R. L. Mattson, and J. G. Roberts, to General Motors Corp. Shot-peening treatments. 3,073,022, 1-15-63, Cl. 29—553.

Bush, Kyle E., to Westinghouse Electric Corp. Pulse transmitter and amplifier. 3,093,740, 6-11-63, Cl. 250—207.

Bush, Paine L. Non-slip fishing reel attachment. 3,074,198, 1-22-63, Cl. 43—22.

Bush, Robert G., to L. Shelton. Cleaning system for egg breaking and separating devices. 3,098,495, 7-23-63, Cl. 134—77.

Bush, Russell J., to General Motors Corp. Dynamoelectric machine closure means. 3,095,994, 7-2-63, Cl. 220—46.

Bush, Thomas L., D. Hoober, and D. J. Herkes, to Synagogue Council of America and National Community Relations Advisory Council. Apparatus for humane handling of animal livestock for slaughter. 3,113,340, 12-10-63, Cl. 17—1.

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O'Neal, Andrew, and Bush. 3,077,986.

Bushell, George J., and R. Thornton. Tester for automatic transmission parts. 3,076,330, 2-5-63, Cl. 73—40.

Bushey, Donald H., to United States Envelope Co. Manufacture of pressure-sealing envelopes, bags, and the like. 3,102,046, 8-27-63, Cl. 117—38.

Bushman, Stephen F., and V. Suigussaar, to Bell & Howell Co. Photographic camera having an automatic exposure control device. 3,085,486, 4-16-63, Cl. 95—64.

Bushmeyer, Richard W., to J. I. Case Co. Coulter mounting means for moldboard plow. 3,115,192, 12-24-63, Cl. 172—166.

Bushmeyer, Richard W., and C. E. Henson, Jr., to J. I. Case Co. Agricultural implement. 3,106,971, 10-15-63, Cl. 172—386.

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Eagle, John H., Bushnell, and Nerwin. 3,086,862.

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Bushong, Joseph W.: *See*—
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Bushong, Robert J., V. F. Kramer, and G. C. Noll, to The Thew Shovel Co. Retractible mast and boom stop. 3,076,560, 2-5-63, Cl. 212—59.

Bushway, George H. Cooking machine. 3,101,043, 8-20-63, Cl. 99—407.

Busk, Robert S., D. L. Leman, and M. A. Molnar, to The Dow Chemical Co. Method of generating heat and light. 3,094,445, 6-18-63, Cl. 149—37.

Buske, Fritz: *See*—
Kuschel, Gerhard, Buske, and Haase. 3,080,981.

Buskes, Willem M., to Chemische Fabriek Van der Grinten N.V. Process and light-sensitive sheets for the production of pigment images by transfer. 3,091,528, 5-28-63, Cl. 96—28.

Buskes, Willem M., to Chemische Fabriek Van der Grinten N.V. Process and light-sensitive screen sheets for the production of pigment images by transfer. 3,091,529, 5-28-63, Cl. 96—28.

Buskirk, John E., and J. H. Childs, to General Motors Corp. Battery structure. 3,092,520, 6-4-63, Cl. 136—166.

Busler, Willard L., to AMP Inc. Electrical terminal applicator. 3,075,567, 1-29-63, Cl. 153—1.

Busquet, Jan C., to Koninklijke Machinenfabriek Gebr. Stork & Co. N.V. Radial flow impellers for centrifugal pumps or fans. 3,090,543, 5-21-63, Cl. 230—114.

Buss, Benjamin A., to Ametek, Inc. Laundry method. 3,093,842, 6-18-63, Cl. 8—159.

Bussard, Emmery J. H., to Avco Mfg. Corp. Automatic ferrite loop antenna loading. 3,078,420, 2-19-63, Cl. 330—29.

Bussemer, Richard T., ½ each to P. London and L. Griff. Freezer rack. 3,083,836, 4-2-63, Cl. 211—134.

Bustamante, Roberto L. Illuminating means. 3,114,509, 12-17-63, Cl. 240—8.22.

Buswell, Arthur M., and H. Beddoes, to Pacific Flush Tank Co. Gas scrubbing apparatus. 3,089,757, 5-14-63, Cl. 23—285.

Butcher Polish Co., The: *See*—
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Butcher, Walter W., to Standard Oil Co. Method of restricting a solid propellant. 3,107,573, 10-22-63, Cl. 86—1.

Butcher, Walter W., to Standard Oil Co. Stabilized ammonium nitrate propellant. 3,113,057, 12-3-63, Cl. 149—19.

Butcher, Walter W., to Standard Oil Co. Ammonium nitrate propellant compositions containing nitrilotriacetate combustion catalyst. 3,113,058, 12-3-63, Cl. 149—19.

Butcosk, Richard A., to Socony Mobil Oil Co., Inc. Grease manufacture. 3,108,965, 10-29-63, Cl. 252—39.

Butenandt, Adolf, W. Guex, E. Hecker, R. Rüegg, and U. Schwieter, to Hoffmann-La Roche Inc. Insect lures. 3,072,526, 1-8-63, Cl. 167—48.

Butenuth, Günther, K. Meltendorf, H. Gäbler, and K. Sennewald, to Knapsack-Griesheim Aktiengesellschaft. Device for carrying out endothermal reactions in the electric arc. 3,079,325, 2-26-63, Cl. 204—328.

Buth, William F., to Kolmar Laboratories, Inc. Film forming lipstick. 3,088,876, 5-7-63, Cl. 167—85.

Butler, Adolf G., to American Pipe and Construction Co. Method of compensating for the effect of cambered strip stock in making helical seam metal tubing. 3,078,818, 2-26-63, Cl. 113—35.

Butler, Arnold J., and N. A. Hedstrom, to International Business Machines Corp. Mobile record carrier. 3,076,563, 2-5-63, Cl. 214—1.

Butler, Arthur D.: *See*—
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Butler, Beverly J., to University of Illinois Foundation. Remotely controlled spray head. 3,111,268, 11-19-63, Cl. 239—170.

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Butler, Donald H. Slab construction. 3,113,402, 12-10-63 Cl. 50—531.

Butler, Florence P.: *See*—
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Butler, Francis E., C. W. Dovell, D. M. Leslie, V. G. Costley, and L. V. C. Lnh, to United States of America, Navy. Detachable practice mine section. 3,086,464, 4-23-63, Cl. 102—10.

Butler, Frank, to United Kingdom Atomic Energy Authority. Fuel elements for nuclear reactors. 3,114,690, 12-17-63, Cl. 204—154.2.

Butler, Henry J., to Dunlop Rubber Co. Ltd. Disc brakes 3,089,565, 5-14-63, Cl. 188—73.

Butler, Henry J., to Dunlop Rubber Co. Ltd. Improvements in disc brakes. 3,095,949, 7-2-63, Cl. 188—73.

Butler, Henry J., to Dunlop Rubber Co. Ltd. Disc brakes for vehicles. 3,100,553, 8-13-63, Cl. 188—73.

Butler, Henry J., to Dunlop Rubber Co. Ltd. Automatic adjusting devices for brakes, clutches and the like. 3,110,364, 11-12-63, Cl. 188—73.

Butler, Henry J., to Dunlop Rubber Co. Ltd. Disc brakes having releasable torque receiving members. 3,110,365, 11-12-63, Cl. 188—73.

Butler, Henry J., to Dunlop Rubber Co. Ltd. Cam-ball actuated spot brake with slack adjusting means. 3,115,217, 12-24-63, Cl. 188—73.

Butler, Henry J., and G. Smith, to Dunlop Rubber Co. Ltd. Disc brakes. 3,109,517, 11-5-63, Cl. 188—73.

Butler, Jacob C., and R. M. Haley, to The William Getz Corp. Mouthpiece. 3,103,217, 9-10-63, Cl. 128—136.

Butler, James W. Method of making a neutron-absorbing calcium boride brick. 3,092,590, 6-4-63, Cl. 252—478.

Butler, Jesse L.: *See*—
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Butler, Jesse L., to Sanders Associates, Inc. Strip transmission line crossover having reduced impedance discontinuity. 3,101,363, 9-17-63, Cl. 333—84.

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Butler, Kenneth J.: *See*—
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Dunnington, Jon B. 3,102,612.
Gutekunst, Gerald A., and Jensen. 3,090,507.
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O'Dell, Richard A. 3,092,010.
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Butler, Martin R., Jr., and B. F. Tucker, to General Motors Corp. Propeller shaft damper. 3,075,406, 1-29-63, Cl. 74—574.

Butler, Oscar. Control system for public carrier vehicles. 3,111,185, 11-19-63, Cl. 180—82.

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Butler, Richard A.: *See*—
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Butler, Richard A., Jr. Web splicing machine. 3,075,718, 1-29-63, Cl. 242—58.3.

Butler, Richard K., to Union Screw and Mfg. Co. Bottom roll stand. 3,079,647, 3-5-63, Cl. 19—294.

Butler, Roger M., and J. A. Bichard, to Esso Research and Engineering Co. Hydrofining process with temperature control. 3,094,481, 6-18-63, Cl. 208—253.

Butler, Roger M., D. M. MacLeod, and J. L. Tiedje, to Esso Research and Engineering Co. Method of solvent dewaxing. 3,105,809, 10-1-63, Cl. 208—31.

Butler, Roger M., and J. A. Bichard, to Esso Research and Engineering Co. Separation of aromatics from hydrocarbon streams. 3,114,783, 12-17-63, Cl. 260—674.

Butler, Sammy A.: *See*—
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Butler, Sammy A., and H. S. Yourke, to International Business Machines Corp. Tunnel diode controlled transistor regulator. 3,108,218, 10-22-63, Cl. 323—22.

Butler, Stanley C., and D. L. Marsh. Percolator toys. 3,078,607, 2-26-63, Cl. 40—106.22.

Butler, Vaughn H., to The Gordon Co. Yarn handling and severing mechanism for circular knitting machines and methods. 3,077,097, 2-12-63, Cl. 66—140.

Butler, Vaughn H., and A. Burleson, to The Gordon Co. Yarn tensioning and severing mechanism for circular knitting machines. 3,079,779, 3-5-63, Cl. 66—140.

Butler, William F., to Cutter Laboratories, Inc. Administration equipment. 3,092,106, 6-4-63, Cl. 128—214.

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Butsch, Alfred G., and C. M. Jenkins, to General Electric Co. Improved accumulator for refrigerating system. 3,111,135, 11-19-63, Cl. 137—171.

Butter, George N., to Commercial Solvents Corp. Oxazolines as antistripping agents in asphalt pavings. 3,085,891, 4-16-63, Cl. 106—273.

Butter, George N., and J. A. Frump, to Commercial Solvents Corp. Oxyalkylated carboxylic acid amides and production thereof. 3,097,219, 7-9-63, Cl. 260—404.

Butter, Otto, to Gesellschaft fur Industrielle Technik m.b.H. Washing cabinet. 3,071,424, 1-1-63, Cl. 312—27.

Butter, Otto, to Gesellschaft fur Industrielle Technik m.b.H. Apparatus for drawing lines and marking measurements and inscriptions on drawings. 3,095,075, 6-25-63, Cl. 197—2.

Butter, Otto, to Gesellschaft fur industrielle Technik m.b.H. Drawing machine. 3,115,706, 12-31-63, Cl. 33—79.

Butter, Otto, W. Irmscher, and R. Kaiser, to Gesellschaft für industrielle Technik m.b.H. Lettering machine for drawings. 3,099,344, 7-30-63, Cl. 197—150.

Butterfield, Charles G., to Fielden Electronics. Automatic bowling pinsetter out-of-range reset actuating device. 3,081,086, 3-12-63, Cl. 273—43.

Butterfield, Neil J., to Olin Mathieson Chemical Corp. Explosive release means with mechanical and electrical actuating means. 3,087,369, 4-30-63, Cl. 85—1.

Butterly, Daniel R. Educational device. 3,075,303, 1-29-63, Cl. 35—35.

Butterworth, Arnold W., and J. E. Roberts, to Ferranti, Ltd. Tools for unwrapping wrapped electrical connections. 3,095,640, 7-2-63, Cl. 29—203.

Butterworth, Arthur B. Hook and peg holding means for boards and walls. 3,091,423, 5-28-63, Cl. 248—225.

Butterworth, Clifford, to P. Frankenstein & Sons (Manchester) Ltd. Non-return valves. 3,077,205, 2-12-63, Cl. 137—525.

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Buttner, William C., Jr.: *See*—
Buttner, William C., Sr., and William C. Buttner, Jr. 3,074,700.

Buttner, William C., Sr., deceased (E. B. Buttner, executrix), and William C. Buttner, Jr., to W. C. Buttner, Jr. Carbonating apparatus. 3,074,700, 1-22-63, Cl. 261—135.

Buttriss, Albert T., to Tinnerman Products, Inc. Fastening devices. 3,081,853, 3-19-63, Cl. 189—88.

Butts, David L.: *See*—
Malcolmson, James V. C., and Butts. 3,113,544.

Butts, Richard R. Nursing bottle construction. 3,113,687, 12-10-63, Cl. 215—11.

Butzke, Fritz: *See*—
Mayer, Hans F., and Butzke. 3,101,172.

Butzko, Robert L. Apparatus for forming thermoplastic sheet material. 3,113,345, 12-10-63, Cl. 18—19.

Butzow, George M. Foundry aerating flask-filler. 3,081,505, 3-19-63, Cl. 22—35.

Buuck, Frederick A., to International Telephone and Telegraph Corp. Automatic testing system and timing device therefor. 3,082,374, 3-19-63, Cl. 324—73.

Buxbaum, Edwin C., and R. H. Terss, to E. I. du Pont de Nemours and Co. Process for preparing substituted dihydroxyanthraquinones. 3,082,218, 3-19-63, Cl. 260—380.

Buxton, Henry H.: *See*—
Reddick, John A., Berkley, Linthicum, and Buxton. 3,083,828.

Buxton, Inc.: *See*—
Corey, Donald W. 3,081,867.

Buxton, James E., E. E. Hood, and J. J. Sabatini, to The Bendix Corp. Starter drive. 3,114,270, 12-17-63, Cl. 74—6.

Buxton, Jarvis C., to Griffith Rubber Mills. Method and device for casting voids. 3,072,995, 1-15-63, Cl. 25—128.

Buxton, Jarvis C., to Griffith Rubber Mills. Muffler. 3,095,944, 7-2-63, Cl. 181—70.

Buxton, Michael W., and J. C. Tatlow, to The National Smelting Co. Ltd. 3-(pentafluorophenyl)-propene-1 and its preparation. 3,113,976, 12-10-63, Cl. 260—650.

Buyalos, Michael A., Jr. Hobby horse base. 3,093,356, 6-11-63, Cl. 248—194.

Buyer, Walter, to The Ridge Tool Co. Double release for threading die. 3,082,445, 3-26-63, Cl. 10—105.

Buyken, Frank E. Concrete form tie and method of producing same. 3,075,272, 1-29-63, Cl. 25—131.

Buys, Johannes J. H.: *See*—
Van Broeckhuysen, Johannes P. C. M., and Buys. 3,103,814.

Buysch, Heinrich, to H. Krantz. Thread counting device. 3,074,631, 1–22–63. Cl. 235—92.

Buzas, Andre. 5-acetylglycolyl salicylic acid and the methyl ester thereof. 3,113,962, 12–10–63. Cl. 260—473.

Buzawa, Michael J., to Bausch & Lomb Inc. Long focus optical objective. 3,106,598, 10–8–63. Cl. 88—57.

Buzzell, Harold O.: *See*—
Blout, Elkan R., Buzzell, and Farney. 3,097,106.

Byassee, Guy E. Fragile article cartons. 3,115,290, 12–24–63. Cl. 229—39.

Byatt, Dennis W. G., to Marconi's Wireless Telegraph Co. Ltd. Phase indicators. 3,076,963, 2–5–63. Cl. 343—113.

Byberg, Jonas J. Foldable floating platform. 3,079,616, 3–5–63. Cl. 9—1.

Byers, Edward V. Typewriter carriage traversing mechanism. 3,093,230, 6–11–63. Cl. 197—85.

Byers, Edward V. Universal bar for typewriters. 3,095,077, 6–25–63. Cl. 197—97.

Byers, Edward V. Type bar actuating mechanism for typewriting machines. 3,108,674, 10–29–63. Cl. 197—27.

Byers, James O., Jr., to The Bendix Corp. Hydraulic balancing system for rotary positive displacement fluid handling devices. 3,078,808, 2–26–63. Cl. 103—161.

Byk-Gulden Lomberg Chemische Fabrik G.m.b.H.: *See*—
Bolz, Karl, and Hein. 3,073,742.
Dreher, Emil, Raeck, and Bolz. 3,075,849.

Byland, Henry L., and J. A. Van Auken, to E. Hyman, H. Levine, and S. H. Halms. Bookbinding apparatus. 3,107,375, 10–22–63. Cl. 11—1.

Byler, William H., to Spencer Chemical Co. Polymerization of ethylene. 3,072,608, 1–8–63. Cl. 260—94.9.

Byles, Theodore A., to Motorola, Inc. Voltage regulator. 3,077,558, 2–12–63. Cl. 322—28.

Byles, Theodore A., to Motorola, Inc. Voltage regulator for vehicular electrical system. 3,106,665, 10–8–63. Cl. 317—100.

Byloff, Robert C., to The Garrett Corp. Regulated control system. 3,083,327, 3–26–63. Cl. 318—202.

Byloff, Robert C., to The Garrett Corp. Electromagnetic fluid pressure modulating valve. 3,094,132, 6–18–63. Cl. 137—85.

Byloff, Robert C., to The Garrett Corp. Power failure sensor. 3,113,247, 12–3–63. Cl. 317—48.

Byrd, Carl, ¼ to R. S. Kaszuba. Pulse controlled servo system. 3,109,131, 10–29–63. Cl. 318—138.

Byrd, Dee H., Sr. Swivel for dance partners. 3,073,594, 1–15–63. Cl. 272—1.

Byrd, Ray H. Highway picket and reflective marker. 3,091,997, 6–4–63. Cl. 94—1.5.

Byrd, Russell A.: *See*—
Foster, Ezra M. 3,077,994.

Byrd, Wylie A. Grain harvester. 3,107,474, 10–22–63. Cl. 56—119.

Byrne Doors, Inc.: *See*—
Urquhart, Thornton L. 3,072,394.
Urquhart, Thornton L. 3,099,338.

Byrne, James D., G. W. Bergford, and R. K. Kirschner, to United Control Corp. Ice detector system. 3,116,395, 12–31–63. Cl. 219—20.

Byrne, Joe L.: *See*—
Sanborn, Daniel S., and Byrne. 3,095,820.

Byrne, John F., and P. F. Kurz to Minneapolis-Honeywell Regulator Co. Photographic overcoating. 3,105,762, 10–1–63. Cl. 96—67.

Byrne, John J., and R. W. Cruger, to E. W. Bliss Co. Aircraft arresting system. Re. 25,406, 6–25–63. Cl. 244—110.

Byrne, Joseph F., to Westinghouse Air Brake Co. Digital flow computer employing a logarithmic mode of computation. 3,099,742, 7–30–63. Cl. 235—150.

Byrne, William L. Washer-extractor. 3,106,106, 10–8–63. Cl. 74—661.

Byrnes, Dennis W. Water trough and cleaning means. 3,099,979, 8–6–63. Cl. 119—22.

Bywater, John A. Clamp. 3,078,532, 2–26–63. Cl. 24—22.

Bywater, William G.: *See*—
Brown, Bernard R., and Bywater. 3,086,911.

Bywaters, Gordon L., to United Aircraft Corp. Liquid rocket engine system. 3,078,659, 2–26–63. Cl. 60—35.6.

C.A.V. Ltd.: *See*—
Curzon, Thomas. 3,091,282.
Evans, Fraser M. 3,101,078.
Evans, Fraser M. 3,101,079.
Evans, Fraser M., and Kemp. 3,091,230.
Kemp, Kenneth A. W. 3,107,661.
Parker, Kenneth G. 3,110,528.

C–B Southern, Inc.: *See*—
Jackson, Harry L., and Kraner. 3,087,291.

CBA Inc.: *See*—
Fletcher, Albert L. 3,109,594.

CBS-Hytron: *See*—
Giuffrida, Joseph. 3,076,910.

CBS Industries Inc.: *See*—
Pelosi, Michael H., Jr., and Maleno. 3,102,176.

C.C.D. Processes (N.Y) Ltd.: *See*—
Chayen, Israel H. 3,090,779.

C & D Batteries, Inc.: *See*—
Jensen, Henry E. 3,090,904.

C. & D. Lumber Co.: *See*—
Randall, Burton T. 3,071,235.

CFF, Inc.: *See*—
Carlton, Daniel. 3,103,730.

C.F.K. Mfg. Co.: *See*—
Clark, William H. R. 3,080,166.

C & H Supply Co.: *See*—
Callow, Harry G.: *See*—
Colfer, James A., and Collins. 3,089,800.
Robbins, Earl D. 3,089,316.

C.H.B. Autobowling Corp.: *See*—
Bauerschmidt, Charles H. 3,072,405.

C. I. C. Engineering Ltd.: *See*—
Hawkins, Wallace G. 3,082,478.
Hawkins, Wallace G. 3,097,379.

C.I.R.-Costruzione Incollatrici Rapide S.a.r.l.: *See*—
Catozzo, Leo. 3,075,572.

C-M-I Corp.: *See*—
Castner, John F. 3,074,212.

"COQ" N.V.: *See*—
Hidde Nijland, Hendrik A. 3,098,134.
Irik, Gijsbert W., and de Ruiter. 3,116,381.

C & S Products Co., Inc.: *See*—
Conger, Gerald A. 3,092,878.

CTS Corp.: *See*—
Barden, Wayne A., and Bender. 3,097,316.
Bender, Stanley O., and Barden. 3,115,589.
Daily, Arthur M., and Kelver. 3,096,500.

C.U.R.A. Patents Ltd.: *See*—
Hlorns, Frederick J. 3,072,348.

Cabaniss, Edward H., and J. S. Prince, to General Electric Co. Variable increment computer. 3,109,090, 10–29–63. Cl. 235—152.

Cabaniss, Edward H., and C. J. Isak, to General Electric Co. Position measuring system using two optical sensors. 3,114,046, 12–10–63. Cl. 250—237.

Cabbage, John T., to Phillips Petroleum Co. Recovery of wash solvent from filter cake. 3,084,119, 4–2–63. Cl. 208—321.

Cabble, George M., Jr., and E. E. Allan, to Westinghouse Air Brake Co. Brake head and brake shoe assemblage for composition brake shoes. 3,088,557, 5–7–63. Cl. 188—243.

Cabin Crafts, Inc.: *See*—
Hamilton, R. E. Harris, and Bryant. 3,112,717.
Payne, Otis C., and Bryant. 3,108,554.

Cable, Clyde F.: *See*—
Sugarman, Edward, and Cable. 3,110,465.

Cable Co.: *See*—
Nance, Granval J., and McDonald. 3,106,815.

Cable Covers Ltd.: *See*—
Drysdale, John. 3,085,306.

Cable Electric Products, Inc.: *See*—
Abrams, Ralph. 3,089,012.
Abrams, Ralph. 3,092,695.
Schwartz, Frederick W. 3,099,505.

Cable, Stephen J.: *See*—
Abernethy, Ira A., Cable, and Fishley. 3,113,900.

Cabot Corp.: *See*—
Belknap, Louis S., Berstein, and Antonsen. 3,078,148.
Boonstra, Bram B. S. T. 3,096,210.
Carpenter, Clifford L. 3,112,210.
Cole, Harvey M., Burbine, Jordan, and Petterson. 3,107,980.
Goulston, Philip H., and Hardy. 3,075,845.
Hall, Joseph P., Jr., Hardy, and Jordan. 3,075,844.
Jordan, Merrill E. 3,085,989.
Jordan, Merrill E., Cole, Burbine, and Petterson. 3,088,806.
Loftman, Kenneth A., and Marsden. 3,098,040.
MacKenzie, James C. 3,102,877.
MacKenzie, James C. 3,105,066.
MacKenzie, James C., and Smith. 3,093,614.
McGray, Harold E., and Paden. 3,094,978.
Medalia, Avrom I. 3,105,057.
Munsell, David D. 3,095,608.
Secord, Robert N., and Wendell. 3,094,389.
Williams, Frank R., Perdigao, and Boonstra. 3,104,985.
Woody, Wayland B., and Scott. 3,072,224.

Cabot, Nat. Golf tee having a vertically adjustable ground engaging collar. 3,114,557, 12–17–63. Cl. 273—202.

Caccioppo, Charles: *See*—
Hirschfeld, Irving M., Caccioppo, Linse, and Leitch. 3,104,526.

Cacella, Arthur F., and W. R. Killen, to Globe Mfg. Co. Method of making elastic polymethane thread. 3,115,384, 12–24–63. Cl. 18—54.

Cachin, Andre, and M. Nardin, to Compagnie des Montres Longines Francillon SA. Electric wrist watch movement. 3,111,806, 11–26–63. Cl. 58—28.

Cacossa, Frank G., to The Flintkote Co. Wall construction. 3,083,506, 4–2–63. Cl. 50—251.

Cadario, Vittorino, to Bemberg S.p.A. Device for the twisting and heat setting of threads or yarns of synthetic material, constituted preferably of numerous elementary filaments or fibers. 3,093,955, 6–18–63. Cl. 57—34.

Caddell, Alfred M. Piston-crank connector assembly for two-cycle engines. 3,087,342, 4–30–63. Cl. 74—36.

Caddell, Alfred M. Pressure retaining means for double-acting piston engines. 3,100,401, 8–13–63. Cl. 74—36.

Caddock, Richard E.: *See*—
Bourns, Marlan E., and Caddock. 3,089,110.

Caddock, Richard E., and W. D. Hulbert, to Bourns, Inc. Variable resistor. 3,107,336, 10–15–63. Cl. 338—180.

Cade, Phillip J.: *See*—
Lewis, Robert E., and Cade. 3,115,561.

Cadillac Co., Inc., The: *See*—
Shustrom, Elmer J. 3,115,223.

Cadiou, Jean, to Andre Citroen Societe Anonyme. Hydraulic generators and motors. 3,094,077, 6–18–63. Cl. 103—161.

Cadley, John L., to Air-Lock, Inc. D-ring fastening clips. 3,102,316, 9–3–63. Cl. 24—230.

Cadley, John L., to Air-Lock, Inc. Garment fasteners. 3,102,317, 9–3–63. Cl. 24—230.

Cadmus, Fred T., Jr., to Joists Inc. Nailer joists. 3,110,933, 11–19–63. Cl. 20—1.

Cadmus, Lamont A.: *See*—
Ordorica, Miguel A., and Cadmus. 3,075,600.

Cado, Erwin E., to Motorola, Inc. Printed circuit process. 3,090,706, 5–21–63. Cl. 117—212.

Cadorette, George, to Draper Corp. Loom replenishing mechanism. 3,095,016, 6–25–63. Cl. 139—257.

Cadre Industries Corp.: *See*—
Hurlbut, Gordon K., and Reynolds. 3,085,455.

Cady, Charles A. Control apparatus for charging a storage battery to a predetermined voltage. 3,111,617, 11–19–63. Cl. 320—39.

Cady, George H.: *See*—
Porter, Roger S., and Cady. 3,100,803.

Cady, Joseph H.: *See*—
Doggett, Towers, and Cady. 3,110,621.

Cady, Percy L., Jr., to Lake Erie Machinery Co. Brake for forming metal plate and sheet. 3,078,903, 2–26–63. Cl. 153—16.

Caesar, Orville S. Electric shavers. 3,107,423, 10–22–63. Cl. 30—90.

Cafcas, Thomas H., and G. R. Tichelaar, to Standard Oil Co. Demulsifiable lubricant compositions. 3,073,781, 1–15–63. Cl. 252—32.7.

Caferro, Edward M., to Columbia Electric & Mfg. Co. Lighting fixture. 3,089,026, 5–7–63. Cl. 240—51.11.

Caffier, Edouard: *See*—
Hering, Hans, Menz, and Caffier. 3,082,603.

Caffrey, James M., Jr.: *See*—
Alpert, Norman, Caffrey, Watson, and Vermillion. 3,100,216.

Cafiero, Vincent J.: *See*—
Knoll, Florence S., and Cafiero. 3,102,763.

Caflisch, Edward G., F. A. Lory, and T. P. Wilson, to Union Carbide Corp. Integral recording. 3,098,689, 7–23–63. Cl. 346—46.

Cage, Darcy L. Damper control. 3,094,114, 6–18–63. Cl. 126—288.

Cage, James, to Reynolds Metals Co. Unitary sectionable container. 3,086,692, 4–23–63. Cl. 229—51.

Cagle, Toby T., to Airheart Products, Inc. Vehicle braking mechanism. 3,115,220, 12–24–63. Cl. 188—196.

Cagliori, Luciano, and G. Gainelli, to Societa Farmaceutici Italia. Δ^5-5a-steroids and 3a-hydroxy-5a-steroids and the preparation thereof. 3,083,199, 3–26–63. Cl. 260—239.55.

Cahn, Theophil A. Ground-working apparatus. 3,090,333, 5–21–63. Cl. 111—63.

Cahan, Boris D.: *See*—
Ruetschi, Paul, and Cahan. 3,080,440.

Cahen, Alfred and H. S., to The World Publishing Co. Apparatus for applying decorative foil to the edge of sheet material. 3,088,238, 5–7–63. Cl. 41—37.

Cahen, Herman S.: *See*—
Cahen, Alfred and H. S. 3,088,238.

Cahen, Herman S., and F. Lauer. Fishing devices. 3,099,099, 7–30–63. Cl. 43—26.2.

Cahill, Daniel T., to Specialties, Inc. Positioning device. 3,095,785, 7–2–63. Cl. 91—42.

Cahill-Davis Co.: *See*—
Cahill, Frank T., and Davis. 3,074,241.

Cahill, Frank T., and C. S. Davis, to Cahill-Davis Co. Offshore installation for launching boats. 3,074,241, 1–22–63. Cl. 61—67.

Cahill, Harold D., and C. H. Dagnall, Jr., to Bell Telephone Laboratories, Inc. Automatic calling number identification. 3,071,650, 1–1–63. Cl. 179—8.5.

Cahill, James W., to Nutone, Inc. Built-in barbecue unit. 3,086,449, 4–23–63. Cl. 99—446.

Cahill, John J., to Ideal Pleating Co. Pleating machine. 3,086,685, 4–23–63. Cl. 223—30.

Cahill, John L. and P. V. Signalling device. 3,102,359, 9–3–63. Cl. 43—43.14.

Cahill, Paul V.: *See*—
Cahill, John L. and P. V. 3,102,359.

Cahill, Richard H.: *See*—
Jones, Wilford D., Cahill, and Lukman. 3,112,282.

Cahill, Robert F., to FMC Corp. Automatic warehouse. 3,093,252, 6–11–63. Cl. 214—16.

Cahn, Lee. Electrical balance. 3,106,978, 10–15–63. Cl. 177—210.

Cahn, Robert P., to Esso Research and Engineering Co. Blocked hydrocarbon conversion operation permitting reduced tankage. 3,072,561, 1–8–63. Cl. 208—80.

Cahn, Robert P., to Esso Research and Engineering Co. Process for cracking petroleum waxes. 3,103,485, 9–10–63. Cl. 208—130.

Cahoon, Nelson C., and M. P. Korver, to Union Carbide Corp. Anode film layer for galvanic cells. 3,092,518, 6–4–63. Cl. 136—146.

Caillette, Georges E. Aircraft. 3,115,318, 12–24–63. Cl. 244—77.

Cailliot, Serge L. L. Support for the recording of sounds and images and apparatus for the use thereof. 3,095,200, 6–25–63. Cl. 274—11.

Cain, Dallas E., to General Electric Co. Seal. 3,098,666, 7–23–63. Cl. 285—363.

Cain, Dean J.: *See*—
Hill, Justin D., and Cain. 3,097,989.

Cain, Farrell O., ½ to C. S. Brown. Sculling apparatus. 3,108,565, 10–29–63. Cl. 115—28.

Cain, Francis L. Adjustable automatic valve assembly. 3,074,686, 1–22–63. Cl. 251—138.

Cain, Francis M., Jr.: *See*—
Eck, John E., and Cain. 3,097,154.

Cain, Francis M., Jr., and J. E. Eck, to United States of America, Atomic Energy Commission. Dispersion element consisting of chromium coated UO_2 particles uniformly distributed in a zircaloy matrix. 3,088,892, 5–7–63. Cl. 204—154.2.

Cain, William P.: *See*—
Makowski, Henry S., and Cain. 3,088,929.

Cain, William P., and H. S. Makowski, to Esso Research and Engineering Co. Cured chlorinated ethylene-higher alpha olefin copolymer and curing agents therefor. 3,088,930, 5–7–63. Cl. 260—41.

Cainelli, Gianfranco: *See*—
Cagliotl, Luciano, and Cainelli. 3,083,199.

Caines, James F., R. F. Dyer, and J. K. Pannill, Jr., to Eastman Kodak Co. Method for blooming filter tow. 3,099,594, 7–30–63. Cl. 156—152.

Caird, David W., to General Electric Co. Resinous mixture comprising a polycarbonate and an organopolysiloxane. 3,087,908, 4–30–63. Cl. 260—42.

Cairelli, Carmen P., to M. H. Rhodes, Inc. Release mechanism for preset timers. 3,107,539, 10–22–63. Cl. 74—3.54.

Cairelli, Carmen P., and W. S. Shustock, to M. H. Rhodes, Inc. Locking device. 3,083,896, 4–2–63. Cl. 232—15.

Cairelli, Eremeldo: *See*—
Potts, John, and Cairelli. 3,080,562.

Cairns & Brother Inc.: *See*—
Cairns, Edward. 3,087,165.

Cairns, Dorothy L. Game apparatus. 3,107,095, 10–15–63. Cl. 273—105.

Cairns, Edward, to Cairns & Brother Inc. Headgear. 3,087,165, 4–30–63. Cl. 2—3.

Cairns, Raymond E., Jr., and J. L. Ham, to Langley Alloys Ltd. Aluminum-manganese-iron alloys. 3,111,405, 11–19–63. Cl. 75—124.

Cairns, Theodore, B. Graham, and D. Tanner, to E. I. du Pont de Nemours and Co. Process of coating a shaped swollen polymer substrate and treating with ionizing radiation. 3,101,275, 8–20–63. Cl. 117—47.

Calamaras, George, R. A. Denning, and J. Gelberman. System for measurement of bulk cargo on vessels. 3,110,181, 11–12–63. Cl. 73—302.

Calamari, Ello E. Industrial frequency electric induction furnace with submerged horizontal channel for the melting of any metal. 3,098,887, 7–23–63. Cl. 13—29.

Calandra, Fred M. Boat storage system. 3,080,073, 3–5–63. Cl. 214—16.4.

Calano, Giuseppe, and M. Compare, to Ing. C. Olivetti & C.S.p.A. Magnetic recording machine with a figure 8 path for flexible record sheet. 3,114,150, 12–10–63. Cl. 346—74.

Calavar Corp.: *See*—
Koehler, Robert L. 3,071,405.

Calcaterra, Joseph P., to Carando Machine Works. Flanging and swedging machine for drum bodies. 3,098,518, 7–23–63. Cl. 153—79.

Calchera, Albert E., and F. J. Bucci, to The Producto Machine Co. Mold press. 3,103,701, 9–17–63. Cl. 18—16.

Calciano, Benjamin F., to Cal-Hydrant Corp. Seal and securing means for irrigation standpipe flow regulator. 3,082,606, 3–26–63. Cl. 61—12.

Calcinator Corp.: *See*—
La Rue, Phillip G. 3,088,425.

Calco Mfg. Co.: *See*—
Morlen, Jon R. 3,113,473.

Cal-Cod Process Corp.: *See*—
Kofsky, Melvin H., and Karp. 3,076,433.

Cal-Crown Corp.: *See*—
Lobdell, Harry R., and Zenick. 3,107,588.

Cal-Dak Co., The: *See*—
Walsh, Francis J., and Dunbar. 3,071,253.
Walsh, Francis J., and McGraw. 3,106,296.

Caldas, Jose M., and G. St. Clair, to S. B. Penick & Co. Gastro-enteritis-diarrheal syndrome treatment. 3,085,936, 4–16–63. Cl. 167—53.

Caldemeyer, Daniel F.: *See*—
Caldemeyer, Lloyd O., and D. F. 3,085,260.

Caldemeyer, Daniel F., and H. M. Quakenbush, to National Furniture Mfg. Co., Inc. Reclining chair. 3,083,996, 4–2–63. Cl. 297—75.

Caldemeyer, Daniel F., and H. M. Quakenbush, to National Furniture Mfg. Co., Inc. Upholstered furniture. 3,107,365, 10–22–63. Cl. 5—51.

Caldemeyer, Lloyd O., and D. F. Edge roll structure. 3,085,260, 4–16–63. Cl. 5—354.

Calder, Alexander W., to Joy Mfg. Co. Method of supporting mine roofs and supporting means therefor. 3,107,902, 10–22–63. Cl. 262—1.

Calder, Peter H., and D. J. S. Lancaster, to The De Havilland Engine Co. Ltd. Combustion chambers. 3,099,134, 7–30–63. Cl. 60—39.65.

Caldora, Armand. Non-entangling, self-opening, resiliently closed hair clip. 3,072,127, 1–8–63. Cl. 132—48.

Caldwell, Alfred. Indoor-outdoor swimming pool and enclosure therefor. 3,094,708, 6–25–63. Cl. 4—172.

Caldwell, Blake M., to Jet Research Center, Inc. Lined shaped explosive charge and liner therefor. 3,077,834, 2-19-63, Cl. 102—24.
Caldwell, Blake M., and H. D. Owen, to Halliburton Co. Well perforating assembly. 3,107,611, 10-22-63, Cl. 102—20.
Caldwell, Blake M., and H. D. Owen, to Halliburton Co. Well perforating assembly. 3,107,612, 10-22-63, Cl. 102—20.
Caldwell, Eric V.: *See*—
Jolles, Zvi E., and Caldwell. 3,106,572.
Caldwell, Frank A., and R. S. Brummer, to Cyclodrama Inc. Method and apparatus for making wide angle pictures. 3,078,758, 2-26-63, Cl. 88—16.8.
Caldwell, Harry B., to Normalair Ltd. Breathing apparatus. 3,106,205, 10-8-63, Cl. 128—142.
Caldwell, Harry F., and J. R. Davies, to Oliver Machinery Co. Labeling machine. 3,112,238, 11-26-63, Cl. 156—499.
Caldwell, John, and H. Watson, to The English Electric Co., Ltd. Multi-cylinder condensing steam turbines. 3,074,236, 1-22-63, Cl. 60—95.
Caldwell, John C., Jr.: *See*—
Hoyer, Ludolf J., Brown, and Caldwell. 3,071,130.
Caldwell, John R., to Eastman Kodak Co. Mono esters and amides of di lower alkyl malonic acid with 2-carboxy-2 di lower alkyl ethyl alcohol, and amine and preparation thereof. 3,072,712, 1-8-63, Cl. 260—485.
Caldwell, John R., to Eastman Kodak Co. Linear polyethers of bis(hydroxymethyl) durene and diphenols. 3,075,949, 1-29-63, Cl. 260—47.
Caldwell, John R., to Eastman Kodak Co. Method for forming textile fibers from plasticized acrylonitrile polymers. 3,082,056, 3-19-63, Cl. 18—54.
Caldwell, John R., to Eastman Kodak Co. Halogenated bicycloheptane derivatives. 3,085,885, 4-16-63, Cl. 106—15.
Caldwell, John R., R. Gilkey, and W. J. Jackson, to Eastman Kodak Co. Polyesters from disulfonyl dicarboxylic acids and esters. 3,077,466, 2-12-63, Cl. 260—75.
Caldwell, John R., and R. Gilkey, to Eastman Kodak Co. Linear aromatic acid copolyesters modified with dimer glycols having 36 carbons. 3,091,600, 5-28-63, Cl. 260—75.
Caldwell, John R., and W. J. Jackson, Jr., to Eastman Kodak Co. Bischloroformates of 2,2,4,4-tetraalkyl-1,3-cyclobutanediols. 3,096,359, 7-2-63, Cl. 260—463.
Caldwell, John R., and J. C. Martin, to Eastman Kodak Co. Polyamide-polyamine synthetic resins from diketene and a diamine. 3,099,641, 7-30-63, Cl. 260—65.
Caldwell, John R., and W. J. Jackson, Jr., to Eastman Kodak Co. Esters of oxydicarboxylic acids and cyclic alcohols. 3,113,963, 12-10-63, Cl. 260—473.
Caldwell, Joseph A.: *See*—
Burkhardt, Joseph A., Mosier, Robinson, and Caldwell. 3,104,716.
Caldwell, Joseph M. Bellows conduit coupling with strain relief cable. 3,084,957, 4-9-63, Cl. 285—114.
Caldwell, Lyle: *See*—
Zandmer, Solis M., Caldwell, and Goodwin. 3,086,587.
Caldwell Mfg. Co., The: *See*—
Nobes, William D. 3,091,003.
Nobes, William D. 3,105,273.
Caldwell, Paul, ½ to D. W. Lloyd. Recovery of values from pickling liquor. 3,097,064, 7-9-63, Cl. 23—88.
Caldwell Research, Inc.: *See*—
Schulman, Daniel. 3,112,110.
Caldwell, Stephen A., Jr., to Acoustron Corp. Language instruction apparatus. 3,098,307, 7-23-63, Cl. 35—35.
Caldwell, Washington J., to The Electric Auto-Lite Co. Apparatus for taping coils. 3,084,879, 4-9-63, Cl. 242—6.
Cale, Richard C. High speed planning hull. 3,091,206, 5-28-63, Cl. 114—66.5.
Cale, Richard C. Trim control device. 3,106,178, 10-8-63, Cl. 114—66.5.
Caledex Machine Co. Ltd.: *See*—
Williams, Albert H. 3,101,655.
Caledonia Electronics and Transformer Corp.: *See*—
Lawson, Harvey W., Jr. 3,102,245.
Calehuff, James M., R. A. Englert, and S. W. Metzger, to Sylvania Electric Products Inc. Method and apparatus for the manufacture of frame grids. 3,074,441, 1-22-63, Cl. 140—71.5.
Caley, Donald A., to Ford Motor Co. Folding seat assembly. 3,113,801, 12-10-63, Cl. 296—66.
Calfee, Virgil T. Material working machines. 3,076,391, 2-5-63, Cl. 94—48.
Calfee, Virgil T., ⅛ each to R. E. Hikel, E. J. Behringer, W. E. Halstead, E. H. Small, and T. D. Copeland, Jr. Apparatus for compacting earth. 3,080,799, 3-12-63, Cl. 94—50.
Calgon Corp.: *See*—
Mahon, John H. 3,104,170.
Swartz, William E., and Krayer. 3,112,761.
Calhoun, Edward J., to Pharmaceutical Foods & Drugs Associates, Inc. Process of deodorizing. 3,091,511, 5-28-63, Cl. 21—55.
Calhoun, Ernest N., to Edwin L. Wiegand Co. Radiant heating apparatus. 3,116,399, 12-31-63, Cl. 219—34.
Calhoun, Ernest N., and D. L. Ripley, to E. L. Wiegand Co. Baseboard heater assembly. 3,105,295, 10-1-63, Cl. 29—505.
Calhoun, Frank B.: *See*—
Goldwater, Robert, and Calhoun. 3,100,814.
Calhoun, Frederick L., and A. L. Browning, to Geo. J. Meyer Mfg. Co. Inspection device. 3,081,666, 3-19-63, Cl. 88—14.
Calhoun, George M., to Shell Oil Co. Lubricating oil compositions. 3,112,268, 11-26-63, Cl. 252—32.7.
Calhoun, George M., to Shell Oil Co. Liquid hydrocarbon composition. 3,112,271, 11-26-63, Cl. 252—46.6.
Calhoun, George M., to Shell Oil Co. Thickened hydrocarbon compositions. 3,114,710, 12-17-63, Cl. 252—32.7.
Calhoun, George M., and A. J. L. Toombs, to Shell Oil Co. Combustible solid dispersions. 3,105,747, 10-1-63, Cl. 44—51.
Calhoun, George M., and H. Diamond, to Shell Oil Co. Lubricating compositions containing sulpoxy alkyl phospono compounds. 3,112,269, 11-26-63, Cl. 252—32.7.
Calhoun, John C., Jr.: *See*—
Pelzer, Harry L., and Calhoun. 3,110,344.
Cal-Hydrant Corp.: *See*—
Calcizno, Benjamin F. 3,082,606.
Calico Printers' Association Ltd., The: *See*—
Hibbert, Gilbert S., Miller, and Schofield. 3,094,372.
Topham, Michael J., and Miller. 3,106,460.
California, (the County of Sonoma the state of): *See*—
Wallace, Marshall M., and Dykes. 3,084,719.
California Crematorium: *See*—
Arbogast, John C. 3,076,292.
California Institute Research Foundation: *See*—
Goetz Alexander. 3,074,627.
Johnston, Alan R. 3,091,972.
Plesset, Milton S., and Devine. 3,072,808.
California Mfg. and Equipment Co.: *See*—
McAuley, James E. 3,086,543.
California Plasteck, Inc.: *See*—
Dupree, James N. 3,077,535.
Madansky, Leslie E. 3,082,395.
Madansky, Leslie E. 3,096,942.
California Portland Cement Co.: *See*—
Herz, Joseph H., and Romig. 3,091,443.
Romig, John R., and Herz. 3,091,442.
Tabikh, Ali A. 3,075,079.
California Research Corp.: *See*—
Aroyan, Harry J., Sinn, Scherf, and Vogel. 3,073,754.
Ballinger, Peter. 3,073,852.
Ballinger, Peter. 3,073,853.
Ballinger, Peter. 3,073,854.
Ballinger, Peter. 3,081,325.
Ballinger, Peter. 3,116,127.
Barusch, Maurice R. 3,108,864.
Benoit, George J., Jr. 3,110,673.
Bolton, Harold B. 3,103,020.
Brandel, Albert J., and De May. 3,106,841.
Chamberlin, Francis E. 3,114,709.
Chambers, Roy, Jr. 3,114,329.
Chittum, Joseph F. 3,088,795.
Chittum, Joseph F. 3,108,634.
Chittum, Joseph F. 3,108,635.
Clark, Calvin M. 3,092,751.
Clark, Ray D. 3,088,592.
Clark, Ray D. 3,089,015.
Clippinger, Everett. 3,084,186.
Condit, Paul C. 3,099,132.
De Nevers, Noel H. 3,077,112.
Dreher, John L., and Goodrich. 3,093,656.
Ferm, Richard L. 3,093,584.
Ferstandig, Louis L. 3,108,089.
Fisher, James B., and Cazaly. 3,095,298.
Fulkerson, Edward F., and Barksdale. 3,103,200.
Furby, Neal W., and Newnan. 3,091,590.
Godfrey, John J. 3,086,049.
Goldschmidt, Alfred, and Stuart. 3,095,402.
Goodrich, Judson E. 3,081,262.
Hansen, Erling, and Hotten. 3,076,764.
Hickson, Donald A. 3,072,563.
Hull, Donald E. 3,108,184.
Jacobson, Robert L., and Kozlowski. 3,114,701.
Johnson, Gordon B., and Lew. 3,076,787.
Kemp, Jacob D. 3,094,570.
Kohn, Gustave K., Moore, and Ospenson. 3,076,741.
Kozlowski, Robert H., Mason, and Scott. 3,092,567.
MacPherson, John H., Jr., and Clayton. 3,105,471.
McMaster, John B. 3,073,876.
Mertens, Edward W. 3,096,292.
Mertens, Edward W. 3,097,174.
Mertens, Edward W. 3,108,971.
Neely, George L. 3,095,062.
Neely, George L. 3,095,204.
Oldenburg, Charles C. 3,088,984.
Pasky, Joseph Z. 3,079,422.
Paterson, Norman J., Kozlowski, and Scott. 3,072,560.
Poindexter, Edward H., and Torrey. 3,096,476.
Richardson, Wallace L. 3,116,126.
Schlatter, Maurice J. 3,098,870.
Schmitz, John V., and Blackinton. 3,098,052.
Scott, John W., Jr., and Kozlowski. 3,110,662.
Stuart, Frank A., and Goldschmidt. 3,114,711.
Stuart Frank A., and Gordon. 3,081,261.
Stuart, Frank A., Stewart, Lowe, and Kavanagh. 3,073,807.
Stuart, Frank A., Stewart, Lowe, and Kavanagh. 3,083,187.
Stuart, Frank A., Stewart, Lowe, and Kavanagh. 3,083,188.
Sweeney, William A. 3,078,303.
Thompson, David P., and Earl. 3,091,937.
Toland, William G. 3,115,426.
Watson, Carl E. 3,108,441.

California Research Corp.: *See*—Continued
Wilgus, Donovan R. 3,110,743.
Wilkes, John B. 3,095,461.
Williams, Malcolm S., and Fox. 3,102,040.
California Stucco Products of N.E., Inc.: *See*—
Bernier, Napoleon M. 3,099,574.
Calixto, Antonio. Cigarette dispensing means. 3,100,060, 8-6-63, Cl. 221—116.
Calk, Charles T. Device for debarking stave and head bolts. 3,097,676, 7-16-63, Cl. 144—208.
Calkin, Fenton. Scarifier attachment. 3,097,439, 7-16-63, Cl. 37—117.5.
Calkins, Dwight L., and M. W. Guyer, to Calkins Mfg. Co. Drive mechanism for rod weeders. 3,072,198, 1-8-63, Cl. 172—44.
Calkins, Dwight L. and O. C., and M. W. Guyer, to Calkins Sale Co. Boat trailer. 3,104,770, 9-24-63. Cl. 214—84.
Calkins Mfg. Co.: *See*—
Calkins, Dwight L., and Guyer. 3,072,198.
Calkins, Oscar C.: *See*—
Calkins, Dwight L. and O. C. and Guyer. 3,104,770.
Calkins, Russel C., R. A. Mock, and L. R. Morris, to The Dow Chemical Co. Process for removal of mercuric ions from electrolytic solutions. 3,083,079, 3-26-63, Cl. 23—87.
Calkins Sale Co.: *See*—
Calkins, Dwight L. and O. C. and Guyer. 3,104,770.
Call, Hughes: *See*—
Lindstaedt, Frank F., Hamlin, and Call. 3,082,578.
Lindstaedt, Frank F., Hamlin, and Call. 3,085,037.
Call, Royal G. Water conservation system. 3,112,497, 12-3-63, Cl. 4—1.1.
Callaghan, Norman M., Jr.: *See*—
Miller, Lewis F., and Callaghan. 3,072,577.
Callahan, Francis J., Jr., to Nuclear Products Co. Diaphragm valve. 3,104,090, 9-17-63, Cl. 251—278.
Callahan, James L.: *See*—
Rightmire, Robert A., and Callahan. 3,088,990.
Callahan, James L., A. F. Miller, J. A. Stamm, and F. Veatch, to The Standard Oil Co. Manufacture of T-butyl esters of unsaturated acids. 3,088,969, 5-7-63, Cl. 260—486.
Callahan, James L., and R. W. Foreman, to The Standard Oil Co. Manufacture of crotonaldehyde. 3,095,452, 6-25-63, Cl. 260—604.
Callahan, James L., and J. A. Stamm, to The Standard Oil Co. Method for the manufacture of acetonitrile. 3,106,574, 10-8-63, Cl. 260—465.1.
Callahan, James P. Clamping device. 3,096,109, 7-2-63, Cl. 287—54.
Callahan, Thomas P., and F. J. Kuslak, Jr., to Monsanto Chemical Co. Foldable expendable pallet. 3,112,715, 12-3-63, Cl. 108—52.
Callan, Patrick C.: *See*—
Eggenberger, Markus A., Troutman, and Callan. 3,097,488.
Callan, Patrick C., M. A. Eggenbergr, P. E. Malone, and P. H. Troutman, to General Electric Co. Electro-hydraulic control system for turbine with pressure feedback. 3,097,490, 7-16-63, Cl. 60—73.
Callanen, Frederick B.: *See*—
Willer, George J., Jr., and Callanen. 3,111,846.
Callaway Mills Co.: *See*—
Kleuel, Joseph E. 3,095,998.
Robinson, Lamson C. 3,101,223.
Short, Joe T. 3,082,456.
Short, Joe T. 3,097,760.
Short, Joe T. 3,107,770.
Short, Joe T. 3,107,789.
Thompson, Roscoe L. 3,093,100.
Callaway, William B., to Bell Telephone Laboratories, Inc. Equipment holding time distribution analyzer. 3,105,115, 9-24-63, Cl. 179—8.
Callear, Thomas E., and M. W. Killick, to Eastman Kodak Co. Hardening gelatin-silver halide lithographic offset printing plates. 3,091,531, 5-28-63, Cl. 96—33.
Callebaut-De Blicquy, societe anonyme, Etablissements: *See*—
Schyns, Pierre. 3,092,990.
Callegari, Louis G. Spring can sealer. 3,099,363, 7-30-63, Cl. 220—24.
Callender, Ralph W., and H. R. Biehl, to International Harvester Co. Sintered powder metal mold. 3,101,514, 8-27-63, Cl. 22—10.
Callender, Russell J. Unitary television equipment. 3,098,897, 7-23-63, Cl. 178—7.9.
Callerfelt, Sven G. Oil-control piston rings. 3,103,365, 9-10-63, Cl. 277—140.
Callery Chemical Co.: *See*—
Braman, Robert S. 3,103,531.
Carpenter, Richard A., Hughes, and Bush. 3,072,704.
Girardot, Peter R. 3,106,454.
Girardot, Peter R., and Zeldin. 3,083,230.
Grantham, Raymond J., and Shepherd. 3,113,125.
Hashman, Joseph S. 3,115,392.
Hashman, Joseph S., and Renforth. 3,102,140.
Huff, George F. 3,079,224.
Hunt, Richard M., and Hough. 3,086,016.
Johnston, Henry P. 3,107,157.
McElroy, Albert D., Brault, and Shepherd. 3,088,979.
Schechter, William H. 3,093,674.
Schechter, William H. 3,105,746.
Schechter, William H. 3,109,709.
Shepherd, James W. 3,093,675.
Callick, Eric B. B., and J. C. Firmin, to English Electric Valve Co. Ltd. Television and like camera tubes. 3,110,841, 11-12-63, Cl. 315—10.
Callison, Walter E., to The Vulcan Tool Co. Trimming die. 3,104,577, 9-24-63, Cl. 83—182.
Caloric Appliance Corp.: *See*—
Clark, Robert A. 3,078,836.
Calow, Th., & Co.: *See*—
Lindemann, Hans. 3,098,570.
Lindemann, Hans. 3,099,929.
Lindemann, Hans. 3,103,718.
Caloyannidi, Elpis, ¼ to T. E. O'Brien, and ¼ to J. Procopis. Decanting tube for fluid containers. 3,085,722, 4-16-63, Cl. 222—525.
Caloyer, Angelo M.: *See*—
Nassikas, Euripides R., and Caloyer. 3,089,129.
Calpat Products, Inc.: *See*—
Handley, John R. 3,090,401.
Calton, W. C.: *See*—
Ashley, Paul R., and Laing. 3,100,140.
Curtis, John M. 3,078,815.
Frink, Russell M. 3,104,464.
Symons, George H. 3,074,265.
Calvert, Bert S. Water tank pressurizing system. 3,097,659, 7-16-63, Cl. 137—209.
Calvert, William C., to Borg-Warner Corp. Blends of (A) conjugated diolefine-alkyl aryl vinylidenes-acrylonitrile graft copolymer with (B) conjugated aliphatic diolefine-monovinyl aromatic hydrocarbon/alkyl alkacrylate graft copolymer. 3,074,906, 1-22-63, Cl. 260—45.5.
Calvert, William L., to Union Carbide Corp. Apparatus for effectively agitating viscous materials. 3,075,747, 1-29-63, Cl. 259—104.
Camac, George, to A.E.I.-John Thompson Nuclear Energy Co. Ltd. Nuclear reactor shutdown apparatus. 3,105,033, 9-24-63, Cl. 204—193.2.
Camack, Walter G., and G. Leppert, to Lockheed Aircraft Corp. Method of operating an evaporatively cooled nuclear reactor 3,077,443, 2-12-63, Cl. 204—154.2.
Cambi, Livio, to Montecatini Societa General per l'Industria Mineraria e Chimica. Process for preparing prussian blue, and analogous pigments, from hydrocyanic acid, ferrous sulphate and bases. 3,094,379, 6-18-63, Cl. 23—77.
Cambridge Rubber Co.: *See*—
Bingham, George H., Jr. 3,099,862.
Bingham, George H., Jr., and Olsson. 3,101,496.
Cambridge Thermionic Corp.: *See*—
Lyman, Frank, Jr. 3,088,992.
Lyman, Frank, Jr. 3,101,986.
West, Warren H. 3,082,473.
Cambridge Wire Cloth Co.: *See*—
Deady, Emmett F., Reed, and Houghton. 3,095,910.
Houghton, Daniel E., Daedy, and Reed. 3,088,496.
Reed, Stanley F., Houghton, and Deady. 3,103,954.
Cameo, Inc.: *See*—
Chitwood, Charles B. 3,086,593.
Ehlert, Harry C. 3,071,190.
Ehlert, Harry C. 3,105,550.
Ehlert, Harry C. 3,105,551.
McGowen, Harold E., Jr. 3,086,589.
Moore, Howard H., Jr. 3,105,509.
Ownby, Warren G. 3,105,547.
Ownby, Warren G. 3,105,548.
Ownby, Warren G., and Robinson. 3,105,546.
Raulins, George M. 3,071,192.
Raulins, George M. 3,071,193.
Raulins, George M. 3,105,549.
Tausch, Gilbert H. 3,078,923.
Camerini, Aldo, and L. Lucchetti, to Montecatini Societa Generale per l'Industria Mineraria e Chimica. Laminates including photographic films comprising modified, superfically adhesive films of crystalline polymeric alpha-olefins, and methods for making such laminates. 3,112,199, 11-26-63, Cl. 96—87.
Camerino, Bruno, U. Valcavi, D. Cattapan, and B. Patelli, to Societa Farmaceutici Italia. Process for the synthesis of 4-methyl-17-alpha-hydroxyprogesterone and its esters. 3,079,382, 2-26-63, Cl. 260—239.55.
Camerino, Bruno, R. Sciaky, and G. Sala, to Societa Farmaceutici Italia. 3-(N-pyrroildinyl)-derivatives of 4-hydroxy-17a-methyl testosterone. 3,083,141, 3-26-63, Cl. 167—74.
Camerino, Bruno, and G. Palamidessi, to Societa Farmaceutici Italia. Pyrazine derivatives. 3,098,069, 7-16-63, Cl. 260—239.7.
Camerino, Bruno, R. Sciaky, and G. Sala, to Societa Farmaceutici Italia. New therapeutically useful derivatives of 4-hydroxy-17 alpha methyl-testosterone. 3,103,522, 9-10-63, Cl. 260—397.4.
Cameron, Donald J., to Holley Carburetor Co. Fluid pump. 3,072,061, 1-8-63, Cl. 103—38.
Cameron, Donald J., to Holley Carburetor Co. Manifold sensing device. 3,103,211, 9-10-63, Cl. 123—140.
Cameron Iron Works, Inc.: *See*—
Ahlstone, Arthur G., and Jones. 3,096,999.
Allen, Herbert. 3,080,883.
Allen, Herbert. 3,095,007.
Allen, Herbert. 3,102,709.
Allen, Herbert, and Jones. 3,097,869.
Jones, Marvin R. 3,093,996.
Lucky, Maurice C. 3,083,973.
Woelfel, Albert E. 3,083,726.

Cameron, John A., to General Foods Corp. Scouring and polishing device and method of producing same. 3,074,-099, 1–22–63, Cl. 15—506.

Cameron, John A., to General Foods Corp. Metallized scouring article and method of making same. 3,109,191, 11–5–63, Cl. 15—209.

Cameron, John A., to General Foods Corp. Scouring article and method for making same. 3,112,584, 12–3–63, Cl. 51—185.

Cameron, Joseph S.: *See*—
Jackson, Merlon L., Merlin, and Cameron. 3,106,026.

Cameron Machine Co.: *See*—
Aaron, Charles. 3,080,726.
Aaron, Charles, and Crowe. 3,101,915.
Rockstrom, Leonard. 3,079,101.

Cameron, Phillip G., and J. L. Maxwell, to American Telephone and Telegraph Co. Teletypewriter message distributing system. 3,078,336, 2–19–63, Cl. 178—3.

Cameron and Jones, Inc.: *See*—
Brakel, Lewis H., and Jones. 3,071,230.

Cametti, George M.: *See*—
Matlyak, Andrew J., Mullen, and Cametti. 3,099,771.

Camfield, Eugene J., and W. E. Hauschild, to Western Electric Co., Inc. Safety circuit. 3,089,985, 5–14–63, Cl. 317—135.

Camilli, Guglielmo, to General Electric Co. Insulating and cooling arrangement for electrical apparatus. 3,073,885, 1–15–63, Cl. 174—15.

Camloc Fastener Corp.: *See*—
Griffiths, Edward G. 3,084,409.
Vander Sande, John L., and Beehner. 3,091,488.

Camp, Albert T., to United States of America, Navy. Solventless processed nitrocellulose propellants containing lead compounds. 3,088,858, 5–7–63, Cl. 149—91.

Camp, Albert T., and F. G. Crescenzo, to United States of America, Navy. Composition comprising nitrocellulose, nitroglycerin and oxides of lead or copper. 3,102,834, 9–3–63, Cl. 149—67.

Camp, John W. A., to Ford Motor Co. Clutch release mechanism. 3,099,340, 7–30–63, Cl. 192—99.

Camp, William W., to Schick Inc. Electric shaver reciprocating motor-drive unit. 3,105,163, 9–24–63, Cl. 310—29.

Campaigne, Ernest E.: *See*—
Campbell, John R., and Campaigne. 3,096,375.

Campana, Robert J., to General Dynamics Corp. Electromagnetic pump. 3,115,837, 12–31–63, Cl. 103—1.

Campanella, Angelo J.: *See*—
Slaveckl, Ronald J., Campanella, and McLucas. 3,109,057.

Campanella, Liborio A.: *See*—
Shetty, Bola V., Campanella, and Hays. 3,086,910.

Campanella, Paul S.: *See*—
Watlington, Lee S., and Campanella. 3,101,557.

Campanella, Samuel J., and T. E. Bayston, to Melpar, Inc. Speech compression systems. 3,078,345, 2–19–63, Cl. 179—15.55.

Campanile, Vincent A.: *See*—
Bell, Edward R., Campanile, and Bergman. 3,105,801.

Campanile, Vincent A., to Shell Oil Co. Process for polymerizing unsaturated monomers using ionizing radiation. 3,081,244, 3–12–63, Cl. 204—154.

Campanizzi, Joseph C. Flat iron holder. 3,082,986, 3–26–63, Cl. 248—117.7.

Campbell, Bruce W., and G. W. Painter, to Lord Mfg. Co. Damped beam. 3,078,969, 2–26–63, Cl. 189—37.

Campbell, Charles, and F. R. Barning, to Dynamic Process Co. Inc. Ink transfer impression-making ribbons. 3,092,236, 6–4–63, Cl. 197—172.

Campbell, Donald H.: *See*—
Vullo, William J., and Campbell. 3,100,728.

Campbell, Donald H., to Hooker Chemical Corp. Stabilization of chlorinated hydrocarbon solvents. 3,112,348, 11–26–63, Cl. 260—652.5.

Campbell, Donald J., to The Baldwin Piano Co. Multi-stage amplifier with feedback. 3,112,455, 11–26–63, Cl. 330—88.

Campbell, Donald J., D. W. Elbrecht, and W. L. Fritz, to The Baldwin Piano Co. Mutually exclusive stop switch mechanism. 3,106,618, 10–8–63, Cl. 200—5.

Campbell, Donald R.: *See*—
Glomb, Walter L., Campbell, and Kressman. 3,101,446.

Campbell, Dudley H., to Stackpole Carbon Co. Electric slide switch. 3,097,269, 7–9–63, Cl. 200—16.

Campbell, Edgar C., and F. F. Timpner, to General Motors Corp. Method and mechanism for controlling engine torsional oscillation. 3,103,210, 9–10–63, Cl. 123—103.

Campbell, Ernest C., Jr., to Hallmark Cards, Inc. Dispensing container for rolled paper. 3,088,641, 5–7–63, Cl. 225—48.

Campbell, Ernest F., to United States of America, Navy. Weapon mount. 3,102,451, 9–3–63, Cl. 89—41.

Campbell, Esperanza, now by change of name E. Parrish, to E. I. du Pont de Nemours and Co. Process for producing a fibrous regenerated cellulose precipitate. 3,114,747, 12–17–63, Cl. 260—212.

Campbell, Harris S., to Eastern Rotocraft Corp. Control mechanism for cargo release devices. 3,081,121, 3–12–63, Cl. 294—83.

Campbell, Hobart T., J. J. Monahan, and J. A. Roeder, to Western Electric Co. Inc. Article transfer apparatus. 3,104,765, 9–24–63, Cl. 214—1.

Campbell, Homer C. Kitchen utensil. 3,088,345, 5–7–63, Cl. 81—1.

Campbell, Homer C., ½ to G. A. Hill. Tree or post puller apparatus. 3,110,471, 11–12–63, Cl. 254—132.

Campbell, Hosea L., to Texaco Inc. Outside pipe-cutting tool. 3,080,241, 3–5–63, Cl. 166—55.6.

Campbell, Hosea L., to Texaco Inc. Down hole plugging device for fishing tool. 3,106,245, 10–8–63, Cl. 166—55.6.

Campbell, J Allan: *See*—
Babcock, John C., Campbell, and Pederson. 3,098,083.
Babcock, John C., Campbell, and Pederson. 3,098,850.

Campbell, J. Allan, J. C. Babcock, and W. J. Wechter, to The Upjohn Co. 16α,17α-methylene-6-substituted progesterones and process therefor. 3,086,029, 4–16–63, Cl. 260—397.3.

Campbell, James B. Exhaust gas purifying method and apparatus. 3,113,418, 12–10–63, Cl. 60—30.

Campbell, James R. Method and apparatus for fabricating honeycomb core. 3,077,332, 2–12–63, Cl. 219—82.

Campbell, James W. Golf shot indicating device for golf shot practice ball. 3,101,948, 8–27–63, Cl. 273—183.

Campbell, Jerry B., 50% to R. J. Sutherlin. Specific vehicle mounting for gang mower. 3,103,090, 9–10–63, Cl. 56—6.

Campbell, John K. Pattern control for buckshot charges. 3,085,510, 4–16–63, Cl. 102—42.

Campbell, John R., and R. E. Hatton, to Monsanto Chemical Co. Phenylphosphonates and phosphonites. 3,071,609, 1–1–63, Cl. 260—461.

Campbell, John R., and E. E. Campaigne, to Monsanto Chemical Co. Thioethers. 3,096,375, 7–2–63, Cl. 260—609.

Campbell, John R., and R. E. Hatton, to Monsanto Chemical Co. Alkyl xylyl sulfones. 3,102,148, 8–27–63, Cl. 260—607.

Campbell, Joseph K., to Sperry Rand Corp. Door safety switch. 3,115,558, 12–24–63, Cl. 200—61.58.

Campbell, Neal J. River terminal. 3,076,565, 2–5–63, Cl. 214—14.

Campbell, Ned. Cabinet with aerosol sprayer. 3,100,066, 8–6–63, Cl. 222—180.

Campbell, Phillip R., to Wagner Electric Corp. Fluid pressure operated piston valve. 3,101,187, 8–20–63, Cl. 251—63.

Campbell, Richard E., and M. H. Murphy, to Packard-Bell Electronics Corp. Transistor tone control circuit. 3,103,-635, 9–10–63, Cl. 330—28.

Campbell, Richard H., Jr., to The Seeburg Corp. Percussion circuit for electronic organs. 3,112,353, 11–26–63, Cl. 84—1.26.

Campbell, Robert A., ½₀ to Gadget-Of-The-Month Club, Inc. Fire-resistant, ash-retaining, open-topped jacket for a cigarette. 3,073,317, 1–15–63, Cl. 131—174.

Campbell, Robert A., to The Carborundum Co. Ceramic fiber products and method and apparatus for manufacture thereof. 3,077,413, 2–12–63, Cl. 106—38.9.

Campbell, Robert C., ½ to P. A. Godby. Locking means. 3,091,011, 5–28–63, Cl. 24—81.

Campbell, Robert E.: *See*—
Harding, Denys F., Campbell, and Baker. 3,077,809.

Campbell, Robert E., to British Ropes Ltd. Wire ropes. 3,083,817, 4–2–63, Cl. 205—2.

Campbell, Robert V. D., and H. Epstein, to Burroughs Corp. Electrostatic page printer. 3,076,393, 2–5–63, Cl. 95—4.5.

Campbell, Rodney B., to M. R. Maben. Piston type multiport valve. 3,076,476, 2–5–63, Cl. 137—622.

Campbell, Ross W.: *See*—
Collins, Harvey C. 3,113,396.

Campbell, Ruth R. Blood collector. 3,113,688, 12–10–63, Cl. 215—79.

Campbell, Sherman B.: *See*—
Pontius, Paul E., and Campbell. 3,089,575.

Campbell Soup Co.: *See*—
Johannes, Erich H. L. 3,107,704.

Campbell, Sumner E. Refining of crude petroleum. 3,093,-576, 6–11–63, Cl. 208—221.

Campbell Taggart Associated Bakeries, Inc.: *See*—
Spowart, Samuel J., Goodman, and Sutherland. 3,115,-250.

Campbell, Thomas A., J. L. Luna, and F. R. Melnardus, to Stewart-Warner Corp. High-low pressure pump. 3,106,-320, 10–8–63, Cl. 222—318.

Campbell, Thomas C.: *See*—
Bainbridge, William N., Campbell, and Heath. 3,083,937.

Campbell, Thomas C., and G. F. Sharples, to The English Electric Co. Ltd. Aircraft cockpits. 3,079,112, 2–26–63, Cl. 244—122.

Campbell, Tod W., to E. I. du Pont de Nemours and Co. Cycloaliphatic spirooxetanes and polymers thereof. 3,110,-688, 11–12–63, Cl. 260—2.

Campbell, Vernon R., to L & L Mfg. Co. Fluid pressure tube fitting. 3,112,127, 11–26–63, Cl. 285—158.

Campbell, Vernon R., to L & L Mfg. Co. Self-flaring tube coupling. 3,112,131, 11–26–63, Cl. 285—334.5.

Campbell, William B., to Garlock Inc. Apparatus for molding a ball and socket joint assembly. 3,098,263, 7–23–63, Cl. 18—36.

Campbell, William M. Two-passenger rocking toy. 3,096,-120, 7–2–63, Cl. 297—247.

Campbell, Willis S.: *See*—
Marks, Wilbur, Tuckerman, and Campbell. 3,110,178.

Campeau, Joseph O., to Litton Industries of California. Cyclically operating distributer computer with a single logically complete calculating unit. 3,113,205, 12–3–63, Cl. 235—159.

Campfield, Rudolph R. Wood framing clamp. 3,083,007, 3–26–63, Cl. 269—151.

Campion, Frank E., to Pan American Petroleum Corp. Process for recovering hydrocarbons from solid materials. 3,112,255, 11–26–63, Cl. 208—11.

Campion, Frank E., E. D. Glass, and R. A. Morse, to Pan American Petroleum Corp. Heavy oil recovery. 3,115,-928, 12–31–63, Cl. 166—11.

Campion, Harold H., to Avco Mfg. Corp. Protective system with parallel diode arrangement to cause pulse stretching thus allowing sufficient relay current. 3,076,101, 1–29–63, Cl. 307—88.5.

Campise, Nash O.: *See*—
Nagel, Richard R., and Campise. 3,083,773.

Campman, Arthur R.: *See*—
Koppelman, Edward, and Campman. 3,090,406.
Koppelman, Edward, and Campman. 3,102,559.

Camp'otel Corp.: *See*—
Guerrant, Edmonds L. 3,102,546.

Camras, Marvin, to Armour Research Foundation of Illinois Institute of Technology. Magnetic transducer head. 3,079,-470, 2–26–63, Cl. 179—100.2.

Camras, Marvin, to Armour Research Foundation of Illinois Institute of Technology. Interchangeable magnetic record tape and method of making same. 3,083,268, 3–26–63, Cl. 119—110.2.

Camras, Marvin, and J. J. Brophy, to Armour Research Foundation of Illinois Institute of Technology. Hall element magnetic transducer. 3,114,009, 12–10–63, Cl. 179—100.2.

Can, R. C., Co.: *See*—
Galbierz, Jerome J. 3,071,294.

Canada, Her Majesty the Queen in the right of, as represented by the Minister of Mines and Technical Surveys: *See*—
Foster-Pegg, Richard W. 3,086,362.
Mitchell, Earland R., and Friedrich. 3,078,839.
Serson, Paul H. 3,114,103.

Canada, Her Majesty the Queen in right of, as represented by the Minister of National Defence: *See*—
Armstrong, Wilfred H. 3,092,067.
Morton, Geoffrey W. 3,073,588.
Owens, Walter J. 3,096,085.
Owens, Walter J. 3,098,645.
Wright, Jerauld G., and Wilson. 3,080,117.

Canada, Her Majesty The Queen in the right of, as represented by the Postmaster General: *See*—
Levy, Maurice M. 3,102,254.

Canada, Alfred H., to United States of America, Navy. Optical image feedback. 3,090,830, 5–21–63, Cl. 178—6.8.

Canada Cycle and Motor Co. Ltd.: *See*—
Shaw, William C. 3,095,208.

Canada Iron Foundries, Ltd.: *See*—
Stewart, John K. 3,098,302.
Stewart, John K. 3,105,674.

Canada Packers Ltd.: *See*—
Barnett, Hugh W., and Force. 3,113,870.
Yerex, Harry B., Nordin, and Shiozaki. 3,105,433.

Canada Wire and Cable Co. Ltd.: *See*—
Miller, Donald J. 3,077,068.
Southgate, Harold A. 3,103,453.

Canadian Celanese Ltd.: *See*—
Fairbairn, Bruce H. and Deschambault. 3,100,161.
Killoran, Joseph L., and Larue. 3,078,509.

Canadian Chemical Co. Ltd.: *See*—
Trevoy, Lloyd W., and Tegg. 3,108,133.

Canadian General Electric Co., Ltd.: *See*—
Sills, Hubert R. 3,089,049.
Ulug, Mehmet E. 3,077,858.

Canadian Industries Ltd.: *See*—
Abbott, Mark. 3,090,077.
Aitken, Roger G. 3,110,644.
Halverson, Ernest N., and Coker. 3,103,700.
McIrvine, John D. 3,108,917.
Pajaczkowski, Andrzej, and Turner. 3,108,093.
Rowlinson, Hugh C. 3,097,056.

Canadian Ingersoll-Rand Co. Ltd.: *See*—
Haug, Anton J. 3,114,309.

Canadian Marconi Co.: *See*—
Onno, Peter, and Haberl. 3,105,930.

Canadian National Railway Co.: *See*—
Lamont, John. 3,092,979.

Canadian Patents and Development Ltd.: *See*—
Beer, Charles T., Cutts, and Noble. 3,097,137.
Engel, Charles R. 3,087,941.

Canadian Pittsburgh Industries Ltd.: *See*—
Peeters, Jean. 3,091,331.

Canadian Westinghouse Co., Ltd.: *See*—
Boesel, Walter F., Carter, Oldfield, and Tiley. 3,075,-133.
Hulla, Leonard R., and Jacobsen. 3,100,410.
Jacobsen, Bjarne P., and Hulls. 3,081,544.

Canadair Ltd.: *See*—
Irbitis, Karl. 3,084,889.

Can-Amera Oil Sands Development Ltd.: *See*—
Coulson, Gordon R. 3,081,027.

Canamero, Ernest V., to United States of America, Army. Sheet clamping and unclamping mechanism. 3,101,234, 8–20–63, Cl. 346—138.

Canan, Walter T. Means for introducing flavor imparting agents into tobacco and tobacco articles. 3,105,499, 10–1–63, Cl. 131—133.

Cancrinus, Hendrik: *See*—
Friedmann, Eric H., and Cancrinus. 3,082,646.

Cancrinus, Hendrik, to Inpower Works (Proprietary) Ltd. Torque transmission by inertia. 3,077,793, 2–19–63, Cl. 74—752.

Candelise, Alfred, to General Motors Corp. Means for burning hydrocarbons in an internal combustion engine cylinder. 3,073,289, 1–15–63, Cl. 123—26.

Candelise, Alfred, to General Motors Corp. Spark plug and connector device therefor. 3,076,113, 1–29–63, Cl. 313—135.

Candelise, Alfred, to General Motors Corp. Low tension spark plug. 3,113,232, 12–3–63, Cl. 313—11.5.

Candellero, Giovanni, to Fiat Societa per Azioni. Epicyclic change-speed gearing. 3,077,794, 2–19–63, Cl. 74—763.

Candlin, James E., Jr., and R. B. Bergstrand, to Pullman Inc. Single beam railway car. 3,078,814, 2–26–63, Cl. 105—404.

Candlin, James E., Jr., and R. B. Bergstrand, to Pullman Inc. Flat car for railway freight unit loading. 3,102,497, 9–3–63, Cl. 105—368.

Candlin, James E., Jr., and A. J. Christian, to Pullman Inc. Compartmentizer pivot suspension. 3,104,624, 9–24–63, Cl. 105—376.

Candon, Basil H., M. Chessin, and W. E. Lange, to The Purdue Frederick Co. Metal chelates of oxazolidinones as central nervous system stimulants. 3,108,045, 10–22–63, Cl. 167—65.

Cane, Virginio. Dishwashing machine. 3,103,940, 9–17–63, Cl. 134—140.

Canfield, Carl R., Jr., to Borg-Warner Corp. Balanced drive mechanism for a fuel injection pump. 3,107,631, 10–22–63, Cl. 103—157.

Canfield, Charles L.: *See*—
Karcher, John C., and Canfield. 3,111,404.

Canfield, Joseph A.: *See*—
Ramsey, Ernest W. 3,071,379.

Cangelosi, Charles: *See*—
Schwartz, Louis J., and C. and I. Cangelosi. 3,099,971.

Cangelosi, Ignazio: *See*—
Schwartz, Louis J., and C. and I. Cangelosi. 3,099,971.

Cannell, Lawrence G., to Shell Oil Co. Preparation of transition metal organic phosphite complexes. 3,102,899, 9–3–63, Cl. 260—439.

Canning Equipment Co.: *See*—
Keesling, Thomas B. 3,086,638.

Canning, Gordon, Jr., and R. E. Clough, to Remington Arms Co., Inc. Package for small arms ammunition. 3,101,840, 8–27–63, Cl. 206—3.

Cannon, Clarence V.: *See*—
Jenks, Glenn H., Shapiro, Elliott, and Cannon. 3,079,-317.

Cannon, Craig W.: *See*—
Carlin, Robert, Cannon, and Soeteber. 3,083,781.

Cannon, Dennis H.: *See*—
Mills, Joseph A. W., and Cannon. 3,093,026.

Cannon, Earl, ¼ to F. Crampton. Press. 3,082,725, 3–26–63, Cl. 113—38.

Cannon Electric Co.: *See*—
Bachman, Robert A. 3,112,149.
Dean, Gordon W. 3,072,340.
Johnson, George S. 3,110,093.
Keith, John T., and Maston. 3,090,937.
Kelly, Joseph F. 3,085,221.
Kuehl, Ernest W., and Ewing. 3,115,380.
McCann, Joe G., Stegen, and Falstrom. 3,092,834.

Cannon, Emerson T., W. H. Clark, and W. S. Partridge, to Utah Research & Development Co., Inc. Amplifying by short-circuiting conductive loop. 3,113,272, 12–3–63, Cl. 328—1.

Cannon, George E.: *See*—
Overly, Charles R., and Cannon. 3,075,592.
Overly, Charles R., and Cannon. 3,100,544.

Cannon, Guy H., to The Dow Chemical Co. Heat exchanger. 3,106,957, 10–15–63, Cl. 165—157.

Cannon, John B., Jr. Reconnaissance system with a stabilized recording magazine. 3,092,687, 6–4–63, Cl. 178—6.7.

Cannon, Leona, and C. Kratzer. Chair. 3,103,383, 9–10–63, Cl. 297—116.

Cannon, Madison M., G. M. Dick, and S. M. Salomon, to Bird Machine Co. Screening apparatus. 3,092,578, 6–4–63, Cl. 210—304.

Cannon, Maxwell R., to International Business Machines Corp. Apparatus for sensing variations. 3,100,889, 8–13–63, Cl. 340—259.

Cannon, Robert K. Scribe. 3,100,346, 8–13–63, Cl. 33—21.

Cannon, William N., G. B. Kline, J. E. Cochran, Jr., and Q. F. Soper, to Eli Lilly and Co. Methods of destroying nematodes with a pyridine base and its acid addition salts. 3,105,005, 9–24–63, Cl. 167—33.

Canny, Floyd H., to SCM Corp. Removable type and type bar assembly. 3,101,141, 8–20–63, Cl. 197—36.

Canny, Floyd H., and A. J. Kallfelz, to SCM Corp. Ribbon mechanism. 3,104,750, 9–24–63, Cl. 197—156.

Canomac Corp.: *See*—
Haines, Norman R. 3,088,472.

Canon Camera Co., Inc.: *See*—
Goshima, Takeshi. 3,078,772.
Goshima, Takeshi. 3,081,680.
Yamaji, Keizo. 3,074,318.

Canova, Samuel W. Rocking attachment. 3,075,205 1–29–63, Cl. 5—109.

Canrad Precision Industries: *See*—
Feuer, Irving. 3,084,705.

Cantalupo, Francis J., and J. P. Doelger, to Crane Co. Valve actuating mechanism or the like. 3,075,737, 1-29-63, Cl. 251—66.

Cantarutti, Armindo: *See*—
Mallory, Edwin E., and Cantarutti. 3,097,394.

Cante, Roger, to Commissariat a l'Energie Atomique. Core-sampling appliance for graphite-type nuclear reactor. 3,107,740, 10-22-63, Cl. 175—78.

Cantelli, Nino. Implement for water sports of the type sledge resting on skis. 3,081,107, 3-12-63, Cl. 280—21.

Canter, Walter H., Jr.: *See*—
Alexander, Frank M., and Canter. 3,108,844.
Foster, George B., and Canter. Re. 25,353.

Canterino, Peter J.: *See*—
Mills, Kenneth R., Franzus, and Canterino. 3,102,870.

Canterino, Peter J., to Phillips Petroleum Co. Chlorinated polyethylene. 3,110,709, 11-12-63, Cl. 260—94.9.

Canterino, Peter J., and R. J. Martinovich, to Phillips Petroleum Co. Blends of high pressure type polyethylene with cracked highly crystalline 1-olefin polymers. 3,086,958, 4-23-63, C. 260—45.5.

Canterino, Peter J., and L. T. Smith, to Phillips Petroleum Co. Method of coating particulated resinous material by polymerization technique. 3,102,050, 8-27-63, Cl. 117—100.

Canterino, Peter J., and R. M. McGlamery, to Phillips Petroleum Co. Flame resistant chlorinated polyethylene compositions. 3,113,118, 12-3-63, Cl. 260—41.

Cantieri Riuniti Dell'Adriatico S.p.A.: *See*—
Costanzi, Nicolo. 3,090,338.
Costanzi, Nicolo. 3,092,061.

Cantieri, William F., to Diamond Power Specialty Corp. Long retracting blower requiring minimum outboard clearance. 3,111,701, 11-26-63, Cl. 15—317.

Cantonwine, Charles R. Electric motor construction with various winding distribution factors. 3,111,616, 11-19-63, Cl. 318—224.

Cantor, Jacob J., deceased (E. J. Karshner, executrix). Backflow preventing valve. 3,114,382, 12-17-63, Cl. 137—116.

Cantor, Theodore, to Manostat Corp. Fastening apparatus. 3,079,187, 2-26-63, Cl. 287—116.

Cantor, Theodore, to Manostat Corp. Clamp. 3,096,110, 7-2-63, Cl. 287—54.

Cantrall, Edward W., R. Littell, S. Bernstein, and S. Gordon, to American Cyanamid Co. 3-substituted ethers of the androstane series. 3,094,541, 6-18-63, Cl. 260—397.5.

Cantrel, Kenneth E.: *See*—
Goodhue, Lyle D., and Cantrel. 3,079,298.
Goodhue, Lyle D., and Cantrel. 3,082,149.
Goodhue, Lyle D., Cantrel, and Louthan. 3,092,542.
Goodhue, Lyle D., Cantrel, and Louthan. 3,103,465.
Goodhue, Lyle D., Cobb, and Cantrel. 3,108,037.

Cantrell John E., to The Carborundum Co. Abrasive articles and their manufacture. 3,081,161 3-12-63, Cl. 51—298.

Cantrell, Troy L., J. G. Petera, and H. G. Smith, to Gulf Oil Corp. Salts of hydroxy-phenyl esters of amidic acids. 3,072,572, 1-8-63, Cl. 252—42.7.

Cantrell, Troy L., and J. G. Peters, to Gulf Oil Corp. Compounded mineral oil compositions containing amine salts of di exo-octyl acid orthophosphates. 3,079,339, 2-26-63, Cl. 252—32.5.

Cantrell, Troy L., and P. K. Kuhne, to Gulf Research & Development Co. Oxo-octyl amine salts of dioxo-octyl phosphoric acid esters. 3,080,222, 3-5-63, Cl. 44—72.

Cantrell, Troy L., and J. G. Peters, to Gulf Oil Corp. Phosphorus-containing gasoline motor fuels. 3,095,285, 6-25-63, Cl. 44—58.

Cantrell, William E.: *See*—
Barnhart, Carlton L., Cantrell, and Clayton. 3,104,001.

Cantrell, William W., to The P. H. Hanes Knitting Co. Child's sleeping garment. 3,092,839, pub. 6-11-63, Cl. 2—83.

Cantwell, Edward N., Jr., and C. A. Sandy, to E. I. du Pont de Nemours and Co. Method for suppressing knock in spark-ignition engines. 3,106,194, 10-8-63, Cl. 123—1.

Cantwell, Kenneth R.: *See*—
Hays, George, and Cantwell. 3,097,919.

Canvas Specialty Mfg. Co.: *See*—
Winkler, Max L. 3,095,069.

Caparone, Michael J., and T. J. Dykzeul, to Robertshaw-Fulton Controls Co. Control devices. 3,087,642, 4-30-63, Cl. 220—31.

Caparosa, Ralph J., to Redi-Knot Inc. Tie riders. 3,085,725, 4-16-63, Cl. 223—87.

Capdeville, Ignatius C.: *See*—
Voorhees, Edward M. 3,088,354.

Cape, Arthur T., to Coast Metals, Inc. Method of applying metallic coatings. 3,107,175, 10-15-63, Cl. 117—130.

Cape, Arthur T., to Coast Metals, Inc. Nickel-base brazing alloys. 3,108,861, 10-29-63, Cl. 29—196.6.

Cape, Arthur T., and H. Clarke, to Coast Metals, Inc. Iron-base alloys. 3,076,704, 2-5-63, Cl. 75—128.

Cape, Thomas H., to Ford Motor Co. Trans-axle. 3,115,048, 12-24-63, Cl. 74—375.

Capehart, Lonnie R., to Capehart-Zbitnoff Corp. Fuel level control system. 3,086,580, 4-23-63, Cl. 158—36.3.

Capehart-Zbitnoff Corp.: *See*—
Capehart, Lonnie R. 3,086,580.

Capel, Frederick E., to Noma Corp. Lamp connector. 3,104,924, 9-24-63, Cl. 339—174.

Capellaro, David F.: *See*—
Kapany, Narinder S., and Capellaro. 3,088,297.

Capellaro, Natale, to Ing. C. & C. Olivetti, S.p.A. Computer keyboard. 3,086,701, 4-23-63, Cl. 235—62.32.

Capelle, Arthur C. Fire alarm system. 3,114,901, 12-17-63, Cl. 340—227.

Caperton, Charles B. Rod reel. 3,077,314, 2-12-63, Cl. 242—54.

Capes, Tasker L., and G. G. Norman, to Hemphill Co. Take-up device for circular knitting machine. 3,096,634, 7-9-63, Cl. 66—150.

Capewell Mfg. Co., The: *See*—
Craven, Wilbur J. 3,087,608.
Craven, Wilbur J. 3,089,353.

Capewell, William K., and A. R. Price, to Elliott Brothers (London) Ltd. Adjustable coupler between partially intersecting coaxial lines having coupling varied by center conductor movement. 3,105,207, 9-24-63, Cl. 333—10.

Capital Business Machines Corp.: *See*—
Ambrogi, Alfred. 3,071,360.

Capitol Products Corp.: *See*—
McIntyre, Alexander A. 3,071,352.
Minick, Dean K. 3,070,856.

Capitol Projector Corp.: *See*—
Hotkins, Ralph, and Shankman. 3,078,093.
Minick, Dean K. 3,078,524.

Caplan, Arthur. Writing instrument for producing lines of varied width. 3,085,554, 4-16-63, Cl. 120—42.2.

Caplan, Frank: *See*—
Barenholtz, Bernard M., and Caplan. 3,083,015.

Caplan, Isadore, G. T. Rufiin, and D. K. Van Zile, to General Motors Corp. Method of making coated tubing. 3,073,019, 1-15-63, Cl. 29—460.

Caplan, Richard E.: *See*—
Kaufman, Herbert A., Jr., and Caplan. 3,114,725.

Caplan, Samuel R., to National Research Development Corp. Process and apparatus for effecting electrochromatographic separations. 3,085,956, 4-16-63, Cl. 204—180.

Capp, Leslie J.: *See*—
Beeson, Eric J. G., Stanyon, and Capp. 3,100,168.

Cappa, Giulio: *See*—
Barassi, Carlo, Cappa, and Cegnar. 3,087,526.

Cappa, Giulio, to Pirelli S.p.A. Multiple tire for running on loose ground. 3,105,536, 10-1-63, Cl. 152—188.

Cappelle, Norman D., J. J. Kornacker, and J. Y. Ma, to Oak Mfg. Co. Index mechanism. 3,096,665, 7-9-63, Cl. 74—527.

Cappiello, Glosue. Removable dust guard assembly. 3,074,730, 1-22-63, Cl. 277—130.

Capps, David B., to Parke, Davis & Co. 2,4,5-trichlorophenol cyanine dye compound and process for the preparation thereof. 3,074,938, 1-22-63, Cl. 260—240.65.

Cappuccio, Vittorio: *See*—
Bonvicini, Monaci, and Cappuccio. 3,073,667.

Cappuccio, Vittorio, U. Riboni, and C. Viganó, to Montecatini, Società Generale per l'Industria Mineraria e Chimica. Process for preparing polyolefin fibres of improved dye receptivity. 3,098,697, 7-23-63, Cl. 18—54.

Cappuccio, Vittorio, F. Vacanti, and P. Maltese, to Montecatini, Società Generale per l'Industria Mineraria e Chimica. Polypropylene containing a dye-receptive modifier which comprises polyalkyleneimine or mixtures thereof with an epoxy resin. 3,107,228, 10-15-63, Cl. 260—45.5.

Cappuccio, Vittorio, and U. Riboni, to Montecatini, Società Generale per l'Industria Mineraria e Chimica. Process for preparing dye-receptive polyolefin fibers. 3,112,159, 11-26-63, Cl. 18—54.

Caprarola, Leroy J., to Radio Corp. of America. Apparatus for beveling the edges of ceramic disks. 3,110,984, 11-19-63, Cl. 51—88.

Caprio, Amerigo F., to Celanese Corp. of America. Solution of terephthalamide polymer in solvent comprising antimony trichloride and process for preparing same. 3,081,273, 3-12-63, Cl. 260—29.1.

Caprino, Joseph C., and R. J. Prochaska, to General Electric Co. Novel organopolysiloxane compositions. 3,096,303, 7-2-63, Cl. 260—46.5.

Caprioli Michael J. Folding warning flag stands. 3,080,139, 3-5-63, Cl. 248—46.

Capron, Michel: *See*—
Barralon, Jacques. 3,087,256.

Capron, Nicholas J., deceased (by S. W. Capron, administratrix), and C. Alkis, to Pennsalt Chemicals Corp. Application of polyvinylidene fluoride coatings. 3,111,426, 11-19-63, Cl. 117—75.

Capron, Sheila W.: *See*—
Capron, Nicholas J., and Alkis. 3,111,426.

Caps Ltd.: *See*—
Frankel, Gerald. 3,098,416.

Capton, Robert A. Locks, especially for pivoting leaf doors. 3,087,749, 4-30-63, Cl. 292—99.

Carage, Michel. Method of and apparatus for handling cash receipts and resetting keys for cash registers. 3,102,687, 9-3-63, Cl. 235—130.

Caral Packaging Machinery, Inc.: *See*—
Allison, Robert W. 3,091,995.

Carando Machine Works: *See*—
Calcaterra, Joseph P. 3,098,518.
McCoy, Thomas A. 3,109,914.

Carash, William: *See*—
Barlow, Norman L., and Carash. 3,086,518.

Carbide Co.: *See*—
Lopata, Stanley L., and Keithler. 3,085,900.

Carbon, John A., to Abbott Laboratories. 2-guanidino-3-nitropyridine and derivatives thereof. 3,080,374, 3-5-63, Cl. 260—296.

Carbon, John A., to Abbott Laboratories. 3-hydroxypyrido [2,3-e]-as-triazine 1-oxide and related compounds. 3,108,102, 10-22-63, Cl. 260—249.5.

Carboni, Victor B., to Dymo Industries, Inc. Cutting and punching attachment for embossing tool. 3,091,318, 5-28-63, Cl. 197—6.7.

Carbonic Development Corp.: *See*—
Kervin, Willis D. 3,096,812.

Carborundum Co., The: *See*—
Adamsky, Robert F., and Cline. 3,108,886.
Campbell, Robert A. 3,077,413.
Cantrell, John E. 3,081,161.
Carroll, Paul E. 3,074,887.
Cohen, John C., and Jackson. 3,111,401.
Crawley, William P. 3,090,103.
Dinan, Frank J. 3,081,155.
Hansen, George R. 3,093,087.
Lenie, Camille A., and Taylor. 3,108,887.
Martin, Spencer R. 3,112,058.
O'Connor, John A., and Matys. 3,094,679.
Shaffer, Peter T. B. 3,085,888.
Taylor, Kenneth M. 3,097,897.
Thomas, Philip R. 3,078,835.

Carbrey, Robert L., to Bell Telephone Laboratories, Inc. Synchronization of pulse transmission systems. 3,109,897, 11-5-63, Cl. 179—15.

Carb-Rite Co.: *See*—
Griggs, John O., Ross, and Fraser. 3,086,876.

Carcassonne-Leduc, Roger P. C. Process for pre-cooking rice. 3,083,102, 3-26-63, Cl. 99—80.

Card, Joseph L., to Singer-Cobble, Inc. Apparatus for tufting skip-stitch patterns. 3,084,644, 4-9-63, Cl. 112—79.

Card, Joseph L., to The Singer Co. Yarn clamp for tufting machine. 3,115,854, 12-31-63 Cl. 112—253.

Card, Roy T., to Singer-Cobble, Inc. Three-level tufted pile apparatus. 3,075,482, 1-29-63, Cl. 112—79.

Card, Roy T., to Singer-Cobble, Inc. Method and apparatus for tufting cut pile and loop pile in the same row of stitching. 3,084,645, 4-9-63, Cl. 112—79.

Card, Roy T., to Singer-Cobble, Inc. Cut pile tufting machine. 3,096,734, 7-9-63, Cl. 112—79.

Carden Equipment Co., Inc.: *See*—
Carden, Melvin L. 3,101,090.

Carden, Melvin L., to Carden Equipment Co., Inc. Chemical injecting apparatus. 3,101,090, 8-20-63, Cl. 137—99.

Carden, Robert L., G. C. Feighner, and D. W. Marshall, to Continental Oil Co. Production of dinonylnaphthalene sulfonates. 3,075,005, 1-22-63, Cl. 260—505.

Carden, Robert L., G. C. Feighner, and D. W. Marshall, to Continental Oil Co. Process for preparing dialkylnaphthalene. 3,076,856, 2-5-63, Cl. 260—671.

Carden, Robert L., G. C. Feighner, and D. W. Marshall, to Continental Oil Co. Production of dialkylnaphthalenes. 3,076,857, 2-5-63, Cl. 260—671.

Carden, Robert L., and G. C. Feighner, to Continental Oil Co. Production of dialkylnaphthalenes. 3,083,243, 3-26-63, Cl. 260—671.

Carden, Robert L., O. C. Kerfoot, and I. R. Supernaw, to Continental Oil Co. White oil stabilizing treatment. 3,110,664, 11-12-63, Cl. 208—296.

Cardi, Paul. Pressure equalizing valve. 3,079,974, 3-5-63, Cl. 152—415.

Cardillo, Joseph S.: *See*—
Badenoch, Benjamin W., Brown, Cardillo, and Liles. 3,108,542.

Cardillo, Peter E.: *See*—
Nobles, Wilbur D., and Cardillo. 3,095,618.

Cardinell Products: *See*—
Cardinell, Robert S. 3,082,535.

Cardinell, Robert S., to Cardinell Products. Counterbalance for drawing board straightedge. 3,082,535, 3-26-63, Cl. 33—80.

Carding Specialists (Canada) Ltd.: *See*—
Varga, Andre. 3,087,202.
Varga, Andre. 3,113,348.

Cardiosonics Medical Instrument Co.: *See*—
Littmann, David. 3,108,652.

Card Key System, Inc.: *See*—
Noregaard, Maurice J. 3,100,389.

Cardner, Vloden N.: *See*—
Jarman, Harry L. 3,106,750.

Cardoe, Edward A.: *See*—
Mortimer, Frank R., and Cardoe. 3,078,679.

Cardoz, John V.: *See*—
Rogers, Robert W., and Cardoz. 3,077,772.

Cardozo, Danforth Jr.: *See*—
Hopp, Philip, Ensign, and Cardozo. 3,112,142.

Cardwell, Charles G., to Phillips Petroleum Co. Shaft hanger bearing. 3,112,963, 12-3-63, Cl. 308—27.

Cardwell, Dick, and A. F. Graf von Soden. Under-sea and heavier-than-air craft or the like. 3,082,975, 3-26-63, Cl. 244—2.

Cardwell, Robert G. Portable smokeless broiler and oven assembly. 3,096,706, 7-9-63, Cl. 99—340.

Caressa, Inc.: *See*—
Taicher, Leonard L. 3,081,561.

Carew, Gordon H., and C. M. Walker, to Barn-O-Matic, Inc. Adjustable auger feeder. 3,105,586, 10-1-63, Cl. 198—64.

Carew, Herman, and A. W. Kinney, to American Can Co. Sanitary can opening mechanism. 3,079,683, 3-5-63, Cl. 30—4.

Carew, Herman, and A. W. Kinney, to American Can Co. Method of and apparatus for dispensing hot foods. 3,080,078, 3-5-63, Cl. 214—305.

Carew, Herman, and A. W. Kinney, to American Can Co. Cutting blade magazine and dispenser. 3,115,991, 12-31-63, Cl. 221—198.

Carey, Frederick H., and W. H. Arscott, to The De Havilland Engine Co. Ltd., and Dowty Fuel Systems Ltd. Control of variable pitch stator blades or vanes in axial flow machines. 3,083,892, 4-2-63, Cl. 230—114.

Carey, Joseph P., to Combustion Engineering, Inc. Observation door for pressurized furnaces. 3,110,274, 11-12-63, Cl. 110—179.

Carey-McFall Co.: *See*—
Di Ienno, John J. 3,085,774.
Renkauf, William B., and Gallagher. 3,113,357.

Carey, Philip, Mfg. Co., The: *See*—
Fasold, George A., and Leibrook. 3,082,577.
Fasold, George A., and Leibrook. 3,091,898.

Carey, Richard T.: *See*—
Blanken, Robert M., Carey, and Mook. 3,114,645.

Carey, William M., Jr., to Minneapolis-Honeywell Regulator Co. Multi-directional storage register. 3,114,896, 12-17-63, Cl. 340—174.

Carfizzi, Joseph A., to T. A. D. Trucking Corp. Containers for flowable materials. 3,080,096, 3-5-63, Cl. 222—143.

Cargill, Don A. Manufacturing system using free floating fixture line. 3,088,197, 5-7-63, Cl. 29—200.

Cargill, Inc.: *See*—
Eversole, Russell A., and Roholt. 3,113,399.
Hicks, Charles F. 3,082,946.
Johnson, John Y. 3,082,315.
Macmillan, John H., Jr., Johnson, and Addicks. 3,113,403.

Cargill, Norman A., and T. D. Reader, to Sperry Rand Corp. Electro-pneumatic fluid amplifier. 3,071,154, 1-1-63, Cl. 137—608.

Cargill, Roger D., and A. W. Northrop, to International Business Machines Corp. Electrical connector. 3,104,927, 9-24-63, Cl. 339—256.

Cargo, George K. Air door. 3,113,501, 12-10-63, Cl. 98—36.

Carion, Guillaume: *See*—
Ollier, Jacques G. H., Grosshans, Parre, Hellweg, and Carion. 3,112,060.

Carissimi, Louis C., to Sperry Rand Corp. Electric shaver cutter drive mechanism. 3,105,298, 10-1-63, Cl. 30—43.

Carissimi, Vincent L., to The Bryant Electric Co. Wiring device for controlling circuit continuity. 3,082,309, 3-19-63, Cl. 200—153.

Carkhuff, Edwin D.: *See*—
Tuerck, Paul A., and Carkhuff. 3,084,104.

Carkhuff, Le Roy F., to Diamond National Corp. Egg carton pricing unit. 3,083,636, 4-2-63, Cl. 101—37.

Carkhuff, LeRoy F., to Diamond National Corp. Article denesting and dispensing apparatus. 3,104,029, 9-17-63, Cl. 221—236.

Carl, Robert J., and C. B. Parkinson, Jr., to United States of America, Air Force. A.C. modulator protective device. 3,093,771, 6-11-63, Cl. 317—14.

Carlberg, Erik R. and K. J. Wahlborg, to Electrolux, Aktiebolaget. Suction nozzle. 3,080,590, 3-12-63, Cl. 15—421.

Carlberg, Robert E.: *See*—
Wilson, Richard C., and Carlberg. 3,072,019.

Carles, Alonza C., 30% to F. J. Barrie. Electric hand drill accessory. 3,077,129, 2-12-63, Cl. 77—7.

Carlesimo, John. Lifting device. 3,098,673, 7-23-63, Cl. 294—63.

Carleton, James T.: *See*—
Breedon, David B., Carleton, and Ferguson. 3,086,162.

Carlevaro, Ugo, and F. Savio. Cable railway. 3,089,433, 5-14-63, Cl. 104—134.

Carlin, Bernard. Gate valve. 3,111,137, 11-19-63, Cl. 137—315.

Carlin, George T., to Swift & Co. Meat product and method for producing said product. 3,100,710, 8-13-63, Cl. 99—107.

Carlin, Robert, C. W. Cannon, and R. J. Soeteber, to Allis-Chalmers Mfg. Co. Crawler tractor suspension. 3,083,781, 4-2-63, Cl. 180—9.5.

Carling Electric, Inc.: *See*—
Fleming, William S. 3,106,622.

Carlisle, Benjamin H.: *See*—
Landow, Walter, and Carlisle. 3,076,074.

Carlisle Chemical Works, Inc.: *See*—
Hechenbleikner, Ingenuin, Bresser, and Homberg. 3,078,290.
Hechenbleikner, Ingenuin, and Molt. 3,096,345.
Nass, Leonard I., and Stamm. 3,092,593.
Mack, Gerry P., and Parker. 3,082,189.

Carlisle, Henry L.: *See*—
Anstrom, Jerome C., Carlisle, and Covey. 3,085,773.

Carlisle, James V., and T. M. Arnold, to Ethyl Corp. Apparatus for cell construction. 3,110,970, 11-19-63, Cl. 33—180.

Carlisle, James V., and T. M. Arnold, to Ethyl Corp. Method for cell construction. 3,111,744, 11–26–63, Cl. 29—155.5.

Carlisle, James V., and T. M. Arnold, to Ethyl Corp. Method for cell construction. 3,111,745, 11–26–63, Cl. 29—155.5.

Carlisle, James V., and T. M. Arnold, to Ethyl Corp. Apparatus for cell construction. 3,111,769, 11–26–63, Cl. 33—180.

Carlisle, James V., and T. M. Arnold, to Ethyl Corp. Apparatus for cell construction. 3,111,770, 11–26–63, Cl. 33—180.

Carlisle, James V., and T. M. Arnold, to Ethyl Corp. Apparatus for cell construction. 3,111,771, 11–26–63, Cl. 33—180.

Carlisle, Samuel S., and G. M. Boxall, to The British Iron and Steel Research Association. Method of and apparatus for supporting or guiding strip material. 3,097,971, 7–16–63, Cl. 134—15.

Carlo, Clarence E., to Dubuque Products, Inc. Collable partition. Re. 25,422, 7–23–63, Cl. 160—23.

Carlo, Clarence E., to Dubuque Products, Inc. Collable partition with doors. 3,090,424, 5–21–63, Cl. 160—23.

Carlo, Clarence E., to Dubuque Products, Inc. Multiple wall sight and sound insulating partition. 3,090,425, 5–21–63, Cl. 160—25.

Carlo, Clarence E., to Dubuque Products, Inc. Collable partition with chalk board. 3,090,426, 5–21–63, Cl. 160—25.

Carlo, Clarence E., to Dubuque Products, Inc. Metallic dual thickness partition. 3,090,430, 5–21–63, Cl. 160—196.

Carloni, Secondo. Linear scale reading A.C. and D.C. meter. 3,078,414, 2–19–63, Cl. 324—73.

Carls, William. Valve housing mount and manifold. 3,072,148, 1–8–63, Cl. 137—622.

Carlsen, Carl E. Hand stamps. 3,101,048, 8–20–63, Cl. 101—125.

Carlsen, Carl E. Mimeograph hand printers. 3,103,879, 9–17–63, Cl. 101—125.

Carlsen, Carl E. Needle threader, especially suitable for sewing machines. 3,115,996, 12–31–63, Cl. 223—99.

Carlsen, Harry R.: *See*—
Schjeldahl, Gilmore T., Piccard, and Carlsen. 3,109,440.

Carlsen, Leonard O., and T. A. Deprez, to The Gleason Works. Grinding machine and wheel dresser therefor. 3,086,508, 4–23–63, Cl. 125—11.

Carlsen, Leonard O., and C. B. King, to The Gleason Works. Method and apparatus for cutting spiral bevel and hypoid gears. 3,110,225, 11–12–63, Cl. 90—9.4.

Carlsen, Olaf. Roll-over machine. 3,080,984, 3–12–63, Cl. 214—1.

Carlsen, William R., to Michigan Tool Co. Tool head for finishing machine. 3,090,168, 5–21–63, Cl. 51—52.

Carlson, Arthur: *See*—
Flukl, Charles W., and Carlson. 3,084,543
Schweiker, George C., and Carlson. 3,098,058.

Carlson, Arthur W. Wide-band differential amplification. 3,085,209, 4–9–63, Cl. 330—74.

Carlson, Arthur W., and G. C. Schweiker, to Velsicol Chemical Corp. Resinous compositions of matter and methods for preparing same. 3,102,872, 9–3–63, Cl. 260—47.

Carlson, Byron, and G. Kuhn, to McCulloch Corp. Filling spout for puncturing containers. 3,115,908, 12–31–63, Cl. 141—330.

Carlson, Carl J., Jr., and D. W. Carlson. Fastener assemblage. 3,097,360, 7–16–63, Cl. 1—56.

Carlson, Carl J., Sr., and D. W. Carlson. Automatically fed hammer stapler. 3,113,317, 12–10–63, Cl. 1—49.

Carlson, Carl O., to The National Cash Register Co. Optical information-processing apparatus and method. 3,085,469, 4–16–63, Cl. 88—24.

Carlson, Carl R.: *See*—
Hedderich William E., Jannenga, Carlson, and Hawkinson. 3,078,535.

Carlson, Carl R., D. E. Hawkinson, W. E. Hedderich, and J. A. Jannenga, to Greenlee Bros. & Co. Wire tensioning device. 3,081,976, 3–19–63, Cl. 254—29.

Carlson, Charles L., and S. A. Rosecrans, to Westinghouse Electric Corp. Method of making aluminum clad copper wire. 3,096,577, 7–9–63, Cl. 29—473.3.

Carlson, Charles W., and C. W. Carlson, Jr. Method for forming cased glassware. 3,083,552, 4–2–63, Cl. 65—48.

Carlson, Charles W., Jr.: *See*—
Carlson, Charles W., and C. W. Carlson, Jr. 3,083,552.

Carlson, Chester F., to Xerox Corp. Xerographic fusing apparatus. 3,078,589, 2–26–63, Cl. 34—77.

Carlson, Chester F., to Xerox Corp. Apparatus for pattern reproduction. 3,083,684, 4–2–63, Cl. 118—246.

Carlson, Clarence A., to United States Gypsum Co. Apparatus and method for extracting trash. 3,113,733, 12–10–63, Cl. 241—68.

Carlson, Dana P., to E. I. du Pont de Nemours and Co. Stabilized polyoxymethylene. 3,081,280, 3–12–63, Cl. 260—45.85.

Carlson, David J., and W. Y. Pan, to Radio Corp. of America. Negative resistance amplifier. 3,108,231, 10–22–63, Cl. 330—34.

Carlson, Dennis R., E. N. Case, and S. H. Patinkin, to Sinclair Research Inc. Leaded gasoline containing aromatic-substituted esters. 3,083,088, 3–26–63, Cl. 44—69.

Carlson, Donald W.: *See*—
Carlson, Carl J., Jr., and D. W. Carlson. 3,097,360.
Carlson, Carl J., Sr., and D. W. Carlson. 3,113,317.

Carlson, Elmer V., to Industrial Research Products, Inc. Electro-mechanical transducer. 3,111,563, 11–19–63, Cl. 179—114.

Carlson, Elwood L.: *See*—
Christensen, Valdemar J., Egleson, and Carlson. 3,092,450.

Carlson, Emery J., and E. E. Gilbert to Allied Chemical Corp. Production of oxalic acid. 3,081,345, 3–12–63, Cl. 260—533.

Carlson, Ernest R.: *See*—
Hrvath, John C., and Carlson. 3,084,239.

Carlson, Eugene C., and W. C. Muller, to National Distillers and Chemical Corp. Purification of metal halides. 3,098,722, 7–23–63, Cl. 23—204.

Carlson, Frank A., Jr., and N. Platser, to Monsanto Chemical Co. Process of extruding a foamable styrene polymer containing an alkali metal silicate. 3,084,126, 4–2–63, Cl. 260—2.5.

Carlson, George J.: *See*—
Courter, Martin L., and Carlson. 3,091,622.

Carlson, Glen A. Fluid pressure operated oscillatory buffing head. 3,099,902, 8–6–63, Cl. 51—33.

Carlson, Gustav H., to R. P. Scherer Corp. Method of making ferrous citrate. 3,091,626, 5–28–63, Cl. 260—439.

Carlson, Harold A.: *See*—
Eickmann, Olin J., and Carlson. 3,092,999.
Ott, William F., Krein, Eickmann, and Carlson. 3,100,236.
Szwargulski, Jesse L., Eickmann, Carlson, and Korte. 3,076,639.

Carlson, Harold A., to ACF Industries, Inc. Carburetor. 3,078,078, 2–19–63, Cl. 261—41.

Carlson, Harold A., and A. N. Szwargulski, to ACF Industries, Inc. Carburetor inlet valve. 3,086,750, 4–23–63, Cl. 251—358.

Carlson, Harold A., A. W. Zub, and O. J. Eickmann, to ACF Industries, Inc. Secondary fuel control for two-stage carburetor. 3,104,272, 9–17–63, Cl. 261—23.

Carlson, Harold A., O. J. Eickmann, and R. J. Smith, to ACF Industries, Inc. Carburetor. 3,109,043, 10–29–63, Cl. 261—23.

Carlson, Irma E.: *See*—
Carlson, Swan O. 3,108,657.

Carlson, John W., to Speed-O-Print Business Machines Corp. Photocopy machine. 3,078,777, 2–26–63, Cl. 95—89.

Carlson, John W., to Speed-O-Print Business Machines. Photocopying devices. 3,097,585, 7–16–63, Cl. 95—89.

Carlson, John W., to Speed-O-Print Business Machines Corp. Disposable cartridge for use in a photocopy machine. 3,101,036, 8–20–63, Cl. 95—89.

Carlson, John W., to Speed-O-Print Business Machines Corp. Photocopy machine and ejector plate. 3,113,499, 12–10–63, Cl. 95—77.5.

Carlson, Leonard A.: *See*—
Sullivan, Wilbur M., and Carlson. 3,092,601.

Carlson, Lorien A., to Wood Conversion Co. Ceiling structure and tile therefor. 3,100,319, 8–13–63, Cl. 20—4.

Carlson, Martin. Panic release door centering stop. 3,105,992, 10–8–63, Cl. 16—82.

Carlson, Norman E., to ACF Industries, Inc. Car end wall. 3,095,831, 7–2–63, Cl. 105—410.

Carlson, Norman G., and G. V. D. Tiers, to Minnesota Mining and Mfg. Co. Catalytic polymerization of pyrrolidone. 3,075,953, 1–29–63, Cl. 260—78.

Carlson, Olof B., to Consolidated Cigar Corp. Apparatus for applying tear tab to a web. 3,090,285, 5–21–63, Cl. 93—1.

Carlson, Olof B., to Consolidated Cigar Corp. Cigar tip applying machine. 3,097,654, 7–16–63, Cl. 131—88.

Carlson, Ralph G., to Pneumatic Scale Corp., Ltd. Web feeding mechanism and control means therefor. 3,108,032, 10–22–63, Cl. 156—361.

Carlson, Ralph L. Device for repairing tubeless tire casing or the like. 3,113,606, 12–10–63, Cl. 152—370.

Carlson, Raymond H., to Textron Industries, Inc. Method of extruding shank portions with 50% or less cross-sectional area than that of the original blanks. 3,072,933, 1–15–63, Cl. 10—27.

Carlson, Raymond H., to Textron Industries, Inc. Method of forming a cap stud. 3,080,587, 3–12–63, Cl. 10—10.

Carlson, Raymond H., to Textron Industries, Inc. Method of forming blanks with internal and external torque engaging means. 3,088,140, 5–7–63, Cl. 10—27.

Carlson, Raymond H., to Textron Industries, Inc. Process for forming a fastener including the step of piercing an unworked head portion. 3,089,159, 5–14–63, Cl. 10—27.

Carlson, Raymond H., to Textron Industries, Inc. Metal blank with extruded portion of non-circular cross section. 3,104,161, 9–17–63, Cl. 29—190.

Carlson, Raymond H., to Textron Industries, Inc. Cold header drives. 3,107,557, 10–22–63, Cl. 78—17.

Carlson, Raymond L., to Westinghouse Electric Corp. Fans having radial flow rotors in axial flow casings. 3,101,890, 8–27–63, Cl. 230—127.

Carlson, Reuben C., to Admiral Corp. Control system. 3,075,400, 1–29–63, Cl. 74—472.

Carlson, Richard A.: *See*—
Bertsche, Ralph H., Jr., Carlson, Hetzler, and Raver. 3,078,409.

Carlson, Robert G., to General Electric Co. Columbium base alloy article. 3,078,554, 2–26–63, Cl. 29—194.

Carlson, Roland W., to The Harshal Chemical Co. Scintillation detector with compensating reflector for the crystal. 3,102,955, 9–3–63, Cl. 250—71.5.

Carlson, Roland W., and R. D. Platt, to The Harshaw Chemical Co. Shock resistant scintillation meter component. 3,073,954, 1–15–63, Cl. 250—71.5.

Carlson, Roy W.: *See*—
Lynn, Alan G., and Carlson. 3,107,009.

Carlson, Sperling. Cigarette extinguisher. 3,113,577, 12–10–63, Cl. 131—237.

Carlson, Swan O., deceased; I. E. Carlson, administratrix, to Stair 'N' Fold Co. Scaffold device. 3,108,657, 10–29–63, Cl. 182—119.

Carlson, Theodore F. Anti-friction idler arm assembly. 3,078,113, 2–19–63, Cl. 287—93.

Carlson, Theodore F. Ball-type linkage joint. 3,114,569, 12–17–63, Cl. 287—87.

Carlson, Wilbur L., to General Motors Corp. Method of forming locators. 3,077,030, 2–12–63, Cl. 29—401.

Carlson, Wilbur L., and O. H. Deyle, to General Motors Corp. Commutator and method of attaching same. 3,080,615, 3–12–63, Cl. 18—59.

Carlson, William A., and J. R. Little, to Pfaudler Permutit, Inc. Corrosion resistant coating and method of applying the same. 3,089,783, 5–14–63, Cl. 117—66.

Carlson, William L., Jr., to Minneapolis-Honeywell Regulator Co. Method of making a capillary tube fluid filled transmission system. 3,091,023, 5–28–63, Cl. 29—400.

Carlson, William L., Jr., to Minneapolis-Honeywell Regulator Co. Fluid actuator. 3,099,136, 7–30–63, Cl. 60—52.

Carlstedt, Ragnar L. Apparatus for controlling moving members. 3,083,592, 4–2–63, Cl. 77—3.

Carlstedt, Sven B. F. Valve device operated by reversible electric motor. 3,080,952, 3–12–63, Cl. 192—.02.

Carlston, Hamilton S. Unidirectional control mechanism for a sliding closure member. 3,085,300, 4–16–63, Cl. 20—52.

Carlton, Alvar G., and J. W. Follin, Jr., to United States of America, Navy. Radar tracking loop. 3,110,896, 11–12–63, Cl. 343—7.4.

Carlton, Charles F. Water shoes. 3,112,504, 12–3–63, Cl. 9—310.

Carlton, Daniel, to CFF, Inc. Clamping system for concrete wall forms. 3,103,730, 9–17–63, Cl. 25—131.

Carlton, Louis A.: *See*—
Peters, Beldon A., Carlton, Rich, and Buck. 3,083,774.

Carlton, Louis A., and B. A. Peters, to Jersey Production Research Co. Fluid sampler. 3,075,585, 1–29–63, Cl. 166—164.

Carlton, Stuart S., to Thompson Ramo Wooldridge Inc. Fuel cell construction. 3,110,631, 11–12–63, Cl. 136—86.

Carlzen, Carl F., R. W. Helda, and W. L. Lehner, to Sylvania Electric Products Inc. Assembly apparatus. 3,081,885, 3–19–63, Cl. 214—1.

Carman, Francis J., and K. W. Whalan, to said F. J. Carman and G. T. Peacock. Coin counting mechanism. 3,075,699, 1–29–63, Cl. 235—100.

Carmellini, Andrew E., J. E. Lee, and O. T. Hornkohl. Fluid dispensing device having light sensitive means. 3,107,818, 10–22–63, Cl. 222—50.

Carmer Industries, Inc.: *See*—
Steinberg, Hyman A. 3,106,201.

Carmichael, James L. Vegetable trimmer. 3,080,904, 3–12–63, Cl. 146—81.

Carmichael, Mead S., Jr., to FMC Corp. Pea viner having screen unclogging means. 3,084,696, 4–9–63, Cl. 130—30.

Carmichael, Mead S., Jr., and R. A. Stark, to FMC Corp. Method of hauling peas. 3,087,499, 4–30–63, Cl. 130—30.

Carmichael, Robert, and J. L. S. Daley, to Union Carbide Corp. Separator for galvanic cells. 3,089,914, 5–14–63, Cl. 136—143.

Carmichael, Thomas F., to Syncro Corp. Ignition coil construction. 3,106,655, 10–8–63, Cl. 310—70.

Carmody, Don R., to Standard Oil Co. Removal of static charges. 3,081,518, 3–19–63, Cl. 28—80.

Carnahan, Robert E.: *See*—
Bloom, Barry M., and Carnahan. 3,113,946.

Carnaut, Boris. Process of making plates and sheets of polyvinyl chloride fragments by a simultaneous heat and pressure treatment. 3,096,145, 7–2–63, Cl. 18—55.

Carneck, Robert C.: *See*—
Roe, Elverton O., and Carneck. 3,075,109.

Carney, Clifford R. Inoculation with microorganisms and culture cultivation media. 3,115,404, 12–24–63, Cl. 71—6.

Carney, Delmar E.: *See*—
Davis, Curtis W., Jr., Carney, Kurick, and Schultz. 3,107,463.

Carney, Delmar E., and R. E. Warren, to Libbey-Owens-Ford Glass Co. Method and apparatus for glass melting. 3,108,149 10–22–63, Cl. 13—6.

Carney, Leroy L.: *See*—
Van Dyke, Orlen W., and Carney. 3,076,759.

Carney, Patrick E., and J. H. Keahey, to Texas Instruments Inc. Automatic gain control circuit. 3,098,199, 7–16–63, Cl. 330—29.

Carnt, Peter S., and E. Ribchester, to Hazeltine Research Inc. D.C. insertion apparatus for a color television receiver. 3,113,177, 12–3–63, Cl. 178—5.4.

Caroll, Gerhard, and O. Lutz. Hydraulic clutch. 3,101,825, 8–27–63, Cl. 192—18.

Caron, Charles, to Mefina S.A. Digital programme controller. 3,076,066, 1–29–63, Cl. 200—37.

Caron, Claude, to Soletanche. Novel method for injecting clay-containing grout into ground and products serving for the execution of said method. 3,111,006, 11–19–63, Cl. 61—36.

Caroselli, Remus F., to Owens-Corning Fiberglas Corp. Apparatus for treating fibrous glass. 3,096,970, 7–9–63, Cl. 263—3.

Caroselli, Remus F., and A. Marzocchi, to Owens-Corning Fiberglas Corp. Sized glass fibers and composition. 3,097,963, 7–16–63, Cl. 117—126.

Carosello, Michael P. Door attachment. 3,084,965, 4–9–63, Cl. 292—1.

Carosino, Lawrence E., to Hercules Powder Co. 5-mercapto-4-phenyl-1,2-dithiole-3-thione and fungicidal compositions containing the same. 3,109,772, 11–5–63, Cl. 167—33.

Carothers, John N., and R. J. Hurka, Jr. Process of treating phosphate rock. 3,076,691, 2–5–63, Cl. 23—109.

Carpco-Kewanee, Inc.: *See*—
Carswell, John L., and Carpenter. 3,074,870.

Carpenter, Arley D.: *See*—
Carpenter, John A. and A. D. 3,087,700.

Carpenter, Arthur J., and H. A. Mackie, to General Motors Corp. Vehicle window cleaning system. 3,107,383, 10–22–63, Cl. 15—250.02.

Carpenter, Charles M., Jr.: *See*—
Schneider, William S., and Carpenter. 3,083,876.

Carpenter, Clayton A., to Union Oil Co. of California. Method and apparatus for heating oil sands. 3,113,622, 12–10–63, Cl. 166—39.

Carpenter, Clifford L., to Cabot Corp. Process for the manufacture of ceramic grade titanium dioxide. 3,112,210, 11–26–63, Cl. 106—300.

Carpenter, Dorothy J. M.: *See*—
Mayer, Oscar J. 3,092,292.

Carpenter, Earl S., H. E. Chace, and C. B. Derr, to American Optical Co. Method for making metal reinforced plastic articles. 3,074,117, 1–22–63, Cl. 18—59.

Carpenter, Edward W. Bracket for an outboard stabilizing element for a canoe, rowboat and the like. 3,100,100, 8–6–63, Cl. 248—214.

Carpenter, Elmer B., to Automatic Poultry Feeder Co. Fowl waterer. 3,099,981, 8–6–63, Cl. 119—61.

Carpenter, Gardner D., to The McLaughlin Co. Plastic nut retained by a washer received in an exterior annular groove. 3,085,613, 4–16–63, Cl. 151—41.72.

Carpenter, Harry W., and P. D. Johnson, to United States of America, Atomic Energy Commission. Cadmium phosphate glass. 3,084,055, 4–2–63, Cl. 106—52.

Carpenter, Herbert L., and H. L. Carpenter, Jr., to The Greif Bros. Cooperage Corp. Top and bottom chime construction for plastic-lined fiber containers. 3,116,001, 12–31–63, Cl. 229—5.5.

Carpenter, Herbert L., Jr.: *See*—
Carpenter, Herbert L., and H. L. Carpenter, Jr. 3,116,001.
Carpenter, Herbert L., Sr., and H. L. Carpenter, Jr. 3,105,787.

Carpenter, Herbert L., Sr., to The Greif Bros. Cooperage Corp. Fiber drum and its method of formation. 3,104,599, 9–24–63, Cl. 93—55.1.

Carpenter, Herbert L., Sr., and H. L. Carpenter, Jr., to The Grief Bros. Cooperage Corp. Method of forming a fiber head for fiber containers. 3,105,787, 10–1–63, Cl. 156—222.

Carpenter, Irvin M.: *See*—
Melton, James O., and Carpenter. 3,074,272.
Melton, James O., and Carpenter. 3,104,864.

Carpenter, James H.: *See*—
Carswell, John L., and Carpenter. 3,074,870.

Carpenter, James H. Method of shucking scallops. 3,070,834, 1–1–63, Cl. 17—45.

Carpenter, James W. Paint distributor attachment for a paint brush. 3,099,033, 7–30–63, Cl. 15—551.

Carpenter, John A. and A. D. Cable support. 3,087,700, 4–30–63, Cl. 248—74.

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Brittenham, James D., Carpenter, and Winniford. 3,110,109.

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Carpenter, Louis M. Wire stripper. 3,074,301, 1–22–63, Cl. 81—9.51.

Carpenter, Marjorie L., and T. C. Denninger, to General Precision, Inc. Aircraft engine fuel control simulator. 3,085,355, 4–16–63, Cl. 35—12.

Carpenter, Paul O. Football dryer. 3,078,591, 2–26–63, Cl. 34—104.

Carpenter, Richard A., R. L. Hughes, and J. D. Bush, to Callery Chemical Co. Continuous production of trialkyl borates. 3,072,704, 1–8–63, Cl. 260—462.

Carpenter, Robert J., to Tote-Cart Co. Wheel mounting for cart. 3,097,887, 7–16–63, Cl. 301—1.

Carpenter, Theodore R. Elevatable power bath tub seat. 3,106,723, 10–15–63, Cl. 4—185.

Carpenter, Tracy L., to General Motors Corp. Automobile door safety lock mechanism. 3,112,947, 12–3–63, Cl. 292—280.

Carpenter, Victor W., to Armco Steel Corp. Heat treatment of ferrous strip materials with separator coating. 3,084,081, 4–2–63, Cl. 148—14.

Carpenter, Victor W., and J. M. Jackson, to Armco Steel Corp. Production of non-oriented ferrous magnetic materials. 3,116,179, 12–31–63, Cl. 148—12.1.

Carpenter, Virgil R., to International Vending Machines, Inc. Automatic corn-popping machine of the cooking oil type. 3,078,782, 2–26–63, Cl. 99—238.5.

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Carr, Clide L., to United States Rubber Co. Expanded polyethylene and method of making the same. 3,098,831, 7-23-63, Cl. 260—2.5.

Carr, Donald E., to Phillips Petroleum Co. Method of combustion utilizing ozone. 3,071,924, 1-8-63, Cl. 60—35.4.

Carr, Donald E., to Phillips Petroleum Co. Production and upgrading of hydrocarbons in situ. 3,072,187, 1-8-63, Cl. 166—11.

Carr, Donald E., to Phillips Petroleum Co. Fuel-air ratio control for a reaction engine. 3,080,708, 3-12-63, Cl. 60—35.6.

Carr, Donald E., to Phillips Petroleum Co. Insect repellent compositions having extended repellent life. 3,108,039, 10-22-63, Cl. 167—33.

Carr, Duane B., and C. L. Krueger, to General Dynamics Corp. Contact clip. 3,076,172, 1-29-63, Cl. 339—258.

Carr, Dugald M., and T. D. Striggles, to The Chemical and Industrial Corp. Manufacture of nitrogen tetroxide. 3,101,255, 8-20-63, Cl. 23—162.

Carr Edward W., and R. P. Setka, to Crane Co. Closure lifting means for relief valves or the like. 3,078,869, 2-26-63, Cl. 137—523.

Carr, Hugh B.: *See*—
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Kinney, Selwyne P., and Carr. 3,113,585.

Carr, Hugh B., and S. P. Kinney, to S. P. Kinney Engineers, Inc. Double disc shut-off valve. 3,113,589, 12-10-63, Cl. 137—614.11.

Carr, James C., to General Electric Co. Method of installing grommets. 3,090,115, 5-21-63, Cl. 29—450.

Carr, John H., to Dura-Vent Corp. Factory-built chimney. 3,087,408, 4-30-63, Cl. 98—46.

Carr, John H., to Dura-Vent Corp. Vent cowl. 3,087,409, 4-30-63, Cl. 98—84.

Carr, John W., to Lockheed Aircraft Corp. V strip antenna with artificial dielectric lens. 3,090,836, 7-30-63, Cl. 343—753.

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Carr, Joseph B.: *See*—
Sweeney, Edward A., and Carr. 3,095,333.

Carr Lane Mfg. Co.: *See*—
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Carr, Marvin E., and F. E. Ives. Apparatus and method for depositing continuous stranded material. 3,096,225, 7-2-63, Cl. 156—38.

Carr, Maurice K.: *See*—
Wichmann, Hans J., Ahles, Schorr, and Carr. 3,088,387.

Carr, Norman L., to The Pure Oil Co. Activation of isomerization catalysts by sequential oxidation and reduction. 3,108,974, 10-29-63, Cl. 252—455.

Carr, Robert D. Pull down hardware. 3,084,909, 4-9-63, Cl. 254—51.

Carr, Roy E., to Pinco, Inc. Clothespin. 3,103,727, 9-17-63, Cl. 24—137.

Carr, Thomas E. Molded plastic pontoons. 3,090,339, 5-21-63, Cl. 114—66.5.

Carr, Warren F., and M. D. Wood. Directional drill with hydraulically extended shoe. 3,098,534, 7-23-63, Cl. 175—73.

Carr, William H., Jr., and E. R. Dobyns, to United States of America, Atomic Energy Commission. Diaphragm pumping system. 3,101,058, 8-20-63, Cl. 102—38.

Carragan, John F.: *See*—
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Carreau, Joseph S. Storage compartment extensions. 3,085,826, 4-16-63, Cl. 296—37.

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Airlie, John. 3,101,705.

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Kluiber, Rudolph W., and Carrick. 3,073,809.

Carrick, Wayne L., and R. W. Kluiber, to Union Carbide Corp. Ethylene polymerization catalysts. 3,076,796, 2-5-63, Cl. 260—94.9.

Carrico, Ralph T., C. R. Ford, J. D. Halbrooks, M. Beyersdorfer, and E. K. Percifield, to Indus Corp. Constant mesh gear transmission. 3,111,860, 11-26-63, Cl. 74—372.

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Carrier Corp.: *See*—
Ashley, Carlyle M. 3,073,131.
Ashley, Carlyle M., and Bosworth. 3,070,969.
Bell, William W., Jr. 3,083,796.
Birdsall, Bruce E. 3,092,178.
Church, Richard A., Blanchette, and Paris. 3,082,676.
Clark, William E. 3,095,710.
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Carrier Corp.: *See*—Continued
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Gebert, Gregory G., and Schreiner. 3,105,749.
Gerteis, Karl M. 3,109,584.
Gerteis, Karl M. 3,110,162.
Hayes, Richmond S., Jr. 3,073,096.
Hoyle, Walter W., and Black. 3,111,075.
Hungate, Ernest C. 3,073,095.
Jamison, Ralph E. 3,099,137.
Leonard, Louis H., Jr. 3,081,605.
Leonard, Louis H., Jr. 3,114,322.
Lyons, William T., and Morabito. 3,101,382.
Macrow, Lawrence, and Van Adelsberg. 3,114,786.
Martin, William C., Jr., and Fall. 3,111,076.
McGrath, William L., and Stevens. 3,091,916.
Namishiak, Joseph, and Endress. 3,081,604.
Paris, James H. 3,101,383.
Raymond, Glendon A. 3,098,145.
Rhodes, Milton C. 3,089,970.
Ryan, Matthew G., Webb, Sturm, and Lindsay. 3,082,609.
Schmanke, George W., Jr., and Southworth. 3,081,603.
Smith, John F. D. 3,095,255.
Talaat, Mostafa E. 3,082,275.
Talaat, Mostafa E. 3,116,167.

Carrier, Raoul: *See*—
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Carrier, Robert M., Jr.: *See*—
Morris, John M., and Carrier. 3,112,000.

Carrier, Robert M., Jr., J. M. Morris, and A. Musschoot, to Chain Belt Co. Vibratory mill drive. 3,093,941, 6-18-63, Cl. 51—164.

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Sands, Robert G. 3,103,030.

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Carrigan, Robert J., to Bigelow-Sanford, Inc. Method of seaming carpeting with a tape. 3,077,429, 2-12-63, Cl. 156—159.

Carrillo, Nestor. Slide projector with dissolve. 3,093,030, 6-11-63, Cl. 88—28.

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Carroll, Charles, to Duff-Norton Co. Electric switching mechanism. 3,086,090, 4-16-63, Cl. 200—5.

Carroll, Charles, to Duff-Norton Co. Hand-operated chain hoist. 3,092,369, 6-4-63, Cl. 254—170.

Carroll, David D. Stuffed animated toy animal. 3,099,894, 8-6-63, Cl. 46—135.

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Carroll, Laurence B., Jr., to Fairchild Stratos Corp. Contour checking assembly. 3,106,782, 10-15-63, Cl. 33—174.

Carroll, Lawrence K., J. H. Messinger, C. D. Whitcomb, and E. R. Baxter, to Quikut, Inc. Citrus fruit juicer. 3,101,758, 8-27-63, Cl. 146—3.

Carroll, Norman L.: *See*—
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Carroll, Robert. Adjustable clutch spring compressor. 3,078,556, 2-26-63, Cl. 29—226.

Carroll, Robert L., to Acrometal Products, Inc. Mounting head for pirns. 3,093,331, 6-11-63, Cl. 242—46.6.

Carroll, Robert L., and C. I. Steinback, to Acrometal Products, Inc. Spindle adapter. 3,101,911, 8-27-63, Cl. 242—46.6.

Carroll-Walton Engineering Co., Inc.: *See*—
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Carroll, William. Automotive air intake apparatus. 3,077,715, 2-19-63, Cl. 55—310.

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Carroll, William N., to International Business Machines Corp. Capacitor digital data storage and regeneration system. 3,111,649, 11-19-63, Cl. 340—173.

Carroll, William N., R. A. Cropper, and R. G. Counihan, to International Business Machines Corp. Transistorized logic circuit operative in the pulse mode. 3,087,074, 4-23-63, Cl. 307—88.5.

Carrollton Mfg. Co.: *See*—
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Carrons, Genevieve C. Electrically heated garment. 3,084,244, 4-2-63, Cl. 219—46.

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Carruth, Edwin I. Nailfiler-tieclip devices. 3,077,892, 2-19-63, Cl. 132—73.5.

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Gaines, John R., and C. F., De Pew, and Carry. 3,103,259.
Gaines, John R., and C. F., De Pew, and Carry. 3,103,260.

Carry-Pack Corp.: *See*—
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Carse, George: *See*—
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Carson, Frank J., to Libbey-Owens-Ford Glass Co. Glass bending mold. 3,092,481, 6-4-63, Cl. 65—288.

Carson, Frank J., and H. A. Leflet, Jr., to Libbey-Owens-Ford Glass Co. Apparatus for bending glass sheets. 3,086,376, 4-23-63, Cl. 65—288.

Carson, Frank J., and H. A. Leflet, Jr., to Libbey-Owens-Ford Glass Co. Apparatus for bending glass sheets. 3,087,317, 4-30-63, Cl. 65—288.

Carson, Frank J., and G. White, to Libbey-Owens-Ford Glass Co. Glass bending apparatus. 3,089,319, 5-14-63, Cl. 65—288.

Carson, Frank J., and H. A. Leflet, Jr., to Libbey-Owens-Ford Glass Co. Method and apparatus for feeding flat sheets onto a moving conveyor. 3,101,156, 8-20-63, Cl. 221—93.

Carson, Frank J., and H. A. Leflet, Jr., to Libbey-Owens-Ford Glass Co. Apparatus for bending glass sheets. 3,102,802, 9-3-63, Cl. 65—288.

Carson, Frank J., and H. A. Leflet, Jr., to Libbey-Owens-Ford Glass Co. Apparatus for firming, bending and annealing glass sheets. 3,102,803, 9-3-63, Cl. 65—288.

Carson, Frank J., and H. A. Leflet, Jr., to Libbey-Owens-Ford Glass Co. Apparatus for bending glass sheets. 3,102,804, 9-3-63, Cl. 65—288.

Carson, Frank J., and H. A. Leflet, Jr., to Libbey-Owens-Ford Glass Co. Vehicle windshields. 3,114,571, 12-17-63, Cl. 296—84.

Carson, Gordon A.: *See*—
Watts, Clarence R., and Carson. 3,109,686.

Carson, Gordon R., and W. L. Starkey, to Selby International, Inc. Digital controlled machine. 3,083,580, 4-2-63, Cl. 74—113.

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Carson, Oliver S., and G. McMurtry, to Short Brothers & Harland Ltd. Electrical signalling systems. 3,105,174, 9-24-63, Cl. 317—146.

Carson, Ralph C., Jr., S. J. Grillo, and T. W. Jansen, to United States of America, Navy. Method and apparatus for launching rockets. 3,094,896, 6-25-63, Cl. 89—1.7.

Carson, Robert E., and W. C. Jonson, to Avco Corp. Intermediate frequency balanced bias system. 3,095,540, 6-25-63, Cl. 325—323.

Carson, William S., Jr. Feeder for cattle or the like. 3,112,732, 12-3-63, Cl. 119—52.

Carstens, Fred A., to A. O. Smith Corp. Starting joints for continuous wound vessel. 3,092,148, 6-4-63, Cl. 138—151.

Carstens, Fred A., to Chicago Bridge & Iron Co. Method and apparatus for manufacturing of high strength cylindrical shells. 3,098,620, 7-23-63, Cl. 242—75.2.

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Carswell, John L., and J. H. Carpenter, to Carpco-Kewanee, Inc. Method and apparatus for electrically separating the phases of a water-in-oil emulsion. 3,074,870, 1-22-63, Cl. 204—188.

Cart Ads Corp.: *See*—
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Carter, Alva B. Material heating dispenser. 3,116,403, 12-31-63, Cl. 219—39.

Carter, Alvie. Shiny nose toy. 3,074,205, 1-22-63, Cl. 46—228.

Carter, Arnold G.: *See*—
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Carter, B. & F., & Co. Ltd.: *See*—
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Carter, Ben R., to B. & F. Carter & Co. Ltd. Braiding machine bobbin and carrier. 3,107,576, 10-22-63, Cl. 87—22.

Carter, Charlie F.: *See*—
Carter, William W. and C. F. 3,083,776.
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Carter, Clare A., to Union Carbide Corp. Preparation of alkyl borate esters. 3,086,039, 4-16-63, Cl. 260—462.

Carter, Dale B., to Socony Mobil Oil Co. Removal of arsenic from reformer feed. 3,110,569, 11-12-63, Cl. 23—288.

Carter, David C., and E. M. Jenkins, to Johns-Manville Corp. Acoustical panel. 3,073,412, 1-15-63, Cl. 181—33.

Carter, Don E., to Monsanto Chemical Co. Removal of catalyst residues from solid polymer slurries by multistage countercurrent extraction. 3,074,921, 1-22-63, Cl. 260—94.9.

Carter, Edward D. Height gauge. 3,113,385, 12-10-63, Cl. 33—169.

Carter, Edward S., Jr., to United Aircraft Corp. Flight control system. 3,071,335, 1-1-63, Cl. 244—77.

Carter, Ernest P., to Monsanto Chemical Co. Textile impact tester. 3,083,564, 4-2-63, Cl. 73—12.

Carter, Gillian M., D. A. Everest, and R. A. Wells, to United Kingdom Atomic Energy Authority. Recovery of thorium oxalate from sulphuric acid leach liquor containing dissolved thorium rare earths and phosphate. 3,087,948, 4-30-63, Cl. 260—429.1.

Carter, Herschel B. Electrician's trim tool. 3,078,485, 2-26-63, Cl. 15—104.02.

Carter, Howard J., to Epsco, Inc. Relay control circuit. 3,097,353, 7-9-63, Cl. 340—253.

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Beveridge, Harold N., and Carter. 3,096,517.

Carter, Hugh P.: *See*—
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Carter, J Warne, to Black, Sivalls & Bryson, Inc. Apparatus for winding resin-impregnated strands on a mandrel involving a winding control pattern. 3,106,504, 10-8-63, Cl. 156—351.

Carter, John L., and I. Reingold, to United States of America, Army. Equivalent high-power pulsed microwave transmitter. 3,078,424, 2-19-63, Cl. 333—7.

Carter, John L., E. V. Edwards, I. Reingold, and D. L. Fresh, to United States of America, Army. Technique for shaping crystalline spheres. 3,103,770, 9-17-63, Cl. 51—289.

Carter, John L., and I. Reingold, to United States of America, Army. Electron discharge device. 3,112,426, 11-26-63, Cl. 315—39.

Carter, John R., to Laclede Metal Products Co. Muffler construction. 3,106,984, 10-15-63, Cl. 181—57.

Carter, John S., Jr. High speed water surface craft. 3,081,727, 3-19-63, Cl. 114—66.5.

Carter, Joseph C., R. H. Armstrong, and M. J. Janicke, to United States of America, Atomic Energy Commission. Nuclear power plant. 3,089,840, 5-14-63, Cl. 204—193.2.

Carter, Joseph E., and C. B. Goodrich, to The International Nickel Co., Inc. Method for producing nickel carbonyl. 3,076,693, 2-5-63, Cl. 23—203.

Carter, June E. Costumes. 3,074,714, 1-22-63, Cl. 272—25.

Carter, Martin F. Device for firming, grading and smoothing ground. 3,106,969, 10-15-63, Cl. 172—197.

Carter, Mary E., and L. B. Ticknor, to American Viscose Corp. Modification of cellulose with epoxypropyl amine compounds. 3,102,112, 8-27-63, Cl. 260—212.

Carter, Melvin A. System for automatically displaying illuminated pictures and delivering sound messages coordinated therewith. 3,088,996, 5-7-63, Cl. 179—1.

Carter, Morris B., R. C. Stroup, J. J. Vadla, and K. B. McGhee, to Union Carbide Corp. Process for making carbon articles. 3,092,427, 6-4-63, Cl. 18—47.5.

Carter Parts Co.: *See*—
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Carter, Paul H., T. E. Marion, and R. L. Morse, to Universal Machine Co., Inc. Machine for manufacturing novelty ice cream products. 3,070,933, 1-1-63, Cl. 53—282.

Carter, Paul H., and T. E. Marion, to Universal Machine Co., Inc. Feeder for sugar cones. 3,104,780, 9-24-63, Cl. 221—223.

Carter, Phyllis J., to Atlas Chemical Industries, Inc. Hair conditioning method. 3,090,727, 5-21-63, Cl. 167—87.

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Powell, Leo S. 3,092,656.

Carter, Ralph B., Co.: *See*—
Eyman, Ralph A. 3,077,163.

Carter, Ralph E., to General Electric Co. High density ferrites. 3,074,888, 1-22-63, Cl. 252—62.5.

Carter, Randall W., to Phillips Petroleum Co. Halogenated ethylene polymer compositions and method for preparing same. 3,086,957, 4-23-63, C. 260—45.5.

Carter, Robert C., to Collins Radio Co. Variable threshold sensing circuit. 3,106,646, 10-8-63, Cl. 307—88.5.

Carter, Robert C., and R. A. Herndon, to Collins Radio Co. Delay generator. 3,079,601, 2-26-63, Cl. 343—103.

Carter, Rollie. Variable spacing control. 3,077,668, 2-19-63, Cl. 33—81.

Carter, Sidney T., to Geo. J. Meyer Mfg. Co. Apparatus for applying wrap-around body labels to articles. 3,108,033, 10-22-63, Cl. 156—492.

Carter, Sidney T., to Geo. J. Meyer Mfg. Co. Article combining conveyor apparatus. 3,109,529, 11-5-63, Cl. 198—30.

Carter, Sidney T. Mirror system for golf analysis. 3,110,495, 11-12-63, Cl. 273—35.

Carter, Sidney T., to Geo. J. Meyer Mfg. Co. Article-straightening apparatus for use with labeling machine. 3,115,232, 12-24-63, Cl. 198—33.

Carter, Thomas F. Communication systems. 3,100,818, 8-13-63, Cl. 179—1.

Carter, Thomas J., to Baker Oil Tools, Inc. Subsurface well apparatus with packing structures. 3,100,493, 11-5-63, Cl. 166—204.
Carter, Thomas N., to Champion Paper Inc. Coating apparatus. 3,078,822, 2-26-63, Cl. 118—33.
Carter, Wilbert V., to General Dynamics Corp. Blowing leading edge flap. 3,114,519, 12-17-63, Cl. 244—12.
Carter, William A., to I-T-E Circuit Breaker Co. Uninterrupted arc chute venting path for jump gap and runner. 3,081,389, 3-12-63, Cl. 200—144.
Carter, William W. and C. F. Apparatus for harvesting subsurface crops. 3,083,776, 4-2-63, Cl. 171—101.
Carter, William W. and C. F. Vending machine. 3,100,061, 8-6-63, Cl. 221—131.
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Lemche, Johan H. 3,115,057.
Cartwright, Cecil L., and F. B. Heitmeyer. Weather indicator device. 3,105,383, 10-1-63, Cl. 73—189.
Cartwright, Horace A. Road maintenance device. 3,100,425, 8-13-63, Cl. 94—44.
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Bollum, Carl W., Sr. 3,078,939.
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Crowley, Walter A. 3,090,455.
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Sparks, William B., Matteson, and Sparks. 3,081,038.
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Cato, Carl P.: *See*—
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Caton, Walter N. Corrosion resistant valve. 3,095,902, 7-2-63, Cl. 137—554.

Cator, Edward J.: *See*—
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Cator, Edward J., to Crawford Fitting Co. Quick connect coupling. 3,104,088, 9-17-63, Cl. 251—149.6.

Cator, Edward J., to Crawford Fitting Co. Quick-connect coupling. 3,112,767, 12-3-63, Cl. 137—614.06.

Catozzo, Leo, to C.I.R.-Costruzione Incollatrici Rapide S.a.r.l. Apparatus for splicing cinematographic film 3,075,572, 1-29-63, Cl. 156—505.

Cattapan, Domenico: *See*—
Camerino, Bruno, Valcavi, Cattapan, and Patelli. 3,079,382.

Catterall, William E.: *See*—
Munley, William J., Jr., Zeager, and Catterall. 3,089,378.

Cattermole, Kenneth W., R. B. Herman, W. Bezdel, and K. S. Darton, to International Standard Electric Corp. Electric pulse modulating and demodulating circuits. 3,073,903, 1-15-63, Cl. 179—15.

Cattermole, Kenneth W., and D. R. Barber, to International Standard Electric Corp. Coding arrangements for electric pulse code modulation systems. 3,115,624, 12-24-63, Cl. 340—347.

Caubet, Jacques J. Anti-friction material. 3,079,338, 2-26-63, Cl. 252—12.

Cauchois, Antonin L., M. M. Estavoyer, and J. M. Lamazon, 25% to Commissariat a l'Energie Atomique and 75% to Societe Nationale des Petroles d'Aquitaine. Devices for manipulating radio-active articles from a distance. 3,085,825, 4-16-63, Cl. 294—86.

Cauffman, Eugene W., to Parker Feeders, Inc. Adjustable livestock feeder. 3,107,005, 10-15-63, Cl. 198—213.

Caufield, James E.: *See*—
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Caughey, Robert A., to Antrim Molding Co., Inc. Apparatus for molding wood particles. 3,078,506, 2-26-63, Cl. 18—4.

Caujolle, Fernand: *See*—
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Caulfield, Joseph R., W. E. Korth, and H. E. Neff, to Champlain Co., Inc. Continuous turnover rewind. 3,093,336, 6-11-63, Cl. 242—56.

Caulford, Donald A., and J. R. Phin, to Universal Labelling Machines Ltd. Automatic labelling apparatus. 3,097,983, 7-16-63, Cl. 156—364.

Cavagnero, Erman V.: *See*—
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Cavalcanti, Augusto C. C.: *See*—
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Cavaller, Alphonse A.: *See*—
Bunger, Dennen J., Emery, Cavaller, Ferguson, Schmider, and Alexanderson. 3,097,824.

Cavalier Corp.: *See*—
Payne, Harry R., and Rankin. 3,107,813.
Payne, Harry R., and Womack. 3,107,812.

Cavallini, Guido, and E. Massarani, to Vismara, Francesco, S.p.A. Diphenylcarbonylmethinylhydrazidoalkyl quaternary salts. 3,074,937, 1-22-63, Cl. 260—240.

Cavallini, Guido, and E. Massarani, to Francesco Vismara, S.p.A. (α-hydroxy-α-arylaminoacetyl)aryl derivatives. 3,095,443, 6-25-63, Cl. 260—471.

Cavallini, Guido, and E. Massarani, to Francesco Vismara S.p.A. Antiviral biphenylyl glyoxal process and dosage formulations. 3,097,138, 7-9-63, Cl. 167—65.

Cavallini, Guido, and E. Massarani, to Francesco Vismara S.p.A. Bis-(γ-hydroxy-α-arylaminoacetyl)-aryl derivatives. 3,116,323, 12-31-63, Cl. 260—471.

Cavallito, Chester J., to Neisler Laboratories, Inc. Uniform release process. 3,100,738, 8-13-63, Cl. 167—82.

Cavallito, Chester J., and A. P. Gray, to Neisler Laboratories, Inc. Bis-quaternary ammonium substituted alkanes. 3,107,249, 10-15-63, Cl. 260—286.

Cavanagh, Daniel A. Magnetic concentration apparatus. 3,111,484, 11-19-63, Cl. 209—227.

Cavanagh, John C., ½ to E. G. Inman. Process for the production of protein enriched material from protein-containing materials having a relatively high water content. 3,076,708, 2-5-63, Cl. 99—7.

Cavanagh, John C., ½ to E. G. Inman. Continuous counter current extractor. 3,111,393, 11-19-63, Cl. 23—269.

Cavanaugh, Arthur J.: *See*—
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Cavanaugh, Edward F.: *See*—
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Cave, Boyd D., and D. Reimann, to Reynolds Metals Co. Method for inflating hollow passageway panels. 3,092,898, 6-11-63, Cl. 29—157.3

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Caven, James J.: *See*—
Stevenson, Thomas, and Caven. 3,101,053.

Cavenah, David K. Flow rate indicator. 3,087,335, 4-30-63, Cl. 73—215.

Caveney, Jack E. Wiring binder. 3,098,271, 7-23-63, Cl. 24—16.

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Cavert, Clyde F., R. E. Hall, and E. W. Schabo, to Miller Electric Mfg. Co., Inc. Multiple purpose generator. 3,098,191, 7-16-63, Cl. 322—79.

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Balamuth, Lewis, and Kuris. 3,075,288.
Balamuth, Lewis, and Kuris. 3,086,288.
Balamuth, Lewis, and Kuris. 3,088,343.
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Kleesattel, Claus, Balamuth, and Kuris. 3,113,225.

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Cawley, James B.: *See*—
Greene, Benjamin F., Jr., Knight, Ernst, Slack, Ostroff, Cawley, and McManus. 3,109,170

Cawthon, Thomas M., D. E. Nee, Jr., and H. H. Richmond, to Allied Chemical Corp. Process for preparation and use of catalyst support. 3,072,633, 1-8-63, Cl. 260—94.9.

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Simpson, Arthur I. F., and Cawthra. 3,101,453.

Cayle, Theodore, to Baxter Laboratories, Inc. Purification of enzymes. 3,075,886, 1-29-63, Cl. 195—66.

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Cazalas, Andre L., to Compagnie pour la Fabrication des Compteurs et Materiel d'Usines a Gaz. Apparatus and method for the observation of flames. 3,075,377, 1-29-63, Cl. 158—122.

Cazaly, George W.: *See*—
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Cazier, John M., W. E. Parker, and A. Silver, to The Garrett Corp. Turbosupercharger bypass ejector. 3,104,520, 9-24-63, Cl. 60—13.

Cecala, Michael L., to The Oscar C. Rixson Co. Door operating arm and rail. 3,101,507, 8-27-63, Cl. 16—129.

Cecala, Michael L., to The Oscar C. Rixson Co. Door-operating arm for center-hung doors. 3,115,665, 12-31-63, Cl. 16—129.

Cecchini, Angelo. Temperature control means. 3,096,424, 7-2-63, Cl. 219—20.

Cecere, Emil, and J. A. Crep, to Howe Sound Co. Fracture fixation nail. 3,107,666, 10-22-63, Cl. 128—92.

Cecil, Lawrence K., and A. A. Kalinske, to Infilco Inc. Apparatus and process for continuous ion exchange. 3,084,120, 4-2-63, Cl. 210—33.

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Cedarquist, Jack W.: *See*—
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Cederberg, Carl O. and C. A. 3,085,827.

Cederberg, Carl O. and C. A. Glare shield. 3,085,827, 4-16-63, Cl. 296—97.

Cederleaf, Robert H., to Niagara Machine & Tool Works. Automatic die clamping mechanism for power presses. 3,101,639, 8-27-63, Cl. 83—698.

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Cederquist, Karl N., to Stora Kopparbergs Bergslags Aktiebolag. Method of gasifying sulphurous cellulose waste liquors. 3,073,672, 1-15-63, Cl. 23—48.

Cederquist, Karl N., and K. E. Eftring, to Stora Kopparbergs Bergslags Aktiebolag. Method for the production of neutral sulfite pulp. 3,078,208, 2-19-63, Cl. 162—68.

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Ceely, Frederick J., to Foster Wheeler Corp. Multi-fuel burner. 3,115,851, 12-31-63, Cl. 110—22.

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Ceintrey, Marcel, to Societe Chimique et Routiere de la Gironde. Asphalt-amine stabilized rubber for the paving of grounds and its method of manufacture. 3,097,179, 7-9-63, Cl. 260—28.5.

Cekan, Zdenek: *See*—
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Allman, William T., Jr., Joseph, and Higgins. 3,100,328.
Bayers, Edward A. 3,084,803.
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Cipriani, Cipriano, and Soehngen. 3,109,697.
De Fazio, Charles A., and Kray. 3,071,564.
Denyes, Russell D., and Soehngen. 3,084,384.
Dolce, Thomas J. 3,116,267.
Dolce, Thomas J., and Berardinelli. 3,103,499.
Ernst, Paul, and Fischer. 3,081,145.
Fortess, Fred, and Van Gorder. 3,077,460.
Heinz, Walter E., and MacLean. 3,077,500.
Hudgin, Donald E., and Berardinelli. 3,093,617.
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Kay, James A., and Bishop. 3,092,873.
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Kray, Raymond J., and De Fazio. 3,087,913.
Laughlin, Kenneth C., and Allen. 3,071,807.
Maglaughlin, Edward P., and Trampe. 3,097,233.
Mahoney, William R., St. Pierre, and Dunlap. 3,103,220.
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Wheeler, Edward N., Stearns, Melaas, and Gesting. 3,102,905.
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Central Electronics, Inc.: *See*—
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Central Farm Equipment Co.: *See*—
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Central Research Laboratories, Inc.: *See*—
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Central Supply Co.: *See*—
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Central Transformer Corp.: *See*—
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Centre Circuits, Inc.: *See*—
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Cerasani, Americo J., J. J. Codichini, and W. G. Lewis, to Xerox Corp. Xerographic apparatus with web cutting means. 3,075,493, 1-29-63, Cl. 118—11.

Cerasani, Americo J., and W. G. Lewis, to Xerox Corp. Xerographic reproducing apparatus. 3,076,392, 2-5-63, Cl. 95—1.7.

Cerasani, Americo J., J. J. Codichini, M. Davis, and W. G. Lewis, to Xerox Corp. Web marking and cutting apparatus for xerographic reproducing devices. 3,105,425, 10-1-63, Cl. 95—1.7.

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Ceresna, Ivan, to United Carbon Co., Inc. Carbon black preparation. 3,073,681, 1-15-63, Cl. 23—209.4.

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Cerliani, Maurizio. Rotary hook devices for sewing machines. 3,097,619, 7-16-63, Cl. 112—228.

Cerness, Joseph F., and D. H. Strong, to Clevite Corp. Method of using a sliding surface material for seals or bearings. 3,096,565, 7-9-63, Cl. 29—149.5.

Cerness, Joseph F., and B. M. Luce, to Clevite Corp. Silver lead alloy for cavitation erosion resistance. 3,097,422, 7-16-63, Cl. 29—183.5.

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Chadwick, James A., and D. D. Mason, to Slack & Parr (Marine) Ltd. Variable pitch marine screw propellers. 3,103,978, 9-17-63, Cl. 170—160.47.

Chadwick, Joseph H., Jr.: *See*—
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Chafetz, Harry, to Texaco Inc. Preparation of tertiary esters. 3,082,246, 3-19-63, Cl. 260—497.

Chafetz, Harry, and G. W. Eckert, to Texaco Inc. Motor fuel containing octane appreciator. 3,087,802, 4-30-63, Cl. 44—69.

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Chaffee, Lester F., Jr., to Sundstrand Corp. Multiple start screw machine. 3,090,283, 5-21-63, Cl. 90—11.62.

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Chaffee, Sydney H., to United Greenfield Corp. Gage handle. 3,096,589, 7-9-63, Cl. 33—178.

Chaffee, Walter C., and L. B. Harrington, to John Wood Co. Variable capacity metering dispenser. 3,113,700, 12-10-63, Cl. 222—74.

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Chafin, James M.: *See*—
Wright, John G., Chafin, and Wynn. 3,112,056.

Chafin, James M., and J. G. Wright, to The Auto-Soler Co. Heel pin extracting means. 3,083,385, 4-2-63, Cl. 12—50.5.

Chagnon, Zephir J., and R. R. Kelleher, to Albany Felt Co. Method of constructing a corrugator belt. 3,090,101, 5-21-63, Cl. 28—72.2.

Chain Belt Co.: *See*—
Carrier, Robert M., Jr., Morris, and Musschoot. 3,093,941.
Conley, Weld E., and Kopp. 3,105,589.
Glass, Gilbert W. 3,083,411.
Evans, Robley W. 3,089,253.

Chain Belt Co.: *See*—Continued
Hofmeister, William F. 3,093,578.
Hudis, Michael L., and Mihulowicz. 3,094,048.
Imse, Philip J. 3,093,235.
Klemme, William W. 3,091,325.
Larkin, Alfred F., Jr. 3,092,957.
Lendved, John W. 3,073,580.
Lendved, John W. 3,080,152.
Morris, John M. 3,095,747.
Morris, John M. 3,097,958.
Morris, John M. 3,112,653.
Morris, John M., and Carrier. 3,112,000.
Musschoot, Albert. 3,083,811.
Musschoot, Albert. 3,112,823.
Musschoot, Albert 3,112,922.
Musschoot, Albert, and Wilson. 3,087,618.
Vlail, George K., and Conley. 3,085,018.

Chain, John T.: *See*—
Banner, Robert G., Pierce, and Chain. 3,092,436.

Chainveyor Corp.: *See*—
Birkhead, Frank G. 3,079,872.

Chait, Herman N., and M. L. Kales. Field displacement circulator. 3,089,101, 5-7-63, Cl. 333—1.1.

Chaitlen, Morrie. Back rest for bathtubs. 3,078,474, 2-26-63, Cl. 4—185.

Chakiris, Demetrius G., to Metro-Mac, Inc. Electronic driving assurance system. 3,106,981, 10-15-63, Cl. 180—82.

Chakravorty, Kshitish R., and B. K. Dutta, to Sindri Fertilizers and Chemicals Ltd. Process for preparation of an ion-exchange material from the acid sludge resulting from sulphuric acid washing of crude light oils. 3,088,924, 5-7-63, Cl. 260—2.2.

Chalco Engineering Corp.: *See*—
Mills, Gerald J. 3,071,317.

Chalfin, Norman L. Automatic slide projector program control. 3,110,216, 11-12-63, Cl. 88—28.

Chalfin, William L.: *See*—
Boser, Ronald, and Chalfin. 3,101,483.

Chalfin, William L., to Wilmington Chemical & Rubber Corp. Boning. 3,085,255, 4-16-63, Cl. 2—257.

Chalfin, William L., and D. Friedwald, to Chalsea Products Co. Inc. Hair curler. 3,099,990, 8-6-63, Cl. 132—39.

Chalfin, William L., and R. Boser, to Regina Enterprises, Inc. Covered wire. 3,114,374, 12-17-63, Cl. 128—465.

Chalker, Oliver H., Jr.: *See*—
Reynolds, Andrew C., Jr., Chalker, Carragan, and Gutowski. 3,109,089.

Chalkley, Brian: *See*—
Contes, Harold, and Chalkley. 3,096,201.

Chalkley, Lyman. Photographic process. 3,071,464, 1-1-63, Cl. 96—27.

Chall, Harold J., and C. G. Olson, to Friden, Inc. Decimal point printer calculating machines. 3,107,607, 10-22-63, Cl. 101—93.

Chall, Harold J., and C. W. Wiedeman, Jr., to Friden, Inc. Calculating machine. 3,108,745, 10-29-63, Cl. 235—60.

Challacombe, Carl N.: *See*—
Rieckman, Roger A., and Challacombe. 3,076,153.

Challacombe, Carl N., and R. A. Rieckman, to United States of America, Army. Microminiature relay for transistor circuits. 3,106,624, 10-8-63, Cl. 200—97.

Challenge-Cook Bros., Inc.: *See*—
Harbers, Henry C., and Merchant. Re. 25,315.
Harbers, Henry C., and Merchant. 3,111,346.
Prichard, Evan S. 3,112,100.
Swarthout, Rassele E. 3,104,619.

Challenge Machinery Co., The: *See*—
Westra, Dan P. 3,089,356.
Westra, Dan P. 3,105,679.

Chalmers, John W., to Molins Machine Co. Ltd. Apparatus for feeding printed and like webs and cutting blanks therefrom. 3,082,924, 3-26-63, Cl. 226—71.

Chalmers, Ronald G.: *See*—
Dymott, Edwin R., and Chalmers. 3,101,646.

Chalmers, Wallace G., to Hawker Siddeley Canada Ltd. Independent rear suspension for semi-trailers. 3,078,104, 2-19-63, Cl. 280—124.

Chaloux, Marcel A.: *See*—
MacRae, Herbert N., and Chaloux. 3,094,701.

Chalsea Products Co. Inc.: *See*—
Chalfin, William L., and Friedwald. 3,099,990.

Chalup, Ludwig. Means for removal of deposits from within a spark plug. 3,110,051, 11-12-63, Cl. 15—104.01.

Chamberlain, Albert R., to Chattanooga Royal Co. Venting and air intake system for heaters. 3,105,432, 10-1-63, Cl. 98—62.

Chamberlain, Clair J. Line holder for ring buoy. 3,099,845, 8-6-63, Cl. 9—313.

Chamberlain Corp.: *See*—
Kimball, George R., and Ettan. 3,105,595.

Chamberlain, Cyril J., and J. T. Anning, to Chipman Chemical Co., Ltd. Spraying apparatus. 3,101,902, 8-27-63, Cl. 239—173.

Chamberlain & Hookham Ltd.: *See*—
Lewis, Harry S., and McGuirk. 3,109,073.
Lewis, Harry S., and McGuirk. 3,109,074.

Chamberlain, John J., and C. A. Ward, to The English Electric Co. Ltd. Two-part electrical connectors. 3,094,365, 6-18-63, Cl. 339—75.

Chamberlain, Merle D., to Koppers Co., Inc. Method of making an insulated roof. 3,094,447, 6-18-63, Cl. 156—71.

Chamberlain, Merle D., to Koppers Co., Inc. Sandwich roofing element. 3,111,787, 11-26-63, Cl. 50—83.

Chamberlain, Robert J., to Raytheon Co. Grid making machines. 3,075,561, 1-29-63, Cl. 140—71.5.

Chamberlin, Donald W., to FMC Corp. Article feeding mechanism. 3,088,577, 5-7-63, Cl. 198—32.

Chamberlin, Earl M., to Merck & Co., Inc. 21-substituted-3, 17α-dihydroxy-11,20-diketoallopregnanes and process of preparing them. 3,094,542, 6-18-63, Cl. 260—397.45.

Chamberlin, Francis E., to California Research Corp. Pipe thread lubricant. 3,114,709, 12-17-63, Cl. 252—23.

Chamberlin, Richard H.: *See*—
Sorg, Harold E., Preist, and Chamberlin. 3,078,385.

Chamberlin, Richard H., L. A. Noble, and W. H. Sain, to Eitel-McCullough, Inc. Gas flow apparatus. 3,104,960, 9-24-63, Cl. 55—158.

Chamberlin, Richard S., and R. F. Hereth, to United States of America, Navy. Dud jettisoning device. 3,086,423, 4-23-63, Cl. 89—1.7.

Chamberlin, Wellman, to National Geographic Society. Globe support and measuring device. 3,100,353, 8-13-63, Cl. 35—46.

Chambers, Arthur E. Method and apparatus for assembling and fastening laminations. 3,109,550, 11-5-63, Cl. 218—29.

Chambers, Frank C., and H. D. Mead; said Mead assor. to said Chambers. Hand cultivator. 3,111,175, 11-19-63, Cl. 172—372.

Chambers, Hubert H., and A. D. S. Tantram, to National Research Development Corp. Fuel cells. 3,099,587, 7-30-63, Cl. 136—86.

Chambers, Hubert H., and P. L. Bird, to Power Jets (Research and Development) Ltd. Treatment of porous bodies. 3,114,961, 12-24-63, Cl. 29—156.8.

Chambers, Isaac M., to Henry Miller Spring and Mfg. Co. Spring coiling machine stripper interlock. 3,101,112, 8-20-63, Cl. 153—67.

Chambers, John. Swimming pool heater. 3,090,376, 5-21-63, Cl. 126—350.

Chambers, John M., and H. D. Robinson, Jr., to Stone & Webster Engineering Corp. Purification of naphthalene by distillation. 3,075,890, 1-29-63, Cl. 202—39.5.

Chambers, Lyal C. Wheeled conveyor. 3,092,200, 6-4-63, Cl. 180—9.22.

Chambers, Marshall R. Means for boosting run-down vehicle batteries. 3,105,910, 10-1-63, Cl. 307—49.

Chambers, Robert A., R. A. Sanford, S. Patinkin, and R. L. Foster, to Sinclair Research, Inc. Process for dimerizing olefins. 3,109,869, 11-5-63, Cl. 260—683.15.

Chambers, Robert O., and A. Manna, to Caterpillar Tractor Co. Wide range planetary transmission. 3,077,795, 2-19-63, Cl. 74—764.

Chambers, Robert O., G. W. Eger, Jr., and C. A. Ramsel, to Caterpillar Tractor Co. Speed change transmission. 3,115,789, 12-31-63, Cl. 74—688.

Chambers, Robert R.: *See*—
Case, Everett N., and Chambers. 3,098,728.
Keith, Willis C., and Chambers. 3,086,991.
Patinkin, Seymour H., Sanford, and Chambers. 3,110,741.

Chambers, Roy, Jr., to California Research Corp. Oil and gas separator. 3,114,329, 12-17-63, Cl. 103—203.

Chambers, Vaughan C., Jr., to E. I. du Pont de Nemours and Co. Photographic emulsions and elements containing a water soluble mannan. 3,085,009, 4-9-63, Cl. 96—107.

Chambers, Vaughan C., Jr., to E. I. du Pont de Nemours and Co. Photographic emulsions and elements containing a water soluble laminarin. 3,085,010, 4-9-63, Cl. 96—107.

Chambers, Vaughan C., Jr., to E. I. du Pont de Nemours and Co. Photographic emulsions, elements and processes. 3,087,818, 4-30-63, Cl. 96—94.

Chambers, Victor S.: *See*—
Howland, Louis H., and Chambers. 3,095,398.

Chambers, Walter H. Portable tester for rockwell or other penetration hardness methods. 3,102,417, 9-3-63, Cl. 73—81.

Chambers, William M., to Electro-Way Corp. Spring engaged clutch. 3,106,275, 10-8-63, Cl. 192—99.

Chambers, Worthy L.: *See*—
Jepson, Ivar, and Chambers. 3,077,340.

Chambersburg Engineering Co.: *See*—
Alcorn, Robert L., Jr. 3,080,778.

Chambley, William B., to Fieldcrest Mills, Inc. Winder tending apparatus. 3,099,410, 7-30-63, Cl. 242—35.5.

Chambon, Louis J., to Societe d'Etudes de Machines Speciales. Automatic rewinding devices for webs of paper and the like. 3,091,412, 5-28-63, Cl. 242—56.

Chamouard, André, to Massey-Ferguson, S.A. Manufacture of knife blades. 3,089,352, 5-14-63, Cl. 76—101.

Champ, Marcel. Fuel feed device for explosion engines. 3,072,113, 1-8-63, Cl. 123—133.

Champagnat, Alfred, to The British Petroleum Co. Ltd. Fuel oil composition. 3,085,868, 4-16-63, Cl. 44—79.

Champagnat, Alfred, ½ to The British Petroleum Co. Ltd. Floating covers for storage tanks. 3,104,775, 9-24-63, Cl. 220—26.

Champion, Albert R.: *See*—
Jurs, Peter C., Champion, and Thule. 3,074,590.

Champion Chemicals, Inc.: *See*—
White, William S., Jr., Babb, and McGuire. 3,096,819.

Champion, Clarence M., and M. A. Ordelheide. Vacuum color divider. 3,108,539, 10-29-63, Cl. 101—425.

Champion, Elizabeth B.: *See*—
Harris, William B., Jr., and Champion. 3,105,990.

Champion, James E.: *See*—
Powell, Robert J., and Champion. 3,094,836.

Champion Papers Inc.: *See*—
Carter, Thomas N. 3,078,822.
Judd, Harold. 3,112,178.
Randall, Herbert T. 3,115,438.
Warner, Edgar. 3,084,663.
Wolff, Edmund A. 3,108,977.

Champion Spark Plug Co.: *See*—
Teasel, Richard C., and Buckley. 3,095,743.

Champion, Ward M., to Air Reduction Co., Inc. Leak detection. 3,085,423, 4-16-63, Cl. 73—40.5.

Champlain Co., Inc: *See*—
Auer, Frederick G., and Sorkin. 3,102,471.
Caulfield, Joseph R., Korth, and Neff. 3,093,336.
Fischer, Paul E., and Neff. 3,085,457.

Champlin, David L., and J. S. Pollock, to Eastman Kodak Co. Guide mechanism for a web. 3,113,709, 12-10-63, Cl. 226—199.

Champney, Ralph P., deceased; by C. C. Matheny, executor. Tilting transom drive mechanism. 3,088,430, 5-7-63, Cl. 115—41.

Champoux, Louis, and G. Siebol, to Boeing Airplane Co. Lock bolt sealing collar and method of installing the same. 3,094,017, 6-18-63, Cl. 78—46.

Chan, Andre D. H., and R.-E. Lambert, to Compagnie de Saint-Gobain. Tempered glass sheet or plate. 3,081,209, 3-12-63, Cl. 154—57.

Chan, Frank L. X-ray camera attachment. 3,079,500, 2-26-63, Cl. 250—51.5.

Chan, Gim P., to Smith-Corona Marchant Inc. Program unit. 3,072,238, 1-8-63, Cl. 197—1.

Chan, William: *See*—
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Chanaryn, Victor, P. S. Jeavons, and P. R. Pickard, to Wilmot-Breeden Ltd. Releasable fastening devices. 3,073,638, 1-15-63, Cl. 292—226.

Chanaryn, Victor, and K. P. Pugh, to Wilmot-Breeden Ltd. Releasable fastening devices. 3,095,226, 6-25-63, Cl. 292—221.

Chanaryn, Victor, and G. A. Habgood, to Wilmot-Breeden Ltd. Releasable fastening devices. 3,116,082, 12-31-63, Cl. 292—224.

Chance, A. B., Co.: *See*—
Bridges, Ronald P. 3,076,076.
Hollander, William L. 3,080,749.
Hubbard, David C., and Weitkemper. 3,095,223.
McAuley, Anthony. 3,098,638.
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Chance, Walter J. Sampler. 3,073,167, 1-15-63, Cl. 73—425.2.

Chance, Walter R., to Continental Copper & Steel Industries, Inc. (Welin Davit and Boat Division). Plastic boat construction. 3,101,489, 8-27-63, Cl. 9—3.

Chancellor, Charles W., Jr. Chair with double pivot spring assembly. 3,093,413, 6-11-63, Cl. 297—284.

Chandler, Charles H., to United States of America, Air Force. Interference removal device with revertive and progressive gating means for setting desired signal pattern. 3,072,855, 1-8-63, Cl. 328—165.

Chandler, Edward F. Reaction automotor. 3,087,451, 4-30-63, Cl. 114—20.

Chandler-Evans Corp.: *See*—
Chandler, Milton E., and Wright. 3,108,435.
Dineen, John J. 3,109,583.

Chandler, Frederick G.: *See*—
Bloor, James H., and Chandler. 3,097,327.

Chandler, James F., R. C. Figlewicz, and J. L. Rennick, to Zenith Radio Corp. Magnetic compensator. 3,106,658, 10-8-63, Cl. 313—17.

Chandler, John, Jr., L. C. Holly, and J. L. Vilbig, Jr., to Texas Instruments Inc. Ferrite phase shifter having casing-supported thin-foil waveguide, with magnetising pole pieces penetrating the casing. 3,101,458, 8-20-63, Cl. 333—24.2.

Chandler, Milton E., and A. M. Wright, to Chandler-Evans Corp. Fuel control system. 3,108,435, 10-29-63, Cl. 60—39.16.

Chandler, Norman H., to Thor Mills Ltd. Process and apparatus for dyeing silver. 3,093,867, 6-18-63, Cl. 19—66.

Chandler & Price Co., The: *See*—
Rupp, William C. 3,111,876.

Chandler, Robert M., to E. I. du Pont de Nemours and Co. Process of making a knitted fabric. 3,115,693, 12-31-63, Cl. 28—72.

Chandler, Robert W.: *See*—
Guy, Kenneth T., and Chandler. 3,092,132.

Chaney, Clifford R., to Harper Hosiery Mills, Inc. Method for producing run-resistant seamless hosiery and hosiery produced thereby. 3,071,950, 1-8-63, Cl. 66—178.

Chaney, Davis R., and R. A. Anderson. Mobile hopper and screw conveyor pickup, loading and unloading means therefor. 3,089,601, 5-14-63, Cl. 214—522.

Chaney, Earl J. Method of producing plants containing substantially no assimilated nickel ions. 3,107,163, 10-15-63, Cl. 71—1.

Chaney, Preston E.: *See*—
Bennett, John D., and Chaney. 3,085,636.

Chaney, Preston E., to Sun Oil Co. Closure means for withstanding high pressures. 3,074,589, 1-22-63, Cl. 220—46.

Chaney, Preston E., F. M. Mayes, and J. D. Bennett, to Sun Oil Co. Bore hole logging methods and apparatus. 3,086,167, 4-16-63, Cl. 324—1.

Chaney, Preston E., F. M. Mayes, and J. W. Jones, to Sun Oil Co. Methods and apparatus for transmitting records. 3,096,401, 7-2-63, Cl. 179—15.

Chang, Charles H., to General Aniline & Film Corp. Method for preparing bis(2-alkoxyethyl)sulfones. 3,095,457, 6-25-63, Cl. 260—607.

Chang, Hung-Chi, to Westinghouse Electric Corp. Surface treatment of silicon carbide. 3,078,219, 2-19-63, Cl. 204—143.

Chang, Hung-Chi, to Westinghouse Electric Corp. Producing diffused junctions in silicon carbide. 3,082,126, 3-19-63, Cl. 148—1.5.

Chang, Kern K. N., to Radio Corp. of America. Solid state traveling wave parametric amplifier. 3,092,782, 6-4-63, Cl. 330—5.

Chang, Kern K. N., to Radio Corp. of America. Diode traveling wave parametric amplifier. 3,096,485, 7-2-63, Cl. 330—4.6.

Chang, Melvin C., and D. Goldstein, to Crucible Steel Co. of America. Temperature control apparatus. 3,095,463, 6-25-63, Cl. 261—130.

Chang, Robert W. H., to General Mills, Inc. Nickel complex of glutamine dihydrate and method for purification of glutamine. 3,084,189, 4-2-63, Cl. 260—534.

Chang, Sing-Wu. Anti-skid textile shoe sole structures. 3,110,971, 11-19-63, Cl. 36—59.

Chang, Stephen S., to A. E. Staley Mfg. Co. Oxyalkylated lecithin. 3,085,100, 4-9-63, Cl. 260—403.

Chang, Stephen S., and L. H. Wiedermann, to Swift & Co. Continuous manufacture of monoglycerides. 3,079,412, 2-26-63, Cl. 260—410.7.

Chang, Winston H., and J. W. Clark, to General Electric Co. Columbium base alloy. 3,113,863, 12-10-63, Cl. 75—174.

Change-ares Ltd.: *See*—
Dowdall, Lawrence W. 3,115,254.

Chanin, Milton: *See*—
Cvjetkovic, Antun M., and Chanin. 3,105,414.

Chann, David: *See*—
Hawn, Walter M., Chann, Besal, and Vesely. 3,098,114.

Channel Master Corp.: *See*—
Anderson, Warner H. Re. 25,437.
Greenberg, Harry. 3,086,206.

Chantooni, Arsen M. Means for processing fluids. 3,108,066, 10-22-63, Cl. 210—321.

Chao, Pao J., and G. P. K. Chu, to Pfaudler Permutit Inc. Method of chromizing. 3,108,013, 10-22-63, Cl. 117—107.2.

Chapdelaine, Eugene G.: *See*—
Bellinger, Kenneth P., and Chapdelaine. 3,072,516.

Chapehart Corp.: *See*—
Bennett, Herbert S. 3,081,439.

Chapell, Harry F., to Raytheon Co. Delay lines for traveling wave tubes. 3,084,275, 4-2-63, Cl. 315—3.6.

Chapin, Daryl M., to Bell Telephone Laboratories, Inc Telemetering system. 3,072,894, 1-8-63, Cl. 340—200.

Chapin, Daryl M., and N. D. Newby, to Bell Telephone Laboratories, Inc. Remote meter reading system. 3,083,357, 3-26-63, Cl. 340—204.

Chapin, Earl C.: *See*—
Abramo, John G., and Chapin. 3,073,862.
Abramo, John G., and Chapin. 3,074,995.
Abramo, John G., and Chapin. 3,093,622.
Abramo, John G., and Chapin. 3,093,676.
Garner, Albert Y., Chapin, and Abramo. 3,075,011.

Chapin, Earl C., B. A. Wilson, and W. F. Yates, to Monsanto Chemical Co. Interpolymers of allyl alcohol, vinyl chloride and acrylic esters, process of preparing same and coating composition therefrom. 3,084,136, 4-2-63, Cl. 260—45.2.

Chapin, Henry J.: *See*—
Avery, Howard S., and Chapin. 3,075,838.

Chapin, Richard D. Potted plant watering device. 3,085,364, 4-16-63, Cl. 47—1.

Chapin, Robert S., to E. I. du Pont de Nemours and Co. Method for making a high flannel cover fabric of synthetic organic fibers. 3,114,191, 12-17-63, Cl. 28—76.

Chapiro, Adolphe: *See*—
Magat, Michel, Chapiro, and Sebban. 3,115,418.

Chapleau, Richard J. Device for crushing containers. 3,106,888, 10-15-63, Cl. 100—232.

Chapleur, Andre, and B. Schoeps, to Forges de Strasbourg. Method of welding galvanized steel. 3,102,190, 8-27-63, Cl. 219—117.

Chaplin, Albin, and V. C. Reddy, to General Motors Corp. Gear pump for internal combustion engine and the like. 3,096,849, 7-9-63, Cl. 184—6.

Chaplin, George F., to Continental Can Co., Inc. Closure cap for glass containers. 3,110,409, 11-12-63, Cl. 215—40.

Chaplin, Roland H., to Hawker Aircraft Ltd. Aircraft. 3,098,628, 7-23-63, Cl. 244—83.

Chapman, Albert L., to United States of America, Health, Education and Welfare. Medicine cabinet latch. 3,087,765, 4-30-63, Cl. 312—209.

Chapman, Charles H., to Hercules Powder Co. Aqueous emulsions of waxes and resins. 3,096,232, 7-2-63, Cl. 162—172.

Chapman, Charles S., and R. W. Craig, to General Motors Corp. Drive axle transmission. 3,075,408, 1-29-63, Cl. 74—677.

Chapman, Charles S., Jr., to General Motors Corp. Vehicle drive and starting transmissions. 3,077,115, 2-12-63, Cl. 74—7.

Chapman, Charles S., Jr., and R. W. Craig, to General Motors Corp. Brake systems. 3,110,363, 11-12-63, Cl. 188—69.

Chapman, Christopher L. C., to Yardney International Corp. Electric batteries. 3,100,165, 8-6-63, Cl. 136—177.

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Chapman, Donald D., and J. P. Swed, to E. I. du Pont de Nemours and Co. Process for separating individual metallic layers of a hollow multilayered object. 3,089,230, 5-14-63, Cl. 29—403.

Chapman, Douglas W.: *See*—
Madsen, Mathew D., and Chapman. 3,082,202.
Wiegert, Philip E., Rands, and Chapman. 3,073,814.

Chapman, Frank R. Gutter mounting. 3,115,324, 12-24-63, Cl. 248—48.2.

Chapman, Harold E. Containers or packages. 3,092,249, 6-4-63, Cl. 206—46.

Chapman, Harold E. Containers for the aceptic storage of liquids. 3,112,045, 11-26-63, Cl. 220—44.

Chapman, Harry V., to The Elmco Corp. Lever lock. 3,075,401, 1-29-63, Cl. 74—531.

Chapman, Harvey W.: *See*—
Dunlap, Henry L., and Chapman. 3,073,260.

Chapman, Harvey W., and H. L. Dunlap, to Evans Products Co. Freight bracing apparatus. 3,074,359, 1-22-63, Cl. 105—369.

Chapman, Howard D., to Clarin Mfg. Co. Chair. 3,084,977, 4-9-63, Cl. 297—239.

Chapman, James R., and M. F. Nagle, to Reynolds Metals Co. Package marking system. 3,086,650, 4-23-63, Cl. 206—65.

Chapman, James R., and M. T. Farquhar, to Reynolds Metals Co. Plural container package and method of making the same. 3,111,221, 11-19-63, Cl. 206—65.

Chapman, John H., to Jersey Production Research Co. Single tubing string dual installation. 3,083,771, 4-2-63, Cl. 166—146.

Chapman, John F., J. H. Cundall, and J. A. Partridge, to Imperial Chemical Industries Ltd. Manufacture of polymeric materials. 3,094,434, 6-18-63, Cl. 117—106.

Chapman, Julian. Barbell weight mold assembly. 3,108,329, 10-29-63, Cl. 18—36.

Chapman, Robert Y. Acoustic resonant cabinet. 3,072,212, 1-8-63, Cl. 181—31.

Chapman, Ronald W.: *See*—
Dillie, Roger M., Chapman, Ahlborn, and Eastman. 3,095,453.

Chapman, Ronald W., and R. M. Dille, to Texaco Inc. Method of preparing acetaldehyde from acetylene. 3,116,333, 12-31-63, Cl. 260—605.

Chapman, William L., to Chrysler Corp. Adjustable nozzle ring support. 3,074,689, 1-22-63, Cl. 253—78.

Chapman, William P., to Johnson Service Co. Casing for condition-sensing element. 3,115,039, 12-24-63, Cl. 73—363.5.

Chappell, Thomas T.: *See*—
Von Wranau, Guido, and Phillips. 3,095,311.

Chappell, William A.: *See*—
McLean, Robert E., Chappell, and Briar. 3,078,568.

Chapron, Georges. Supporting framework for a mine gallery or shaft. 3,097,494, 7-16-63, Cl. 61—45.

Charbonneau, Allan P., to Cutler-Hammer, Inc. Helix forming means. 3,090,419, 5-21-63, Cl. 153—64.

Charbonneau, Allan P., and R. A. Mukai, to Cutler-Hammer, Inc. Limit switch. 3,100,824, 8-13-63, Cl. 200—47.

Charbonneau, Robert R.: *See*—
Fram, Paul, and Charbonneau. 3,079,367.

Charbonneaux, Wilson A., to WacLine, Inc. Galvanometer with discrete liquid globule damping means. 3,102,233, 8-27-63, Cl. 324—125.

Charbonnier, Francis M.: *See*—
Dyke, Walter P., Henderson, and Charbonnier. 3,091,719.

Charbonnier, Roger, to Rochar Electronique. Pulse counting and display device. 3,080,501, 3-5-63, Cl. 315—84.5.

Charcoal Industries, Inc.: *See*—
Thomsen, Svend. 3,110,652.

Chard, Clifford R. Anchor. 3,082,729, 3-26-63, Cl. 114—208.

Charge-A-Vision International Ltd.: *See*—
Harnett, Charles R. 3,109,883.

Charland, Telesphore L., and R. H. Moss, to Westinghouse Electric Corp. Process for the preparation of thermoelectric elements. 3,086,048, 4-16-63, Cl. 136—5.

Charles, Daniel, to Compagnie Generale de Telegraphie Sans Fil. Electron gun for traveling-wave tubes with a transverse magnetic field. Re. 25,343, 3-5-63, Cl. 315—3.5.

Charles, George E.: *See*—
Eldib, Ibrahim A., Charles, and Baeder. 3,088,907.

Charles, Harold H., to Reynolds Metals Co. Double-locking strip shingle. 3,108,405, 10-29-63, Cl. 50—230.

Charles, Maynard G., to Aeroquip Corp. Valved coupling. 3,106,222, 10-8-63, Cl. 137—614.

Charles, Randolph E. Precision potentiometer. 3,076,161, 1-29-63, Cl. 338—157.

Charles of The Ritz, Inc.: *See*—
Dearling, Harry S. 3,103,224.

Charles-Georges, Andre J. P.: *See*—
Borne, Jean P. G., and Charles-Georges. 3,074,635.

Charlesworth, Donald H., to Atomic Energy of Canada Ltd. Means for detecting insulation failure in reactor pressure tubes. 3,085,961, 4-16-63, Cl. 204—193.2.

Charley, Philip J.: *See*—
Saltman, Paul D., and Charley. 3,074,927.

Charlton, George H., and E. L. Allen, to Power Jets (Research and Development) Ltd. Jet deflecting flap for a jet flap aircraft. 3,076,622, 2-5-63, Cl. 244—42.

Charlton, Roy E., to Northrop Corp. Adjustable support pin. 3,072,423, 1-8-63, Cl. 287—20.

Charman, Walter M., Jr., and B. F. Anthony, to Oglebay Norton Co. Hot top ring, wiper, clip unit combination. 3,106,001, 10-8-63, Cl. 22—147.

Charnetsky, Harry, Jr.: *See*—
Maclay, William R., and Charnetsky. 3,086,088.

Charnetsky, Harry, Jr., and W. R. Maclay, to International Business Machines Corp. Apparatus for manifesting intelligence on record media. 3,072,752, 1-8-63, Cl. 179—100.2.

Charnota, Steven, and A. F. Wolf. Liquid metering valve unit. 3,097,762, 7-16-63, Cl. 222—20.

Charon, Clarence W., and L. C. Renaud, to Owens-Corning Fiberglas Corp. Amylaceous forming size compositions. 3,108,891, 10-29-63, Cl. 106—213.

Charos, Peter. Thermoelectric cooler arrangement for roller mixer freezers. 3,096,624, 7-9-63, Cl. 62—3.

Charpentier, Maurice: *See*—
Levecque, Marcel, and Charpentier. 3,084,381.
Levecque, Marcel, and Charpentier. 3,084,525.
Levecque, Marcel, Mabru, and Charpentier. 3,114,618.

Charpentier, Maurice, and M. Mabru, to Compagnie de Saint-Gobain. Apparatus for manufacturing fibers. 3,078,691, 2-26-63, Cl. 65—12.

Charrin, Denis, to Societe de Prospection Electrique Procedes Schlumberger. Perforating shaped charges. 3,079,861, 3-5-63, Cl. 102—24.

Charron, Antonio P., and W. D. McKeon, to United Shoe Machinery Corp. Stitch separating machines. 3,075,211, 1-29-63, Cl. 12—32.1.

Charschan, Sidney S., to Western Electric Co., Inc. Means for securing conductive leads to semiconductive devices. 3,103,137, 9-10-63, Cl. 78—82.

Charske, Charles J.: *See*—
Ball, John D., Charske, and Mounce. 3,100,444.

Chartier, Guy N. Load moving device. 3,091,432, 5-28-63, Cl. 254—69.

Chart-Pak Inc.: *See*—
Bond, Elizabeth A., Gold, and Marren. 3,099,089.

Charvat, Fedia R., to Union Carbide Corp. Recovering magnesium-aluminum spinel from ferro-chromium slag. 3,106,447, 10-8-63, Cl. 23—52.

Charvat, Fedia R., to Union Carbide Corp. Fused refractory grain. 3,116,156, 12-31-63, Cl. 106—59.

Charvat, Fedia R., and A. D. Fentzke, to Union Carbide Corp. Glass fiber composition. 3,081,179, 3-12-63, Cl. 106—50.

Charvat, Vernon K., to The Osborn Mfg. Co. Brush and brush material. 3,090,061, 5-21-63, Cl. 15—159.

Charvat, Vernon K., to The Osborn Mfg. Co. Self-regulating brushing tool. 3,114,925, 12-24-63, Cl. 15—179.

Chase, Ascher, to General Foam Plastics Corp. Semicylindrical foam elastomer insulation shell. 3,095,337, 6-25-63, Cl. 154—45.

Chase Bag Co.: *See*—
Means, John W., and Daniels. 3,076,592.
Schroeder, Wayne A. 3,074,325.

Chase, Clyde H. Door closing device. 3,094,738, 6-25-63, Cl. 16—49.

Chase, Corson W., W. J. Jasinowski, and A. V. Pedersen, to Miehle-Goss-Dexter, Inc. Web splicing apparatus. 3,098,618, 7-23-63, Cl. 242—58.3.

Chase, David R., and H. A. Michaelis, to General Electric Co. Cooking appliance. 3,077,530, 2-12-63, Cl. 219—38.

Chase, George, to Hoffmann-La Roche Inc. Process for the purification of 7-chloro-1-methyl-5-phenyl-1,4-3H-benzodiazepin-2(1H)-one. 3,102,116, 8-27-63, Cl. 260—239.3.

Chase Industries, Inc.: *See*—
Fritz, Rudolph A. 3,099,438.

Chase, John A., to Radio Corp. of America. Method of assembling a heater mount. 3,103,738, 9-17-63, Cl. 29—155.55.

Chase, Joseph J., and N. J. Connavino, to Turbotronics Corp. Contour measuring and checking instrument. 3,078,583, 2-26-63, Cl. 33—174.

Chase, Paul W., R. L. Howard, and J. W. Stoddard, to United States of America, Navy. Sun seeker. 3,078,372, 2-19-63, Cl. 250—203.

Chase, Robert L., to United States of America, Atomic Energy Commission. Multiplier circuit. 3,088,671, 5-7-63, Cl. 235—194.

Chase, Walter E., to Johnson & Johnson. Platy talc beneficiation. 3,102,856, 9-3-63, Cl. 209—166.

Chasek, Norman E., to Bell Telephone Laboratories Inc. Frequency modulated balanced discriminator. Re. 25,436, 8-27-63, Cl. 329—141.

Chasek, Norman E., to Bell Telephone Laboratories, Inc. Electron beam encoder. 3,110,840, 11-12-63, Cl. 315—8.5.

Chasek, Norman E., to Bell Telephone Laboratories, Inc. Coherent carrier regenerator. 3,110,862, 11-12-63, Cl. 325—30.

Chase-Shawmut Co., The: *See*—
Hallas, Harry H. 3,092,715.
Jacobs, Philip C., Jr. 3,113,193.
Kozacka, Frederick J. 3,080,463.
Kozacka, Frederick J. 3,094,600.
Kozacka, Frederick J. 3,113,195.

Chasman, Sydney A. Apparatus for encapsulating. 3,092,942, 6-11-63, Cl. 53—182.

Chasmar, Reginald P., and E. Cohen, to Associated Electrical Industries (Manchester) Ltd. Device for multiplying electrical quantities. 3,097,296, 7-9-63, Cl. 235—194.

Chatfield, Henry B. Punch and die assembly. 3,108,502, 10-29-63, Cl. 78—9.

Chatfield, Herbert W., to A. Boake Roberts & Co. Ltd. Process of converting free carboxylic acid groups in liquid ester coating compositions to half-ester groups with retention of the coating composition in the liquid state. 3,086,949, 4-23-63, Cl. 260—22.

Chatham, George N., and O O Shurtleff, to Chatleff Controls, Inc. Fluid pressure operated valves. 3,096,790, 7-9-63, Cl. 137—628.

Chatham, George N., and O O Shurtleff, to Chatleff Controls, Inc. Diverting value. 3,099,290, 7-30-63, Cl. 137—607.

Chatham Mfg. Co.: *See*—
Smith, Alexander M., II. 3,090,099.
Smith, Alexander M., II. 3,090,100.
Smith, Alexander M., II. 3,112,548.
Smith, Alexander M., II. 3,112,549.
Smith, Alexander M., II. 3,112,552.

Chatillon, John, & Sons: *See*—
Chatillon, John F. 3,081,640.
Chatillon, John F. 3,081,835.

Chatillon, John F., to John Chatillon & Sons. Movement multiplying mechanism. 3,081,640, 3-19-63, Cl. 74—110.

Chatillon, John F., to John Chatillon & Sons. Scale. 3,081,835, 3-19-63, Cl. 177—229.

Chatleff Controls, Inc.: *See*—
Chatham, George N., and Shurtleff. 3,096,790.
Chatham, George N., and Shurtleff. 3,099,290.

Chatlos, Edward S., to The McIntire Co. Liquid-moisture indicator. 3,108,566, 10-29-63, Cl. 116—117.

Chatt, Joseph, and R. G. Hayter, to Imperial Chemical Industries Ltd. Phosphorous-containing-ligand stabilized transition metal compounds. 3,084,179, 4-2-63, Cl. 260—429.

Chatt, Joseph, F. A. Hart, and H. C. Fielding, to Imperial Chemical Industries Ltd. Bis(dialkylphosphino)acetylenes and 1:2-bis(dialkylphosphino)ethylenes. 3,086,054, 4-16-63, Cl. 260—606.5.

Chatt, Joseph, and P. A. Small, to Imperial Chemical Industries Ltd. Polymerization catalysts and processes. 3,109,838, 11-5-63, Cl. 260—93.7.

Chattanooga Royal Co.: *See*—
Chamberlain, Albert B. 3,105,432.

Chatten, John B., to Philco Corp. Self-limiting photomultiplier amplifier circuit. 3,089,959, 5-14-63, Cl. 250—207.

Chatten, John B., to Philco Corp. Control of chroma channel by low intensity brightness signals. 3,107,275, 10-15-63, Cl. 178—5.4.

Chatten, Victor H., to Anheuser-Busch, Inc. Article carrier. 3,106,289, 10-8-63, Cl. 206—65.

Chaudet, Julian H.: *See*—
Newland, Gordon C., and Chaudet. 3,096,302.

Chauncey, Fred A.: *See*—
Bloom, Charles G., and Chauncey. 3,085,432.

Chauncey, Irving A.: *See*—
Bloom, Charles G., and Chauncey. 3,085,432.

Chauncey, James R.: *See*—
Bloom, Charles G., and Chauncey. 3,085,432.

Chausson, Andre, to Societe Anonyme des Usines Chausson. Clack-valve plug, more particularly for cooling radiators of motor vehicles. 3,080,994, 3-12-63, Cl. 220—44.

Chausson, Andre, to Societe Anonyme des Usines Chausson. Evaporation heat exchanger. 3,100,386, 8-13-63, Cl. 62—467.

Chausson, André, to Societe Anonyme des Usines Chausson. Device for soldering various parts. 3,108,559, 10-29-63, Cl. 113—94.

Chausson Societe Anonyme des Usines: *See*—
Chausson, Andre. 3,080,994.

Chaussy, Pern J., to E. I. du Pont de Nemours and Co. Yarn traversing apparatus. 3,089,657, 5-14-63, Cl. 242—43.

Chauvelot, Albert. Drawing-table. 3,087,276, 4-30-63, Cl. 45—131.

Chavannes Industrial Synthetics, Inc.: *See*—
Gilbert, Geoffrey. 3,072,961.

Chavrler, Roger, to Societe Francaise des Glycerines. Method for improving the viscosity of natural clays. 3,115,416, 12-24-63, Cl. 106—72.

Chayen, Israel H., to C.C.D. Processes (N.Y.) Ltd. Method of extracting protein and lipid from raw vegetable materials. 3,090,779, 5-21-63, Cl. 260—112.

Chayne, Charles A., to General Motors Corp. Brake pedal assembly. 3,097,542, 7-16-63, Cl. 74—560.

Chayne, Charles A., and V. D. Polhemus, to General Motors Corp. Single leaf spring semi-swing axle suspension. 3,108,650, 10-29-63, Cl. 180—73.

Cheal, James: *See*—
Augustine, Carroll F., McHenry, and Cheal. 3,081,440.
Augustine, Carroll F., McHenry, and Cheal. 3,092,793.

Cheatle, Hazel S. R.: *See*—
Bishop, Thomas D., and E. L. 3,105,681.

Cheatum, Leo G., and C. W. Meinders, to Deere & Co. Tying mechanism. 3,082,798, 3-26-63, Cl. 140—115.

Check, Mathias M., to The Yale and Towne Mfg. Co. Sliding door lock. 3,074,749, 1-22-63, Cl. 292—27.

Check, Mathias M., to The Yale and Towne Mfg. Co. Combination push button lock. 3,099,150, 7-30-63, Cl. 70—313.

Checker Motors Corp.: *See*—
May, Vivian G. 3,094,347.
Checketts, Jack H., and G. D. La Tell, to International Business Machines Corp. Sheet orienting and aligning mechanism. 3,104,099, 9–17–63, Cl. 271—27.
Chedister, Conkling. Driver training apparatus. 3,071,874. 1–8–63, Cl. 35—11.
Ched-O-Matic Corp.: *See*—
Leber, Henry. 3,078,170.
McCadam, William W. 3,078,169.
Cheek, Alan W., to North American Aviation, Inc. Waveform generator. 3,115,546, 12–24–63, Cl. 178—7.2.
Cheek, Willard D., and H. K. Willcox, Jr., to General Motors Corp. Method of measuring a variable condition by use of short half-life radioactive source material. 3,106,641, 10–8–63, Cl. 250—83.3.
Cheeley, William E., to Reynolds Metals Co. Rimmed-plate dispenser. 3,074,594, 1–22–63, Cl. 221—93.
Cheeseboro, Robert G., to Febco, Inc. Rotary sprinkler. 3,090,563, 5–21–63, Cl. 239—206.
Cheeseman, Ian C.: *See*—
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Cheeseman, Ian C., and C. E. Moss, to Power Jets (Research Development) Ltd. Aircraft. 3,096,041, 7–2–63, Cl. 244—7.
Cheesman, William D. Barrel finishing. 3,071,456, 1–1–63, Cl. 51—316.
Cheftel, Henri, and M. Beauvais. Sterilizing method for canned foodstuffs. 3,071,478, 1–1–63, Cl. 99—214.
Cheifetz, Howard L.: *See*—
Look, Melvin, and Cheifetz. 3,085,115.
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Wagner, Adelbert. 3,092,387.
Chelle, Louise G.: *See*—
Chelle, Paul L. 3,091,065.
Chelle, Marie T. J.: *See*—
Chelle, Paul L. 3,091,065.
Chelle, Paul L., deceased; L. G. Chelle, donee; and P. J. L. and M. T. J. Chelle, heirs. Packaging and packing machine. 3,091,065, 5–28–63, Cl. 53—171.
Chelle, Pierre J. L.: *See*—
Chelle, Paul L. 3,091,065.
Chellis, Fred F., P. E. Glaser, and R. J. Ayling, to The Strong Electric Corp. Arc image furnace. 3,103,574, 9–10–63, Cl. 219—34.
Cheltenham Auto Controls Ltd.: *See*—
Hallett, Henry A. 3,094,863.
Hallett, Henry A., and Young. 3,073,097.
Chelwin Productions, Inc.: *See*—
Winchell, Paul. 3,079,160.
Winchell, Paul. 3,097,366.
Winchell, Paul. 3,110,424.
Winchell, Paul. 3,110,501.
Chem Research Co.: *See*—
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Chemagro Corp.: *See*—
Alchenegg, Paul C. 3,109,032.
Earhart, Robert W., Alchenegg, and Hensel. 3,095,350.
Rattenbury, Kenneth H., Levy, and Zakaryan. 3,074,946.
Trademan, Leo, and Yagelowich. 3,089,807.
Chematur, Aktiebolaget: *See*—
Samuelsen, Elrik. 3,087,973.
Chemerda, John M.: *See*—
Christensen, Burton G., Hirschmann, and Chemerda. 3,087,925
Cutler, Frank A., Jr., and Chemerda. 3,116,290.
Tull, Roger J., and Chemerda. 3,092,642.
Chemerda, John M., and A. E. Erickson, to Merck & Co., Inc. Production of 11β,17α-dihydroxy-1-methyl-17β-(1-oxo-2-hydroxyethyl)-4-estren-3-one and 11β,17α-dihydroxy-1-methyl-17β(1-oxo-2-hydroxyethyl)-4,6-estradiene-3-one and esters thereof. 3,074,934, 1–22–63, Cl. 260—239.55.
Chemerda, John M., M. Sletzinger, and F. W. Bollinger, to Merck & Co., Inc. α-hydrazino β-(5-hydroxy-3-indolyl) alkanoic acids. 3,075,993, 1–29–63, Cl. 260—319.
Chemerda, John M., and R. F. Hirschmann, to Merck & Co., Inc. A-ring modified steroids and processes for preparing same. 3,079,383, 2–26–63, Cl. 260—239.55.
Chemerda, John M., and R. F. Hirschmann, to Merck & Co., Inc. Novel 2-alkoxy steroids and processes for preparing the same. 3,083,198, 3–26–63, Cl. 260—239.55.
Chemetals Corp.: *See*—
Olson, George G., Long, and Heinink. 3,104,971.
Chemetron Corp.: *See*—
Albrecht, William J., and Minard. 3,073,359.
Ansel, Richard M. 3,081,673.
Arnold, Melvin R. 3,098,882.
Arnold, Melvin R., McCarthy, and Dienes. 3,075,915.
Barton, Daniel M., and Haggerty. 3,108,137.
Bottoms, Robert R. 3,078,316.
Dann, Otto. 3,099,660.
De Wald, Lee H., and Lapota. 3,089,766.
Eichelman, Francis J. 3,075,523.
Eichelman, Francis J. 3,075,545.
Eichelman, Francis J., and Smiley. 3,086,528.
Evans, Bruce M., and Adams. 3,072,781.
Evans, Bruce M., and Adams. 3,107,291.
Gottschalk, Roy F. 3,087,808.
Hanover, Kenneth A. 3,109,018.
Harnik, Marcel. 3,076,824.
Harnik, Marcel. 3,096,327.
Harnik, Marcel. 3,096,352.
Harnik, Marcel. 3,096,354.
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Highley, Everett L. 3,100,471.
Illsley, Ralph W. 3,076,487.
Illsley, Ralph W., Schmidt, Highley, and Hutchins. 3,076,488.
Israel, Philip. 3,077,360.
Minard, Everett S. 3,097,672.
Rodgers, Felix C. 3,097,499.
Schmidt, Chester W., Highley, and Hutchins. 3,076,489.
Slattery, Robert E. 3,090,170.
Vance, Robert F., and Strotman. 3,104,228.
Williams, David A. 3,093,973.
Williams, David A. 3,097,498.
Williams, David A., and Browning. 3,109,293.
Williamson, Hilding V., and Wolfe. 3,109,296.
Chemical Cleaning, Inc.: *See*—
Gardner, George S. 3,074,825.
Chemical Construction Corp.: *See*—
Bresler, Sidney A., and Francis. 3,101,996.
Cook, Lucien H., and Fidler. 3,091,637.
James, George R. 3,071,453.
Konlewiez, Paul, and James. 3,087,798.
Negra, John S., and McCloskey. 3,087,778.
Newman, Daniel J. 3,102,788.
Pike, Daniel E., and Stone. 3,085,793.
Chemical Design, Inc.: *See*—
Meyer, James R. 3,103,425.
Chemical Development of Canada, Ltd.: *See*—
Menkart, John H., and Allan. 3,072,635.
Chemical and Industrial Corp., The: *See*—
Carr, Dugald M., and Striggles. 3,101,255.
Smith, Benjamin G. 3,092,489.
Chemical Processes of Ohio Inc.: *See*—
Wentworth, Theodore O., and Nisbet. 3,107,145.
Chemical Products Corp.: *See*—
Hogan, Edward F. 3,113,514.
Chemical Research Laboratories of America, Inc.: *See*—
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Chemical Sales, Inc.: *See*—
Lipschutz, Sidney, and Barnett. 3,106,329.
Lipschutz, Sidney, and Barnett. 3,112,057.
Chemiewerk Homburg Zweigniederlassung der Deutschen Gold- und Silber-Scheideanstalt vorm. Roessler: *See*—
Kohlstaedt, Erwin, and Klingler. 3,112,313.
Chemiewerk Homburg, Zweigniederlassung der Deutschen Gold- und Silber-Scheideanstalt, vorm. Roessler (Degussa): *See*—
Kohlstaedt, Erwin, Schmidt, and Schneider. 3,077,436.
Chemineer, Inc.: *See*—
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Preiser, Herman S., Cook, and Tytell. 3,101,311.
Chemisch-Pharmazeutische Fabrik Adolf Klinge & Co.: *See*—
Wagner, Josef, and Bosse. 3,110,711.
Chemische Fabriek L. van der Grinten N.V.: *See*—
Breuers, Theo P. C., and Swenker. 3,083,959.
Buskes, Willem M. 3,091,528.
Buskes, Willem M. 3,091,529.
Swenker, Martin D. P., and Vercoulen. 3,096,089.
Van der Grinten, Lodewijk P. P., and van Beek. 3,077,401.
Chemische Fabrik Hoesch K.G.: *See*—
Szczepanek, Alfred and M. 3,072,693.
Chemische Fabrik Kalk G.m.b.H.: *See*—
Brandt, Fritz W., and Dolde. 3,113,015.
Chemische Fabrik Pfersee G.m.b.H.: *See*—
Enders, Heinz W., Delner, and Kurz. 3,116,263.
Chemische Fabrik Stockhausen & Cie: *See*—
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Chemische Werke Albert: *See*—
Greth, Arthur and Reese. 3,081,323.
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Schlenker, Felix. 3,071,563.
Von Reppert, Ruediger L. 3,110,572.
Chemische Werke Huls Aktiengesellschaft: *See*—
Heinrich, Erwin, Derichs, and Broich. 3,076,793.
Wick, Georg, Niedenbruck, and Kopetz. 3,075,944.
Chemische Werke Witten, Gesellschaft mit beschrankter Haftung: *See*—
Katzschmann, Ewald. 3,109,799.
Chemo-Vine Processes, Inc.: *See*—
Van Huyzen, Jacques L. 3,075,247.
Chemway Corp.: *See*—
Bechtold, Arthur W. 3,075,527.
Chemwest Inc.: *See*—
Heckathorn, Eugene S., and Riddle. 3,111,384.
Chen, Chung C., to E. I. du Pont de Nemours and Co. Production of dihydroquinacridones. 3,072,660, 1–8–63, Cl. 260—279.
Chen, Harold H., to Westinghouse Electric Corp. Polyglycidyl ether and electrical conductor insulated therewith. 3,072,737, 1–8–63, Cl. 174—110.
Chen Ming C., and M. E. Cox, to Simoniz Co. Method of making polyurethane products and polyurethane products. 3,103,408, 9–10–63, Cl. 18—48.
Chen, Peter R., and G. V. Planer, to Cosmocord Ltd. Transducers. 3,114,122, 12–10–63, Cl. 338—32.
Chen, Tung C., and R. A. Tracy, to Burroughs Corp. Counter employing quantizing core to saturate counting core in discrete steps to effect countdown. 3,102,239, 8–27–63, Cl. 328—40.

Chen, Tung C., and O. B. Stram, to Burroughs Corp. Magnetic signal distribution system. 3,112,474, 11–26–63, Cl. 340—174.1.
Chenault, Louis W. Wire line cutter. 3,073,388, 1–15–63 Cl. 166—54.5.
Cheney, Allan. Gravel stop and flashing for roofs. 3,086,324, 4–23–63, Cl. 50—66.
Cheney Bigelow Wire Works, Inc.: *See*—
De Bell, John M., Larson, and Flynn. 3,109,219.
Cheney, C. W., & Son Ltd.: *See*—
Storey, William R. 3,103,267.
Storey, William R. 3,107,761.
Cheney, Donald E.: *See*—
Baricevic, Ferdinand P., and Cheney. 3,089,916.
Cheney, Harry A., and C. A. Sleicher, Jr., to Shell Oil Co. Polymerization apparatus and method. 3,081,289, 3–12–63, Cl. 260—93.7.
Cheney, James E., to General Electric Co. Diamond tool. 3,101,260, 8–20–63, Cl. 51—293.
Cheney, Lee C.: *See*—
Perron, Yvon G., and Cheney. 3,082,204.
Cheney, Lee C., W. C. Risser, and W. J. Gottstein, to Bristol-Myers Co. Mannich bases of tetracycline antibiotics. 3,104,240, 9–17–63, Cl. 260—247.2.
Cheney, North, to Ideal Industries, Inc. Electrical connector. 3,097,257, 7–9–63, Cl. 174—87.
Cheney, Walter J.: *See*—
Brumbaugh, Robert M., and Cheney. 3,074,661.
Cheney, Wendell C.: *See*—
Whitfield, Marshall G., and Cheney. 3,084,005.
Cheng, Chao-Shing, and R. G. Spaunburgh, to Allied Chemical Corp. Rearrangement of oxime hydrochlorides. 3,080,357, 3–5–63, Cl. 260—239.3.
Cheng, Francis M. Y., and M. J. Nelbling, to The Pillsbury Co. Protein food composition and method. 3,111,408, 11–19–63, Cl. 99—14.
Cheng, Theodore, W. D. MacNabb, and H. A. List, to Leeds and Northrup Co. Multiple motor control system. 3,109,-130, 10–29–63, Cl. 318—72.
Chenicek, Albert G., and F. G. Alster, to Martin-Marietta Corp. Processes for curing epoxy resins. 3,080,341, 3–5–63, Cl. 260—47.
Chenicek, Joseph A.: *See*—
Thompson, Ralph B., Chenicek, and Faust. 3,090,681.
Chenoweth, Albert J., to Case-Jamb, Inc. Corner reinforcing and adjusting means for frames. 3,099,051, 7–30–63, Cl. 20—92.
Chenoweth, David V., to Baker Oil Tools, Inc. Locator for casing couplings and the like. 3,112,794, 12–3–63, Cl. 166—64.
Cherbuliez, Emile, and J. Rabinowitx, to Ciba Corp. Improved process for phosphorylating amino-alcohols. 3,098,-072, 7–16–63, Cl. 260—247.
Cherchi, Robert A. Exhaust duct for turbo-jet engine. 3,084,505, 4–9–63, Cl. 60—35.6.
Cherdron, Egon: *See*—
Rüter, Hermann, Weingärtner, and Cherdron. 3,076,692.
Cherel, Guy, to Commissariat a l'Energie Atomique. Magnetic coupling through a plane wall. 3,092,763, 6–4–63, Cl. 317—201.
Cherel, Guy, and H. Forey, to Commissariat a l'Energie Atomique. Remote-controlled manipulating apparatus. 3,090,-500, 5–21–63, Cl. 214—1.
Chermerda, John M.: *See*—
Christensen, Burton G., Hirschmann, and Chermerda. 3,088,945.
Chern, Diomed M.: *See*—
Moyle, Clarence L., and Chern. 3,075,991.
Chernak, John A., and E. J. Giese, to Tomlinson Industries, Inc. Self-closing stop valve. 3,094,145, 6–18–63, Cl. 137—614.2.
Chernansky, Joseph. Decorative support. 3,109,596, 11–5–63, Cl. 249—2.
Chernlak, Earl L. Foot balancing device. 3,099,267, 7–30–63, Cl. 128—615.
Chernivsky, Victor A. Baby chair. 3,110,519, 11–12–63, Cl. 297—285.
Cherowbrier, Edward, and S. D'Amico. Ventilated coverall-type garment. 3,113,320, 12–10–63, Cl. 2—81.
Cherrin, Abe: *See*—
Cherrin, Phillip. 3,079,060.
Cherrin, Archie: *See*—
Cherrin, Phillip. 3,079,060.
Cherrin, Lem: *See*—
Cherrin, Phillip. 3,079,060.
Cherrin, Phillip, ⅛ to S. Cherrin, ⅜ to Abe Cherrin, ⅜ to L. Cherrin, and ⅛ to Archie Cherrin. Carton and liner assembly. 3,079,060, 2–26–63, Cl. 229—14.
Cherrin, Sam: *See*—
Cherrin, Phillip. 3,079,060.
Cherrington, Dean C., to Esso Research and Engineering Co. Tight fill system for tank loading and discharging. 3,073,-333, 1–15–63, Cl. 137—202.
Cherry-Burrell Corp.: *See*—
Bergendahl, Raymond L. 3,099,276.
Knappe, Herman E. 3,092,365.
Lann, Walter F. 3,106,230.
Perry, Joseph A., Jr. 3,072,209.
Perry, Joseph A., Jr. 3,099,156.
Weinreich, Charles F. 3,093,482.
Weinreich, Charles F., and Flickinger. 3,112,047.
Cherry Electrical Products Corp.: *See*—
Anderson, Fred N. 3,098,903–5.
Anderson, Fred N., and Cherry. 3,073,923.
Cherry, Leonard V.: *See*—
Wallace, William E., Nassau, and Cherry. 3,102,002.
Cherry, Walter L., Jr.: *See*—
Anderson, Fred N., and Cherry. 3,073,923.
Cherubini, Julian H.: *See*—
Beaver, Richard J., and Cherubini. 3,089,751.
Cherundolo, Michael, and J. B. Wandel, to Daystrom, Inc. Multiple spindle attachment. 3,100,407, 8–13–63, Cl. 77—22.
Cherup, Nicholas. Impact absorbers. 3,089,144, 5–14–63, Cl. 2—3.
Chesebrough-Pond's Inc.: *See*—
Pellicone, Joseph S., Dejewski, and Pezza. 3,090,080.
Cheshire, Inc.: *See*—
Ridenour, Wayne F. 3,072,253.
Ridenour, Wayne F., and Storck. 3,111,084.
Cheshire, John L. Die stamping and printing methods and apparatus. 3,084,624, 4–9–63, Cl. 101—353.
Cheskin, David B. Pretensioned multiple span beam system. 3,070,845, 1–1–63, Cl. 189—37.
Chesler, Howard I. Accelerator pedal signal system. 3,103,-561, 9–10–63, Cl. 200—61.89.
Chesley, Frank G., to Central Research Laboratories, Inc. Manipulator. 3,095,096, 6–25–63, Cl. 214—1.
Chesley Industries Inc.: *See*—
Chesley, Robert G. 3,092,047.
Chesley, Robert G., to Chesley Industries Inc. Shelf structure. 3,092,047, 6–4–63, Cl. 108—137.
Chesney, Albert W., to Song Machine Tools Ltd. Machine for operating on paper and like material. 3,071,029, 1–1–63, Cl. 77—32.2.
Chesney, Raymond V. Hand cart for transporting trash cans. 3,108,702, 10–29–63, Cl. 214—375.
Chesrown, Russell: *See*—
Hammerberg, Edgar S., and Chesrown. 3,075,016.
Chess, Jessie: *See*—
Talbot, William Y., and Chess. 3,096,788.
Chessin, Hyman, and G. R. Cooper, to Van Der Horst Corp. of America. Iron-phosphorus electroplating. 3,086,927, 4–23–63, Cl. 204—43.
Chessin, Max: *See*—
Candon, Basil H., Chessin, and Lange. 3,108,045.
Chester, Dwight H. Fastener with catch bars operated by pin and slot means. 3,079,829, 3–5–63, Cl. 85—5.
Chester, Martin H. Ureteral stone extractor and dilator. 3,074,408, 1–22–63, Cl. 128—328.
Chester, Peter F., to Westinghouse Electric Corp. Maser superconductive magnetic field producing means. 3,080,527, 3–5–63, Cl. 330—4.
Cheung, Harry: *See*—
Francis, Arthur W., and Cheung. 3,114,469.
Matsch, Ladislas C., Wang, Rabo, Pickert, and Cheung. 3,108,706.
Cheung, Wong W. Method of preserving duck carcasses. 3,089,777, 5–14–63, Cl. 99—157.
Chevalier, Hubert M. J. Malting plant. 3,088,881, 5–7–63, Cl. 195—129.
Chevalier, Pierre J., to Societe des Usines Chimiques Rhone-Poulence. Aqueous emulsions having anti-foam properties and process for preparing same. 3,113,930, 12–10–63, Cl. 252—358.
Chevallaz, Henri, to Paillard S.A. Device for the automatic hooking of a film on a receiving spool. 3,079,055, 2–26–63, Cl. 226—91.
Chevreux, Gerard: *See*—
Furia, Andre, and Chevreux. 3,088,283.
Chevreux, Gerard, and R. Muterel, to Societe Anonyme D.B.A. Brake proportioning valve. 3,107,127, 10–15–63, Cl. 303—22.
Chew, Thornton W. Device for automatic homing of movable objects. 3,112,399, 11–26–63, Cl. 250—83.3.
Chewning, Arthur W., R. L. Haase, and R. E. Stephens, to The Detroit Edison Co. Spreader for distribution secondary conductors. 3,073,890, 1–15–63, Cl. 174—146.
Chezem, Norman B. Ground cushion car. 3,088,536, 5–7–63, Cl. 180—7.
Chi, Jerome N. C., to General Electric Co. Dynamoelectric machine. 3,075,106, 1–22–63, Cl. 310—60.
Chiado, Paul S. Lightweight molded building slab. 3,090,-165, 5–21–63, Cl. 50—445.
Chiaia, Paolo. Automatic counting machine for screws, nails and similar articles. 3,096,603, 7–9–63, Cl. 53—78.
Chiang, Franklin C., to International Business Machines Corp. Character generation system. 3,103,658, 9–10–63, Cl. 340—324.
Chiantelassa, Attilio. Device for effecting simultaneous changing of the price and the composition of the mixture for use in pumps delivering a mixture of two liquids. 3,081,000, 3–12–63, Cl. 222—26.
Chiapuzio, Anton, Jr., and G. H. Shaw, to North American Aviation, Inc. Sequence verification apparatus. 3,102,-191, 8–27–63, Cl. 235—61.7.
Chiarello, Eugene. Automatic transmission housing. 3,082,-645, 3–26–63, Cl. 74—606.
Chibata, Ichiro, M. Kisumi, Y. Ashikaga, and J. Kato, to Tanabe Seiyaku Co., Ltd. Isoleucine fermentation. 3,086,-918, 4–23–63, Cl. 195—47.
Chicago Aerial Industries, Inc.: *See*—
Maurer, John A., and Elliott. 3,087,401.
Willits, Samuel P., and Mohun. 3,107,070.

Chicago Bridge & Iron Co.: *See*—
Arne, Christian. 3,096,901.
Carstens, Fred A. 3,098,620.
Davis, William A., and Van Alsburg. 3,074,564.
Gibbs, John D., and Smith. 3,113,352.
La Fave, Ivan V. 3,076,317.
Larsen, Lyle V., and Kaups. 3,112,044.
Lawson, Andrew L., and Maurin. 3,105,808.
Maher, James B. 3,079,760.
Maher, James B., and Gruner. 3,078,686.
Maher, James B., and Mair. 3,108,447.
Moyer, Frederick D. 3,079,030.
Moyer, Frederick D. 3,115,888.
Moyer, Frederick D., and Wissmiller. 3,079,029.
Reese, Richard. 3,075,668.
Westfall, Clifford M. 3,095,520.
Wissmiller, Ivan L. 3,115,983.
Chicago, Burlington & Quincy Railroad Co.: *See*—
Hendricker, George W. 3,089,437.
Chicago Carton Co.: *See*—
Ragan, Robert O. 3,107,586.
Redpath, John R., and Wysocki. 3,099,383.
Wysocki, Lawrence S. 3,085,735.
Chicago Downdraft Furnace Co.: *See*—
McNeal, Raymond F. 3,107,656.
Chicago Dryer Co.: *See*—
Kamberg, Eduard F. 3,094,321.
Chicago Dynamic Industries, Inc.: *See*—
Koci, Jerry C., and Holz. 3,104,299.
Chicago Forging and Mfg. Co.: *See*—
Krause, Herbert. 3,081,118.
Krause, Herbert. 3,088,765.
Krause, Herbert. 3,113,339.
Chicago Foundry Co.: *See*—
Fausel, Charles E. 3,113,016.
Chicago Lock Co.: *See*—
Christopher, Walter S. 3,102,412.
Dettmer, Martin H. 3,111,833.
Hart, Thearl C. 3,070,986.
Kerr, William J. 3,089,329.
Kerr, William J. 3,089,330.
Kerr, William J. 3,095,727.
Chicago Machinery Laboratory, Inc.: *See*—
McCain, William B. 3,087,721.
Chicago Musical Instrument Co.: *See*—
Berwin, Kurt. 3,104,581.
Chicago Pneumatic Tool Co.: *See*—
Beers, Robert T. 3,073,192.
Cox, Clarence E., and Nash. 3,072,320.
Heidler, Albert J. 3,093,114.
Sease, Will S. Re. 25,452.
Steen, James B. 3,096,834.
Williams, Deloss. 3,083,586.
Chicago Printed String Co.: *See*—
Kerrigan, James E. 3,104,606.
Kerrigan, James E., and Grikis. 3,097,771.
Kerrigan, James E., and Grikis. 3,097,772.
Chicago Rawhide Mfg. Co.: *See*—
Fowler, William J. 3,092,902.
Hudson, Raymond A., and Nelson. 3,086,781.
Isenbarger, Robert O. 3,114,579.
Koelliker, James E. 3,079,155.
Morley, James P., and Blair. 3,072,449.
Provenzano, Alex P., Ward, and Crosland. 3,090,075.
Reichenbach, Jerry D., and Rasmussen. 3,090,996.
Wheelock, Edward A. 3,087,733.
Chicago, Rock Island and Pacific Railroad Co.: *See*—
Breese, Robert F., and Zagotta. 3,113,293.
Chicago Roller Skate Co.: *See*—
Ware, Gordon K. 3,087,739.
Ware, Gordon K. 3,112,120.
Chicago Stock Yards Turbo Refrigerating Co.: *See*—
Tippmann, Joseph R., L. E. Tippmann, and L. E. Tippmann, Jr. 3,074,252.
Chickvary, William S., and C. E. Dibble, to Burndy Corp. Cable anchor connector. 3,071,831, 1–8–63, Cl. 24—126.
Chicoine, Duane R.: *See*—
Benner, Paul B., Chicoine, and Dickeson. 3,088,488.
Chicopee Mfg. Corp.: *See*—
Jamison, Samuel J. 3,072,124.
Harmon, Carlyle. 3,077,017.
Sexsmith, Fred H., and Petterson. 3,077,423.
Chiddix, Max E.: *See*—
Glickman, Samuel A., Miller, and Chiddix. 3,097,181.
Chiddix, Max E., and R. W. Wynn, to General Aniline & Film Corp. 2,2,3,3-tetrachloro-1,4-butanediol cyclic acid phosphate. 3,094,458, 6–18–63, Cl. 167—33.
Childsey, Francis A., Jr., and J. V. Mahon, to Container Corp. of America. Carton with recessed center retaining member for cylindrical objects. 3,081,928, 3–19–63, Cl. 229—40.
Childsey, Francis A., Jr., and R. E. De Paul, to Container Corp. of America. Bottle carton with reinforced finger openings. 3,096,906, 7–9–63, Cl. 220—113.
Chleger, George: *See*—
Tantlinger, Keith W., and Chleger. 3,089,711.
Chiki, Alexander, to McGraw-Edison Co. Shell type transformer. 3,082,391, 3–19–63, Cl. 336—210.
Chikuma, Goro: *See*—
Chikuma, Toichi. 3,091,539.
Chikuma, Toichi, to G. Chikuma. Method of producing cheese. 3,091,539, 5–28–63, Cl. 99—116.
Chilean Nitrate Sales Corp.: *See*—
Loonam, Alfred C., and Blocher. 3,116,144.
Child, Edward T., W. L. Lafferty, Jr., A. J. Millendorf, and L. B. Bos, to Texaco Inc. Polymerization of isobutylene. 3,109,041, 10–29–63, Cl. 260—683.15.
Child, Henry C.: *See*—
Harris, Geoffrey T., and Child. 3,109,235.
Childers, Lewis T.: *See*—
Harris, William C., and Childers. 3,106,173.
Childress, Clyde O., and L. J. Kabell, to Electrostatic Printing Corp. of America. Electrostatic printing system. 3,081,-698, 3–19–63, Cl. 101—129.
Childress, Glen E. Log grinder. 3,078,886, 2–26–63, Cl. 144—208.
Childress, Manuel W. Bow string retainer clip. 3,085,561, 4–16–63, Cl. 124—23.
Childress, Oliven W., Jr.: *See*—
Foust, Floyd J., Childress, and Snowden. 3,082,371.
Childress, Owen W., to R. P. Harrison. Pin equipped holder for pencils and the like. 3,114,183, 12–17–63, Cl. 24—13.
Childs, Frederick E.: *See*—
Polovtseff, Boris, Allan, and Childs. 3,109,767.
Childs, George W., to Sperry Rand Corp. Sheet feeding. 3,079,147, 2–26–63, Cl. 271—26.
Childs, George W., to Sperry Rand Corp. Sheet feeding. 3,079,149, 2–26–63, Cl. 271—27.
Childs, George W., and K. A. Cook, to Sperry Rand Corp. Printing recorders. 3,083,641, 4–2–63, Cl. 101—269.
Childs, James H.: *See*—
Buskirk, John E., and Childs. 3,092,520.
Chilean Nitrate Sales Corp.: *See*—
Accountius, Oliver E. 3,097,157.
Sweet, Roger G. 3,079,993.
Chillson, Charles W., to Curtiss-Wright Corp. Mechanical integrating device. 3,111,263, 11–19–63, Cl. 235—61.
Chillson, Charles W., and E. K. Hline, to Curtiss-Wright Corp. Helicopter speed control system. 3,073,328, 1–15–63, Cl. 137—18.
Chilo, Paul. Lamp harp. 3,113,732, 12–10–63, Cl. 240—148.
Chilovich, Paul P. Squirrel feeder. 3,077,863, 2–19–63, Cl. 119—62.
Chilton, Harry, deceased; by H. J. Brown, executrix, to United Kingdom Atomic Energy Authority. Thermocompensating joint. 3,088,758, 5–7–63, Cl. 285—187.
Chilton, Herbert H., and M. E. Stalk cutter. 3,106,054, 10–8–63, Cl. 56—504.
Chilton, John M., to W. & T. Avery, Ltd. Feed control of batch weighting apparatus. 3,076,515, 2–5–63, Cl. 177—81.
Chilton, John M., to W. & T. Avery Ltd. Self-balancing potentiometer systems for use in association with weighing apparatus. 3,104,727, 9–24–63, Cl. 177—70.
Chilton, John M., to W. & T. Avery, Ltd. Weighing apparatus incorporating a self-balancing potentiometer system. 3,106,-979, 10–15–63, Cl. 177—210.
Chilton, Moir E.: *See*—
Chilton, Herbert H. and M. E. 3,106,054.
Chilton, Robert G.: *See*—
Faget, Maxime A., Meyer, Chilton, Blanchard, Kehlet, Hammack, and Johnson. 3,093,346.
Chimiotex S.A.: *See*—
Geiger, Ernst. 3,113,828.
Chimiques Rhone-Poulenc, Societe des Usines: *See*—
Fournet, Andre, and Rio. 3,100,198.
Chimura, Ippei: *See*—
Okamura, Seizo, Murai, Asakura, and Chimura. 3,111,370.
Chin, Bock M., and V. A. Orlando, to General Electric Co. Speed measuring device using a servo controlled bridge. 3,109,140, 10–29–63, Cl. 324—70.
Chin, Bock M., and V. A. Orlando, to General Electric Co. Quadrature eliminator and selective lag circuit using a single rectifier ring and half wave discriminator modulator action. 3,109,939, 11–5–63, Cl. 307—88.5.
Chin, John E.: *See*—
Cook, Charles E., and Chin. 3,105,967.
Ch'in, Norman C., and W. J. Baral, to Union Oil Co. of California. Manufacture of naphthalene. 3,108,063, 10–22–63, Cl. 208—354.
Chinery, Edwin T.: *See*—
Boehme, Werner R., and Chinery. 3,079,985.
Chinn, Harry G., to Union Carbide Corp. Edge coating. 3,081,213, 3–12–63, Cl. 156—192.
Chinn, Leland J.: *See*—
Brown, Edward A., and Chinn. 3,101,346.
Chinn, Leland J., to G. D. Searle & Co. 1-[5-(6-methoxy-2-naphthyl)-2-oxycyclophentyl]-2-propanone derivatives. 3,102,133, 8–27–63, Cl. 260—488.
Chinoin Gyogyszer- es Vegyeszeti Termekek Gyara RT.: *See*—
Csermely, Gyorgy, Lugosi, Jeney, and Zsolnai. 3,102,-111.
Chiodini, Fernando, and C. M. Gold, to Yardney International Corp. Activator for reserve-type electrochemical batteries. 3,079,047, 2–26–63, Cl. 222—82.
Chiola, Vincent, and C. D. Vanderpool, to Sylvania Electric Products Inc. Electrical insulating coating and method of producing same. 3,087,826, 4–30–63, Cl. 106—287.
Chiola, Vincent, and C. D. Vanderpool, to Sylvania Electric Products Inc. Conversion of calcium hydrogen phosphate dihydrate to the anhydrous form. 3,095,269, 6–25–63, Cl. 23—109.
Chipman Chemical Co., Inc.: *See*—
Bales, Irvin W. 3,077,392.

Chipman Chemical Co., Ltd.: *See*—
Chamberlain, Cyril J., and Anning. 3,101,902.
Chipouras, Peter A.: *See*—
Rosenberg, Richard H., and Chipouras. 3,106,062.
Chipper Industries Inc.: *See*—
Showalter, Harry R., Jr. 3,081,041.
Chipper Machines and Engineering Corp.: *See*—
Miller, Frederick L. B. 3,086,769.
Chirana Praha, narodni podnik: *See*—
Keszler, Hugo, and Bernreiter. 3,099,278.
Chireau, Roland: *See*—
Comanor, Milton, and Chireau. 3,113,891.
Chisholm, Dale A.: *See*—
Getz, Harry W., and Chisholm. 3,084,714.
Chisholm, Douglas S.: *See*—
Juckniess, Paul R., Cobel, and Chisholm. 3,075,263.
Chisholm, Douglas S., to The Dow Chemical Co. Method of producing crude metal. 3,102,807, 9–3–63, Cl. 75—84.1.
Chisholm, James J., to Bausch & Lomb Inc. Interferometer using a diffraction grating. 3,090,279, 5–21–63, Cl. 88—14.
Chisholm, John P., to Sierra Research Corp. Frequency shift reflection system. 3,108,275, 10–22–63, Cl. 343—18.
Chisholm, Pat T. W.: *See*—
Ayres, Hugh J., and Chisholm. 3,103,811.
Chisholm, Pat T. W., to Halliburton Co. Fluid flow control apparatus. 3,105,553, 10–1–63, Cl. 166—133.
Chisholm, Pat T. W., to Halliburton Co. Check valve apparatus. 3,106,932, 10–15–63, Cl. 137—68.
Chisholm, Raymond S.: *See*—
Thornhill, Fred S., and Chisholm. 3,085,861.
Chisholm, Roy D., to General Electric Co. Oven thermostat cooling system. 3,082,311, 3–19–63, Cl. 219—35.
Chisholm, Roy D., to General Electric Co. Domestic oven with optimum heat distribution. 3,092,706, 6–4–63, Cl. 219—20.
Chlamar, Andrew B., and E. W. Kmetz, to Owens-Illinois Glass Co. Stencil screen coating comprising polyvinyl alcohol, polyvinyl acetate and a light sensitizing agent. 3,100,150, 8–6–63, Cl. 96—93.
Chlaswell, William G., to Fansteel Metallurgical Corp. Cylindrical forged tungsten electrical contact. 3,106,628, 10–8–63, Cl. 200—166.
Chlswick Products Ltd.: *See*—
Monkcom, Frank E. 3,114,993.
Raffe, Joseph P. 3,077,969.
Chltayat, Anwar K., to Optomechanisms, Inc. Digital counter indicator means. 3,071,323, 1–1–63, Cl. 235—125.
Chltayat, Anwar K., to OPTOmechanisms, Inc. Negative to positive microscope. 3,079,503, 2–26–63, Cl. 250—71.
Chlttum, Joseph F., to California Research Corp. Controlling corrosion in wet gas collection systems. 3,088,795, 5–7–63, Cl. 21—2.7.
Chittum, Joseph F., to California Research Corp. Method and composition for controlling foaming in oil wells. 3,108,-634, 10–29–63, Cl. 166—41.
Chittum, Joseph F., to California Research Corp. Foam inhibiting method and composition for oil wells. 3,108,635, 10–29–63, Cl. 166—41.
Chitwood, Charles B., to Camco, Inc. Retrievable pilot operated gas lift valve. 3,086,593, 4–23–63, Cl. 166—224.
Chiu, Richard H.: *See*—
Liu, Honlen. 3,105,134.
Chiusoli, Gian P., to Montecatini Societa Generale per l'Industria Mineraria e Chimica. Process for obtaining alpha-beta, delta-epsilon unsaturated carboxylic compounds. 3,110,725, 11–12–63, Cl. 260—476.
Chiyoda Kogaku Seiko Kabushiki Kaisha: *See*—
Kobayashi, Tatsuo. 3,084,608.
Ohashi, Saichiro, Aoki, and Nitta. 3,111,888.
Yanagi, Akio, Furukawa, Ataka, and Kubota. 3,111,891.
Chlebowski, Harry B., ¼ to J. Wallen, ¼ to B. Lallier, and ½ to M. Chlebowski. Sewer cleaning apparatus. 3,087,-181, 4–30–63, Cl. 15—104.09.
Chlebowski, Harry B., ¼ to J. Wallen, ¼ to B. Lallier, and ½ to M. Chlebowski. Two speed hydraulic pumps. 3,112,-705, 12–3–63, Cl. 103—37.
Chlebowski, Marjorie: *See*—
Chlebowski, Harry B. 3,087,181.
Chlebowski, Harry B. 3,112,705.
Chleck, David J., and C. A. Ziegler, to Laboratory for Electronics, Inc. Method of producing luminous surfaces. 3,084,062, 4–2–63, Cl. 117—33.5.
Chlormetals Inc.: *See*—
Szechtman, Joshua. 3,104,213.
Chmelik, George F., and J. Danaczko, Jr., to Western Electric Co., Inc. Lubricating suspension of lanolin in refined sperm oil, and methods of preparing. 3,073,783, 1–15–63, Cl. 252—56.
Chmura, Theodore S., to American Bosch Arma Corp. Control rod for fuel injection pump. 3,096,716, 7–9–63, Cl. 103—37.
Choker Machinery Corp.: *See*—
Trachtman, Morris. 3,113,508.
Cholet, Bertram, to Dougherty Bros., Inc. Squeeze cap for dispensing liquids in drop units. 3,107,035, 10–15–63, Cl. 222—213.
Chollet, Raymond A.: *See*—
Sourgens, Roger P., and Chollet. 3,099,705.
Cholvin, Robert L.: *See*—
Silver, Alexander, and Cholvin. 3,096,614.
Cholvin, Robert L., and I. D. Burke, to The Garrett Corp. Pressure regulator and shutoff valve mechanism. 3,073,-338, 1–15–63, Cl. 137—489.
Chonka, Louis, ¼ to A. Szabo, and ¼ to G. Z. Szabo. Heavy duty shears. 3,090,121, 5–21–63, Cl. 30—251.
Chope, Henry R., to Industrial Nucleonics Corp. Indicating and recording device. 3,095,254, 6–25–63, Cl. 346—32.
Chope, Henry R., and A. F. G. Hanken, to Industrial Nucleonics Corp. Radiation analysis. 3,082,323, 3–19–63, Cl. 250—83.3.
Chorney, Harry, to Sanders Associates, Inc. Copper oxidation. 3,114,683, 12–17–63, Cl. 204—28.
Chosy, Eugene, to Pruehauf Trailer Co. Through-axle spring installation. 3,103,350, 9–10–63, Cl. 267—52.
Choudhury, Shafi-Uddin A., to Associated Electrical Industries Ltd. Synchronizing connections for dynamo-electric machines. 3,091,727, 5–28–63, Cl. 318—44.
Chouings, Leslie C., to Automotive Products Co., Ltd. Disc brakes. 3,109,518, 11–5–63, Cl. 188—73.
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Bencze, William L. 3,075,971.
Bencze, William L. 3,075,988.
Blatter, Herbert M., and De Stevens. 3,098,071.
Brenner, Max. 3,072,723.
Casty, Richard. 3,086,832.
Casty, Richard, Abel, Maeder, and Berger. 3,104,931.
Cherbuliez, Emile, and Rabinowitz. 3,098,072.
De Stevens, George. 3,092,621.

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Grob, Cyril, and Jenny. 3,098,097.
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Gunst, Raymond, and Liechti. 3,073,824.
Huebner, Charles F. 3,072,716.
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Huebner, Charles F. 3,085,094.
Huebner, Charles F. 3,105,836.
Huebner, Charles F. 3,105,849.
Jeger, Oskar. 3,072,637.
Jeger, Oskar. 3,098,068.
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Kern, Fritz. 3,093,554.
Koller, Eugen J. 3,082,207.
Margerison, Richard B., Shabica, and Ziegler. 3,095,446.
Meystre, Charles, Wettstein, Anner, Heusler, and Wieland. 3,098,070.
Mull, Robert P. 3,078,272.
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Prelog, Vladimir. 3,076,847.
Robison, Michael M., MacPhillamy, and Lucas. 3,093,648.
Schwyzer, Robert, and Kappeler. 3,093,627.
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Wettstein, Albert, Anner, and Kebrle. 3,081,297.
Wettstein, Albert, Anner, Meystre Wieland, Ehrmann, Heusler, Hunger, and Kebrle. 3,098,085.
Wettstein, Albert, Heusler, Kebrle, Meystre, and Wieland. 3,072,686.
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Wettstein, Albert, Heusler, and Wieland. 3,072,644.
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Abel, Heinz. 3,075,822.
Ackermann, Franz, Duennenberger, and Siegrist. 3,076,812.
Altermatt, Hans. 3,104,233.
Berger, Ernst. 3,092,541.
Buehler, Arthur, and Casty. 3,071,427.
Buehler, Arthur, and Casty. 3,097,039.
Duennenberger, Max, Maeder, Siegrist, and Liechti. 3,095,422.
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Fisch, Willy, Zuppinger, and Brueschweiler. 3,072,697.
Gassman, Hans U., and Zbinden. 3,094,499.
Grossmann, Paul, and Defago. 3,084,015.
Gunst, Raymond. 3,100,768.
Hanhart, Walter. 3,078,266.
Jaeger, Peter, Koller, Wegmann, and Zollinger. 3,073,662.
Jenny, Walter, and Wittwer. 3,100,132.
Kern, Walter, and Koch. 3,079,389.
Koehl, Anton, Fuellemann, and Kaegi. 3,071,532.
Koller, Eugen J. 3,082,201.
Liechti, Peter, Siegrist, Duennenberger, and Maeder. 3,095,421.
Maeder, Arthur. 3,095,390.
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Moergeli, Eduard. 3,111,518.
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Porret, Daniel, Fisch, Batzer, and Ernst. 3,072,678.
Razavi, Djavad, Floroni, and Meister. 3,087,935.
Renner, Alfred. 3,081,333.
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Rhyner Paul, Grossmann, and Defago. 3,097,909.
Scheller, Walter, and Blumer. 3,110,585.
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Staeuble, Max. 3,108,105.
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Weber, Kurt, Ulrich, Bruengger, and Staeuble. 3,110,541.
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Ciccarelli, Don P., to Instituto Salesiano Rebaudengo a Torino. Attachment for chasing threads on horizontal lathes. 3,073,194, 1–15–63, Cl. 82—5.
Ciccarelli, Don P., to Istituto Salesiano Rebaudengo a Torino. Attachment for chasing threads on horizontal lathes. 3,111,050, 11–19–63, Cl. 82—5.
Cicciarella, Charles: *See*—
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Ciccone, Thomas Q., and J. J. Scanlon, to United States of America, Army. Cartridge for more nearly uniform projectile velocities. 3,103,884, 9–17–63, Cl. 102—45.
Ciccotelli, Stephen S. Flexible swimming aid. 3,072,932, 1–15–63, Cl. 9—309.
Ciccotelli, Stephen S. Swim flipper. 3,081,467, 3–19–63, Cl. 9—306.
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Meier, Jean H. 3,104,279.
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Ciejka, Rudolph J., and I. Mayerson, to O.K. Machine and Tool Corp. Machine tool attachment. 3,075,277, 1–29–63, Cl. 29—42.
Cier, Harry E., to Esso Research and Engineering Co. Exothermic reaction process. 3,088,974, 5–7–63, Cl. 260—524.
Cierpial, Frank V., to The De Laval Separator Co. Stuffing horn. 3,091,799, 6–4–63, Cl. 17—41.
Ciesielski, Mecislaus J. Heat pump. 3,087,438, 4–30–63, Cl. 103—255.
Cilag-Chemie Ltd.: *See*—
Habicht, Ernst. 3,080,415.
Koebel, Karl, and Egli. 3,075,012.
Cimbali, Vittorio. Coffee making machines. 3,110,243, 11–12–63, Cl. 99—302.
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Hanusch, Hugo. 3,107,057.
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Cincinnati Butchers' Supply Co., The: *See*—
McMath, Marl, and Sims. 3,110,925.
Perkins, Kenneth. 3,081,713.
Schmidt, Carl O., Jr. 3,076,996.
Schmidt, Carl O., Jr. 3,081,691.
Cincinnati Milling Machine Co., The: *See*—
Bartholomew, Jerry S. 3,094,817.
Clifton, Richard N., and Lawless. 3,106,011.
Dall, Albert H. 3,106,046.
Dever, Lewis A., and Gschwind. 3,084,899.
Fuldner, Herbert M. 3,072,236.
Gill, Henry. 3,095,119.
Grove, George L. 3,071,898.
Haggerty, William A. 3,109,270.
Herfurth, Charles. 3,089,572.
Hoier, Walter A., Marshall, and Waters. 3,089,293.
Horlacher, Herman. 3,101,738.
Kibbey, Harry S. 3,113,006.
Mitchell, Charles L. 3,073,485.
Mitchell, Charles L. 3,115,858.
Nashold, Robert W., Baldwin, and Mitchell. 3,101,649.
Paulton, Richard A. 3,109,400
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Rave, Joseph A., Jr. 3,089,989.
Render, Elijah F. 3,079,741.
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Seidel, William B. 3,075,321.
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Stock, Carl V., Breisford, and Ferguson. 3,102,371.
Stuckey, Albert D. C. 3,109,263.
Uhtenwoldt, Herbert R. 3,071,990.
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Cincinnati Mine Machinery Co., The: *See*—
Krekeler, Claude B. 3,086,404.
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Littley, John J., and Burns. 3,098,261.

Cincinnati Time Recorder Co., The: *See*—
Kielmeyer, Vernon T. 3,116,102.
Cinemiracle Internation Picture Inc.: *See*—
McCullough, Russell H. 3,101,643.
Cines, Martin R., to Phillips Petroleum Co. Polymer recovery process. 3,072,626, 1–8–63, Cl. 260—93.5.
Cines, Martin R., to Phillips Petroleum Co. Polymerization process and apparatus. 3,093,626, 6–11–63, Cl. 260—94.9.
Cinestat Advertising Corp.: *See*—
Elvestrom, Victor 3,082,560.
Cinibulk, Walter M., to Rowan Controller Co. Circuit breaker combined with a visual indicator. 3,108,165, 10–22–63, Cl. 200—121.
Ciocchetti, John, to Acidos Grasos Limitada. Preparation of acrylic acid. 3,106,577, 10–8–63, Cl. 260—533.
Ciofli, Paul P., to Bell Telephone Laboratories, Inc. Magnetic circuit using superconductor properties. 3,098,181, 7–16–63, Cl. 317—158.
Cipriani, Chester C., and C. H. Stark, to Owens-Illinois Glass Co. Method of sealing panelized curtain wall assembly. 3,084,483, 4–9–63, Cl. 50—203.
Cipriani, Cipriano: *See*—
Soehngen, John W., Morse, and Cipriani. 3,084,414.
Cipriani, Cipriano, and J. W. Soehngen, to Celanese Corp. of America. Wet spinning of cellulose triester. 3,109,697, 11–5–63, Cl. 18—54.
Cirami, Salvatore. Walking roundabout. 3,085,516, 4–16–63, Cl. 104—247.
Cirami, Salvatore. Robot amusement ride. 3,093,372, 6–11–63, Cl. 272—34.
Ciraolo, Samuel. Apricot orientator and cutter. 3,087,522, 4–30–63, Cl. 146—73.
Circle, John E., Jr., to North American Aviation, Inc. Support block assembly. 3,110,474, 11–12–63, Cl. 254—104.
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Burr, Robert P., and Swiggett. 3,084,420.
Cirigliano, Caesar A. Portfolio. 3,091,482, 5–28–63, Cl. 281—33.
Cirillo, Nicholas, and V. Lovrich, to Autographic Business Forms, Inc. Continuous stapling machine. 3,077,602, 2–19–63, Cl. 1—62.
Cirone, Frank P., and T. N. Lowry, to Bell Telephone Laboratories, Inc. Supervisory circuits for telephone subscriber's line. 3,102,168, 8–27–63, Cl. 179—18.
Cirone, Frank P., J. A. Harr, T. N. Lowry, and P. G. Ridinger, to Bell Telephone Laboratories, Inc. Supervisory circuit. 3,114,007, 12–10–63, Cl. 179—18.
Cirves, Francis J., and M. A. Marsh. Collable measuring ruler. 3,073,544, 1–15–63, Cl. 242—107.
Cisco, Edward S., to Stanray Corp. Movable bulkhead. 3,112,712, 12–3–63, Cl. 105—376.
Cisin, Harry G. Educational device. 3,114,212, 12–17–63, Cl. 35—74.
Cislak, Frank, to Ideal Instrument & Mfg., Co. Inc. Metering hypodermic syringe. 3,110,310, 11–12–63, Cl. 128—218.
Cislak, Frank W. Automatic tire mounting machine. 3,095,920, 7–2–63, Cl. 157—1.1.
Cislo, Casimer J., to Thermvent Corp. Automatic ventilator for buildings. 3,073,525, 1–15–63, Cl. 236—49.
Cissell, Eric B. Golf club heads. 3,084,940, 4–9–63, Cl. 273—173.
Cities Service Oil Co.: *See*—
Wilson, Wilmer G., and O'Rear. 3,101,798.
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Berger, Bernard H. 3,090,757.
Bosmajian, George. 3,081,283.
Bosmajian, George. 3,097,108.
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Bosmajian, George. 3,113,695.
Greenwald, Bertrand W. 3,092,564.
Greenwald, Bertrand W., and Lazarus. 3,094,472.
Kerschner, Paul M., and Greenwald. 3,074,988.
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Mercier, Pierre E. 3,099,223.
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James, Donald R. 3,072,161.
Cituk, John J. Throwable-catchable tackling bag. 3,111,317, 11–19–63, Cl. 273—55.
City National Bank and Trust Co.: *See*—
Johansen, John V., and Stanley. 3,110,144.
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Brown, Robert E., and Bamber. 3,092,269.
City Vending Equipment Corp.: *See*—
Newcomer, Everett J. 3,089,612.
Ciuti, Brunelo, to Laboratori Riuniti Studi e Ricerche S.p.A. Process for preparing improved compositions of lubricating greases. 3,106,532, 10–8–63, Cl. 252—21.
Cizek, Leopold, E. Jirasek, F. Bucil, and J. Ripka, to Vyzkumny Ustav Bavlnarsky. Spinning apparatus. 3,115,001, 12–24–63, Cl. 57—58.91.
Claas, Gebr.: *See*—
Claas, Reinhold. 3,089,299.
Claas, Gunther, and E. Schewe, to Deutsche Spiralbohrer-und Werkzeugfabriken G.m.b.H. Method for the production of cutting tools. 3,089,354, 5–14–63, Cl. 76—108.
Claas, Helmut. Threshing machines. 3,106,921, 10–15–63, Cl. 130—27.
Claas, Helmut. Grills of combine harvesters. 3,116,236, 12–31–63, Cl. 209—26.
Claas, Reinhold, to Gebr. Claas. Stone trap for combines. 3,089,299, 5–14–63, Cl. 56—20.
Claas, Reinhold. Combine harvester. 3,094,829, 6–25–63, Cl. 56—20.
Claas, Reinhold. Combine harvester. 3,096,605, 7–9–63, Cl. 56—23.
Claassen, Edwin J., Jr., J. W. Bulls, and J. K. Normand, to Sid Richardson Carbon Co. Process and apparatus for the production of carbon black. 3,076,695, 2–5–63, Cl. 23—209.4.
Claesson, Carl O., and H. H. Hultgren. Machines for determining the dry substance in various materials. 3,073,152, 1–15–63, Cl. 73—61.
Claeys, Julian J., and L. B. Francis. Drapery pleating device. 3,090,533, 5–21–63, Cl. 223—35.
Clagett, Robert P., to Western Electric Co., Inc. Methods of bonding leads to semiconductive devices. 3,087,239, 4–30–63, Cl. 29—471.1.
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Bennett, John L., Wooten, and Clagett. 3,102,964.
Claiborne, Jefferson L., to Dixie Mercerizing Co. Seal for yarn package treating apparatus. 3,097,515, 7–16–63, Cl. 68—198.
Clair, Jacques, to Pechiney, Compagnie de Produit Chimiques et Electrometallurgiques. Method and composition for assembling together refractory bodies. 3,091,027, 5–28–63, Cl. 29—472.7.
Clair Mfg. Co., Inc.: *See*—
Gurt, William C. 3,087,282.
Clairol Inc.: *See*—
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Claisse, Arnold J., E. D. Collett, and T. G. Stagg, to The Gillette Co. Sealed hypodermic needle package. 3,114,455, 12–17–63, Cl. 206—56.
Claitor, Lilburn C.: *See*—
Schilling, Clarence J., and Claitor. 3,086,371.
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Clancy, John J., D. W. Lovering, and R. C. Wells, to Arthur D. Little, Inc. Process coating a substrate with an opaque coating and resultant article. 3,108,009, 10–22–63, Cl. 117—46.
Clanin, Richard D., and R. F. McVicker, to Lynch Corp. Product feeder for cartoning machine. 3,105,337, 10–1–63, Cl. 53—251.
Clapp, Archie J. Aircraft take-off distance computer. 3,084,858, 4–9–63, Cl. 235—84.
Clapp, Daniel E.: *See*—
Turner, Charles R., and Clapp. 3,073,938.
Clapp, Daniel E., to The Proctor-Silex Corp. Apparatus for control of cooking temperatures. 3,072,773, 1–8–63, Cl. 219—20.
Clapp, Daniel E., to The Proctor-Silex Corp. Cooking temperature control apparatus. 3,083,287, 3–26–63, Cl. 219—20.
Clapp, Daniel E., to King-Seeley Thermos Co. Clothes dryer controls. 3,109,717, 11–5–63, Cl. 34—45.
Clapp, Daniel E., and J. L. Eaton, Jr., to The Proctor-Silex Corp. System employing manually deactivated heating element. 3,073,917, 1–15–63, Cl. 200—4.
Clapp, Daniel E., and J. L. Eaton, Jr., to The Proctor-Silex Corp. System employing manually deactivated heating element. 3,073,939, 1–15–63, Cl. 219—20.
Clapp, John M., to Ingersoll-Rand Co. Hydraulic dashpot. 3,106,267, 10–8–63, Cl. 188—97.
Clapp, Richard G., to Philco Corp. Variation of cathode emission area with shift from monochrome to color. 3,102,923, 9–3–63, Cl. 178—5.4.
Clapp, Roy A., to Pako Corp. Photographic printer. 3,100,419, 8–13–63, Cl. 88—24.
Clapp, Roy A., to Pako Corp. Photographic printer. 3,105,410, 10–1–63, Cl. 88—24.
Clapper, Genung L., to International Business Machines Corp. Integrating pulse circuit having regenerative feed back to effect pulse shaping. 3,098,939, 7–23–63, Cl. 307—88.5.
Clapper, Genung L., to International Business Machines Corp. Voltage monitor system. 3,098,999, 7–23–63, Cl. 340—248.
Clapper, Genung L., to International Business Machines Corp. Speech synthesis system. 3,102,165, 8–27–63, Cl. 179—1.
Clapper, Genung L., to International Business Machines Corp. Delay compensation by distributed synchronous pulses. 3,108,228, 10–22–63, Cl. 328—72.
Clare, C. P., & Co.: *See*—
Ehrismann, Kurt H. 3,076,880.
Farmer, Robert B. 3,098,135.
Koda, Arthur J. 3,076,878.
Koda, Arthur J. 3,089,010.
Koda, Arthur J. 3,114,019.
Koda, Arthur J. 3,114,807.
Koda, Arthur J., and Morrison. 3,114,018.
Koda, Arthur J., and Ottman. 3,114,080.

Clare, Cora M. Hair curling device with head protecting means. 3,106,213, 10–8–63, Cl. 132—40.

Clare, Harold, to Power Jets (Research and Development) Ltd. Combustion apparatus. 3,102,393, 9–3–63, Cl. 60—39.74.

Clare, John D.: *See*—
Marsh, Stanley R., and Clare. 3,079,563.

Claridge, George H., and C. J. Maindonald. Ball-cock. 3,096,068, 7–2–63, Cl. 251—118.

Clarin Mfg. Co.: *See*—
Banke, Henry C. 3,099,479.
Chapman, Howard D. 3,084,977.

Clark, Adna R., to International Harvester Co. Blower control means for motor vehicle heating and ventilating systems. 3,075,449, 1–29–63, Cl. 98—2.

Clark, Albert R.: *See*—
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Clark, Alex M.: *See*—
Newland, Arthur E., and Schultz. 3,086,513.

Clark, Alexander, to Gadget-Of-The-Month Club, Inc. Inflatable travel toy. 3,071,892, 1–8–63, Cl. 46—88.

Clark, Alfred S., A. S. Dorosz, A. J. Gilbride, and J. E. Walsh, to United Shoe Machinery Corp. Automation of shoemaking machinery. 3,086,230, 4–23–63, Cl. 12—1.

Clark, Austin B. J. Method of mounting electrical resistance strain gage. 3,082,139, 3–19–63, Cl. 156—153.

Clark, Bryce L.: *See*—
Shely, Benjamin L., and Clark. 3,072,541.

Clark, Calvin M., to California Research Corp. Pulse analyzing. 3,092,754, 6–4–63, Cl. 315—8.5.

Clark, Charles A.: *See*—
Horwitz, Lester, and Clark. 3,102,142.

Clark, Charles A., N. J. Doorenbos, and L. Horwitz, to General Aniline & Film Corp. Process for preparation of certain arylated hydroxybenzoazoles. 3,101,343, 8–20–63, Cl. 260—304.

Clark, Charles A., N. J. Doorebos, and L. Horwitz, to General Aniline & Film Corp. Process for the preparation of substituted aminophenols. 3,102,141, 8–27–63, Cl. 260—575.

Clark, Charles J. Toilet tank flushing mechanism. 3,095,577, 7–2–63, Cl. 4—19.

Clark, Charles W., Jr., to Sweden Freezer Mfg. Co. Safety lid for pressure tank. 3,086,675, 4–23–63, Cl. 220—24.5.

Clark, Chester A., to United States of America, Navy. Hydraulic underwater sound transducer. 3,100,022, 8–6–63, Cl. 181—.5.

Clark, Chester A., to United States of America, Navy. Internal rotary valve-fluid pressure transducer. 3,109,408, 11–5–63, Cl. 116—27.

Clark, Clayton F., and R. W. Hill, to Spencer Chemical Co. Polyethylene compositions containing N-allyl fatty acid amides. 3,104,232, 9–17–63, Cl. 260—32.6.

Clark, Clayton F., and R. W. Hill, to Spencer Chemical Co. Polyethylene compositions. 3,108,981, 10–29–63, Cl. 260—32.6.

Clark, Clayton H.: *See*—
Anderson, Carl P., and Clark. 3,081,014.

Clark Controller Co., The: *See*—
Landow, Walter, and Carlisle. 3,076,074.
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Clark, Cyrus V. Fishing keel. 3,090,153, 5–21–63, Cl. 43—43.13.

Clark, David Co. Inc.: *See*—
Clark, David M. 3,081,459.
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Clark, David M., to David Clark Co. Inc. Pressure suit. 3,081,459, 3–19–63, Cl. 2—2.1.

Clark, Dennis E., A. C. Ritchie, and T. Walker, to Glaxo Group Ltd. Process for producing emetine and analogues thereof. 3,102,118, 8–27–63, Cl. 260—288.

Clark, Don B., to United States of America, Navy. Fluorescent discharge lamp and electrode therefor. 3,079,521, 2–26–63, Cl. 313—161.

Clark, Donald E., to General Electric Co. VTO inlet. 3,088,695, 5–7–63, Cl. 244—12.

Clark, Earnest H., Jr., to Baker Oil Tools, Inc. Well bore milling apparatus. 3,091,290, 5–28–63, Cl. 166—55.

Clark, Earnest H., Jr., to Baker Oil Tools, Inc. Control valve apparatus for drill pipes. 3,096,825, 7–9–63, Cl. 166—224.

Clark, Edgar W., Jr., P. W. Reynolds, and W. F. Root, to Phillips Petroleum Co. Suspension hanger for deep well tubing. 3,095,042, 6–25–63, Cl. 166—243.

Clark, Edward B., to General Electric Co. Duct end marker. 3,083,735, 4–2–63, Cl. 138—89.

Clark, Edward B., to General Electric Co. Floor outlet for underfloor duct. 3,083,857, 4–2–63, Cl. 220—3.94.

Clark, Edwin W., to John Thompson (Australia) Pty. Ltd. Sootblower. 3,089,468, 5–14–63, Cl. 122—392.

Clark Equipment Co.: *See*—
Ayers, Edgar H. 3,112,380
Backofen, Elmer R. 3,111,856.
Berquist, Leonard G., Millious, and Newhouse. 3,076,558.
Burgess, Glen W. 3,084,951.
Christensen, Bruce V. 3,085,483.
Cook, Fred H. 3,084,765.
Dence, Donald S. 3,115,204
DeRoshia, Garland D. 3,102,738.
Eaton, Ernest E. 3,078,975.
Ellis, Charles L. 3,082,834.
Ellis, Charles L., and Kramer. 3,103,984.
Gordon, Richard O. 3,106,938.
Gustine, Charles W. 3,079,020.

Clark Equipment Co.: *See*—Continued
Hasbany, Woodrow A. 3,072,149.
Hasbany, Woodrow A. 3,083,731.
Hastings, Russell, Jr. 3,072,169.
Hastings, Russell, Jr. 3,080,019.
Hastings, Russell, Jr. 3,083,853.
Hastings, Russell, Jr. 3,098,543.
Henyon, Lewis E. 3,071,079.
Howard, Wayne R. 3,089,574.
Howard, Wayne R. 3,109,524.
Lapsley, Robert. 3,111,040.
McAdams, Paul F. 3,099,327.
McAdams, Paul F., Ellis, and Christensen. 3,085,484.
McIntosh, Richard F. 3,088,757.
Meads, Marshall M., and Shuttleworth. 3,078,736.
Peet, William H. 3,104,616.
Repke, Edward P. 3,075,665.
Rogers, Cyril R. 3,086,669.
Schenkelberger, Frank J. 3,083,533.
Schenkelberger, Frank J. 3,114,871.
Severson, Gordon W. 3,086,742.
Shealy, Noah A. 3,102,435.
Shealy, Noah A., and Howard. 3,103,997.
Stilley, Herschel H. 3,071,254.
Stilley, Herschel H. 3,104,771.
Whitmore, Milton P., and Maddalena. 3,101,152.
Williamson, William A. 3,105,673.

Clark, Ezekall L., to The North American Coal Corp. Process for the recovery of sulfuric acid from metallic sulfates. 3,086,846, 4–23–63, Cl. 23—167.

Clark-Feather Mfg. Co.: *See*—
Clark, James T. 3,083,004.

Clark, Frederick G., to Eastman Machine Co. Punching machine. 3,099,087, 7–30–63, Cl. 30—362.

Clark, George F., and J. J. Pauer. Ink composition. 3,073,707, 1–15–63, Cl. 106—22.

Clark, George H., and E. M. Dodds, to Esso Research and Engineering Co. Greases. 3,083,159, 3–26–63, Cl. 252—29.

Clark, George, to The American Agricultural Chemical Co. Preparation and recovery of ammonium bifluoride. 3,089,752, 5–14–63, Cl. 23—88.

Clark, George L.: *See*—
Hickey, John J., and Clark. 3,100,872.

Clark, George L., to Thompson Ramo Wooldridge Inc. High speed pulse control circuit for image converter tubes. 3,096,484, 7–2–63, Cl. 328—63.

Clark, George L., and J. J. Hickey, to Space Technology Laboratories, Inc. Trigger circuit. 3,084,282, 4–2–63, Cl. 315—168.

Clark, George L., and J. J. Hickey, to Space Technology Laboratories, Inc. Pulse forming circuit. 3,088,052, 4–30–63, Cl. 315—168.

Clark, George L., and J. J. Hickey, to Space Technology Laboratories, Inc. Control arrangement. 3,105,168, 9–24–63, Cl. 315—22.

Clark, George V., Co., Inc.: *See*—
Hirschland, Richard S., Cohen, A. A. and S. R. 3,080,129.

Clark, Gerald A., and C. B. Havens, to The Dow Chemical Co. Thermoplastic compositions having improved light stability. 3,072,602, 1–8–63, Cl. 260—45.85.

Clark, Gerald I.: *See*—
Pearson, Eugene W., Richardson, and Clark. 3,115,801.

Clark, Gordon W., to General Electric Co. System for preventing overheating of a steam turbine. 3,097,487, 7–16–63, Cl. 60—73.

Clark, Hadden, to Esso Research and Engineering Co. Laminated articles of reinforced plastics and methods of making same. 3,085,919, 4–16–63, Cl. 154—43.

Clark, Hadden, J. M. Throne, and O. C. Slotterbeck, to Esso Research and Engineering Co. Chemically modified polycloiefin resin as an adhesive. 3,090,715, 5–21–63, Cl. 154—43.

Clark, Harold A.: *See*—
Dexter, John F., and Clark. 3,079,281.

Clark, Harold V., J. Rolzen, and J. F. Varnell, Jr., to Ampex Corp. Tape recording and/or reproducing system and method. 3,097,267, 7–9–63, Cl. 179—100.2.

Clark, Harry F., to General Motors Corp. Thermally responsive control device for a surface cooking unit. 3,116,397, 12–31–63, Cl. 219—20.

Clark, Harry L. 100 inch radiometer. 3,087,062, 4–23–63, Cl. 250—83.3.

Clark, Harry L. Thermo-electric detecting device. 3,098,930, 7–23–63, Cl. 250—83.3.

Clark, Harry S. Apparatus for feeding work pieces. 3,114,476, 12–17–63, Cl. 221—225.

Clark, Henry B. Spring-closed swinging shock absorbing door. 3,091,818, 6–4–63, Cl. 20—16.

Clark, Herbert H., to Appleton Wire Works Corp. Art of separating water from aqueous liquids. 3,098,735, 7–23–63, Cl. 62—58.

Clark, Homer E., Jr., to Alcan Co., Inc. Plastic cartridge case. 3,088,405, 5–7–63, Cl. 102—43.

Clark, Homer E., Jr., to Alcan Co., Inc. Wad column. 3,095,817, 7–2–63, Cl. 102—95.

Clark, Howard G., III: *See*—
Black, William B., and Clark. 3,076,774.

Clark, Howard T., to Arkla Industries, Inc. Fluid regulating valve. 3,092,133, 6–4–63, Cl. 137—220.

Clark, Hubert M.: *See*—
Drutchas, Gilbert H., and Clark. 3,079,864.
Drutchas, Gilbert H., and Clark. 3,081,706.

Clark, Hubert M., and G. H. Drutchas, to Thompson Ramo Wooldridge Inc. Implement and power steering pump. 3,101,673, 8–27–63, Cl. 103—126.

Clark, J. L., Mfg. Co.: *See*—
Foster, John A. 3,095,995.

Clark, J. R., Co., The: *See*—
Best, Charles L., and Munson. 3,086,813.
Munson, Donald J., and Ridge. 3,074,734.

Clark, Jack W.: *See*—
Chang, Winston H., and Clark. 3,113,863.

Clark, James, to The Garrett Corp. Method of, and apparatus for, determining characteristics of flowing fluids. 3,078,709, 2–26–63, Cl. 73—53.

Clark, James A., to Bausch & Lomb Inc. Slide projector. 3,070,912, 1–1–63, Cl. 40—79.

Clark, James A., to Bausch & Lomb Inc. Pressure responsive switch for a slide projector. 3,114,806, 12–17–63, Cl. 200—83.

Clark, James A. M., to Charles Brand & Son Ltd. Apparatus for the erection of tunnel linings. 3,075,359, 1–29–63, Cl. 61—85.

Clark, James L., to Mark-Clark, Inc. Thermoplastic gauntlet and electronic welding method for uniting thermoplastic film or sheeting. 3,088,118, 5-7-63, Cl. 2—169.

Clark, James O., to Westinghouse Electric Corp. Vector resolver computer apparatus. 3,093,732, 6–11–63, Cl. 235—189.

Clark, James R.: *See*—
Moore, David L., and Clark. 3,105,579.

Clark, James T., to Clark-Feather Mfg. Co. Cylinder head supporting fixtures. 3,083,004, 3–26–63, Cl. 269—51.

Clark, James U.: *See*—
Reuvers, John F., and Clark. 3,108,237.
Reuvers, John F., Clark, and Lockhart. 3,084,296.

Clark, James W., to Lake Shore, Inc. Skip loading and weighing apparatus. 3,097,711, 7–16–63, Cl. 177—108.

Clark, Jared W.: *See*—
Moore, Leonard O., and Clark. 3,086,019.

Clark, Jesse K., to National Distillers and Chemical Corp. Probe socket assembly. 3,097,289, 7–9–63, Cl. 219—44.

Clark, John B.: *See*—
Stevens, Louis D., and Clark. 3,105,963.

Clark, John D.: *See*—
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Clark, John D., to International Harvester Co. Means for shifting the axis of boom means or the like. 3,099,358, 7–30–63, Cl. 212—67.

Clark, John D., to International Harvester Co. Mower having reciprocating counterbalanced elements. 3,104,511, 9–24–63, Cl. 56—296.

Clark, John D., to United States of America, Navy. Composition for the ignition of rocket monopropellants. 3,115,005, 12–24–63, Cl. 60—35.4.

Clark, John D., and M. E. Walsh, to United States of America, Navy. Rocket propellants containing tetraethylenepentaminenitrate. 3,110,639, 11–12–63, Cl. 149—47.

Clark, John F.: *See*—
Fisher, James C., Clark, and Lee. 3,081,871.

Clark, John F., and J. McIntosh, to Imperial Chemical Industries Ltd. Process of drawing melt spun polyester yarns. 3,103,407, 9–10–63, Cl. 18—48.

Clark, John G.: *See*—
Brown, Julian, Jr., and Clark. 3,101,456.

Clark, John G., and D. E. Tribby, to Sperry Rand Corp. Tunable circulator. 3,085,212, 4–9–63, Cl. 333—1.1.

Clark, John V., to B. M. Bailey. Automatically shielded scraping devices. 3,097,384, 7–16–63, Cl. 15—111.

Clark, Joseph C., to True Temper Corp. Spin cast fishing reel. 3,092,351, 6–4–63, Cl. 242—84.2.

Clark, Joseph C., to True Temper Corp. Spin-cast fishing reel. 3,114,514, 12–17–63, Cl. 242—84.21.

Clark, Joseph H., Jr., to General Electric Co. Hair dryer bonnet. 3,113,848, 12–10–63, Cl. 34—99.

Clark, Joseph R.: *See*—
Cowden, Lewis M., and Clark. 3,084,064.

Clark, Leland C., Jr., to Selas Corp. of America. Blood oxygenating apparatus. 3,075,524, 1–29–63, Cl. 128—214.

Clark Mfg. Co.: *See*—
Clark, Otho A. 3,106,251.

Clark, Melville, Jr. Dynamically keyed musical instrument. 3,090,272, 5–21–63, Cl. 84—1.26.

Clark, Melville, Jr. Intensity rate of change control for musical instruments. 3,109,047, 10–29–63, Cl. 84—1.27.

Clark, Melvin E. Toy comprising two hand held rods freely rotatable in a manner so as to converge. 3,104,494, 9–24–63, Cl. 46—1.

Clark Metal Products, Inc.: *See*—
Sisson, Earl L. 3,093,402.
Sisson, Earl L. 3,109,527.

Clark, Milton B.: *See*—
Drengler, George R., Clark, Stark, and Beatty. 3,087,003.

Clark, Milton B., and G. R. Drengler, to Union Carbide Corp. Dendritic zinc electrodes. 3,071,638, 1–1–63, Cl. 136—125.

Clark, Orville O., and J. F. Phelps, to United States Steel Corp. Securement for a round-side load in a transport vehicle. 3,103,898, 9–17–63, Cl. 105—369.

Clark, Otho A., to Clark Mfg. Co. Implement hitch for tractors. 3,106,254, 10–8–63, Cl. 172—474.

Clark, Paul W. Identification of automatic business machine cards. 3,081,735, 3–19–63, Cl. 118–236.

Clark, Philip B.: *See*—
Harling, Donald W., and Clark. 3,092,336.

Clark, Ralph O.: *See*—
Ballou, Edward V., Barth, and Clark. 3,084,030.

Clark, Ray D., to California Research Corp. Control system. 3,088,592, 5–7–63, Cl. 210—114.

Clark, Ray D., to California Research Corp. Electrode probe. 3,089,015, 5–7–63, Cl. 200—152.

Clark, Raymond D., to Eastman Kodak Co. Preparation of enolates of 2,2,4,4-tetra-alkylacetroacetic esters. 3,089,896, 5–14–63, Cl. 260—483.

Clark, Richard B., to The Bendix Corporation. Electrical apparatus. 3,076,875, 2–5–63, Cl. 200—30.

Clark, Richard B., and H. P. Meyer, to The Bendix Corp. Hydraulic engine governor. 3,100,422, 8–13–63, Cl. 121—42.

Clark, Robert A., to Caloric Appliance Corp. Burner bowl and burner grate mounting for cooking stove. 3,078,836, 2–26–63, Cl. 126—39.

Clark, Robert A., Jr., J. H. Starr, K. M. Watson, and T. A. Banning, Jr.: said Banning assor. to said Clark. Apparatus for analyzing the production and drainage of petroleum reservoirs, and the like. 3,079,085, 2–26–63, Cl. 235—185.

Clark, Robert B., to General Electric Co. Thermocouple. 3,071,636, 1–1–63, Cl. 136—4.

Clark, Robert C. Premium stamp-dispensing mechanism for cash registers. 3,077,299, 2–12–63, Cl. 235—7.

Clark, Robert L.: *See*—
Rogers, Edward F., and Clark. 3,088,867.

Clark, Robert O. Air shock closure valve. 3,115,155, 12–24–63, Cl. 137—512.3.

Clark, Roland R., and H. D. Kaiser, Jr., to Medical Supply Co. Tablet dispenser. 3,079,051, 2–26–63, Cl. 222—337.

Clark, Samuel S., to Keystone Valve Corp. Milling machine. 3,106,869, 10–15–63, Cl. 90—13.

Clark, Sheldon L., and D. J. Mangold, to Olin Mathieson Chemical Corp. Alkylated decaborane-acetylenic hydrocarbon reaction products and method for their preparation. 3,092,664, 6–4–63, Cl. 260—606.5.

Clark, Sheldon L., J. T. Duke, T. B. Larchar, and W. K. Taft to Olin Mathieson Chemical Corp. Organoboran copolymers. 3,093,687, 6–11–63, Cl. 260—606.5.

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Niskin, Shale J. 3,102,743.

Clark, Theodore W. Rebound board for table tennis. 3,088,735, 5–7–63, Cl. 273—30.

Clark, Thomas L., to Laucks Laboratories Inc. Rotary grading table. 3,110,389, 11–12–63, Cl. 198—103.

Clark, Victor, M., T. Walker, and G. B. Webb, to Glaxo Group Ltd. Analogues of griseofulvin and process by which they are prepared. 3,102,123, 8–27–63, Cl. 260—346.2.

Clark, Wallace, and A. S. Goldstein, Jr. Well drilling apparatus. 3,112,801, 12–3–63, Cl. 175—107.

Clark, Walter V. Spark plug. 3,079,453, 2–26–63, Cl. 123—169.

Clark, William B. and A. R. Welding apparatus. 3,091,685, 5–28–63, Cl. 219—125.

Clark, William E., to Carrier Corp. Anti-surge control for fluid compressor. 3,095,710, 7–2–63, Cl. 62—117.

Clark, William F., Jr., to United States Steel Corp. Scarfing burner torch tip. 3,091,281, 5–28–63, Cl. 158—27.4.

Clark, William G., to The International Silver Co. Cosmetic container. 3,083,822, 4–2–63, Cl. 206—56.

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Clark, William H. R., to C.F.K. Mfg. Co. Adjustable target holder. 3,080,166, 3–5–63, Cl. 273—102.

Clark, Winslow B. M., to Douglas Aircraft Co., Inc. Temperature indicator. 3,103,657, 9–10–63, Cl. 340—317.

Clarke, Bruce P., to Ibis Enterprises Ltd. Safety device for hoisting mechanisms. 3,090,651, 5–21–63, Cl. 303—6.

Clarke, Daniel J., to The Stalker Corp. Bladed rotors. 3,077,297, 2–12–63, Cl. 230—134.

Clarke, Daniel J., and O. Oetliker, to The Stalker Corp. Blades for compressors, turbines and the like. 3,095,180, 6–25–63, Cl. 253—77.

Clarke, Daniel J., and E. A. Stalker, to The Stalker Corp. Rotor for radial flow pumping means. 3,107,627, 10–22–63, Cl. 103—115.

Clarke, Eric F. S.: *See*—
Brockbank, Robert A., Piggott, Clarke, Jury, and Taylor. 3,105,676.

Clarke, Frederick. Submergible pipeline caisson. 3,111,812, 11–26–63, Cl. 61—81.

Clarke, Henry R., to International Business Machines Corp. Programming apparatus. 3,088,666, 5–7–63, Cl. 235—61.11.

Clarke, Herbert: *See*—
Cape, Arthur T., and Clarke. 3,076,704.

Clarke, Houghton W., and F. A. Blashfield, 99% to Mealpack Corp, and 1% to H. W. Clarke. Cart washing apparatus. 3,096,775, 7–9–63, Cl. 134—123.

Clarke, James A., to The Dow Chemical Co. Method of bonding cellulosic materials. 3,079,294, 2–26–63, Cl. 156—332.

Clarke, James P., and F. Boulanger. Cigarette dispensing device. 3,080,999, 3–12–63, Cl. 221—266.

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Reynolds, Ralph K., and Clarke. 3,092,919.

Clarke, John C.: *See*—
Clarke, Robert E. and J. C. 3,096,100.

Clarke, John V., Jr.: *See*—
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Roblee, Leland H. S., Jr., Clarke, and Foust. 3,098,762.
Clarke, Joseph V., to Prestige, Inc. Stocking. Re. 25,331, 2-19-63, Cl. 66—172.
Clarke, Michael R., and C. E. H. Bawn, to Monsanto Chemicals Ltd. Polymerization with the aid of a catalyst containing aluminum halide and an organo-mercury compound in a halogenated liquid medium. 3,080,349, 3-5-63, Cl. 260—88.2.
Clarke, Patrick W., to Bell Telephone Laboratories, Inc. Controlled rectifier regulating system utilizing a linear relaxation trigger circuit. 3,114,097, 12-10-63, Cl. 321—18.
Clarke, Ray A., to E. I. du Pont de Nemours and Co. Process for producing quinoline yellow dyes. 3,108,109, 10-22-63, Cl. 260—289.
Clarke, Robert E. Toy vehicle starter and timer. 3,115,724, 12-31-63, Cl. 46—243.
Clarke, Robert E. and J. C. Rider propelled vehicle. 3,096,-100, 7-2-63, Cl. 280—261.
Clarke, Robert L., to Sterling Drug Inc. Process for preparing 1,4-androstadiene-2,17β-diol-3-one. 3,081,317, 3-12-63, Cl. 260—397.4.
Clarke, Robert L., to Sterling Drug Inc. 4-androstene-2α,3,17β-triols and preparation thereof. 3,081,318, 3-12-63, Cl. 260—397.5.
Clarke, Robert L., to Sterling Drug Inc. Alpha-aryl or aralkyl tetrahydrofurfurylamines. 3,091,621, 5-28-63, Cl. 260—347.7.
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Busch, Richard E. 3,080,112.
Christoff, Chris A., and Gearheart. 3,101,664.
Christoff, Chis A., Gearheart, and Busch. 3,090,298.
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Koutnik, Roderick J. 3,077,207.
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Loudon, Robert E. 3,077,589.
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Clary, Harry E., to Thompson Ramo Wooldridge Inc. Hydraulic brake system. 3,080,718, 3-12-63, Cl. 60—52.
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Peebles, David D., Clary, and Kempf. 3,074,797.
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Class, Reinhold. Threshing mechanism, particularly for combine harvesters. 3,109,433, 11-5-63, Cl. 130—24.
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Claus, Carl J., to Xerox Corp. Self-tackifying xerographic toner. 3,080,250, 3-5-63, Cl. 117—17.5.
Claus, Carl J., to Xerox Corp. Method of xerographic development. 3,080,251, 3-5-63, Cl. 117—17.5.
Claus, Carl J., to Xerox Corp. Three-component xerographic toner. 3,080,318, 3-5-63, Cl. 252—62.1.
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Clauss, Harry, to Ries G.m.b.H. Bekleidungsverschluss-Fabrik. Sliding clasp fastener. 3,089,328, 5-14-63, Cl. 70—68.
Clauss, Karl, and H. Bestian, to Hercules Powder Co. Organo-titanium compounds and a process of preparing them. 3,104,249, 9-17-63, Cl. 260—429.5.
Clauss, Raymond E., E. R. Humbert, and W. F. Jorch, to Sperry Rand Corp. Precision fluid flow measuring and controlling apparatus. 3,081,629, 3-19-63, Cl. 73—205.
Clauss, Richard J., R. W. Klein, and L. J. Pianowski, to The Udylite Corp. Slurry agitator mechanism. 3,081,239, 3-12-63, Cl. 204—49.
Clavel, Jean, to l'Electro-Commutation. Electric switches. 3,098,130, 7-16-63, Cl. 200—11.
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Mycock, John R., and Palmer. 3,085,776.
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Clay, Arthur T., to Hetherington & Berner, Inc. Dredge pump construction. 3,115,099, 12-24-63. Cl. 103—114.
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Clay, Bernard, J.: *See*—
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Clay, Richard H., to H. H. Robertson Co. Building structures shielded against radio-frequency radiations and components thereof. 3,092,218, 6-4-63, Cl. 189—34.
Clay, Robert L. Toy rocket and launcher. 3,088,450, 5-7-63, Cl. 124—26.
Clayborne, Norman F., M. E. Kerns, and W. E. Hamlin, to Railway Automation Maintenance Specialties Co. Rail handler. 3,074,562, 1-22-63, Cl. 212—11.
Clayson, Gordon S. Analytical balances. 3,086,603, 4-23-63, Cl. 177—4.
Clayton Aniline Co. Ltd., The: *See*—
Nicklin, Thomas, and Sommerville. 3,097,926.
Clayton, Cliff A., Jr.: *See*—
Barnhart, Carlton L., Cantrell, and Clayton. 3,104,001.
Clayton Corp. of Delaware, The: *See*—
Rhodes, James L., and Hug. 3,081,916.
Clayton Dewandre Co. Ltd.: *See*—
Ballard, Donald H., and Ellis. 3,074,709.
Ballard, Donald H., and Ellis. 3,091,257.
Heacock, Frederick H. 3,078,828.
Clayton, Erith T., to Peen Plate, Inc. Metal coating on non-metal body by tumbling. 3,093,501, 6-11-63, Cl. 117—29.
Clayton, Fred L. Quick release restraining device. 3,074,-378, 1-22-63, Cl. 119—111.
Clayton James H. Collapsible cot. 3,093,837, 6-18-63, Cl. 5—111.
Clayton, James O.: *See*—
MacPherson, John H., Jr., and Clayton. 3,105,471.
Clayton, John, Jr., and L. Morton, Jr., to Waters Mfg., Inc. Potentiometer. 3,105,216, 9-24-63, Cl. 338—174.
Clayton & Lambert Mfg. Co.: *See*—
Rantlo, Laurie J. 3,106,045.
Clayton, Richard W., and A. E. Jackson, to Radio Corp. of America. Braking mechanisms. 3,092,345, 6-4-63, Cl. 242—55.12.
Clayton, Robert G., L. J. Halberstadt, and R. Tarin to Pro-Phy-Lac-Tic Brush Co. Toothbrushes. 3,072,944, 1-15-63, Cl. 15—167.
Clayton Specialties, Inc.: *See*—
Walters, Clayton T. 3,090,350.
Claywell, Jack W., to Preway Inc. Gas dish washer. 3,104,-669, 9-24-63, Cl. 134—57.
Claywell, Jack W., to Preway Inc. Gas dishwasher venting and heating arrangement. 3,111,941, 11-26-63, Cl. 126—345.
Claywell, Jack W., to Preway Inc. Gas-fired dishwasher. 3,111,953, 11-26-63, Cl. 134—107.
Clean Home Products, Inc.: *See*—
Wilson, Norman E. 3,087,679.
Clearfield, Abraham, to National Lead Co. Acetatozirconyl halides. 3,104,248, 9-17-63, Cl. 260—429.3.
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Meeker, Jess, and Tate. 3,100,712.
Cleary, Donald F.: *See*—
Shaler, David, Cleary, and Kacin. 3,100,252.
Cleary, Edward F., and J. B. Rudden, to Marbelite Co., Inc. Signal light. 3,090,033, 5-14-63, Cl. 340—84.
Cleary, John R., to Cleary Mfg. Co. Wagon handle. 3,100,-120, 8-6-63, Cl. 280—87.01.
Cleary Mfg. Co.: *See*—
Cleary, John R. 3,100,120.

Cleary, Robert T.: *See*—
Burns, Robert V., and Cleary. 3,092,691.
Cleary, Thomas R.: *See*—
Adams, George R., and Cleary. 3,092,726.
Cleaver-Brooks Co.: *See*—
Loebel, Frederick A. 3,111,935.
Loebel, Frederick A., and Craig. 3,079,981.
Cleaver-Brooks Special Product, Inc.: *See*—
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Cleaver, Charles S., to E. I. du Pont de Nemours and Co. Process for preparing nitronium hexafluorophosphate and nitryl fluoride. 3,092,459, 6-4-63, Cl. 23—203.
Cleereman, Kenneth J.: *See*—
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Cleff, Peter H., to The Parsons and Marine Engineering Turbine Research and Development Assn. Means for generating involute gears. 3,091,059, 5-28-63, Cl. 51—32.
Clegg, Frank G., to Curtis 1000, Inc. Envelope for initial and return mailing. 3,084,846, 4-9-63, Cl. 229—73.
Clegg, William J.: *See*—
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Clejan, Deodat, to General American Transportation Corp. Methods of loading and of unloading freight containers in freight transportation systems. 3,102,646, 9-3-63, Cl. 214—152.
Cleland, Aaron L., to Aircraft Radio Corp. Threshold trigger having regenerative feedback but maintaining conduction only during presence of input signal. 3,084,265, 4-2-63, Cl. 307—88.5.
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Cleland, Marshall R., to Radiation Dynamics, Inc. Power transfer apparatus for supplying high voltage, high-frequency power to a remote load. 3,113,256, 12-3-63, Cl. 321—15.
Clelland, Charles M., and L. C. Aldrich, Jr. Toilet tissue storage and dispenser. 3,101,181, 8-20-63, Cl. 242—55.3.
Clem, Arthur G., to American Colloid Co. Calcium base drilling fluid. 3,079,334, 2-26-63, Cl. 252—8.5.
Clem, Arthur G., and T.-K. Lee, to American Colloid Co. Compositions useful in adjusting the viscosity and gel strength of aqueous drilling fluids. 3,079,335, 2-26-63, Cl. 252—8.5.
Clem, Everett W., to Rice Barton Corp. Slitting apparatus. 3,073,198, 1-15-63, Cl. 83—504.
Clemency, William F., to Bell Telephone Laboratories, Inc. Speakerphone. 3,075,045, 1-22-63, Cl. 179—1.
Clemens, Fred K., to Continental Oil Co. Dispensing nozzle with grease fitting receiving means. 3,109,463, 11-5-63, Cl. 141—360.
Clemens, George S. Toothbrush. 3,103,679, 9-17-63, Cl. 15—167.
Clemens, Glen H., to Glen H. Clemens, Inc. Combined accelerator and brake assembly for vehicles. 3,101,822, 8-27-63, Cl. 192—1.
Clemens, Glen H., Inc.: *See*—
Clemens, Glen H. 3,101,822.
Clemens, John E., R. W. Harruff, B. B. Johnstone, J. D. Ray, M. D. Sobottke, and H. W. Weeks, to United Shoe Machinery Corp. Automatic work guidance mechanisms. 3,080,-836, 3-12-63, Cl. 112—47.
Clemens, John E., and B. B. Johnstone, to A. Kimball Co. Apparatus for feeding sheets. 3,108,799, 10-29-63, Cl. 271—41.
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Clemens, Pat L., to United States of America, Air Force. Automatic A.-C. voltage ratio controller. 3,098,194, 7-16-63, Cl. 323—66.
Clement, Alvin H. Correlation by random time reference utilization. 3,108,249, 10-22-63, Cl. 340—15.5.
Clement, Carl H., Jr., to Bock Laundry Machine Co. Centrifugal braking mechanism for rotatable members. 3,077,-965, 2-19-63, Cl. 192—18.
Clement, Claude, F. Eschard, and M. Viguier, to Institut Français du Petrole des Carburonts et Lubrifiants. Process for reducing iron ores. 3,094,410, 6-18-63, Cl. 75—40.
Clement, Clyde H. Set-up tent. 3,114,377, 12-17-63, Cl. 135—3.
Clement, Frank L. Tag trailer. 3,082,039, 3-19-63, Cl. 298—17.
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Clement, Genevieve, and J.-C. Balaceanu. Process for making cyclohexene hydroperoxides. 3,096,376, 7-2-63, Cl. 260—610.
Clement, Hubert L., and J. McNutt, to James Lees and Sons Co. Circulating system for carpet dye becks. 3,091,109, 5-28-63, Cl. 68—177.
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Clements, Errette: *See*—
Lewis, Martha M. 3,094,125.
Clements, Errette. Trailer level. 3,110,114, 11-12-63, Cl. 33—207.
Clements, Forrest G., to Bell Intercontinental Corp., Wheelabrator Division. Vibratory device and amplitude adjustment means. 3,078,730, 2-26-63, Cl. 74—87.
Clements, Francis J.: *See*—
Yartz, Johnny W., and Clements. 3,108,755.
Clements, Francis J., to General Electric Co. Rotatable assembly for food waste disposers and the like. 3,118,735, 12-10-63, Cl. 241—275.
Clements, Francis S., and E. V. Nutt, to The International Nichel Co., Inc. Production of tetrachloropalladates. 3,088,802, 5-7-63, Cl. 23—51.
Clements, Herbert A.: *See*—
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Clements, Herbert A., to S.S.S. Gears Ltd. Power transmission systems incorporating variable speed gearing. 3,106,-102, 10-8-63, Cl. 74—359.
Clements, Herbert A., to S.S.S. Gears Ltd. Synchronous self-shifting clutches. 3,106,276, 10-8-63, Cl. 192—109.
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Clements, Ronald B., to T. & T. Vicars Ltd. Feeding machines for biscuits or the like laminar articles. 3,113,-660, 12-10-63, Cl. 198—31.
Clements, Roy J., to Texaco Inc. Means for determining the fluid level in a well. 3,100,023, 8-6-63, Cl. 181—5.
Clements, Roy J., and R. B. Stelzer, to Texaco Inc. Abrasion resistant coating suitable for borehole drilling apparatus. 3,072,843, 1-8-63, Cl. 324—10.
Clements, Roy J., B. D. Lee, B. H. Towell, W. R. McEvers, and J. J. Havlik, to Texaco Inc. Recording device. 3,109,693, 11-5-63, Cl. 346—109.
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Clemetsen, Erling A. and J. A. 3,107,773.
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Feld, Ignatz L., and Clemmons. 3,073,710.
Clemons, Donald G., to Bell Telephone Laboratories, Inc. Magnetic memory construction and circuits. 3,084,336, 4-2-63, Cl. 340—174.
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Linnit, Christopher E. 3,092,863.
Clendenin, Bert J. Wire stripping tool. 3,114,277, 12-17-63, Cl. 81—9.5.
Clendenin, Wilbur H., and E. J. Johnston, to International Harvester Co. Anti-wrap shield structure for rotating crop handling device. 3,104,509, 9-24-63, Cl. 56—1.
Cleneay, Benjamin B.: *See*—
Joseph, Elias F., and Cleneay. 3,088,683.
Clensy, Richard L. Clothes dryer. 3,088,600, 5-7-63, Cl. 211—166.
Cleveland, Anita H. Connection devices for garments. 3,112,-491, 12-3-63, Cl. 2—90.
Cleveland Container Corp., The: *See*—
Stump, Paul W. 3,072,312.
Stump, Paul W. 3,113,714.
Cleveland Controls, Inc.: *See*—
Kraft, Arthur A. 3,096,020.
Cleveland Crane & Engineering Co., The: *See*—
Anderson, Ralph P. 3,111,228.
Cotesworth, Harry A. Re. 25,501.
Dehn, Roy F. 3,090,840.
Dehn, Roy F. 3,095,829.
Dehn, Roy F., and Cotesworth. 3,095,174.
Lofquist, John A. 3,111,227.
Wakklin, Albert J. 3,074,354.
York, Willard A. 3,103,282.
Cleveland-Detroit Corp.: *See*—
Klamp, William. 3,106,630.
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Klapes, Michael C., and Cleveland. 3,081,588.
Cleveland Pneumatic Industries, Inc.: *See*—
Hartel, Erwin H. 3,073,586.
Hartel, Erwin H. 3,086,733.
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Hrusch, Louis C. 3,099,424.
Westcott, William B., Jr. 3,079,764.
Cleveland Product Co. Ltd.: *See*—
Schellenberg, Clifford. 3,087,945.
Cleveland Steel Products Corp.: *See*—
Slaght, William W. 3,070,980.
Cleveland Technical Center, Inc.: *See*—
Shackson, Richard H. 3,103,104.
Simmons, Lawrence C. 3,071,420.
Simmons, Lawrence C. 3,098,562.
Tilden, Carleton D. 3,074,243.
Cleveland, Thomas H., D. H. Chadwick, and E. E. Hardy, to Monsanto Chemical Co. Pyrolysis products of dimethyl hydrogen phosphite and method of producing same. 3,089,889, 5-14-63, Cl. 260—461.

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Penote, Vincent S. 3,108,387.
Cleveland Trencher Co., The: *See*—
Orton, Raymond E. 3,082,043.
Penote, Vincent S., and Fetzner. 3,081,566.
Penote, Vincent S., and Meyer. 3,091,044.
Cleveland Trust Co., The: *See*—
Becks, Vernon C. 3,091,458.
Brodie, George H. 3,091,456.
Frohlich, Adolf H., and Harris. 3,093,531.
Frohlich, Adolph, and Harris. 3,113,344.
Mentzer, Everett K., and Webb. 3,091,457.
Cleven, Ronald D.: *See*—
McKnight, William B., McClusky, and Cleven. 3,071,036.
Clevenger, William B.: *See*—
Kayko, Charles J., and Clevenger. 3,105,750.
Clevers, Johannes A. N., to North American Philips Co., Inc. Stud welding. 3,079,488, 2–26–63, Cl. 219—99.
Cleversey, Gerald W., to United Shoe Machinery Corp. Shoe holding jacks. 3,075,210, 1–29–63, Cl. 12—17.2.
Cleversey, Gerald W., to United Shoe Machinery Corp. Rough rounding machines. 3,076,211, 2–5–63, Cl. 12—17.2.
Clevett, Merton L., to Laconia Malleable Iron Co., Inc. Ground anchor. 3,080,024, 3–5–63, Cl. 189—90.
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Brown, Arling D., Jr., and Morris. 3,088,788.
Cerness, Joseph F., and Luce. 3,097,422.
Cerness, Joseph F., and Strong. 3,096,565.
Favro, Lawrence D. 3,081,536.
Favro, Lawrence D., and Pomerantz. 3,103,733.
Frost, William T. 3,104,455.
Germano, Carmen P., and Kullin. 3,073,914.
Gersbach, Wilhelm. 3,081,586.
Goetzberger, Adolf. 3,109,760.
Hamilton, Noble E. 3,070,859.
Hamilton, Noble E. 3,094,006.
Hill, John. 3,094,766.
Hufferd, George H., Josephson, and Williams. 3,101,420.
Hufferd, George H., and Stewart. 3,114,059.
Hufferd, George H., Vail, and Josephson. 3,082,333.
Johnston, Ransford J. 3,105,912.
MacDonald, Robert J. 3,081,196.
Meretsky, Paul L. 3,109,221.
Miller, Harry B. 3,110,825.
Mocanu, Timothy. 3,099,576.
Morrison, Wilbert H., and Slater. 3,104,135.
Morrison, Wilbert H., and Williams. 3,093,885.
Noyce, Robert N. 3,098,160.
Noyce, Robert N. 3,111,590.
Parkinson, David B., and Sprosty. 3,082,291.
Pearlman, Alan R. 3,097,309.
Poisson, Arthur J. 3,092,245.
Ramser, Walter O. 3,095,622.
Small, Charles B.; Vail, and Hufferd. 3,094,108.
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Clewell, Dayton H., to Socony Mobil Oil Co., Inc. Well drilling system. 3,074,492, 1–22–63, Cl. 175—56.
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Cliff, George J., B. B. Parshall, W. H. Braun, J. G. Feldkamp, and R. E. Hager; said Cliff, Parshall, and Braun, assors. to Link-Belt Co., and said Feldkamp and Hager, assors to Acme Steel Co. Article stacking and strapping machine. 3,095,678, 7–2–63, Cl. 53—124.
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Clifford, Richard F., and A. Ambrosio, to Space Technology Laboratories, Inc. Electromagnetic radiation intensity measurement arrangement. 3,088,072, 4–30–63, Cl. 325—364.
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Cline, Edward T., and D. Tanner, to E. I. du Pont de Nemours and Co. Graft polymerizing an unsaturated organic acid or salt thereof onto a nitrogen containing polymer substrate. 3,090,664, 5–21–63, Cl. 8—115.5.
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Burgin, Kermit H. 3,094,965.
Cline, Leon J. Heated immersion sterilizer for milking machine components. 3,106,445, 10–8–63, Cl. 21—86.
Cline, Nathan R. Marking pen. 3,085,280, 4–16–63, Cl. 15—506.
Cline, Nathan R. Marking pen. 3,088,160, 5–7–63, Cl. 15—563.
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Clinton, Raymond O., to Sterling Drug Inc. Esters of 17α-(3-hydroxy-1-propinyl)androst-5-ene-3β,17β-diol and their preparation. 3,113,953, 12–10–63, Cl. 260—397.5.
Clinton, Raymond O., and R. G. Christiansen, to Sterling Drug Inc. 17α-(lower-alkyl)-19-nor-5(10)-androstene-3,17β-diols. 3,076,826, 2–5–63, Cl. 260—397.5.
Clinton, Raymond O., and D. F. Page, to Sterling Drug Inc. Ring-tri-substituted-N-(lower-alkanoyl) aniline derivatives and preparation thereof. 3,076,845, 2–5–63, Cl. 260—562.
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Clippinger, Everett, to California Research Corp. Preparation of alkyl sulfonates. 3,084,186, 4–2–63, Cl. 260—513.
Clisset, Harold C. Magnetic fluid transmission means. 3,106,850, 10–15–63, Cl. 74—190.
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Burgin, Kermit H. 3,090,346.
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Clock, Donald P., and G. A. Lucchi, to Radio Corp. of America. Decoder and coder circuit. 3,092,830, 6–4–63, Cl. 343—6.8.
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Close, Patrick B., J. A. Coulter, L. R. Ditmer, R. P. Fahrenbruck, F. R. Goldsammer, L. J. Goodrick, E. V. Guiden, T. P. Holloran, C. S. Jenkins, L. D. Kilheffer, K. A. Kinker, J. D. Lyons, N. D. Manor, R. P. Marvin, W. L. Miller, P. L. O'Brian, J. H. Randall, E. M. Garner, R. O. Sather, R. L. Yost, and A. B. Braden, Jr., to The National Cash Register Co. Electronic computing machine. 3,112,394, 11–26–63, Cl. 235—61.9.
Close, Richard N., to United States of America, Air Force. Sweep recovery and altitude compensation circuit. 3,072,856, 1–8–63, Cl. 328—185.

Close, Sam, to Bower, Inc. Incinerator. 3,082,714, 3–26–63, Cl. 110—8.
Close, Warren J., to Abbott Laboratories. Method for manufacture of 5-chloro-2,4-bis(methylsulfamyl)-aniline. 3,108,124, 10–22–63, Cl. 260—397.7.
Close, Warren J., and L. R. Swett, to Abbott Laboratories. Derivatives of benzothiadiazine-1,1-dioxide. 3,078,270, 2–19–63, Cl. 260—243.
Closner, John J., R. Maroti, and L. Magers, Jr., to Preload Corp. Storage structure. 3,092,933, 6–11–63, Cl. 50—129.
Closs, George M., and P. F. Dougherty, to Sun Oil Co. Subterranean storage of fluids. 3,089,309, 5–14–63, Cl. 61—.5.
Closson, Addison W., Jr., to Beckwith-Ardon Inc. Thermal back part conditioner for shoe uppers. 3,102,288, 9–3–63, Cl. 12—59.7.
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Clough, Robert E.: *See*—
Canning, Gordon, Jr., and Clough. 3,101,840.
Whatley, Allan, Jr., and Clough. 3,108,688.
Clouse, George S., to Triway Industries, Inc. Studio couch. 3,107,362, 10–22–63, Cl. 5—17.
Clouth, Franz: *See*—
Hartmann, Ewald. 3,079,018.
Cloutier, Albert J.: *See*—
Buckbee, John A., and Cloutier. 3,094,644.
Cloutier, J. T., Inc.: *See*—
Boucher, Claude. 3,077,011.
Cloutier, Warren F. Portable seat. 3,115,213, 12–24–63, Cl. 182—187.
Cloux, Edouard, to Ebauches S.A. Electric clock or watch having an oscillatory regulator. 3,111,807, 11–26–63, Cl. 58—28.
Clover, Henrietta. Brassiere. 3,075,531, 1–29–63, Cl. 128—491.
Clow, Donald J. Knot tying device. 3,106,417, 10–8–63, Cl. 289—17.
Clow, George F. Adjustable table supporting construction. 3,094,948, 6–25–63, Cl. 108—10.
Clowers, Earl R., to Sunbeam Corp. Can lid retaining mechanism for can openers. 3,105,297, 10–1–63, Cl. 30—6.4.
Cloyd, Harold S., to Union Carbide Corp. Beverage case. 3,080,087, 3–5–63, Cl. 220—31.
Cluett, Peabody & Co., Inc.: *See*—
Macrides, Philip C. 3,072,306.
Milligan, Rex V., and Weiner. 3,072,081.
Pandell, Nestor W., and Bellinson. 3,072,012.
Pfeffer, Edward C., Jr. 3,092,841.
Cluff, Edward F., to E. I. du Pont de Nemours and Co. Process for curing vinylidene fluoride-hexafluoropropene copolymers. 3,088,938, 5–7–63, Cl. 260—87.7.
Clune, Richard R., to P. R. Mallory & Co., Inc. Leak-proof electrochemical cell. 3,096,217, 7–2–63, Cl. 136—107.
Clure, John L.: *See*—
Babbitt, Robert P., and Clure. 3,074,469.
Clute, Francis H. Forced air ventilating floor for poultry houses. 3,110,286, 11–12–63, Cl. 119—22.
Clutton, Sam W. Oil well journal box dust guard. 3,074,720, 1–22–63, Cl. 277—26.
Clymer, Joseph D., to Tokheim Corp. Electric drive unit and mounting. 3,074,347, 1–22–63, Cl. 103—87.
Clynch, Frank, to Continental Oil Co. System for anchoring and transporting a seismic vibrator. Re. 25,401, 6–18–63, Cl. 181—5.
Clyne, Joseph, to Apparel Patent Co. Inc. Shirt collar and support therefor. 3,076,198, 2–5–63, Cl. 2—132.
Clynes, Manfred E., to Mnemotron Corp. Computer of average response transients. 3,087,487, 4–30–63, Cl. 128—2.1.
Clynes, Manfred E., to Mnemotron Corp. Linear pulse frequency modulator. 3,100,285, 8–6–63, Cl. 332—14.
Coad, Brian C.: *See*—
Pflumm, Heinz R., Durst, and Coad. 3,113,376.
Coad, George L. Temperature-responsive heat pump defrosting unit. 3,107,500, 10–22–63, Cl. 62—156.
Condy-Farley, James T., and D. W. H. Hampshire, to Ferranti, Ltd. Servo apparatus for adjusting the position of a movable member. 3,080,511, 3–5–63, Cl. 318—28.
Coady-Farley, James T., D. W. H. Hampshire, and G. S. Walker, to Ferranti, Ltd. Apparatus for positioning a movable member. 3,084,315, 4–2–63, Cl. 318—28.
Coakley, Arthur J., to Jones and Lamson Machine Co. Optical projection contour inspection system. 3,077,815, 2–19–63, Cl. 88—24.
Coal Bit Co.: *See*—
Thornsberry, Landell. 3,106,972.
Coal Industry (Patents) Ltd.: *See*—
Hirst, Arthur A., and Burns. 3,083,942.
Madley, Daniel G. 3,093,463.
Yarmak, Julius. 3,112,709.
Yarmak, Julius, and Synac. 3,098,359.
Coale, Harold D., to Phillips Petroleum Co. Decoratively colored thermoplastic article and process for making the same. 3,096,146, 7–2–63, Cl. 18—61.
Coale, Harold D., to Phillips Petroleum Co. Method of forming a double-walled container. 3,113,881, 12–10–63, Cl. 18—59.
Coan, Richard L., to Cerro Corp. Draw carriage. 3,087,604, 4–30–63, Cl. 205—24
Coan, Stephen B., to Schering Corp. Fluorenyl and xanthydryl ethers of 1-alkyl-3-piperidinols. 3,072,665, 1–8–63, Cl. 260—294.7.
Coar, Ronald, to The Spooner Dryer & Engineering Co. Ltd. Apparatus for treating moving lengths of material. 3,078,592, 2–26–63, Cl. 34—122.
Coast Engineer & Supply Co.: *See*—
West, Roland E., and Stridell. 3,077,247.
Coast Metals, Inc.: *See*—
Cape, Arthur T. 3,107,175.
Cape, Arthur T., and Clarke. 3,076,704.
Lamb, Kenneth. 3,096,199.
Coast Pro-Seal & Mfg. Co.: *See*—
Mineah, Lawrence E. 3,071,855.
Snow, Floyd E., and York. 3,083,881.
Snow, Floyd E., and York. 3,088,712.
Coastal Valley Canning Co.: *See*—
Stevens, Francis E., and Nelson. 3,083,547.
Coates, Colin, and W. E. Lardner, to Westrex Co., Ltd. Selective signaling system. 3,090,838, 5–21–63, Cl. 179—84.
Coates, Ellis W., and J. C. Conde, to Central Anejadora Guatemalteca. Fermentation of sugar to ethyl alcohol in the presence of proteolytic enzymes. 3,093,548, 6–11–63, Cl. 195—37.
Coates, George A.: *See*—
Beitscher, Herbert R., Coates, and Akin. 3,079,583.
Coates, Harold, and B. Chalkley, to Albright & Wilson Ltd. Insolubilisation of further-polymerisable methylol-phosphorus polymeric materials. 3,096,201, 7–2–63, Cl. 117—62.2.
Coates, Harold N., to International Computers and Tabulators Ltd. Magnetic core registers. 3,097,350, 7–9–63, Cl. 340—174.
Coats & Clark Inc.: *See*—
Morin, Louis H. 3,077,167.
Morin, Louis H. 3,077,727.
Coats, George M.: *See*—
Morway, Arnold J., and Coats. 3,114,708.
Coats, John N. Pipe interconnection assembly. 3,115,157, 12–24–63, Cl. 137—561.
Coats, Raymond E.: *See*—
Sosalla, Harry L., Madison, and Coats. 3,074,727.
Cobb, Clifton A.: *See*—
Brenner, Robert A., and Cobb. 3,105,377.
Cobb, Clifton A., to Whirlpool Corp. Fluent material dispenser for a washing machine. 3,107,512, 10–22–63, Cl. 68—17.
Cobb, Clifton A., and J. T. Williams, to Whirlpool Corp. Method of determining the liquid level in a clothes washing machine. 3,093,841, 6–18–63, Cl. 8—158.
Cobb, James L., to J. P. Stevens & Co., Inc. Fitted sheet. 3,114,156, 12–17–63, Cl. 5—334.
Cobb, James S., Jr., to E. I. du Pont de Nemours and Co. Spinneret assembly. 3,095,607, 7–2–63, Cl. 18—8.
Cobb, Jay T. Oil well cleaner. 3,089,544, 5–14–63, Cl. 166—162.
Cobb, Phara L., Jr., and M. R. Hargrave, to Eastman Kodak Co. Process and apparatus for manufacturing filters. 3,079,930, 3–5–63, Cl. 131—208.
Cobb, Phara L., Jr., and M. R. Hargrave, to Eastman Kodak Co. Apparatus for manufacturing filters. 3,079,978, 3–5–63, Cl. 156—441.
Cobb, Phara L., Jr., and M. R. Hargrave, to Eastman Kodak Co. Process for manufacturing filters. 3,106,501, 10–8–63, Cl. 156—180.
Cobb, Raymond L.: *See*—
Goodhue, Lyle D., Cobb, and Cantrel. 3,108,037.
Cobb, Raymond L., and M. P. Marena, to Phillips Petroleum Co. Stabilization of 1-olefin polymers. 3,099,639, 7–30–63, Cl. 260—45.95.
Cobb, Raymond L., P. S. Hudson, and L. M. Mayfield, to Phillips Petroleum Co. Easily castable polyurethane propellants containing highly halogenated compounds. 3,109,761, 11–5–63, Cl. 149—19.
Cobb, Vincent J., to National Lead Co. Preparation of substantially pure titanium dioxide. 3,105,743, 10–1–63, Cl. 23—202.
Cobb, William R.: *See*—
Buchanan, Royal S., and Cobb. 3,081,608.
Cobbett, Leonard C., to Albert & J. M. Anderson Mfg. Co. Drum type switch. 3,089,938, 5–14–63, Cl. 200—155.
Cobel, George B.: *See*—
Jucknless, Paul R., Cobel, and Chisholm. 3,075,263.
Cober: *See*—
Covini, Lorenzo. 3,095,209.
Coberly, Clarence J., to Kobe, Inc. Fluid operated pump engine valve. 3,075,553, 1–29–63, Cl. 137—620.
Coberly, Clarence J., to Kobe, Inc. Engine valve for fluid-operated pump. 3,075,554, 1–29–63, Cl. 137—622.
Coberly, Clarence J., to Kobe, Inc. Fluid operated pump control system. 3,082,749, 3–26–63, Cl. 121—158.
Coberly, Clarence J., to Kobe, Inc. Convertible fluid operated free pump system. 3,113,522, 12–10–63, Cl. 103—46.
Coberly, Clarence J., F. B. Brown, and C. P. Williams, to Kobe, Inc. High speed triplex pump. 3,077,836, 2–19–63, Cl. 103—5.
Coberly, Clarence J., and F. B. Brown, to Kobe, Inc. Shrink fit tubing joint. 3,114,566, 12–17–63, Cl. 285—14.
Cobert, Arthur J., to La Fabrique Nationale d'Arms de Guerre. Needle press motion for straight knitting machines. 3,079,777, 3–5–63, Cl. 66—82.

Cobine, James D., to General Electric Co. Gas generating electric discharge device. 3,093,766, 6–11–63, Cl. 313—174.

Coburn Mfg. Co., Inc.: *See*—
Suddarth, Jack M. 3,091,062.

Coburn, Richard J.: *See*—
Brose, Harlan F., and Coburn. 3,081,606.

Coca-Cola Bottling Works, The: *See*—
Pieschel, Walter L. 3,097,028.

Coca-Cola Co., The: *See*—
Forbes, Horatio J., Jr. 3,078,013.

Coceano, Domenico: *See*—
Euker, Harold W., and Coceano. 3,080,521.

Cochardt, Alexander W., to Westinghouse Electric Corp. Ferrite magnets. 3,113,927, 12–10–63, Cl. 252—62.5.

Cochinal, Roland, to Commissariat a l'Energie Atomique. Apparatus for monitoring a physical magnitude at a multiplicity of distinct points and in particular for detecting burst slugs in the channels of a heterogeneous nuclear reactor. 3,092,819, 6–4–63, Cl. 340—213.

Cochinal, Roland, J. Goupil, and J. Megy, to Commissariat a l'Energie Atomique. Display device for use in installations for cyclically checking, by means of a limited number of apparatus the values of a magnitude at a multiplicity of points. 3,093,003, 6–11–63, Cl. 73—432.

Cochinal, Roland, A. Roguin, and R. Donguy, to Commissariat a l'Energie Atomique. Arrangements for detecting radiation contamination of the coolant in an atomic reactor. 3,116,210, 12–31–63, Cl. 176—19.

Cochran, Chudleigh B.: *See*—
Brown, Joseph R., and Cochran. 3,092,135.

Cochran, Chudleigh B., to C. C. Brown. Sleeve valve for well pipe strings with blind closure sleeve. 3,089,546, 5–14–63, Cl. 166—224.

Cochran, Chudleigh B., and J. D. Mott, to Cicero O. Brown. Device for supporting a closure within a well pipe. 3,090,442, 5–21–63, Cl. 166—192.

Cochran, Chudleigh B., and J. D. Mott, to C. C. Brown. Shifting tool for well apparatus. 3,115,188, 12–24–63, Cl. 166—224.

Cochran, Clarence W., to United-Carr Fastener Corp. Wiring clip. 3,077,018, 2–12–63, Cl. 24—73.

Cochran, Clarence W., deceased, by L. Cochran, administratrix, to United-Carr Fastener Corp. Fastening device. 3,077,019, 2–12–63, Cl. 24—73.

Cochran, Clarence W., to United-Carr Fastener Corp. Wiring fastener. 3,090,826, 5–21–63, Cl. 174—158.

Cochran, Clarence W., deceased, by L. Cochran, administratrix, to United-Carr Fastener Corp. Conduit retainer. 3,098,273, 7–23–63, Cl. 24—73.

Cochran, David S., to Hewlett-Packard Co. Transistor amplifier having output power limiting. 3,114,112, 12–10–63, Cl. 330—17.

Cochran, Donald E.: *See*—
Stoteran, Donald A., and Cochran. 3,075,495

Cochran, Douglas C. Tufted products. 3,075,865, 1–29–63, Cl. 154—49.

Cochran, Douglas C. Tufted products. 3,075,867, 1–29–63, Cl. 156—72.

Cochran, James E., Jr.: *See*—
Cannon, William N., Kline, Cochran, and Soper. 3,105,005

Cochran, James J.: *See*—
Haywood, Russell I., and Cochran. 3,078,750.

Cochran, Joe F., to General Dynamics Corp. Brazing apparatus. 3,091,684, 5–28–63, Cl. 219—85.

Cochran, John K., to Pittsburgh Plate Glass Co. Textile bobbin. 3,079,104, 2–26–63, Cl. 242—118.7.

Cochran, John M.: *See*—
Bacheler, Albert T., Helmrath, and Cochran. 3,073,996.

Cochran, Lois: *See*—
Cochran, Clarence W. 3,077,019.
Cochran, Clarence W. 3,098,273.

Cochran, Oscar B., Jr., to Venture Products, Inc. Knockdown metallic receptacles. 3,101,226, 8–20–63, Cl. 312—257.

Cochran, Richard L.: *See*—
Englehart, Theodore M., and Cochran. 3,093,966

Cochran, Richard L., and W. N. Engel, to The Buehler Corp. Direction control. 3,093,965 6–18–63, Cl. 60—35.54.

Cochran, Ulrich D., and M. A. Di Cosola, to Orthopaedic Specialties Corp. Surgical bone pin. 3,103,926, 9–17–63, Cl. 128—92.

Cochran, Ulrich D., and M. A. Di Cosola, to Orthopaedic Specialties Corp. Method for treatment of bone fractures. 3,112,743, 12–3–63, Cl. 128—92.

Cochran, William C., to Aluminum Co. of America. Anodized aluminum colored with water insoluble phthalocyanine and method. 3,114,660, 12–17–63, Cl. 148—6.1.

Cochrane, Harry W., to International Business Machines Corp. Binary matrix multiplier utilizing coincident inputs and sequential read-out. 3,104,317, 9–17–63, Cl. 235—164.

Cochrane, Richard H., to National Distillers and Chemical Corp. Combined bagging and packing machine. 3,083,513, 4–2–63, Cl. 53—182.

Cockburn, Stanley D.: *See*—
Wernig, James H., and Cockburn. 3,112,946.

Cocker, John, III: *See*—
Freeze, William L., Cocker, and Suggs. 3,076,724.

Cocker Machine and Foundry Co.: *See*—
Freeze, William L., Cocker, and Suggs. 3,076,724.
Lofgren, Karl R. 3,082,715.
McLean, John W. 3,092,875.
Suggs, Thomas F. 3,070,898.

Cocker Machine and Foundry Co.: *See*—Continued
Suggs, Thomas F. 3,110,169.
Suggs, Thomas F., Browne, and Brumby. 3,081,511.

Cockerell, Christopher S., to Hovercraft Development Ltd. Vehicles for travelling over water. 3,077,174, 2–12–63, Cl. 114—67.

Cockrell, William D., to General Electric Co. Photosensitive code reading system. 3,086,121, 4–16–63, Cl. 250—219.

Cockrell, William D., to General Electric Co. Circuit for controlling energization of a direct current load. 3,095,534, 6–25–63, Cl. 321—19.2.

Coddington, John L.: *See*—
Schipper, Robert J., and Coddington. 3,097,261.

Code Inc.: *See*—
Degelman, John. 3,089,496.

Codichini, Joseph J.: *See*—
Bickmore, John T., Godichini, and Huber. 3,105,426.
Cerasani, Americo J., Codichini, Davis, and Lewis. 3,105,425.
Cerasani, Americo J., Codichini, and Lewis. 3,075,493.

Codichini, Joseph J., and W. G. Lewis, to Xerox Corp. Xerographic fixing apparatus. 3,076,083, 1–29–63, Cl. 219—19.

Codichini, Joseph J., R. W. Eichler, W. G. Lewis, K. A. Northrup, R. F. Osborne, and J. J. Schoen, to Xerox Corp. Xerographic fixing apparatus. 3,079,483, 2–26–63, Cl. 219—19.

Codlin, James B., to Allis-Chalmers Mfg. Co. Ripper shank key assembly. 3,088,760, 5–7–63, Cl. 287—54.

Codner, Richard C.: *See*—
Kelly, Brendan K., Miller, and Codner. 3,082,157

Codrington, Robert S., to Schlumberger Well Surveying Corp. Methods and apparatus for the investigation of materials by radiation. 3,113,087, 12–3–63, Cl. 204—193.

Cody, Robert A.: *See*—
Banker, Robert D., Grounds, and Cody. 3,099,603.

Coe, Clifford W. Arrow rest for archery bow. 3,108,584, 10–29–63, Cl. 124—24.

Coe, George R., to Tube Reducing Corp. Hydraulic system for reducing mills and the like. 3,112,661, 12–3–63, Cl. 80—14.

Coe, Mary. Fruit picker. 3,081,591, 3–19–63, Cl. 56—339.

Coe, Noel N.: *See*—
Crosby, Hartzell L., and Coe. 3,073,737.

Coen, James K.: *See*—
Morgan, Willard L., Coen, and Fleming. 3,084,089.

Coenen, Max, O. Weissel, and W. Wunder, to Farbenfabriken Bayer Aktiengesellschaft. Process for the production of cyanine dyestuffs. 3,090,782, 5–21–63, Cl. 260—240.6.

Coes, Loring, Jr., to Norton Co. Magnetic abrasive wheels, method of making them, and machine tools for using them. 3,093,464, 6–11–63, Cl. 51—295.

Coester, Robert, to Maschinenfabrik Benninger A.-G. Turbo machine. Re. 25,409, 7–2–63, Cl. 230—125.

Coeur d'Alene Creamery, Inc.: *See*—
Dickinson, Gerald E. 3,091,194.

Cofer, Kenneth B.: *See*—
Fourie, Robert W., Cofer, and Sheets. 3,093,661.

Cofer, Kenneth B., and R. W. Fourie, to Shell Oil Co. Hydroxy halogenated ether production. 3,093,689, 6–11–63, Cl. 260—613.

Coffee, Clarence L. Rack for storing and transporting fishing lines. 3,075,315, 1–29–63, Cl. 43—54.5.

Coffee, Ralph E., and R. R. Kucia, to Olin Mathieson Chemical Corp. Dustless propellent powder containing coated spherical nitrocellulose. 3,108,916, 10–29–63, Cl. 149—2.

Coffee, Thomas A., to United States of America, Army. Floating grid gates. 3,072,852, 1–8–63, Cl. 328—94.

Coffee, Wendell: *See*—
Henderson, Don A. 3,085,629.

Coffeen, William W.: *See*—
Leaming, Robert R., and Coffeen. 3,093,285.

Coffelt, Robert J., to The Regents of the University of California. Continuous fruit press. 3,106,152, 10–8–63, Cl. 100—118.

Coffey, Charles F. Adjustable door control mechanism 3,114,541, 12–17–63, Cl. 268—66.

Coffey, Daniel F., Jr., to Marinette and Menominee Box Co Shipping crate. 3,099,351, 7–30–63, Cl. 206—16.

Coffey, James S. K., to Lightolier Inc. Lighting fixture 3,108,753, 10–29–63, Cl. 240—128.

Coffey, Jule H., and C. R. Sharp, to Anthony Mfg. Corp. Oscillating arm pop-up sprinkler. 3,088,677, 5–7–63, Cl. 239—205.

Coffey, Ralph J., to American Chain & Cable Co., Inc. Chain making machine with means for trimming welding burr. 3,096,612, 7–9–63, Cl. 59—22.

Coffey, Ralph J., and A. G. Rudacille, to American Chain & Cable Co., Inc. Transfer device. 3,104,008, 9–17–63, Cl. 198—41

Coffey, Stuart A. Crane boom life guard. 3,100,575, 8–13–63, Cl. 212—1.

Coffield, Cornelius C., and H. R. Greene, to The Miami Herald Publishing Co. Rule-inserting arrangement for line-casting machines. 3,071,241, 1–1–63, Cl. 199—61.

Coffield, Thomas H.: *See*—
Ihrman, Kryn G., and Coffield. 3,077,489.
Ihrman, Kryn G., and Coffield. 3,093,668.
Ihrman, Kryn G., and Coffield. 3,093,671.

Coffield, Thomas H., to Ethyl Corp. Process for the preparation of dihydropentalenyl manganese tricarbonyl. 3,100,211, 8–6–63, Cl. 260—429.

Coffield, Thomas H., to Ethyl Corp. Process of preparing dihydropentalenyl manganese tricarbonyl. 3,100,212, 8–6–63, Cl. 260—429.

Coffield, Thomas H., to Ethyl Corp. Hydropentalenyl manganese tricarbonyl compounds and processes for same. 3,100,213, 8–6–63, Cl. 260—429.

Coffield, Thomas H., to Ethyl Corp. Pentalenyl manganese tricarbonyl and processes for same. 3,100,214, 8–6–63, Cl. 260—429.

Coffield, Thomas H., to Ethyl Corp. Stabilization of polyolefin polymers with a 4,4' thiobis-(2 alkoxy-6-alkyl phenol). 3,107,233, 10–15–63, Cl. 260—45.95.

Coffield, Thomas H., to Ethyl Corp. Sulfur-containing phenolic compounds. 3,114,713, 12–17–63, Cl. 252—48.2.

Coffield, Thomas H., and K. G. Ihrman, to Ethyl Corp. Preparation of cyclomatic nickel nitrosyls. 3,086,035, 4–16–63, Cl. 260—439.

Coffield, Thomas H., and K. G. Ihrman, to Ethyl Corp. Preparation of cyclomatic nickel nitrosyls. 3,086,036, 4–16–63, Cl. 260—439.

Coffield, Thomas H., and K. G. Ihrman, to Ethyl Corp. Preparation of cyclomatic nickel nitrosyls. 3,086,437, 4–16–63, Cl. 260—439.

Coffield, Thomas H., and A. H. Filbey, to Ethyl Corp. Jet fuel compositions. 3,095,287, 6–25–63, Cl. 44—78.

Coffield, Thomas H., and K. G. Ihrman, to Ethyl Corp. Process for hydrogenating iron sub-group metal cyclopentadienyl compounds. 3,103,525, 9–10–63, Cl. 260—429.

Coffman, Donald D., and C. W. Tullock, to E. I. du Pont de Nemours and Co. Carbonylic compounds containing the SF_5 function. 3,102,903, 9–3–63, Cl. 260—481.

Coffman, Frederick E., and W. R. Shaffer, to Wald Industries, Inc. Apparatus for marking a surface. 3,083,913, 4–2–63, Cl. 239—150.

Coffman, Joe W., and R. F. Belliveau, to Technifax Corp. Method of making polarized slides. 3,089,802, 5–14–63, Cl. 156—108.

Coffman, Kenneth G. Self-setting irrigation ditch dam. 3,084,516, 4–9–63, Cl. 61—29.

Cofield, Eugene P., Jr., to Scripto, Inc. Writing instrument and ink therefor. 3,099,252, 7–30–63, Cl. 120—42.4.

Cogan, Richard M., to General Electric Co. Roll extruding machine. 3,106,114, 10–8–63, Cl. 80—12.

Cogdell, James F., Jr.: *See*—
Brooks, Richard E., Cogdell, and Rosenbaum. 3,080,345.

Coggeshall, Almy D.: *See*—
Bahn John J., Coggeshall, Maher, and Waldbillig. 3,089,048.

Coggeshall, Alva C., to Monsanto Chemical Co. Method and apparatus for treating and drawing synthetic filament yarns. 3,114,999, 12–24–63, Cl. 57—55.5

Coggin, Gray. Multiple nozzle vaporizing burner. 3,103,966, 9–17–63, Cl. 158—53.

Coggins, J. B., Mfg. Co., The: *See*—
Rocker, Elmer. 3,075,204.

Coghill, James T.: *See*—
Jacobs, Robert J., and Coghill. 3,079,889.

Coghill, James T., to Curlator Corp. Feed mechanism for machines for processing fibrous material. 3,077,007, 2–12–63, Cl. 19—66.

Cogsdill, Stuart A., to Cogsdill Tool Products, Inc. Deburring tool. 3,087,359, 4–30–63, Cl. 77—73.5.

Cogsdill, Stuart A., to Cogsdill Tool Products, Inc. Countersinking tool. 3,099,174, 7–30–63, Cl. 77—73.5.

Cogsdill Tool Products, Inc.: *See*—
Cogsdill, Stuart A. 3,087,359.
Cogsdill, Stuart A. 3,099,174.
Morrison, Joseph T. 3,099,070.

Cohara, Frank J. Drawing board for steel rule dies. 3,093,906, 6–18–63, Cl. 33—75.

Cohen, Abraham B., and R. S. Holland, to E. I. du Pont de Nemours and Co. Process for producing images. 3,073,953, 1–15–63, Cl. 250—65.

Cohen, Abraham E., to United States of America, Army. Apparatus for visualizing a nuclear radiation source. 3,107,276, 10–15–63, Cl. 178—6.8.

Cohen, Abraham E. Nuclear electronic anemometer. 3,109,098, 10–29–63, Cl. 250—83.6.

Cohen, Adrian A.: *See*—
Hirschland, Richard S., and A. A. and S. R. Cohen. 3,080,129.

Cohen, Alfred G.: *See*—
Small, Samuel N. 3,097,886.

Cohen, Arthur M. Meter relay system. 3,076,099, 1–29–63, Cl. 307—41.

Cohen, Arthur M., and D. A. Blevins, said Blevins assor. to Electric Regulator Corp. Electric governor for internal combustion engine or the like. 3,082,353, 3–19–63, Cl. 317—5.

Cohen, Bernard: *See*—
Norris, Bevitt J., Nichols, Gilbert, and Cohen. 3,087,147.

Cohen, Bernard, and B. G. Forman, to General Transistor Corp. Electrical resistor and method of making same. 3,086,186, 4–16–63, Cl. 338—237.

Cohen, Charles A., to Esso Research and Engineering Co. Preferred alkyl aryl sulfonate detergents. 3,115,530, 12–24–63, Cl. 260—668.

Cohen, Charles L., to United States of America, Navy. Electrical magnitude selector. 3,096,446, 7–2–63, Cl. 307—88.5.

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Cohen, Eli. Paint brush guide. 3,075,225, 1–29–63, Cl. 15—248.

Cohen, Elle, and S. Roth, to L. Naiditch. Air-cooled eddy-current coupling and brake. 3,076,109, 1–29–63, Cl. 310—105.

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Song, John, and Cohen. 3,092,631.

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Cohen, Jacob L., F. E. Cohen, administratrix of the estate, to Frank W. Horner, Ltd. Use of tolbutamide in the treatment of acne. 3,072,527, 1–8–63, Cl. 167—51.5.

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Cohen, Jerome M., and J. W. Aulson, to The Aulson Tanning Machinery Co. Process for drying and flexing of leather. 3,077,673, 2–19–63, Cl. 34—13.

Cohen, Jerrold, to Pacific Semiconductors, Inc. Method of bonding materials. 3,091,849, 6–4–63, Cl. 29—472.9.

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Cohen, Joseph, W. G. Finnegan, and R. A. Henry, to United States of America, Navy. Plasticizing agents for nitrocellulose. 3,073,731, 1–15–63, Cl. 149—92.

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Cohen, Martin J., and H. C. Gibson, Jr., to Franklin Systems, Inc. Missile scoring systems. 3,091,463, 5–28–63, Cl. 273—102.2.

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Cohen, Werner V., to E. I. du Pont de Nemours and Co. Polyfluoroalkyl esters of certain ortho-substituted benzoic acids. 3,108,131, 10–22–63, Cl. 260—469.

Cohen, Werner V., to E. I. du Pont de Nemours and Co. Benzoic acid ester dielectric compositions and electrical apparatus in combination therewith. 3,112,356, 11–26–63, Cl. 174—17.

Cohen, William. Telescopic form containers and dispensers. 3,105,592, 10–1–63, Cl. 206—56.

Cohen, William, and H. P. Jenkins, Jr., to United States of America, Navy. Integral rocket ramjet missile propulsion system. 3,115,008, 12–24–63, Cl. 60—35.6.

Cohen, William D., to Digitronics Corp. Tape handling system. 3,072,311, 1–8–63, Cl. 226—196.

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Cohler, Edmund U., G. T. Harrett, and T. W. Lawless, to Sylvania Electric Products Inc. Electronic switches. 3,112,476, 11–26–63, Cl. 340—258.

Cohn, David. Combination toy farm building and material handling device. 3,071,890, 1–8–63, Cl. 46—40.

Cohn, David, to Model Plastic Corp. Dolls' heads with rotating dolls' eyes. 3,091,894, 6–4–63, Cl. 46—169.

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Cohn, Eugene and J., and F. Catallo, to Samcoe Holding Corp. Apparatus for treating fabric by moisturizing. 3,088,224, 5–7–63, Cl. 34—159.

Cohn, Hugo, and J. L. Bonanno, to Dan Golenpaul Associates. Accessory apparatus for use with phonograph record player. 3,104,110, 9–17–63, Cl. 274—1.

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Cohn, Johann G. E., and A. P. Hauel, to Engelhard Industries, Inc. Electric cell. 3,080,444, 3–5–63, Cl. 136—100.

Cohn, Johann G. E., and A. J. Haley, Jr., to Engelhard Industries, Inc. Process for removing acetylene from gases. 3,092,444, 6–4–63, Cl. 23—2.

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Cohn, Louis A. Dental apparatus. 3,078,584, 2–26–63, Cl. 33—174.

Cohn, Maurice. Press control device. 3,077,966, 2–19–63, Cl. 192—125.

Cohn, Nathan, to Leeds and Northrup Co. Multi-segment generation allocating systems. 3,076,898, 2–5–63, Cl. 307—57.

Cohn, Nathan, to Leeds and Northup Co. Area-requirement governor for generating units. 3,107,305, 10–15–63, Cl. 307—57.

Cohn, Robert E.: *See*—
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Cohn, Samuel and E., and F. Catallo, to Samcoe Holding Corp. Method and apparatus for treating web materials. 3,102,006, 8–27–63, Cl. 34—23.

Cohn, Seymour B., to Sperry Rand Corp. Broadband transmit-receive device. 3,092,771, 6–4–63, Cl. 325—24.

Cohrs, Arthur H., and H. I. Larson. Dirt metering and spreading machine. 3,097,851, 7–16–63, Cl. 275—8.

Colle, Benjamin F., to Textile Machine Works. Stitch length control for circular knitting machines. 3,076,327, 2–5–63, Cl. 66—54.

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Jahn, Marion C., and McNichols. 3,109,390.

Colburn, William A., to Petroleum Research Corp. Test unit. 3,081,033, 3–12–63, Cl. 235—184.

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Colby, Richard H., to United States of America, Army. Locking system for tilting firearm bolt. 3,112,675, 12–3–63, Cl. 89—184.

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Cole, Charles O., J. Eng, C. B. Rupar, N. L. Shipley, and G. C. Lukk, to Esso Research and Engineering Co. Caustic treating process. 3,107,213, 10–15–63, Cl. 208—230.

Cole, Clayton K., to Golay & Co., Inc. Dumping mechanism for truck carried detachable container. 3,074,573, 1–22–63, Cl. 214—315.

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Cole, David F. Broiler. 3,091,171, 5–28–63, Cl. 99—400.

Cole, David F. Broiler grid. 3,094,061, 6–18–63, Cl. 99—402.

Cole, David L., to Sylvania Electric Products Inc. Photoconductor sintering process. 3,109,753, 11–5–63, Cl. 117—201.

Cole, Donald A., to Radio Corp. of America. Display device. 3,091,876, 6–4–63, Cl. 40—28.

Cole, Donald W., to General Dynamics Corp. Apparatus for braze-bonding metallic parts. 3,073,268, 1–15–63, Cl. 113—99.

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Cole, Edward L., E. C. Knowles, and W. E. Kuhn, to Texaco Inc. Method of coating tin on copper surfaces. 3,072,499, 1–8–63, Cl. 117—130.

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Cole, Eldon B., and P. M. Niles, to Sinclair Research, Inc. Fuel composition. 3,092,475, 6–4–63, Cl. 44—72.

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Cole, Jimmy R., and J. W. Walton, to Continental Oil Co. Signal controlled inverter-power amplifier. 3,103,616, 9–10–63, Cl. 321—45.

Cole, John N., and H. E. Von Gierke, to United States of America, Air Force. Acoustic siren for generating wide band noise with improved efficiency. 3,072,094, 1–8–63, Cl. 116—147.

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Cole, Judson C., and J. R. Hall, to The Bendix Corp. Electrical connector. 3,088,090, 4–30–63, Cl. 339—150.

Cole, Judson C., and J. R. Hall, to The Bendix Corp. Electrical connector. 3,089,114, 5–7–63, Cl. 339—176.

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Cole, Nelson E., to Dana Corp. Vehicle frame structure. 3,096,996, 7–9–63, Cl. 280—106.

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Coleman, William H., and H. L. Malone, to Cornell-Dubilier Electric Corp. Multifunctional capacitor construction. 3,106,671, 10–8–63, Cl. 317—260.

Coleman, William J., and D. F. De Santo, to Grumman Aircraft Engineering Corp. Electrostatic propulsion means. 3,071,705, 1–1–63, Cl. 313—63.

Coleman, William R. Voting machine. 3,083,899, 4–2–63, Cl. 235—53.

Coleman, Robert E., Jr., and C. D. MacCraken, to Jet-Heet, Inc. Personal thermal device. 3,112,792, 12–3–63, Cl. 165—46.

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Fetterly, Lloyd C., Collamer, and Smith. 3,105,845.

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Collett, Rulon F., and A. F. Graf von Soden. Breechcloth for infants and the like. 3,103,930, 9–17–63, Cl. 128—286.

Collette, Gaston A., to Institute de Recherches de la Siderugie Francaise. Arrangement for measuring the damping of the oscillations of a mechanical system. 3,105,381, 10–1–63, Cl. 73—99.

Colley, Rowan H.: *See*—
Brown, David M., and Colley. 3,076,309.

Colley, Rowan H., and P. A. Ward, to Rolls-Royce Ltd. Silenced jet propulsion nozzle with thrust reversing means. 3,113,428, 12–10–63, Cl. 60—35.54.

Colley, Russell S., to The B. F. Goodrich Co. Fluid-tight connector. 3,114,567, 12–17–63, Cl. 285—81.

Collier Carbon and Chemical Corp.: *See*—
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Collier, Donald W., to The Electric Storage Battery Co. Sealed storage cells and charging circuits therefor. 3,100,862, 8–13–63, Cl. 320—46.

Collier, Eugene L., ¼ each to B. B. Parker and J. B. Orrell. Confection with prize. 3,085,883, 4–16–63, Cl. 99—137.

Collier, Gilbert G. Boat propulsion unit. 3,087,455, 4–30–63, Cl. 115—25.

Collier, John R. Television antenna rotator. 3,084,769, 4–9–63, Cl. 189—1.

Collier, John R. Device for folding sheets of paper and the like. 3,092,379, 6–4–63, Cl. 270—61.

Collier, Joseph B., to Thiokol Chemical Corp. Closure for container. 3,115,010, 12–24–63, Cl. 60—35.6.

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Collier, Samuel L., and M. L. Fly, to Mission Mfg. Co. Percussion tool. 3,105,559, 10–1–63, Cl. 123—15.

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Biefeld, Lawrence P., Philipps, and Collier. 3,081,195.

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Collin, Fredrik C., to Elektrokemisk A/S. Process of reducing metal oxides. 3,093,474, 6–11–63, Cl. 75—33.

Collin, Lars T., G. Andersson, and S. I. Olsson, to Aktiebolaget Gotaverken. Two-stroke internal combustion engine having eight or more, even number of cylinders and provided with an exhaust gas turbine driven blower plant for the supply of scavenging and supercharging air. 3,080,705, 3–12–63, Cl. 60—13.

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Collins, Bobby J. Air-layering wrap. 3,110,128, 11–12–63, Cl. 47—37.

Collins, Cameron C., to The Bendix Corp. Method of and apparatus for deburring rubber-like articles. 3,112,851, 12–3–63, Cl. 225—4.

Collins, Charles D. Aquatic sporting device. 3,097,377, 7–16–63, Cl. 9—313.

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Collins, Daniel P. Process of low temperature dyeing of wool. 3,112,983, 12–3–63, Cl. 8—54.

Collins, Don F., to Adamson United Co. Press with removable pressure cylinders. 3,109,363, 11–5–63, Cl. 100—195.

Collins, Earl F.: *See*—
Knuth, Paul E., Collins, and Smith. 3,087,585.

Collins, G. L., Corp.: *See*—
Collins, Gary L. 3,114,451.

Collins, Gary L., to G. L. Collins Corp. Means and techniques in the production of wire-wound devices and devices made thereby. 3,114,451, 12–17–63, Cl. 205—1.

Collins, Harry C. Fish holder. 3,081,576, 3–19–63, Cl. 43—53.5.

Collins, Harvey C., 33⅓% to R. W. Campbell. Floating saucer. 3,113,396, 12–10–63, Cl. 46—74.

Collins, Howard W., to Collins & Co. Method and apparatus for making reinforced plastic. 3,072,958, 1–15–63, Cl. 18—4.

Collins, James J.: *See*—
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Peters, Theodore J., Collins, and Gathman. 3,090,752.

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Collins, Lowell J. Atmospheric air isolated curd producing apparatus. 3,102,336, 9–3–63, Cl. 31—48.

Collins, Maynard H., and W. M. Todd. Parking meter control mechanism. 3,091,918, 6–4–63, Cl. 58—142.

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Johnson, Frederick W. 3,078,726.
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Stryker, Edwin M., Jr. 3,099,009.
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Walker, Gary M. 3,080,185.
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Collins, Richard V., and J. R. Sutherland, to Butler Mfg. Co. Storage structure. 3,071,061, 1–1–63, Cl. 99—235.

Collins, Robert C., and C. A. Michalos, to ACF Industries, Inc. Hopper car. 3,105,721, 10–1–63, Cl. 302—52.

Collins, Robert D. Educational device. 3,106,785, 10–15–63, Cl. 35—17.

Collins, Robert D. Educational device. 3,106,786, 10–15–63, Cl. 35—17.

Collins, Robert D. Educational device. 3,106,787, 10–15–63, Cl. 35—17.

Collins, Robert J., and R. G. Thompson, to E. I. du Pont de Nemours and Co. Antistatic and antisoiling agent and process for treating synthetic linear textile therewith. 3,090,704, 5–21–63, Cl. 117—138.8.

Collins, Russell E. Potassium nitrate and kelp composition for treating pinkeye. 3,088,864, 5–7–63, Cl. 167—53.

Collins, Russell F., to Phillips Petroleum Co. Magnetic resonance spectrometer. 3,113,263, 12–3–63, Cl. 324—.5.

Collins, Thomas K.: *See*—
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Collins, Welby H. Portable knockdown cot. 3,097,368, 7–16–63, Cl. 5—114.

Collins, William A., to Rudy Mfg. Co. Heat transfer unit. 3,080,916, 3–12–63, Cl. 165—151.

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Weidner, Charles L., and Collins. 3,102,102.

Collins, Zane L.: *See*—
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Collischonn, Robert A. Percentage calculator. 3,114,504, 12–17–63, Cl. 235—69.

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Collman, John S.: *See*—
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Collman, John S., J. M. Ricketts, and W. A. Turunen, to General Motors Corp. Regenerative gas turbine. 3,077,074, 2–12–63, Cl. 60—39.31.

Collman, John S., J. M. Ricketts, and W. A. Turunen, to General Motors Corp. Gas turbine regenerator drive. 3,093,009, 6–11–63, Cl. 74—410.

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Colombo, Roberto, to S.A.S. Lavorazione Materie Plastiche (L.M.P.) di M.I. Colombo & C. Method and apparatus for sheathing a structural member with a synthetic thermoplastic material. 3,088,166, 5–7–63, Cl. 18—13.

Colombo, Roberto, to Lavorazione Materie Plastiche-L.M.P. S.p.A. Machine for blow-moulding hollow articles. 3,111,711, 11–26–63, Cl. 18—5.

Colombo, Roberto, to S.A.S. Lavorazione Materie Plastiche (L.M.P.) di M. I. Colombo & C. Screw presses for extruding synthetic thermoplastic materials. 3,114,171, 12–17–63, Cl. 18—12.

Colombot, Yves, to Baudin-Chateauneuf. Suspended girder the horizontal projection of which is incurved. 3,114,161, 12–17–63, Cl. 14—18.

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Colquhoun, John, to Associated Electrical Industries Ltd. Wire winding machines. 3,106,944, 10–15–63, Cl. 140—71.5.

Colson, Willard E. Storage apparatus. 3,076,539, 2–5–63, Cl. 198—158.

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Colt, Victor L., and C. B. Willock, to The Peters Co. Power operated device. 3,093,168, 6–11–63, Cl. 143—37.

Colten, Bernard, to Minneapolis-Honeywell Regulator Co. Electrical apparatus. 3,088,087, 4–30–63, Cl. 339—18.

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Colton, John W., and J. E. Jewett, Jr., to Scientific Design Co., Inc. Process and apparatus for the production of fresh water. 3,095,296, 6–25–63, Cl. 62—58.

Colton, John W., R. E. Lidov, and G. S. Schaffel, to Halcon International, Inc. Cracking of neohexene to isoprene. 3,115,531, 12–24–63, Cl. 260—680.

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Columbia Metal Frame Co.: *See*—
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Newman, Douglas A. 3,088,402.
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Newman, Douglas A., and Tully. 3,111,422.
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Colvill, Donald E., to General Motors Corp. Series-parallel magnetic switch. 3,076,075, 1–29–63, Cl. 200—104.

Colvill, Donald E., and D. S. Dennis, to General Motors Corp. Electric starting motor control. 3,076,098, 1–29–63, Cl. 290—36.

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Colvin, Charles H., and L. A. Delaney. Oil well pumping unit and method of using same. 3,071,189, 1–1–63, Cl. 166—68.

Colwill, Herbert W., and J. H. Schenking, to Avco Corp. Fine material spreading attachment for a manure spreader. 3,076,654, 2–5–63, Cl. 275—6.

Comanor, Milton, and C. M. Gold, to Yardney International Corp. Delay-activation battery. 3,103,452, 9–10–63, Cl. 136—90.

Comanor, Milton, and R. Chireau, to Yardney International Corp. Autothermic electrolyte. 3,113,891, 12–10–63, Cl. 136—154.

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Comeau, Joseph E. Wire brush for railroad switches. 3,111,699, 11–26–63, Cl. 15—159.

Comer, Harold B. Axle puller. 3,106,012, 10–8–63, Cl. 29—254.

Comer, Marvin H., to Alamance Industries, Inc. Stretch yarn and fabric and method of making same. Re. 25,416, 7–16–63, Cl. 66—180.

Comer, Richard L., to General Motors Corp. Method of making a semiconductive ceramic body and a low voltage sparking device embodying same. 3,108,905, 10–29–63, Cl. 117—213.

Comer, Robert C., to Thiokol Chemical Corp. Rocket motor safety device. 3,106,060, 10–8–63, Cl. 60—35.6.

Comercl, Frank A., M. Copel, and E. V. Oliveros, to United States of America, Navy. Testing microphones. 3,093,711, 6–11–63, Cl. 179—175.1.

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Blodgett, Edwin O. 3,102,253.
Blodgett, Edwin O., and Neel. 3,108,253.
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Condon, John C. Index tabs. 3,073,046, 1–15–63, Cl. 40—23.
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Condrasky, John A., and E. M. Glazier, to Gulf Research & Development Co. Process for making a low sensitivity premium gasoline. 3,071,535, 1–1–63, Cl. 208—55.
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Cone, Charles N., to Pacific Resins & Chemicals, Inc. Toasted blood glue. 3,095,571, 6–25–63, Cl. 106—79.
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Cone, Clarence N. Self-wringing mop. 3,072,943, 1–15–63, Cl. 15—119.
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Conger, Joseph C., Sr., R. C. B. Robinson, and S. E. Kelly, to American Cyanamid Co. Brown colorant for plastics. 3,114,726, 12–17–63, Cl. 260—38.
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Petry, Robert K. 3,074,114.
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Wetterau, Paul C. 3,091,019.
Congost Horta, Luis, and P. Lopez Garcia. Apparatus and devices for automatic control and supervision of the pressure of the tires of vehicle wheels. 3,099,309, 7–30–63, Cl. 152—416.
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Conklin, Alfred R., and R. M. Luckring, to E. I. du Pont de Nemours and Co. Reduction process for the preparation of refractory metal subhalide compositions. 3,075,837, 1–29–63, Cl. 75—84.5.
Conklin, Earl L., to Century Brewery Corp. Flanged plastic cork. 3,109,549, 11–5–63, Cl. 215—47.
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Conn, Francis E., and C. C. Covert, to General Motors Corp. Propeller mechanical pitch stop lock and low pitch stop assembly. 3,087,554, 4–30–63, Cl. 170—160.21.
Conn, John B., to Merck & Co., Inc. Vanadium compounds. 3,076,830, 2–5–63, Cl. 260—429.
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Connell, George W. Illuminated decorative frame. 3,098,611, 7–23–63, Cl. 240—10.
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Connelly, Mark E., to United States of America, Navy. Controlled transmission gate utilizing conventional and four-layer diodes in bridge configuration. 3,077,544, 2–12–63, Cl. 307—88.5.
Conner, Adrian H. Paint roller tray assembly. 3,110,921, 11–19–63, Cl. 15—257.06.
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Connor, J. Franklin. Projectile launcher. 3,102,526, 9–3–63, Cl. 124—21.
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Connors, James F., to United States of America, National Aeronautics and Space Administration. Penshape exhaust nozzle for supersonic engine. 3,080,711, 3–12–63, Cl. 60—35.55.
Connors, James F., to United States of America, National Aeronautics and Space Administration. Annular supersonic decelerator or drogue. 3,098,630, 7–23–63, Cl. 244—113.
Connors, Robert L., to Van Raalte Co., Inc. Warp beam control for textile machines. 3,076,615, 2–5–63, Cl. 242—15.
Connors, Robert L., to Van Raalte Co., Inc. Selvage spreader. 3,099,144, 7–30–63, Cl. 66—147.
Connors, Thomas W., Sr., and H. J. Blonde; said Connors assor. to said Blonde. Apparatus for repairing a seal. 3,096,573, 7–9–63, Cl. 29—238.
Conney, Eugene N., and C. E. Cleland, to Continental Machines, Inc. Band saw blade stock and method of making the same. 3,089,945, 5–14–63, Cl. 219—76.
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Conover, George W., K. L. Hulsing, and J. Koehler, to General Motors Corp. Internal combustion engine. 3,094,190, 6–18–63, Cl. 184—6.
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Conover, Thomas E.: *See*—
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Conover, Tom E.: *See*—
Hoffman, Jess H., Ross, and Conover. 3,084,320.
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Conover, Warren C., to Outboard Marine Corp. Bearing and method of construction thereof. 3,088,783, 5–7–63, Cl. 308—35.
Conover, Warren C., to Outboard Marine Corp. Marine propeller and its mounting on a propeller shaft. 3,113,625, 12–10–63, Cl. 170—135.75.
Conow, Arthur W.: *See*—
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Conrad, Edwin O., and J. B. Peterson. Storage container. 3,108,840, 10–29–63, Cl. 312—214.
Conrad, Earl W. Combination fuel tank and ram jet power plant. 3,112,903, 12–3–63, Cl. 244—54.
Conrad, Erich H. Schiffli type embroidery machine. 3,072,082, 1–8–63, Cl. 112—86.
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Conrad, Erich H. Schiffli type embroidering machine and shuttle box therefor. 3,078,817, 2–26–63, Cl. 112—95.
Conrad, Erich H. Embroidery fabric mounting means for a schiffli type embroidering machine. 3,111,283, 11–19–63, Cl. 242—74.
Conrad, Erich H. Means for securing an embroidery fabric on a schiffli-type embroidering machine. 3,111,284, 11–19–63, Cl. 242—74.
Conrad, Frank G., Jr., to Scott Paper Co. Winding apparatus. 3,096,948, 7–9–63, Cl. 242—67.1.
Conrad, James E.: *See*—
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Conrad, Joseph D., Sr., and R. L. Reynolds, to Westinghouse Electric Corp. Elastic fluid turbine apparatus. 3,107,084, 10–15–63, Cl. 253—67.
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Conrad, Martin B. Drag block and slip assembly for well packer or the like. 3,074,484, 1–22–63, Cl. 166—216.
Conrad, Martin B., and K. L. Millimore. Enclosure for airplane. 3,074,518, 1–22–63, Cl. 189—1.5.
Conrad, Martin B., to Baker Oil Tools, Inc. Piston valve seal. 3,081,061, 3–12–63, Cl. 251—172.
Conrad, Martin B. Retrievable packer. 3,094,169, 6–18–63, Cl. 166—134.
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Conrad, Rene A., to H. D. Devine. Pneumatic floor nailing machine. 3,074,069, 1–22–63, Cl. 1—1.
Conrad, Rene A. Egg drilling machine. 3,090,412, 5–21–63, Cl. 146—2.
Conrad, Rene A. Egg evacuating means. 3,106,234, 10–8–63, Cl. 146—2.
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Conradi, Henrik. Air cooling system for cold storage rooms. 3,076,320, 2–5–63, Cl. 62—240.
Conrath, Ray N. Typewriter visual aid system. 3,080,661, 3–12–63, Cl. 35—6.
Conron, Gregory F., and M. T. Fisher, to United Aircraft Corp. Transistor step counter. 3,111,591, 11–19–63, Cl. 307—88.5.
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Boesch, Moritz C. 3,105,587.
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Carlson, Olof B. 3,097,654.
Mogulescu, Jack H. 3,110,402.
Consolidated Controls Corp.: *See*—
Kretsch, Hans W., and O'Sullivan. 3,079,545.
Consolidated Devices & Development, Inc.: *See*—
Simmons, Charles A., Sr. 3,085,701.
Consolidated Diesel Electric Corp.: *See*—
Davis, Jerome I., Steinback, and Enyeart. 3,089,557.
Consolidated Electrodynamics Corp.: *See*—
Bell, Norton W. 3,087,121.
Bell, Norton W. 3,089,097.
Bentley, Kenton E., and Cole. 3,086,924.
Bowen, Stuart W., and Marks. 3,097,517.
Boyer, George W. 3,106,361.
Crocker, Clark F., Schwab, and Jones. 3,083,907.
Czuha, Michael, Jr. 3,072,556.
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Consolidated Electrodynamics Corp.: *See*—Continued
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Groenewegen, Johannes B. 3,079,056.
Hall, Lawrence G., Cole, and Berry. 3,081,250.
Hauer, Daniel S. 3,115,593.
Jacobs, John H. 3,088,824.
Karsh, Herbert. 3,095,508.
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Kyle, James C. 3,078,449.
Paul, Herman L., Jr. 3,103,133.
Robinson, Charles F. 3,074,332.
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Consolidated Electronics Industries Corp.: *See*—
Anderson, Reed M., and Buccitti. 3,103,121.
Armstrong, John C. 3,101,466.
De Barbn, Albert E. 3,101,137.
Deming, Andrew F., and Schneider. 3,083,326.
Haydon, Arthur W. 3,073,107.
Haydon, Arthur W. 3,096,452.
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Haydon, Arthur W., Kavanaugh, and Reder. 3,113,231.
King, Phillip W., Kavanaugh, and Knecht. 3,088,270.
Martin, Paul N. 3,096,412.
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Winchel, Henry T. 3,109,965.
Consolidated Engineering Service, Inc.: *See*—
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Consolidated Foods Corp.: *See*—
Prater, Arthur N., and Lukes. 3,098,750.
Consolidated Foundries and Mfg. Corp.: *See*—
Janeway, Robert N. 3,115,100.
Consolidated Kinetics Corp.: *See*—
Sweeney, Patrick M., and Eberhart. 3,095,187.
Consolidated Laboratories, Inc.: *See*—
Scherr, George H., and Markowitz. 3,075,883.
Scherr, George H., and Rafelson. 3,071,518.
Consolidated Machine Tool Division of Ferrel-Birmingham Co., Inc.: *See*—
Miller, William R., Young, and Hold. 3,079,822.
Consolidated Mining and Smelting Co. of Canada Ltd., The: *See*—
Sutherland, Charles A., and White. 3,085,855.
Consolidated Packaging Machinery Corp.: *See*—
Mueller, Theodore G. 3,103,252.
Consolidated Paper Corp. Ltd.: *See*—
Brandts, Theodorus G. 3,092,537.
Vroom, Alan H., and Boadway. 3,086,717.
Consolidated Thermoplastics Co.: *See*—
Gonnella, Carmen J., and Marchant. 3,095,598.
Marchant, Paul A. 3,075,230.
Martin, Lawrence L. 3,100,910.
Consolidated Trimming Corp.: *See*—
Polkosnik, Bernard L. 3,072,179.
Consolidated Vacuum Corp.: *See*—
Brubaker, Wilson M., and Berry. 3,112,863.
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Erhart, Francis J., and Davis. 3,075,688.
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Echtler, Joseph P., Jr. 3,115,782.
Gorin, Everett, and Friedrich. 3,073,751.
Gorin, Everett, and Retallick. 3,108,857.
Gorin, Everett, and Rice. 3,115,394.
Katlic, John E. 3,074,373.
Kulik, Metro D. 3,076,657.
Kulik, Metro D., Laufer, and Neuworth. 3,084,199.
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Reichl, Eric H. 3,073,652.
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Consortium fur Elektrochemische Industrie G.m.b.H.: *See*—
Anselm, Hans, and Smidt. 3,077,440.
Smidt, Jurgen, Hafner, and Jira. 3,080,425.
Smidt, Jurgen, Hafner, Jira, Sedlmeier, and Maier. 3,086,994.
Smidt, Jürgen, Jira, Hafner, Sedlmeier, and Maier. 3,086,052.

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Constantin, James M., T. W. Humphreys, H. B. Lange, D. Shew, and J. R. Wagner, to Merck & Co., Inc. Method for preventing the growth of fungi in leathers, paints, foods and fabrics. 3,080,279, 3–5–63, Cl. 167—33.

Constantine, Thomas T., and R. D. Wells, to Crompton & Knowles Corp. Method of producing discontinuous fibers from continuous filaments incident to forming a nonwoven web. 3,071,821, 1–8–63, Cl. 19—155.

Constantino, Constantine S., to Curtiss-Wright Corp. Engine lubrication and cooling system. 3,090,365, 5–21–63, Cl. 123—41.8.

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Geschka, Hugo W. 3,087,504.

Construction Mecanique-Procedes Sulzer, Compagnie de: *See*—
Carriere, Raymond L., De Saint Vaulry, and Fehr. 3,107,310.
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Consumers Cooperative Association: *See*—
Lang, Dickson S. 3,074,379.

Contadina Foods, Inc.: *See*—
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Contalner A.G. Patentverwerlungsgesellschaft: *See*—
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Bell, John T. 3,094,906.
Blackburn, Richard E. 3,106,331.
Chidsey, Francis A., Jr., and De Paul. 3,096,906.
Chidsey, Francis A., Jr., and Mahon. 3,081,928.
Desmond, John D. 3,103,080.
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Masi, Joseph J. 3,097,781.
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Van Dyke, Bruce E., Richards, and Kadleck. 3,096,918.

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Aldredge, Howard D. and R. L. 3,085,702.
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Contaldo, Joseph V., to United Engineering and Foundry Co. Apparatus for slitting and handling of strip in a rolling mill. 3,106,359, 10–8–63, Cl. 242—56.5.

Contant, Peter R., V. H. Hardy, and E. E. Reese, to General Motors Corp. Squeegee and wiper blade assembly embodying same. 3,097,389, 7–16–63, Cl. 15—250.42.

Conte, Louis B., Jr., and F. N. Apel, to Union Carbide Corp. Bisphenols and process therefor. 3,081,313, 3–12–63, Cl. 260—395.

Conte, Louis B., Jr., and F. N. Apel, to Union Carbide Corp. Ester-ketone conversion. 3,098,099, 7–16–63, Cl. 260—590.

Contella, Samuel L. Automobile radiator cap. 3,098,636, 7–23–63, Cl. 251—98.

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Conti, Alfred R., and D. J. Menter. Cutting tool. 3,102,326, 9–3–63, Cl. 29—96.

Conti, Girard N., to Holley Carburetor Co. Method of classifying and matching bellows units. Re. 25,392, 5–28–63, Cl. 73—4.

Conti, Vincent. Cartridge carrier and dispenser. 3,105,611, 10–1–63, Cl. 221—248.

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Maier, Elmar. 3,104,055.
Maier, Elmar. 3,104,811.

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Marchand, William C. 3,104,955.
Marsh, Francis X. 3,098,357.
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Brick, Robert M., and Maier. 3,106,014.
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Curtiss, Floyd P., and Reith. 3,100,595.
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Engel, William H. 3,111,052.
Flugge, Sylvester L., and Glaser. 3,094,396.
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Kizer, Austin J., Klopfer, and Burke. 3,074,924.
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Ripling, Edward J. 3,092,470.
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Continental Copper & Steel Industries, Inc. (Hanover Wire Cloth Division): *See*—
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Frisch, Eberhard. 3,099,090.
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Continental Furniture Mfg. Co.: *See*—
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Breunich, Theodore R. 3,106,415.
Grage, Casper R. 3,105,330.
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Beckadolph, Richard, Eckelmann, and Beissner. 3,081,811.
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Continental Illinois National Bank and Trust Co. of Chicago: *See*—
Frye, Charles F. 3,084,707.
Frye, Charles F. 3,086,749.

Continental Industries, Inc.: *See*—
Burke, Donald J. 3,113,359.

Continental Laboratories, Inc.: *See*—
Stearns, Sanford W. 3,078,649.

Continental Machines, Inc.: *See*—
Busch, Theodore N. 3,087,246.
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Robinson, La Roy E. 3,104,576.
Whitmore, Charles H. 3,077,182.

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Adler, Herman G. 3,098,394.
Adler, Herman G. 3,105,222.
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Adee, Lawrence E. 3,116,231.
Albright, James C., Sutton, Timko, and Bohor. 3,075,142.
Atwood, Mark T., McClaflin, and Shadan. 3,080,411.
Bauer, Robert F., and Thornburg. 3,083,842.
Baxter, Thomas R., and Stukane. 3,081,003.
Bendix, Gordon H., and Tamm. 3,080,967.
Bergen, Charles R., and Wooda. 3,090,750.
Bourne, Henry A., Jr. 3,094,170.
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Bourne, Henry A., Jr., Sutton, and Albright. 3,103,813.
Brown, Graydon L. 3,073,859.
Carden, Robert L., and Felghner. 3,083,243.
Carden, Robert L., Felghner, and Marshall. 3,075,005.
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Carden, Robert L., Felghner, and Marshall. 3,076,857.
Carden, Robert L., Ferfoot, and Supernaw. 3,110,664.
Clemens, Fred K. 3,109,463.
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Schroeder, Carl E. 3,096,902.
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Snavely, William H. Jr., and Manno. 3,073,871.
Spirl, Willy H. 3,110,350.
Strome, Thomas H. 3,081,214.
Sutton, Earl W., and Albright. 3,115,602.
Tung, Shao E. 3,085,999.
Walter, Charles T. 3,081,947.

Continental Titanium Corp.: *See*—
Wagner, Edgar R. 3,083,153.

Continental Vending Machine Corp.: *See*—
Dickinson, Donald L. 3,101,872.

Continental-Wirt Electronics Corp.: *See*—
O'Shea, William F. 3,072,872.

Continuous Metalcast Co., Inc.: *See*—
Hess, Walter, and Schneider. 3,112,537.

Conto, Armando F., to Freeze-King Corp. Ice dispensing attachment for beverage dispensing machine. 3,075,363, 1–29–63, Cl. 62—157.

Contraves AG.: *See*—
Wolff, Dietrich. 3,083,324.

Control Data Corp.: *See*—
Cray, Seymour R. 3,092,729.

Control Design and Fabricate, Inc.: *See*—
Hector, Russell, Schlottmann, and Ebbert. 3,091,322.

Controlex Corp. of America: *See*—
Breunich, Theodore R. 3,095,849.

Controls Co. of America: *See*—
Anderson, Karl A. 3,072,462.
Anderson, Karl A. 3,084,390.
Anderson, Karl A. 3,112,191.
Archer, William W. 3,107,566.
Beck, Frederick R., and Kaleba. 3,074,282.
Blermann, William A., Bauer, and McCarty. 3,080,148.
Hilden, Donald E., and Groeneveld. 3,086,825.
Huston, Milton D. 3,084,735.
Latta, Edward. 3,091,713.
Mathews, William K., and Perkins, Jr. 3,072,967.
Tice, Harry S., Jr. 3,078,405.
Tweedy, James W., and Latta. 3,083,310.
Williams, Paul H. 3,089,994.
Williams, Paul H., and Beller. 3,076,349.
Williams, Paul H., and Kaleba. 3,110,784.

Conval Corp.: *See*—
Smith, Paul E., Jr., and Dudler. 3,092,742.
Smith, Paul E., Jr., and Norman. 3,095,569.

Converse, George F., R. W. Kennedy, and W. J. Clegg, to Eastman Kodak Co. Brominated 1-hydroxy-4-anilinoanthraquinone dye compounds. 3,106,438, 10–8–63, Cl. 8—39.

Conversion Chemical Corp.: *See*—
Bellinger, Kenneth P. 3,102,011.
Bellinger, Kenneth P., and Chapdelaine. 3,072,516.

Convertawings, Inc.: *See*—
Kaplan, David H. 3,076,354.

Convey, Robert N., and E. F. Jaworowicz. Fish landing net. 3,082,561, 3–26–63, Cl. 43—11.

Conveyor Co., The: *See*—
Saxe, Walter E. 3,089,477.
Saxe, Walter E. 3,089,578.

Conveyor Systems, Inc.: *See*—
King, Clarence W. 3,082,858.

Conviser, Arthur R., to Creative Research Corp. Apparatus and method for positioning, arranging and coupling components. 3,104,458, 9–24–63, Cl. 29—208.

Conway, Kells A. Coating materials. 3,093,505, 6–11–63, Cl. 117—104.

Conway, Leon F., to Bloom Engineering Co., Inc. Metal heating furnace apparatus. 3,081,073, 3–12–63, Cl. 263—6.

Conway, William E., E. Dionne, and W. N. Thompson, to Nashua Corp. Peelable gummed tape. 3,076,588, 2–5–63, Cl. 229—3.5.

Conyne, Richard F.: *See*—
Masterson, James E., Ritter, and Conyne. 3,076,775.

Conzola, Joseph S.: *See*—
Bell, Kenneth A., and Conzola. 3,105,898.

Coogan, Clive K., to Commonwealth Scientific and Industrial Research Organization. Program controllers. 3,074,186, 1–22–63, Cl. 340—187.

Cook, Albert N., to The Singer Mfg. Co. Lighting fixtures. 3,082,320, 3–19–63, Cl. 240—41.55.

Cook, Albert N., to The Singer Co. Electric motor with adjustable field structure. 3,114,852, 12–17–63, Cl. 310—191.

Cook, Alton A.: *See*—
Sapers, Ira, and Cook. 3,074,774.

Cook, Arthur K.: *See*—
Creath, Roy E., and Cook. 3,114,561.

Cook, Burton E. Hand truck. 3,081,892, 3–19–63, Cl. 214—371.

Cook, Carl C., to Arthur J. Brow, Jr. Lubricating seal for shotgun shells. 3,102,478, 9–3–63, Cl. 102—42.

Cook, Charles C., to Vitro Corp. of America. Process for concentrating beryllium minerals. 3,112,260, 11–26–63, Cl. 209—12.

Cook, Charles E., and J. E. Chin, to Sperry Rand Corp. Velocity measuring radar apparatus for high speed vehicles. 3,105,967, 10–1–63, Cl. 343—17.2.

Cook, Charles R., Jr., and G. Luecke, to Texas Instruments Inc. Ring counter utilizing bipolar field-effect devices. 3,112,411, 11–26–63, Cl. 307—88.5.

Cook Chemical Co.: *See*—
Ridenour, Stewart J., and Pickinpaugh. 3,092,330.
Scoggin, Baxter I., Jr., and Vaughan. 3,081,918.

Cook, Clayton M., and C. E. Moser, to Johnson & Johnson. Fluorinated toothbrush bristle and method of making same. 3,076,218, 2–5–63, Cl. 15—159.

Cook, Curtiss L. Bark hack with chip lip. 3,086,287, 4–23–63, Cl. 30—121.

Cook, Daniel. Device for supplying moisture-laden air to the intake manifold of an internal combustion engine. 3,107,657, 10–22–63, Cl. 123—25.

Cook, De Orr. Combination stabilizing and reaming apparatus. 3,075,590, 1–29–63, Cl. 175—295.

Cook, Douglas L.: *See*—
Cook, Irving L. and D. L. 3,085,569.

Cook Electric Co.: *See*—
Adrig, Vernon E. 3,091,680.
Fredette, Raymond O. 3,111,843.
Fredette, Raymond O., and Anderson. 3,111,842.
Young, Robert E., and Payne. 3,105,179.

Cook, Elton S.: *See*—
Sperti, George S., and Cook. 3,114,641.

Cook, Ernest E.: *See*—
Sadler, Harry J., and Cook. 3,092,427.

Cook, Ernest E., and H. J. Sadler. Method of making fluid pump structures. 3,096,569, 7–9–63, Cl. 29—156.4.

Cook, Eugene A., Jr.: *See*—
Buckholdt, Robert E., and Cook. 3,103,346.

Cook, Evin L., to Socony Mobil Oil Co., Inc. Percussion drill. 3,094,176, 6–18–63, Cl. 175—92.

Cook, Frank E.: *See*—
Preiser, Herman S., and Cook. 3,081,252.
Preiser, Herman S., Cook, and Tytell. 3,101,311.

Cook, Frank M., and J. Bordenave, to Le Fiell Co. Carcass head splitting device. 3,105,993, 10–8–63, Cl. 17—23.

Cook, Fred H., to Clark Equipment Co. Expansible conduit for industrial truck. 3,084,765, 4–9–63, Cl. 187—9.

Cook, George W. Angular accelerometer. 3,098,393, 7–23–63, Cl. 73—516.

Cook, Glenn: *See*—
Fenix, Frank H. 3,090,713.
Fenix, Frank H. 3,090,714.

Cook, Gordon H., to Rank Precision Industries Ltd., trading as Taylor, Taylor & Hobson. Optical objectives of variable focal length. 3,081,671, 3–19–63, Cl. 88—57.

Cook, H. C., Co., The: *See*—
Loda, Paul P. 3,089,239.

Cook, Harmon A.: *See*—
Cook, Julian L. 3,113,327.

Cook, Harold G., to United States of America, Navy. Electrical connector for boost sustained rocket motor. 3,112,-615, 12-3-63, Cl. 60—35.6.

Cook, Harry C.: *See*—
Rieppel, Perry J., Faulkner, Nelson, and Cook. 3,084,-244.
Rieppel, Perry J., Faulkner, Nelson, and Cook. 3,084,-246.

Cook, Harry R. Safety-type, rotary vegetation cutting blade. 3,103,094, 9-10-63, Cl. 56—295.

Cook, Henry, to Rolls-Royce Ltd. Gas turbine engine with air-cooling means and means to control the temperature of cooling air by liquid injection. 3,083,532, 4-2-63, Cl. 60—39.66.

Cook, Herbert A., Jr., to The Schlegel Mfg. Co. Beading for finishing structural edges. 3,091,821, 6-4-63, Cl. 20—74.

Cook, Hulet H., to Indiana University Foundation. Booth structure. 3,083,417, 4-2-63, Cl. 20—.5.

Cook, Hurley D.: *See*—
Sabol, Albert R., Cook, and Karll. 3,073,780.

Cook, Irving L. and D. L. Separable plaster cast. 3,085,-569, 4-16-63, Cl. 128—91.

Cook, James A. Proportional measuring and mixing tank. 3,100,000, 8-6-63, Cl. 137—571.

Cook, James A., Jr., to Westinghouse Air Brake Co. Validity detector. 3,091,688, 5-28-63, Cl. 246—182.

Cook, John B., and W. T. Fraser, to The Whitney Blake Co. Telephone cable construction. 3,102,160, 8-27-63, Cl. 174—105.

Cook, John E.: *See*—
Stuchbery, Arthur L., and Cook. 3,098,725.

Cook, John H.: *See*—
Montgomery, William T., and Cook. 3,112,166.

Cook, John S., to Bell Telephone Laboratories, Inc. Noise reduction in parametric amplifier. 3,072,861, 1-8-63, Cl. 330—43.

Cook, John S., and W. H. Louisell, to Bell Telephone Laboratories, Inc. Noise elimination system for parametric amplifiers. 3,086,176, 4-16-63, Cl. 330—4.7.

Cook, John S., W. H. Louisell, and C. F. Quate, to Bell Telephone Laboratories, Inc. Noise reduction system for parametric amplifiers. 3,087,119, 4-23-63, Cl. 330—4.7.

Cook, Julian L., 90% to H. A. Cook, and 5% each to J. H. Boutwell and I. Fannin. Portable life preserver. 3,113,-327, 12-10-63, Cl. 9—316.

Cook, Kenneth A.: *See*—
Childs, George W., and Cook. 3,083,641.

Cool, Kenneth A., and S. K. Taylor, to The Service Recorder Co. Recording device. 3,104,146, 9-17-63, Cl. 346—18.

Cook, Kenneth L. Holder for paint cans and the like. 3,108,-776, 10-29-63, Cl. 248—210.

Cook, Leonard W., to General Electric Co. Welding machine and method. 3,072,778, 1-8-63, Cl. 219—78.

Cook, Leonard W., to General Electric Co. Thermal switch. 3,098,137, 7-16-63, Cl. 200—113.5.

Cook, Loren, Co.: *See*—
Rudy, Emil. 3,102,679.
Rudy, Emil. 3,107,598.

Cook, Lucien H., and R. K. Fidler, to Chemical Construction Corp. Dual cycle urea synthesis process. 3,091,637, 5-28-63, Cl. 260—555.

Cook, Lyman, to The Foxboro Co. Gas specific gravity measure. 3,107,518, 10-22-63, Cl. 73—30.

Cook, Melvin A., and T. K. Collins, to Intermountain Research and Engineering Co., Inc. Slurry blasting explosives containing inorganic perchlorate or chlorate. 3,096,-223, 7-2-63, Cl. 149—76.

Cook, Paul M., and R. W. Muchmore, to Raychem Corp. Process and apparatus for producing materials having plastic memory. 3,086,242, 4-23-63, Cl. 18—1.

Cook, Paul R. Masonry guide apparatus. 3,096,588, 7-9-63, Cl. 33—85.

Cook, Ralph L., to Olin Mathieson Chemical Corp. Method of producing unitary nitrocellulose grains capable of fragmentation under primer blast to original granules. 3,092,-525, 6-4-63, Cl. 149—2.

Cook, Ralph L., and E. A. Andrew, to Olin Mathieson Chemical Corp. Apparatus for manufacturing propellant powder. 3,094,741, 6-25-63, Cl. 18—1.

Cook, Reginald M.: *See*—
Gittus, John H., and Cook. 3,110,587.

Cook, Richard L., to Goodyear Aircraft Corp. Method of polishing methyl methacrylate sheets. 3,107,464, 10-22-63, Cl. 51—323.

Cook, Richard W.: *See*—
Percival, Joseph W., and Cook. 3,099,714.

Cook, Robert S., to Bell Telephone Laboratories, Inc. Apparatus for applying a dispersion coating to a surface, such as a tape. 3,077,859, 2-19-63, Cl. 118—326.

Cook, Robert Y. Pouring spout for cans. 3,106,318, 10-8-63, Cl. 222—90.

Cook, Shirl E.: *See*—
Thomas, Wilford H., and Cook. 3,097,223.
Thomas, Wilford H., and Cook. 3,098,090.

Cook, Shirl E., to Ethyl Corp. Stabilizing alkyllead compounds. 3,081,326, 3-12-63, Cl. 260—437.

Cook, Shirl E., and E. M. Marlett, to Ethyl Corp. Preparation of organo group 11-B metal compounds. 3,080,409, 3-5-63, Cl. 260—429.9.

Cook, Shirl E., and W. H. Thomas, to Ethyl Corp. Stable lead alkyl compositions and a method for preparing the same. 3,098,089, 7-16-63, Cl. 260—437.

Cook, Thomas L. Carton extractor and opener. 3,080,797, 3-12-63, Cl. 93—53.

Cook, Thomas L., ⅓ each to K. H. Norberg, W. V. Glass, and L. Tellefsen. Method for orienting cylindrical objects and securing the same together. 3,096,575, 7-9-63, Cl. 29—407.

Cook, Walter L., to The Boeing Co. Fairlead for electrical cables. 3,092,361, 6-4-63, Cl. 248—56.

Cook, Walter L., to The Boeing Co. Self-retaining fasteners. 3,099,057, 7-30-63, Cl. 24—141.

Cook, Walter L., and R. B. McKelvey, to The Boeing Co. Positive locking fairlead for electrical cables. 3,092,360, 6-4-63, Cl. 248—56.

Cook, William W., R. Gibson, G. Roberts, and M. W. Scott. Warp sleying machine. 3,072,999, 1-15-63, Cl. 28—45.

Cooke, Charles C., and J. C. Hamilton, to Owens-Illinois Glass Co. Method of forming glass articles. 3,075,371, 1-29-63, Cl. 65—35.

Cooke & Co.: *See*—
Milnes, Alfred H. 3,100,914.

Cooke, Courtney H., to The Upjohn Co. Soft elastic capsules and process for producing. 3,081,234, 3-12-63, Cl. 167—83.

Cooke, Edward L., and J. A. Donelan, to Submarine Cables Ltd., and Pirelli-General Cable Works Ltd. Method of manufacturing submarine cables. 3,095,643, 7-2-63, Cl. 29—460.

Cooke, Giles B., and W. C. Rainer, to Crown Cork & Seal Co., Inc. Method for making caps. 3,101,992, 8-27-63, Cl. 18—59.

Cooke, Theodore C. Water skiing apparatus. 3,079,885, 3-5-63, Cl. 115—6.1.

Cooke, Theodore F.: *See*—
Van Loo, William J., Jr., and Cooke. 3,094,371.

Cooke, Troughton & Simms Ltd.: *See*—
Scott-Maxwell, Peter D. 3,101,412.

Cookson, Harold: *See*—
Mosse, Richard W. E., Cookson, and Virgo. 3,083,511.

Cookson, Harold, to The Metal Box Co. Ltd. Decorating plastic containers. 3,112,692, 12-3-63, Cl. 101—38.

Cool, Barry, Jr. Loud speaker enclosures. 3,074,503, 1-22-63, Cl. 181—31.

Coolbaugh, Richard W. Emergency survival pack. 3,096,759, 7-9-63, Cl. 128—94.

Cooley, Glen E.: *See*—
Facer, Leroy H. 3,098,737.

Cooley, John A. Electrical connector. 3,097,031, 7-9-63, Cl. 339—5.

Cooley, Robert A., to Chromalloy Corp. Ammonium nitrate-fuel oil blasting agent containing triethylene glycol dinitrate. 3,113,060, 12-3-63, Cl. 149—47.

Coolidge, Arthur W., Jr., to General Electric Co. Electric discharge device utilizing novel sealing means. 3,082,347, 3-19-63, Cl. 313—250.

Coolidge, Kenneth G.: *See*—
Sorber, Hilbert, and Coolidge. 3,089,625.

Coombes, Albert L.: *See*—
Hallinan, Francis J., Czarnetzky, and Coombes. 3,115,-409.

Coombs, Frederick L. Electric oscillators. 3,076,945, 2-5-63, Cl. 331—117.

Coombs, Leslie C.: *See*—
Seedlock, Walter F., Gurskis, Coombs, and Buckman. 3,106,864.

Coombs, Natalie M.: *See*—
Coombs, Robert S. 3,109,158.

Coombs, Robert S., by decree of distribution to N. M. Coombs. Automatic signaling system for motor vehicles. 3,109,158, 10-29-63, Cl. 340—66.

Coon, James A. Comb holder. 3,087,625, 4-30-63, Cl. 211—103.

Cooner, James S., to Pylon Co., Inc. Terminal. 3,109,689, 11-5-63, Cl. 339—59.

Coonradt, Harry L.: *See*—
Clapetta, Frank G., Coonradt, and Garwood. 3,111,482.
Clapetta, Frank G., Coonradt, and Garwood. 3,115,456.

Coonradt, Harry L., and J. W. Schick, to Socony Mobil Oil Co., Inc. Method of desalting oil solutions of oil soluble salts. 3,082,248, 3-19-63, Cl. 260—504.

Coonradt, Harry L., W. K. Leaman, and J. N. Miale, to Socony Mobil Oil Co., Inc. Catalytic hydrocracking with a platinum composite catalyst. 3,098,030, 7-16-63, Cl. 208—111.

Coons, William C., to Curtiss-Wright Corp. Automatic polishing device for metallographic specimens. 3,077,706, 2-19-63, Cl. 51—124.

Coons, William R., Jr., W. R. Hencke, and G. S. Bright, to Texaco Inc. Rheopectic lithium soap grease and method of preparation therefor. 3,079,341, 2-26-63, Cl. 252—41.

Coop, Jesse J., to United States of America, Navy. Apparatus and method for measuring relative rates of water currents. 3,082,400, 3-19-63, Cl. 340—4.

Coop, Jesse J., to United States of America, Navy. Sonobuoy-bathythermograph system. 3,098,993, 7-23-63, Cl. 340—5.

Coop, Jesse J., to United States of America, Navy. Radio sonobuoy system. 3,116,471, 12-31-63, Cl. 340—2.

Cooper, Abraham S. Sandwich making device. 3,083,651, 4-2-63, Cl. 107—1.

Cooper, Albert H., to United Technical Industries, Inc. Production of ammonium fluoride from gaseous compounds of silicon and fluorine. 3,094,381, 6-18-63, Cl. 23—88.

Cooper, Alfred L., to General Electric Co. Labyrinth seal. 3,085,809, 4-16-63, Cl. 277—56.

Cooper, Ben, Inc.: *See*—
Grossberg, Abraham. 3,089,148.

Cooper, Benjamin, to General Electric Co. Photoelectric tension sensing motor control circuit. 3,092,764, 6-4-63, Cl. 318—6.

Cooper, Benjamin. Portable telescopic adjustable boat cover ridge pole. 3,106,931, 10-15-63, Cl. 135—6.

Cooper, Bert E., to Holly Sugar Corp. Tube wall thickness testing apparatus. 3,075,144, 1-22-63, Cl. 324—34.

Cooper-Bessemer Corp., The: *See*—
Ballash, Clarence J. 3,099,186.
Bovard, Charles M. 3,086,505.
Crooks, William R. 3,091,116.
Crooks, William R. 3,100,478.
Koch, Donald T., and Bohannan. 3,096,926.
Van Sittert, Paul R. 3,102,621.

Cooper, Carl, to Petrolite Corp. Process of acidizing oil-bearing strata and composition thereof. 3,106,531, 10-8-63, Cl. 252—8.55.

Cooper, Charles W.: *See*—
Hungerford, Gordon P., Cooper, and Kaufman. 3,088,-844.

Cooper, Daniel W., to G.Q. Parachute Co. Ltd. Releasable attachments for parachute harness. 3,104,858, 9-24-63, Cl. 244—151.

Cooper, Derek N.: *See*—
Cracknell, John, Cracknell and Cooper. 3,097,702.

Cooper, Donald E., to Titanium Metals Corp. of America. Consumable electrodes. 3,080,499, 3-5-63, Cl. 313—357.

Cooper, Donald E., and E. D. Dilling, to Titanium Metals Corp. of America. Melting crucible and cooling means therefor. 3,078,529, 2-26-63, Cl. 22—144.

Cooper, Donald J., 49% to A. C. Bergener. Seed potato and produce cutter. 3,086,571, 4-23-63, Cl. 146—155.

Cooper, Franklin D., to Bituminous Coal Research, Inc. Solids flow system. 3,081,009, 3-12-63, Cl. 222—459.

Cooper, Frederick D., J. P. Creighton, and E. J. Banks, to Ford Motor Co. Control of a hydrostatic transmission. 3,107,490, 10-22-63, Cl. 60—53.

Cooper, George B. Holder for fish while cleaning same. 3,093,859, 6-18-63, Cl. 17—8.

Cooper, George H.: *See*—
Maxner, Richard B., Cooper, and Kupreance. 3,078,749.

Cooper, Glenn D., and A. R. Gilbert, to General Electric Co. Reduction of halogen-containing silicon compounds. 3,099,-672, 7-30-63, Cl. 260—448.2.

Cooper, Glenn E.: *See*—
Wierbicki, Eugen, Shackelford, and Cooper. 3,108,880.

Cooper, Glenn F., and A. B. Smith. Circuits with distributed characteristics. 3,109,983, 11-5-63, Cl. 323—74.

Cooper, Glenn L. Device for setting sights on small rifles. 3,074,172, 1-22-63, Cl. 33—46.

Cooper, Gordon R.: *See*—
Chessin, Hyman, and Cooper. 3,086,927.

Cooper, Harold L.: *See*—
Dowell, Charles J., and Cooper. 3,074,692.

Cooper, Harry C., to The A.P.V. Co. Ltd. Valve. 3,078,070, 2-19-63, Cl. 251—306.

Cooper, Harry C., to The A.P.V. Co. Ltd. Disconnectable coupling. 3,106,223, 10-8-63, Cl. 137—614.01.

Cooper, Helen A.: *See*—
O'Siel, Dorthy, and Cooper. 3,102,543.

Cooper, Herbert K., and F. A. Hofmann, to Lancaster Cleft Palate Clinic, Inc. Speech aid. 3,084,221, 4-2-63, Cl. 179—1.

Cooper, Hugh S., to Rand Development Corp. Tea product and method of making the same. 3,108,877, 10-29-63, Cl. 99—76.

Cooper, Hugh S., E. T. Alvord, and A. J. Lewis, to Rand Development Corp. Tea concentrate and method of making same. 3,113,028, 12-3-63, Cl. 99—77.

Cooper, Irving B., Jr., to The Bendix Corp. Fuel flow measuring device. 3,071,000, 1-1-63, Cl. 73—194.

Cooper, Jack A. Corner strip for wallboard construction. 3,109,207, 11-5-63, Cl. 20—92.

Cooper, Jack B., to Gulton Industries, Inc. Sonic welder. 3,101,634, 8-27-63, Cl. 78—82.

Cooper, John N.: *See*—
Crittenden, Eugene C., Jr., Cooper, Learn, and Schmidlin. 3,084,339.

Cooper, John N., and E. C. Crittenden, Jr., to Space Technology Laboratories, Inc. Method of vacuum depositing superconductive metal coatings. 3,113,889, 12-10-63, Cl. 117—217.

Cooper, Joseph. Slide assembly for extension tables. 3,099,-232, 7-30-63, Cl. 108—83.

Cooper, Joseph H., to E. I. du Pont de Nemours and Co. Process for producing quinacridones. 3,107,248, 10-15-63, Cl. 260—279.

Cooper, Joseph H., and M. M. Seeloff, to The Taylor-Winfield Corp. Flash welding die assemblies with quickly removable electrode bars. 3,088,020, 4-30-63, Cl. 219—97.

Cooper, Leon M., and D. E. Sims, to International Business Machines Corp. Sequential typewriter magnetic tape recording and checking apparatus. 3,115,620, 12-24-63, Cl. 340—174.1.

Cooper, Martin, to Motorola, Inc. Selective calling apparatus. 3,080,547, 3-5-63, Cl. 340—164.

Cooper, Murray S., A. S. Taylor, and V. A. Place, to American Cyanamid Co. Intracutaneous injector with capillary gap. 3,074,403, 1-22-63, Cl. 128—253.

Cooper, Murray S., and V. A. Di Benedetto, to American Cyanamid Co. Process for producing sterile vials containing culture media and a carbon dioxide atmosphere. 3,098,-016, 7-16-63, Cl. 195—102.

Cooper, Ralph F., to The B. F. Goodrich Co. Tire sidewall grinder and cleaner machine. 3,077,060, 2-12-63, Cl. 51—105.

Cooper, Robert S., to Stauffer Chemical Co. Method for the preparation of diphenylphosphinous chloride. 3,094,559, 6-18-63, Cl. 260—543.

Cooper, Rollin A., to The Garrett Corp. Oscillator controlled servosystem. 3,081,422, 3-12-63, Cl. 318—28.

Cooper, Ronald H., and G. A. Corbett, to The Dow Chemical Co. Refractory structures. 3,113,361, 12-10-63, Cl. 22—193.

Cooper, William A. Sprinkling jump rop. 3,107,916, 10-22-63, Cl. 272—74.

Cooperman, Michael, to Radio Corp. of America. Automatic frequency and phase control. 3,076,943, 2-5-63, Cl. 331—4.

Coopers, Inc.: *See*—
Voss, William R., Holtz, and Abarbanel. 3,083,067.

Coopper, Roderick A.: *See*—
Carroll, William N., Coopper, and Counihan. 3,087,074.

Cooprider, Rex C.: *See*—
Corsette, Douglas F., and Cooprider. 3,102,489.

Cooprider, Rex C., to The Drackett Co. One piece aerosol spray head. 3,075,708, 1-29-63, Cl. 239—490.

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Arrance, Frank C. 3,093,593.
Kothe, Ewald. 3,073,531.
Landes, Benjamin D., and Morris. 3,110,448.

Cootes, Harold E., and P. T. Hahn, to AMP Inc. Hand tool. 3,074,155, 1-22-63, Cl. 29—206.

Cootes, Harold E., E. E. Folkenroth, H. F. Fortna, G. A. Fuller, and R. Ullman, to AMP Inc. Lead making method. 3,086,282, 4-23-63, Cl. 29—155.55.

Coover, Harry W., Jr.: *See*—
Guillet, James E., and Coover. 3,106,485.
McConnell, Richard L., and Coover. 3,072,669.
McConnell, Richard L., and Coover. 3,089,850.
McConnell, Richard L., and Coover. 3,096,385.
Shields, Donald J., and Coover. 3,075,956.

Coover, Harry W., Jr., to Eastman Kodak Co. Spinning solution containing N-substituted amide polymer and cellulose acetate. 3,076,771, 2-5-63, Cl. 260—17.

Coover, Harry W., Jr., to Eastman Kodak Co. Composition consisting of cellulose acetate and copolymer of N,N-dimethyl-acrylamide. 3,082,178, 3-19-63, Cl. 260—17.

Coover, Harry W., Jr., to Eastman Kodak Co. Monosubstituted aluminum dihalide catalysts for olefin polymerization. 3,088,942, 5-7-63, Cl. 260—93.7.

Coover, Harry W., Jr., and G. O. Cash, Jr., to Eastman Kodak Co. Olefin polymerization with a metal oxide activated three-component catalyst. 3,072,628, 1-8-63, Cl. 260—93.7.

Coover, Harry W., Jr., and N. H. Shearer, Jr., to Eastman Kodak Co. Aluminum alkyl-transition metal halide catalyst modified with an arsine or stibine compound. 3,072,-629, 1-8-63, Cl. 260—93.7.

Coover, Harry W., Jr., F. B. Joyner, and N. H. Shearer, Jr., to Eastman Kodak Co. Solid phase process for linear superpolyesters. 3,075,952, 1-29-63, Cl. 260—75.

Coover, Harry W., Jr., and N. H. Shearer, Jr., to Eastman Kodak Co. Monosubstituted aluminum dihalide catalysts for olefin polymerization. 3,081,287, 3-12-63, Cl. 260—93.7.

Coover, Harry W., Jr., and F. B. Joyner, to Eastman Kodak Co. Dyeable polypropylene fibers containing polyvinyl acetal resins. 3,090,769, 5-21-63, Cl. 260—45.5.

Coover, Harry W., Jr., and F. B. Joyner, to Eastman Kodak Co. Dyeable poly-α-olefin fibers containing polyvinyl acetal resins. 3,102,869, 9-3-63, Cl. 260—45.5.

Cope, Arthur C., to Merck & Co., Inc. Separation of hydrocarbon mixtures with 5-propionox-methylfurfural selective solvent. 3,079,449, 2-26-63, Cl. 260—674.

Cope, Geoffrey W., to Symington Wayne Corp. Side frame. 3,091,192, 5-28-63, Cl. 105—221.

Cope, Geoffrey W., to Symington Wayne Corp. Coupler lock operating mechanism. 3,102,644, 9-3-63, Cl. 213—166.

Cope, Lawrence H., to United Kingdom Atomic Energy Authority. Powders for extinguishing fires. 3,095,372, 6-25-63, Cl. 252—2.

Cope, Lawrence H., to United Kingdom Atomic Energy Authority. Ceramic fuel for nuclear reactors. 3,114,689, 12-17-63, Cl. 204—154.2.

Cope, Ray M. Carton vending machines and the like. 3,087,-648, 4-30-63, Cl. 221—81.

Cope, Richard P., Jr., and J. R. Drobne, to Westinghouse Electric Corp. Methods and electrolytes for depositing nickel and cobalt. 3,093,557, 6-11-63, Cl. 204—43.

Cope, Robert G., to The International Nickel Co., Inc. Ruthenium fabrication. 3,108,000, 10-22-63, Cl. 75—214.

Cope, William V. Rotatable sealing valve means with friction reducing means for faucets. 3,103,340, 9-10-63, Cl. 251—88.

Copel, Michel: *See*—
Comerci, Frank A., Copel, and Oliveros. 3,093,711.

Copeland, Charles R.: *See*—
Spreitzer, William M., Tipping, Fisher, Copeland, and Alexander. 3,093,010.
Copeland, Dorothy B.: *See*—
Copeland, Gordon R. 3,089,271.
Copeland Engineering Enterprises Ltd.: *See*—
Copeland, Nathaniel C. and M. C. 3,091,208.
Copeland, Gordon R., to D. B. Copeland. Apparatus for skywriting. 3,089,271, 5–14–63, Cl. 40—213.
Copeland, Herbert R.: *See*—
Kyame, George J., and Copeland. 3,110,150.
Copeland, James V., and B. R. Neier. Feed mixer. 3,090,605, 5–21–63, Cl. 259—104.
Copeland, Michael C.: *See*—
Copeland, Nathaniel C. and M. C. 3,091,208.
Copeland, Nathaniel C. and M. C., to Copeland Engineering Enterprises Ltd. Pontoon-carrying camper. 3,091,208, 5–28–63, Cl. 115—1.
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Neubauer, Emil T., and Phelps. 3,073,515
Copeland, Robert P., to Geo. P. Reintjes Co., Inc. Low pressure furnace roof. 3,104,631, 9–24–63, Cl. 110—99.
Copeland, Thomas D., Jr.: *See*—
Calfee, Virgil T. 3,080,799.
Copeland, William O., and N. D. Latham, to Radio Corp. of America. Pulse discriminating circuit. 3,076,145, 1–29–63, Cl. 328—165.
Copen, Simon I. Hypodermic needle. 3,076,457, 2–5–63, Cl. 128—221.
Copenhaver, Edward P.: *See*—
Hickman, Charles F., and Copenhaver. 3,087,512.
Copenhaver, John W., and W. O. Ney, Jr., to Minnesota Mining and Mfg. Co. Synthesis of 2-pyrrolidinone. 3,095,423, 6–25–63, Cl. 260—326.5.
Copenhefer, John E., to American Air Filter Co., Inc. Automatic glass loader. 3,097,710, 7–16–63, Cl. 177—62.
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Schultz, Herman S., Copes, and Maybew. 3,073,822.
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Copland, George V., and E. L. Groner, to Halliburton Co. Control of well formation fracturing operations. 3,090,439, 5–21–63, Cl. 166—75.
Copley, James N.: *See*—
Lawton, William R., Smith, and Copley. 3,090,697.
Copolymer Rubber & Chemical Corp.: *See*—
Bishop, William A. 3,110,173.
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Gauslaa, Kjetil, and Sutherland. 3,092,603.
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Copp, Frederick C., A. McConbrey, and J. E. W. Billinghurst, to Burroughs Wellcome & Co. (U.S.A.) Inc. Phosphorylated quaternary ammonium compounds of improved oral absorption. 3,090,725, 5–21–63, Cl. 167—55.
Copp, Frederick C., and H. F. Hodson, to Burroughs Wellcome & Co., (U.S.A.) Inc. Method of treating infestations of nematodes. 3,099,599, 7–30–63, Cl. 167—53.
Copperweld Steel Co.: *See*—
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Freeman, John F., Peterson, and Schmalz. 3,115,703.
Leib, Francis E., and Freeman. 3,083,407.
Noethlich, Richard M., Jr., Dunleavy, Kura, and Glasy. 3,088,195.
Coraggioso, Corrado B. Heat exchanger tube. 3,071,159, 1–1–63, Cl. 138—38.
Coralline, Mark. Collapsible music holder. 3,083,835, 4–2–63, Cl. 211—118.
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Corbett, Herbert O., to National Distillers and Chemical Corp. Roll of thermoplastic material and method for dispensing same. 3,086,648, 4–23–63, Cl. 206—59.
Corbett, Herbert O., to National Distillers and Chemical Corp. Apparatus for extruding tubular films. 3,088,167, 5–7–63, Cl. 18—14.
Corbett, Herbert O., to National Distillers and Chemical Corp. Apparatus and process for high speed extrusion casting. 3,090,076, 5–21–63, Cl. 18—15.
Corbett, John L., to Raytheon Co. Interpolating scanners. 3,108,251, 10–22–63, Cl. 340—16.
Corbett, Luke W., to Esso Research and Engineering Co. Preparation of asphalts with lower staining tendencies. 3,072,559, 1–8–63, Cl. 208—45.
Corbett, Luke W., to Esso Research and Engineering Co. Asphalts of improved resistance to flow. 3,093,573, 6–11–63, Cl. 208—39.
Corbett, Luke W., C. E. Adams, and G. P. Hamner, to Esso Research and Engineering Co. Method for manufacturing of specification paving and industrial asphalts. 3,087,887, 4–30–63, Cl. 208—45.
Corbett, Marshall J., to Thompson Ramo Wooldridge Inc. Turbine. 3,098,387, 7–23–63, Cl. 73—357.
Corbett, Marshall J., to Thompson Ramo Wooldridge, Inc. Thrust control for rocket engines. 3,105,352, 10–1–63, Cl. 60—35.6.
Corbett, Robert L., and R. L. Corbett, Jr. Hood-type annealing furnace. 3,071,500, 1–1–63, Cl. 148—13.
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Corbett, Robert L. and R. L. Corbett, Jr. 3,071,500.
Corbett, William H., to The De Vilbiss Co. Atomizer for preparing microscopic slides. 3,107,058, 10–15–63, Cl. 239—346.
Corbin, Joseph D. Inclinometer. 3,070,895, 1–1–63, Cl. 33—215.
Corbin, Vernon L., and A. M. Crain, to The Orville Simpson Co. Screen tensioning device. 3,081,874, 3–19–63, Cl. 209—408.
Corbin, Wesley S., L. A. Moore, and C. M. Pearson, to The Black-Clawson Co. Paper machinery. 3,074,476, 1–22–63, Cl. 162—342.
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Corcoran, Lyle S. Shot and powder measuring dispenser. 3,090,524, 5–21–63, Cl. 222—46.
Corcoran, Thomas J., to Miami Herald Publishing Co. Spillout prevention attachment for stereotype plate-casting machines. 3,071,829, 1–8–63, Cl. 22—2.
Cordero, Fidel, and R. W. Armstrong, to United States of America, Navy. Airplane cabin pressure error or deviation indicator. 3,078,719, 2–26–63, Cl. 73—407.
Cordero, Fidel, and R. W. Armstrong, to United States of America, Navy. Aircraft cabin pressure error indicator. 3,084,549, 4–9–63, Cl. 73—407.
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Murphy, William P., Jr. 3,105,511.
Cordis, Hellmut. Cleaning device for drawing frames of spinning machines. 3,086,255, 4–23–63, Cl. 19—265.
Cordis, Nat. Variable-delivery blade-type conveyor. 3,100,043, 8–6–63, Cl. 198—224.
Cordis, Nat. Poultry feeder having a band type conveyor. 3,101,070, 8–20–63, Cl. 119—52.
Cordis, Nat. Automatic fluid supply actuated motor and piston additive device. 3,114,379, 12–17–63, Cl. 137—98.
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Beyer, Walter, and Kelley. 3,115,806.
Cordray, Richard A., and S. R. Crooks, to Republic Steel Corp. Method of texturing metal sheets. 3,109,331, 11–5–63, Cl. 80—60.
Cordrey, James M., S. T. Druckenmiller, and J. E. Lufkin, to E. I. du Pont de Nemours and Co. Process for making alkali metal salt of carboxymethylcellulose. 3,088,943, 5–7–63, Cl. 260—231.
Cordrey, Richard N., to Armco Steel Corp. Power plant for drilling rig. 3,109,322, 11–5–63, Cl. 74—661.
Cords, Helmuth, D. W. Grant, and E. M. Butterworth, to Olin Mathieson Chemical Corp. Cyanocobalt and cyanoiron complexes of cobalamin. 3,115,489, 12–24–63, Cl. 260—211.5.
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Corella, Arthur P.: *See*—
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Schneider, William S., and Corella. 3,082,586.
Corey, Arthur M., and L. W. Webb. Boat and trundling mechanism. 3,098,245, 7–23–63, Cl. 9—1.
Corey, Charles E., to Lapp Insulator Co., Inc. Electrical bus support. 3,076,867, 2–5–63, Cl. 174—169.
Corey, Donald W., to Buxton, Inc. Cigarette case. 3,081,867, 3–19–63, Cl. 206—41.
Corey, Ronald D. Heating method, means and control. 3,115,302, 12–24–63, Cl. 237—2.
Corey, Thomas M., and C. A. Wakefield, to Creative Packaging, Inc. Phonograph record portfolio. 3,107,783, 10–22–63, Cl. 206—62.
Corken, Charles M.: *See*—
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Kennedy, Garth P., Corken, and Helm. 3,072,066.
Corlett, Ewan C. B., to Wm. Cory & Son Ltd. Marine tankers. 3,094,963, 6–25–63, Cl. 114—74.
Corlew, Charles D. Internal combustion motor fuel injection system. 3,090,369, 5–21–63, Cl. 123—138.

Corley, Charles B., Jr., G. C. Terrel, and S. E. Loy III, to Jersey Production Research Co. Wire line cementing tool. 3,097,698, 7–16–63, Cl. 166—162.
Corley, Clifton. Dispensing container and apparatus. 3,096,913, 7–9–63, Cl. 222—183.
Corley, Richard S., to Polaroid Corp. Process for oxidizing hydroquinonyl radicals present in dyes to quinonyl radicals. 3,116,279, 12–31–63, Cl. 260—197.
Corliss, Robert F., to Monogram Precision Industries, Inc. Sewage handling apparatus. 3,079,612, 3–5–63, Cl. 4—10.
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Gooding, Chester M., and Cravens. 3,085,882.
Harris, Richard C. 3,087,819.
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Wadsworth, Daniel V., Marino, and Ho. 3,085,879.
Wadsworth, Daniel V., Rosenberg, and Marino. 3,085,914.
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Cornelison, Boyd, to Texas Instruments Inc. Strain gauge. 3,096,652, 7–9–63, Cl. 73—398.
Cornelison, Boyd, to Texas Instruments Inc. Pressure sensitive gauge. 3,111,848, 11–26–63, Cl. 73—418.
Cornelison, Boyd, M. E. Jones, J. T. Lineback, E. A. Wolff, Jr., S. W. Barcus, Jr., F. A. Horak, and N. S. Ince, to Texas Instruments Inc. Materials for and methods of manufacturing semi-conductor devices. 3,076,253, 2–5–63, Cl. 29—25.3.
Cornelison, Boyd, and E. A. Wolff, Jr., to Texas Instruments Inc. Masking and fabrication technique. 3,088,852, 5–7–63, Cl. 148—1.5.
Cornelison, Boyd, J. W. Thornhill, and E. A. Wolff, Jr., to Texas Instruments Inc. Fabrication of semiconductor devices. 3,092,893, 6–11–63, Cl. 29—25.3.
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Cornelius, Nelson F. Container handle construction. 3,077,286, 2–12–63, Cl. 220—94.
Cornelius, Nelson F. Method of making insulated plastic containers. 3,094,448. 6–18–63. Cl. 156—78.
Cornelius, Richard T., to Stewart-Warner Corp. Valves. 3,071,153. 1–1–63, Cl. 137—516.29.
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Cornelius, W. C. Structure for cooling water heated in cooling automobile engines. 3,070,975, 1–1–63, Cl. 62—238.
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Beach, John B. 3,094,894.
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Cornell, Dudley E., III, to Teaching Machines, Inc. Portable teaching machines. 3,105,307, 10–1–63, Cl. 35—9.
Cornell, Dudley E., III, and R. A. O'Connell, to Unicycle Corp. of America, a division of Push Button Container Corp. Occupant propelled unicycle. 3,083,036, 3–26–63, Cl. 280—205.
Cornell, Edward S., Jr. Apparatus for purifying air. 3,071,828, 1–8–63, Cl. 21—74.
Cornell, Edward S., Jr., to Burndy Corp. Flexible multiple connector. 3,097,036, 7–9–63, Cl. 339—176.
Cornell, Edward S., Jr. Cabinet for treating limbs with radiation. 3,101,716, 8–27–63, Cl. 128—375.
Cornell, George W., ½ to W. E. Cornell, Jr. All vinyl door, window or like seal assembly. 3,079,653, 3–5–63, C. 20—69.
Cornell, Jacob, to Chrysler Corp. Engine crankcase ventilation systems. 3,111,120, 11–19–63, Cl. 123—119.
Cornell, James R., to The National Cash Register Co. Cathode-coupled phantastron sweep circuit having transistor means for providing controllable premature sweep termination without "bottoming." 3,102,240, 8–27–63, Cl. 328—184.
Cornell, James R., and D. B. Congleton, to The National Cash Register Co. Deflection amplifier. 3,109,122, 10–29–63, Cl. 315—27.
Cornell, Lafayette. Soap cake holder. 3,104,490, 9–24–63, Cl. 45—28.
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Corner, Arthur C., to Automatic Telephone & Electric Co. Ltd. Automatic telephone systems. 3,115,553, 12–24–63, Cl. 179—22.
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Smith, Gail P. 3,114,319.
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Stanton, Courtland C. 3,084,959.
Udall, Gordon F. 3,113,842.
Van Cott, Harrison C. 3,096,159.
Wiker, Richard M. 3,077,414.
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Newland, Arthur E., and Schultz. 3,086,513.
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Coronado, Robert J., J. Y. Yamashiro, and S. C. Ward, to Hughes Aircraft Co. Card handling apparatus. 3,083,960, 4–2–63, Cl. 271—4.

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Correc, Henri, to Commissariat a l'Energie Atomique. Links for girdling a vertical stack of moderator units in a nuclear reactor. 3,071,528, 1–1–63, Cl. 204—193.2.

Correc, Henri, to Commissariat a l'Energie Atomique. Girdles for vertically stacked solid moderator bars in a nuclear reactor. 3,085,960, 4–16–63, Cl. 204—193.2.

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Correll, Curtis V. Aerial wire payout system and wire magazine therefor. 3,089,588, 5–14–63, Cl. 206—59.

Correy, Thomas B., D. E. De Witt and I. V. Nelson, to United States of America, Atomic Energy Commission. Welding apparatus. 3,087,045, 4–23–63, Cl. 219—74.

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Corrigan, Harold A., to The Standard Products Co. Audible visual communication systems. 3,094,589, 6–18–63, Cl. 179—40.

Corrigan, Robert E., to Corrigan Communications, Inc. Method of testing the learning of persons. 3,095,653, 7–2–63, Cl. 35—9.

Corrinet, Andrew L., to American Can Co. Tamperproof container. 3,080,088, 3–5–63, Cl. 220—38.5.

Corrinet, Andrew L., to American Can Co. Container. 3,110,121, 11–12–63, Cl. 40—312.

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Ramey, Robert A., Jr., and Corry. 3,110,628.

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Larsen, Norman B. 3,093,492.

Corrugated Container Co., The: *See*—
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Hamilton, Robert S., and Curie. 3,090,526.

Corry, Thomas M., to Westinghouse Electric Corp. Electroluminescent and fluorescent lighting. 3,078,389, 2–19–63, Cl. 315—185.

Corry, Thomas M., and L. L. Learn, to Westinghouse Electric Corp. Thermoelectric appliance. 3,082,276, 3–19–63, Cl. 136—4.

Corsan, George W., to Walter Grafton & Son, Ltd. Spools for business machines. 3,092,348, 6–4–63, Cl. 242—74.

Corsan, George W., to Walter Grafton & Son, Ltd. Spools for business machines. 3,092,349, 6–4–63, Cl. 242—74.

Corsets Silhouette Ltd.: *See*—
Lobbenberg, Anne Marie. 3,073,312.

Corsette, Douglas F., to The Drackett Co. Liquid dispenser. 3,084,873, 4–9–63, Cl. 239—337.

Corsette, Douglas F., and R. C. Cooprider, to The Drackett Co. Dispensing pump valve structure. 3,102,489, 9–3–63, Cl. 103—42.

Corsette, Nancy N.: *See*—
Corsette, William T. 3,088,759.

Corsette, William T., deceased; N. N. Corsette, executrix, to D. J. Ainsworth. Swivel pipe coupling having low friction seals. 3,088,759, 5–7–63, Cl. 285—190.

Corsetti, Carlo: *See*—
Bassi, Alberto, Corsetti, Mantega, and Perona. 3,102,090.

Corsi, George L.: *See*—
Rhoads, George D., and Corsi. 3,114,558.

Corsi, Luigi: *See*—
Dakli, Ibrahim, and Corsi. 3,079,255.

Corson, Alan S., C. Beck, and L. S. Guarino; said Corson and said Guarino assors. to United States of America, Navy. Angle of attack computer. 3,091,962, 6–4–63, Cl. 73—178.

Corson, Bolton L., to G. & W. H. Corson, Inc. Process for producing dry lime hydrate. 3,106,453, 10–8–63, Cl. 23—188.

Corson, Carl R., and L. H. Gilligan, to United States of America, Air Force. System for automatic control of a PPI display for optimum photography. 3,078,454, 2–19–63, Cl. 343—5.

Corson, G. & W. H., Inc.: *See*—
Corson, Bolton L. 3,106,453.
Meyers, William F. 3,083,252.
Minnick, Leonard J. 3,076,717.

Cortes, Beverly: *See*—
Cortes, Ricardo. 3,074,777.

Cortes, Ricardo, deceased: B. Cortes, administratrix, to Pittsburgh Plate Glass Co. Method of chlorinating an agglomerate-free fluid bed of titanium-bearing materials. 3,074,777, 1–22–63, Cl. 23—87.

Cortez, Jose C., to Lamford Paper International Ltd. Auto copy paper and methods of making the same. 3,079,270, 2–26–63, Cl. 117—36.7.

Corti, Ulrich A., F. Gassmann, and M. Weber. Motion measuring apparatus. 3,090,226, 5–21–63, Cl. 73—141.

Cortright, Peggy. Convertible fumehood. 3,111,077, 11–19–63, Cl. 98—115.

Corwin, Alfred W., to McGraw-Edison Co. Rotatable head for luminaires. 3,080,475, 3–5–63, Cl. 240—25.

Corwin, Merton D.: *See*—
Quitter, John P., Corwin, and Lakamp. 3,072,005.

Corwin, Robert D.: *See*—
Flodberg, Gerhard A., and Corwin. 3,104,451.

Cory, Carleton D., Jr., and R. L. Jenkins, to General Motors Corp. Highway communication system. 3,105,119, 9–24–63, Cl. 179—82.

Cory Corp.: *See*—
Karlen, Harvey R., and Eisendrath. 3,082,915.
Wagner, Herbert E., Karlen, and Eisendrath. 3,075,453.

Cory, Wm., & Son Ltd.: *See*—
Corlett, Ewan C. B. 3,094,963.
Leathard, John F. 3,076,423.

Corydon Jeff L., to Hush Bumper Service, Inc. Bowling ball bump absorbers. 3,092,385, 6–4–63, Cl. 273—17.

Cosby, John N., and C. J. Klasen, to Allied Chemical Corp. Recovery of chlorinated polyethylene wax from solution by spray drying. 3,074,923, 1–22–63, Cl. 260—94.9.

Cosby, Kenneth W., to C. J. Philipps. Test apparatus and hydraulic systems. 3,090,221, 5–21–63, Cl. 73—40.

Coscia, Anthony T., to American Cyanamid Co. Separation of xylene isomers with alkylidene-bis-benzamides. 3,114,784, 12–17–63, Cl. 260—674.

Coscia, George A. Method of fabricating elongated underground conduits. 3,101,530, 8–27–63, Cl. 29—469.

Coscia, George A. Apparatus for welding pipes. 3,102,187, 8–27–63, Cl. 219—60.

Cosden Petroleum Corp.: *See*—
Dyer, Robert H. 3,100,808.
Meek, Paul D., Snyder, Allison, and Grimes. 3,100,763.
Randall, George A. 3,084,108.

Cosentino, Anthony. Sheets feeding machine. 3,073,591, 1–15–63, Cl. 271—54.

Cosgrove, Lee A., to Air Products and Chemicals, Inc. Method of preparing catalyst for hydrocarbon conversion. 3,109,823, 11–5–63, Cl. 252—442.

Cosgrove, William J.: *See*—
Bendell, Sidney L., and Cosgrove. 3,089,978.

Coslowsky, Marion M. Spinning missile launcher. 3,084,598, 4–9–63, Cl. 89—1.7.

Cosmocord Ltd.: *See*—
Chen, Peter R., and Planer. 3,114,122.
Kelly, Stanley, Schumann, and Adams. 3,089,922.

Cosmos Industries, Inc.: *See*—
Metzger, Louis G., and Goodman. 3,098,989.

Cosmos, William J. High speed molded wheel and process therefor. 3,079,645, 3–5–63, Cl. 18—59.

Cosner, Robert R., and T.-L. Weng, to Union Carbide Corp. High speed tensile testing. 3,102,421, 9–3–63, Cl. 73—97.

Cosnuau, Bernard, to Fluotechnic. Fluorescent discharge lamp starting and operating circuit. 3,097,325, 7–9–63, Cl. 315—100.

Cossor, A. C., Ltd.: *See*—
Bradsell, Peter. 3,108,224.
Foster, Kenneth, and Longley. 3,105,947.

Costa Font, Buenaventura. Power loom. 3,110,327, 11–12–63, Cl. 139—190.

Costa, Italo. Well-drilling pipe. 3,077,358, 2–12–63, Cl. 285—133.

Costakos, Theodore M. Valve mechanism for cream dispensers. 3,107,828, 10–22–63, Cl. 222—438.

Costantini, Anthony R., and A. Di Angelus, to Victory Metal Mfg. Co., d.b.a. Victory Metal Mfg. Corp. Shelf mounting and securing means. 3,110,536, 11–12–63, Cl. 312—350.

Costanzi, Nicolo, to Cantieri Riuniti Dell'Adriatico S.p.A. Ship's hull formation. 3,090,338, 5–21–63, Cl. 114—56.

Costanzi, Nicolo, to Cantieri Riuniti Dell' Adriatico S.p.A. Ship form. 3,092,061, 6–4–63, Cl. 114—56.

Costanzo, Raphael J., to Harvey Hubbell, Inc. Saturable reactor dimmer. 3,107,328, 10–15–63, Cl. 323—88.

Costas, John P., to General Electric Co. Synchronous detector system. 3,101,448, 8–20–63, Cl. 329—50.

Coste, Louis E. Digital computing apparatus utilizing algebraic binary number representation. 3,079,081, 2–26–63, Cl. 235—152.

Coste, Peter, to Rhenopack G.m.b.H. Method and apparatus for manufacture of hollow bodies. 3,114,172, 12–17–63, Cl. 18—19.

Costello, Clifford T. Reaction motor driven generator. 3,072,799, 1–8–63, Cl. 290—52.

Costello, Daniel R. Vehicle mounted hoist. 3,072,271, 1–8–63, Cl. 214—77.

Costello, Daniel R. Self-loading flat-bed truck. 3,095,099, 6–25–63, Cl. 214—77.

Costello, John G., to National Gypsum Co. Preassembled wall frame. 3,111,202, 11–19–63, Cl. 189—34.

Costello, John J.: *See*—
Robertson, William A., and Costello. 3,075,291.

Costello, Otto A.: *See*—
Frushour, Russel E., Costello, Farekas, and Irish. 3,080,766.
Frushour, Russel E., Costello, Farekas, and Irish. 3,095,072.

Costley, Vivian G.: *See*—
Butler, Francis E., Dovell, Leslie, Costley, and Luh. 3,086,464.

Costley, Vivian G., C. W. Dovell, and L. V. C. Luh, to United States of America, Navy. Explosive release bolt and valve. 3,094,928, 6–25–63, Cl. 102—10.

Costruzioni Meccaniche Riva S.p.A.: *See*—
Wysocki, Waclaw. 3,094,635.

Cosway, Harry F.: *See*—
Malley, Thomas J., Cosway, and Giddings. 3,101,999.
Malley, Thomas J., De Lapp, Giddings, and Cosway. 3,102,000.

Cota, John A., to Ford Motor Co. Power steering mechanism. 3,086,607, 4–23–63, Cl. 180—79.2.

Cote, Henry: *See*—
Block, Paul. 3,073,637.

Cote, Raymond A.: *See*—
Sherman, Earle C., and Cote. 3,098,583.

Cote, Raymond A., to Olin Mathieson Chemical Corp. Method of packaging articles. 3,107,465, 10–22–63, Cl. 53—29.

Cotesworth, Harry A.: *See*—
Dehn, Roy F., and Cotesworth. 3,095,174.

Cotesworth, Harry A., to The Cleveland Crane & Engineering Co. Overhead material handling trolleys. Re. 25,501, 12–24–63, Cl. 105—114.

Cotman, Val, Jr., to Ric-Wil-Inc. Pipe support. 3,113,595, 12–10–63, Cl. 138—113.

Cottell, Eric C., and J. E. Goodman, to Sonic Engineering Corp. Apparatus for the mechanical production of acoustic vibrations for use in emulsification, disperaion or like process. Re. 25,324, 1–29–63, Cl. 259—1.

Cotter, Donald P., to Nashoba Engineering Corp. Drill guide means. 3,083,593, 4–2–63, Cl. 77—55.

Cotter, George H.: *See*—
Gamberg, Edward R., Yaczko, and Cotter. 3,093,725.

Cotter, Perry G., and R. A. Potter, to United States of America, Interior. Method for producing zirconium diboride. 3,088,805, 5–7–63, Cl. 23—204.

Cotter, Robert J.: *See*—
Sauers, Carol K., and Cotter. 3,094,551.
Whelan, John M., Jr., and Cotter. 3,072,613.

Cotter, William. Telephone call priority indicator. 3,075,047, 1–22–63, Cl. 179—51.

Cotterman, Frank D.: *See*—
Bredtschneider, Kurt B., De Craene, Hansen, and Cotterman. 3,094,136.

Cottet, Emile C., and A. C. Ducros, to Societe des Usines Chimiques Rhone-Poulenc. Production of graft polymers. 3,107,206, 10–15–63, Cl. 204—154.

Cottet, Emile C., and A. C. Ducros, to Societe des Usines Chimiques Rhone-Poulenc. Process for the production of shaped articles by irradiation. 3,107,207, 10–15–63, Cl. 204—154.

Cotteta, Jerome E., to Philco Corp. Method and solution for selectively stripping electroless nickel from a substrate. 3,104,167, 9–17–63, Cl. 75—97.

Cottle, Delmer L.: *See*—
Lemiszka, Theodore, Cottle, and Minckler. 3,086,955.
Minckler, Leon S., Jr., Cottle, and Lemiszka. 3,080,337.
Morway, Arnold J., Kelley, Seelbach, and Cottle. 3,098,042.
Serniuk, George E., Cottle, and Minckler. 3,081,284.
Smith, Paul V., Jr., Young, and Cottle. 3,085,104.

Cottle, Delmer L., T. Lemiszka, and L. S. Minckler, Jr., to Esso Research and Engineering Co. Halogenation of dehydrohalogenated butyl rubber. 3,084,142, 4–2–63, Cl. 260—85.3.

Cottle, Delmer L., and L. S. Minckler, Jr., to Esso Research and Engineering Co. Composition comprising halogenated butyl rubber and a thioaldehyde trimer. 3,097,182, 7–9–63, Cl. 260—43.

Cottle, John E.: *See*—
Stevens, James I., and Cottle. 3,084,149.

Cottle, John E., to Phillips Petroleum Co. Monomer recovery process. 3,081,290, 3–12–63, Cl. 260—94.9.

Cottle, John E., to Phillips Petroleum Co. Purification of gases by absorption. 3,106,462, 10–8–63, Cl. 55—20.

Cotton, Beryl W., and T. L. Thomas. Nurse call and utility unit. 3,112,968, 12–3–63, Cl. 312—248.

Cotton De Bennetot, Michel, to Societe d'Electro-Chimie, d'Electro-Metallurgie et des Acieries Electriques d'Ugine. Combined permanent magnet and electromagnet. 3,089,064, 5–7–63, Cl. 317—123.

Cotton, Joseph B., to Imperial Chemical Industries Ltd. Method of improving the corrosion resistance of titanium metals. 3,102,086, 8–27–63, Cl. 204—147.

Cotton, Lee J. Foot appliances. 3,093,130, 6–11–63, Cl. 128—80.

Cotton, Leon B., to I-T-E Circuit Breaker Co. Molded handle tie. 3,110,779, 11–12–63, Cl. 200—50.

Cotton, Raymond A., to Short Brothers & Harland Ltd. Lashing anchorage for freight stowage compartments of aircraft and other vehicles. 3,106,377, 10–8–63, Cl. 248—361.

Cotton, Robert B., to All American Engineering Co. Aerial cargo delivery system. 3,096,055, 7–2–63, Cl. 244—137.

Cotton, Robert B., to All American Engineering Co. Aerial cargo delivery system. 3,113,751, 12–10–63, Cl. 244—137.

Cotton, Sherwood M.: *See*—
Keith, Willis C., and Cotton. 3,075,009.

Cotton Silk and Man-Made Fibres Research Assn.: *See*—
Bruce, Donald M., Cowhig, and Butler. 3,089,322.
Catling, Harold. 3,087,204.
Griffiths, Jack, and Harland. 3,104,954.

Cotton, William, Ltd.: *See*—
Blood, Raymond. 3,073,138.
Brown, Leonard, and Hinckliff. 3,100,975.

Cottons, Andrew: *See*—
Peterson, Stanley W. 3,094,217.

Cottrell, Alan H., and M. W. Thompson, to United Kingdom Atomic Energy Authority. Nuclear reactors. 3,105,804, 10–1–63, Cl. 204—193.2.

Cottrell Co., The: *See*—
Luehrs, Hans J. 3,093,069.
Luehrs, Hans J. 3,099,210.

Cottrell, Julius R. J. Reciprocable rod actuated switch. 3,105,884, 10–1–63, Cl. 200—61.89.

Cotts, Ronald F., to The Celotex Corp. Fire retardant acoustical tile. 3,103,444, 9–10–63, Cl. 106—71.

Coty, Inc.: *See*—
De Kolb, Eric. 3,086,716.

Couch, Glenn F., to Symington Wayne Corp. Cast-weld center filler. 3,102,643, 9–3–63, Cl. 213—57.

Couch International Methane Ltd.: *See*—
Pilstead, Charles G., Jr. 3,116,135.

Couch, Robert W.: *See*—
Mahlstedt, Henry, Dunn, Couch, and Seyb. 3,086,927.

Couffer, Robert W., Jr.: *See*—
Eskin, Samuel G., and Couffer. 3,105,375.

Coughlin, Jack M.: *See*—
Rowan, Hartley D., and Coughlin. 3,073,356.

Cougle, Harry T. Railing. 3,092,372, 6–4–63, Cl. 256—22.

Coulin, Victor. Liquid level responsive switch. 3,090,849, 5–21–63, Cl. 200—84.

Coull, James, and D. E. Vierling. O-higher alkenylphenyl O,O-dialkyl thionophosphate triester compounds. 3,087,855, 4–30–63, Cl. 167—30.

Coulon, Edward, and H. May, to Vogel Tool & Die Corp. Method of preparing mitered tubular joints. 3,074,302, 1–22–63, Cl. 83—40.

Coulson, Earl J., Jr.: *See*—
Yeo, Robert H., and Coulson. 3,082,627.

Coulson, Emery J.: *See*—
Spies, Joseph R., Coulson, and Wells. 3,101,266.

Coulson, Gordon R., to Can-Amera Oil Sands Development Ltd. Centrifuge control. 3,081,027, 3–12–63, Cl. 233—4.

Coulson, William: *See*—
Holcombe, Ralph L. 3,082,000.

Coulter, Anne M. Multi-purpose bed pan cushion. 3,100,303, 8–13–63, Cl. 4—113.

Coulter, David C., to Melpar, Inc. Frequency amplitude time plotter with simulated three dimensional display. 3,115,605, 12–24–63, Cl. 324—77.

Coulter, James A.: *See*—
Close, Patrick B., Coulter, Ditmer, Fahrenbruck, Goldammer, Goodrick, Gulden, Holloran, Jenkins, Kilbeffer, Kinker, Lyons, Manor, Marvin, Miller, O'Brian, Randall, Garner, Sather, Yost, and Braden. 3,112,394.

Coulter, John A., to Hilroy Envelopes and Stationery Ltd. Ruling apparatus. 3,113,513, 12–10–63, Cl. 101—216.

Council for Scientific and Industrial Research: *See*—
Firth, Donald, and Hamilton. 3,115,066.
Firth, Donald, and Hancock. 3,089,427.
Price, William I. J. 3,105,312.

Council of Scientific and Industrial Research: *See*—
Gupta, Chait R. 3,116,026.

Cound, Laurence J., to International Computers and Tabulators Ltd. Apparatus for supporting electrical conductors. 3,108,154, 10–22–63, Cl. 174—70.

Counihan, Richard G.: *See*—
Carroll, William N., Coopper, and Counihan. 3,087,074.

Counsell, Raymond E., to G. D. Searle & Co. 20-[ω-(tertiary-amino) lower alkanoylamido]-pregn-5-en-3β-ols, esters corresponding, and intermediates thereto. 3,076,802, 2–5–63, Cl. 260—239.5.

Counsell, Raymond E., to G. D. Searle & Co. Process and intermediates for the manufacture of 17-oxygenated 2α-methylandrostan-3-ones. 3,105,841, 10–1–63, Cl. 260—397.4.

Counsell, Raymond E., to G. D. Searle & Co. 17α-(2-alkenyl)-estra-1,3,5(10)-triene-3,17β-diols and esters thereof. 3,107,257, 10–15–63, Cl. 260—397.5.

Counsell, Raymond E., and P. D. Klimstra, to G. D. Searle & Co. 2-halo-5α-androst-1-ene-3,17-diols and derivatives thereof. 3,078,284, 2–19–63, Cl. 260—397.5.

Counsell, Raymond E., and P. D. Klimstra, to G. D. Searle & Co. 17β-[N-(aminoalkyl)amino] androstan-3-ols, 5-dehydro derivatives corresponding, and esters thereof. 3,084,156, 4–2–63, Cl. 260—239.5.

Counsell, Raymond E., and P. D. Klimstra, to G. D. Searle & Co. 17α-alkynyl-2β-halo-5α-androstane-3α, 17β-diols, esters thereof, and intermediates thereto. 3,098,851, 7–23–63, Cl 260—239.55.

Counsell, Raymond E., and P. D. Klimstra, to G. D. Searle & Co. 17-oxygenated 2β-fluoro-5α-androstan-3-ones and intermediates thereto. 3,104,244, 9–17–63, Cl. 260—397.3.

Counsell, Raymond E., and P. D. Klimstra, to G. D. Searle & Co. N-(dialkylaminoalkyl)androstanyl-17β-amines, N-alkyl derivatives thereof, and 2,3-dehydro compounds corresponding. 3,107,255, 10–15–63, Cl. 260—397.3.

Count Numbering Machine, Inc.: *See*—
Re Baratelli, Giuseppe. 3,107,606.

Couper, Alistair S., and C. D. Kalfadelis, to Standard Oil Co. Process for separating benzene carboxylic acids. 3,098,855, 7–23–63, Cl. 260—525.

Coursen, David L.: *See*—
Brockway, William R., and Coursen. 3,099,215.

Coursen, David L., to E. I. du Pont de Nemours and Co. Explosive means. 3,095,812, 7–2–63, Cl. 102—27.

Coursen, David L., and F. A. Loving, to E. I. du Pont de Nemours and Co. Explosive composition. 3,101,288, 8–20–63, Cl. 149—21.

Coursey, Claude, Jr. Fog tip. 3,107,060, 10–15–63, Cl. 239—543.

Courtaulds Ltd.: *See*—
Ballard, Denis G. H. 3,089,749.
Dawson, John B., and Krzesinski. 3,084,993.
Dixon, Olaf G., and Morgan. 3,099,952.
Dual, George C., and Drake. 3,113,826.
Filling, James H. 3,093,534.
Furness, Vera I., and Mackenzie. 3,091,552.

Courtaulds Ltd.: *See*—Continued
Jeffrey, George M., and Poole. 3,106,326.
Lewis, Peter. 3,097,914.
Rakowski, Lech, and Neale. 3,083,522.
Reeder, Frank. 3,078,143.
Reeder, Frank, and Krzesinski. 3,106,763.
Tallis, Ernest E., and Singleton. 3,110,059.

Courtaulds North America Inc.: *See*—
Klein, Elias, Nelson, and Bingham. 3,109,700.
Klein, Elias, Wise, and Richardson. 3,109,698.
Richardson, William C. 3,109,699.

Courter, Martin L., to Shell Oil Co. Ethylene oxide production. 3,083,213, 3–26–63, Cl. 260—348.5.

Courter, Martin L., and G. J. Carlson, to Shell Oil Co. Ethylene oxide production. 3,091,622, 5–28–63, Cl. 260—348.5.

Courter, Martin L., and D. S. Thayer, to Shell Oil Co. Recovery of hydrocarbon oxidation products. 3,097,215, 7–9–63, Cl. 260—348.

Courtesy Products Corp.: *See*—
Forsyth, Albert J. C. 3,089,618.

Courtland Laboratories: *See*—
Barr, Courtland H., Sr., C. H., Jr., and J. W. 3,106,206.

Courtney, Glenn: *See*—
Puckett, John. 3,089,721.

Courtney-Pratt, Jeofry S., to Bell Telephone Laboratories, Inc. Optical focus and resolution testing methods and apparatus. 3,100,239, 8–6–63, Cl. 88—56.

Courvoisier, Jean, to North American Philips Co., Inc. Method of manufacturing semiconductor bodies. 3,102,825, 9–3–63, Cl. 117—227.

Cousino, Walter F., to Hydro-Coin, Inc. Method and apparatus for cutting off elongated materials. 3,089,368, 5–14–63, Cl. 83—1.

Cousino, Walter P., and J. T. Ball, to Chrysler Corp. Countershaft gearing noise eliminator. 3,109,317, 11–5–63, Cl. 74—411.

Cousins, Edward, to The Goodyear Tire & Rubber Co. Wire traction insert for tires. Re. 25,374, 4–23–63, Cl. 152—211.

Cousins, James: *See*—
Loudon, John D. 3,082,993.

Cousserans, Gilbert G. J.: *See*—
Pomot, Jean L. E., Luzarreta, and Cousserans. 3,086,987.

Cousteau, Jacques Y., and E. Gagnan, to La Spirotechnique. Swimmer's fin. 3,082,442, 3–26–63, Cl. 9—309.

Cousteau, Jacques Y., E. Gagnan, A. Laban, and J. Mollard, to La Spirotechnique. Towed vehicle for submarine submersion. 3,082,731, 3–26–63, Cl. 114—235.

Cousteau, Jacques Y., and E. Gagnan, to La Spirotechnique. Demand regulator for breathing apparatus. 3,095,890, 7–2–63, Cl. 137—63.

Cousteau, Jacques Y., E. Gagnan, A. Laban, and J. Mollard, to Spirotechnique, La. Self-propelled submersible vessel. 3,103,195, 9–10–63, Cl. 114—16.

Courant, Ralph E., to General Electric Co. Variable ratio transmission mechanism. 3,111,858, 11–26–63, Cl. 74—230.17.

Couthon, J., Etablissement: *See*—
Dion, Henri, and Couthon. 3,105,424.

Couthon, Jacques: *See*—
Dion, Henri, and Couthon. 3,105,424.

Couture, Rene, to Lefebvre Freres Limitee. Grizzly bar feeder. 3,106,523, 10–8–63, Cl. 209—325.

Couzens, Sydney N., to Muirhead & Co. Ltd. Terminal unit for movable electrical apparatus. 3,115,377, 12–24–63, Cl. 339—2.

Coval, Arthur B.: *See*—
Lee, Arthur L., and Coval. 3,073,423.
Lee, Arthur L., and Coval. 3,080,773.
Lee, Arthur L., and Coval. 3,090,629.
Lee, Arthur L., and Coval. 3,100,647.
Lee, Arthur L., and Coval. 3,100,648.

Coverley, Harold E., to General Motors Corp. Seal for sliding door. 3,100,918, 8–20–63, Cl. 20—19.

Covert, Calvin C.: *See*—
Conn, Francis E., and Covert. 3,087,554.

Covey, Harold I.: *See*—
Anstrom, Jerome C., Carlisle, and Covey. 3,085,773.

Covey, Rupert A., to United States Rubber Co. Process for preparing bis-(monosubstituted-amino)-benzoquinones and monosubstituted-amino-naphthoquinones. 3,114,755, 12–17–63, Cl. 260—396.

Covington, Edward R., to E. I. du Pont de Nemours and Co. Coating weight determination by means of ultraviolet light. 3,076,723, 2–5–63, Cl. 117—93.31.

Covington, Robert A., Jr., B. K. Daubenspeck, R. E. Dickey, and E. M. Yacko, to Remington Arms Co., Inc. Tubing for cartridge casings and the like and method of making the same. 3,103,170, 9–10–63, Cl. 102—43.

Covington, William Z. Frame and plastic comb foundation for beehives. 3,088,135, 5–7–63, Cl. 6—10.

Covini, Lorenzo, to Cobes. Heel safety device for ski binding. 3,095,209, 6–25–63, Cl. 280—11.35.

Covino, Charles P. Dry lubrication process and bearing surface. 3,073,761, 1–15–63, Cl. 204—38.

Cowan, Arnold A., to Bobrick Mfg. Corp. Dispenser with demountable reservoir. 3,107,025, 10–15–63, Cl. 220—18.

Cowan, Ben: *See*—
Cowan, Elijah and B. 3,073,239.
Cowan, Elijah and B. 3,081,873.

Cowan, David M.: *See*—
Rockwood, Albert M., and Cowan. 3,088,490.

Cowan, Elijah and B. Bark press. 3,073,239, 1–15–63, Cl. 100—179.

Cowan, Elijah and B. Pulp screen with internal dilution rotor. 3,081,873, 3–19–63, Cl. 209—273.

Cowan, George A. R. Ear pressure pods. 3,102,538, 9–3–63, Cl. 128—151.

Cowan, Laverne M. Toothbrush. 3,085,273, 4–16–63, Cl. 15—167.

Cowan, Maynard, Jr.: *See*—
Sander, Howard H., Cowan, and Hight. 3,108,466.

Cowan, Norman L. Safety swimming pool cover. 3,087,167, 4–30–63, Cl. 4—172.

Cowan, Robert E.: *See*—
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Cowan, Willard R., and C. W. White, to Aeroquip Corp. Power-operated, multistage, predetermined torque release wrench. 3,088,349, 5–7–63, Cl. 81—52.4.

Coward, Richard W. Blades for centrifugal fans and the like. 3,104,050, 9–17–63, Cl. 230—128.

Cowden, Lewis M., and J. R. Clark, to Union Carbide Corp. Abradable metal coatings and process therefor. 3,084,064, 4–2–63, Cl. 117—71.

Cowden, Richard C., to International Business Machines Corp. Magnetic recording method. 3,085,246, 4–9–63, Cl. 346—74.

Cowdrey, Cam L. Valve and stem protector. 3,107,686, 10–22–63, Cl. 137—360.

Cowen, Frank M.: *See*—
Wilson, Abraham, Van Loo, and Cowen. 3,105,500.

Cowgill, Frederic L., to Socony Mobil Oil Co., Inc. Valve testing apparatus. 3,077,762, 2–19–63, Cl. 73—4.

Cowhig, David A. Tire chain. 3,072,170, 1–8–63, Cl. 152—239.

Cowhig, William T.: *See*—
Bruce, Donald M., Cowhig, and Butler. 3,089,322.
Thonemann, Peter C., Cowhig, and Davenport. 3,085,189.

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Smith, Harold W., Luxon, and Cowie. 3,106,956.

Cowles Chemical Co.: *See*—
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Cowles, Edwin, and K. H. Bowen, ½ to said Cowles and ½ to Ro-Mer Mfg. Corp. Pepper mills. 3,096,036, 7–2–63, Cl. 241—169.

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Cowles, Ellsworth C., and R. F. Voggenthaler, to Ingersoll-Rand Co. Axial compressor. 3,097,359, 7–9–63, Cl. 230—143.

Cowles, John T. Brush cutter. 3,087,296, 4–30–63, Cl. 56—25.4.

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Evans, Richard C., Stevens, and Cowles. 3,082,691.

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MacPherson, William. 3,081,661.

Cowles, Warren H.: *See*—
De Claire, Alton G., Jr., and Cowles. 3,073,166.

Cowles, Warren H., and D. F. Wheeler, to Holley Carburetor Co. Fuel control for a twin spool gas turbine engine. 3,073,115, 1–15–63, Cl. 60—39.16.

Cowles, Warren H., and R. L. Ensinger, to Holley Carburetor Co. Turbine engine maximum speed limiter. 3,115,750, 12–31–63, Cl. 60—39.16.

Cowley, Calvin C., to Pharmaseal Laboratories. Protector. 3,112,747, 12–3–63, Cl. 128—218.

Cowley, Charles H.: *See*—
Dunlpace, Donald W., and Cowley. 3,078,627.

Cowley, Charles H., J. W. Hubbell, and M. E. Dufieux, to Libbey-Owens Ford Glass Co. Method of treating glass sheets or plates. 3,071,501, 1–1–63, Cl. 156—107.

Cowley, Clement W., A. P. Rinfret, and J. A. Sawdye to Union Carbide Corp. Method and apparatus for controlled rate cooling and warming of biological substances. 3,080,725, 3–12–63, Cl. 62—62.

Cowley, William E., to Vermont American Corp. Abrasive article. 3,089,294, 5–14–63, Cl. 51—186.

Cowlin, Philip, to Bailey Meter Co. Means for compensating a transistorized inverter for ambient temperature changes. 3,076,100, 1–29–63, Cl. 307—44.

Cowling, James W., to Arthur Balfour & Co. Ltd. Machine tools. 3,110,133, 11–12–63, Cl. 51—95.

Cowser, Billy B.: *See*—
Barrett, Jasper H., Wright, and Cowser. 3,079,443.

Cox, Alvin B.: *See*—
Stutzke, Robert E., and Cox. 3,077,024.
Stutzke, Robert E., and Cox. 3,077,126.
Stutzke, Robert E., and Cox. 3,077,127.

Cox, Alvon R., to The Faultless Rubber Co. Method of making a plastic valve and attaching same to a hollow inflatable article. 3,098,779, 7–23–63, Cl. 156—228.

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Cox, Arthur, and W. J. Johnson, to Bell & Howell Co. Zoom lens. 3,074,317, 1–22–63, Cl. 88—57.

Cox, Bradley G., to Baker Perkins Inc. Closure for pressurized vessels. 3,092,285, 6–4–63, Cl. 220—46.

Cox, Bradley G., to Baker Perkins Inc. Centrifugal machine stripper knife and controlling mechanism. 3,092,575, 6–4–63, Cl. 210—141.

Cox, Clarence E., and R. L. Nash. Machine for compressing fluids. 3,072,319, 1–8–63, Cl. 230—207.

Cox, Clarence E., and R. L. Nash, to Chicago Pneumatic Tool Co. Rotary fluid compressor. 3,072,320, 1–8–63, Cl. 230—210.

Cox, Clyde M., to Phillips Petroleum Co. Flow measuring system. 3,096,647, 7–9–63, Cl. 73—228.

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Hostettler, Fritz, and Cox. 3,084,177.

Cox, Francis C. Mobile bulk feed body. 3,107,804, 10–22–63, Cl. 214—522.

Cox, George R., to United States of America, Atomic Energy Commission. Exhibit stand. 3,100,573, 8–13–63, Cl. 211—177.

Cox, Harold D., to Shell Oil Co. Floating production platform. 3,111,692, 11–26–63, Cl. 9—8.

Cox, Harry A., to The General Electric Co. Ltd. Moderator core structures for nuclear reactors. 3,093,568, 6–11–63, Cl. 204—193.2.

Cox, Henry C. Fan reversing mechanism. 3,095,766, 7–2–63, Cl. 74—792.

Cox, Herbert F., Jr., to Inland Container Corp. Pouring type fluid container. 3,100,587, 8–13–63, Cl. 222—105.

Cox, Herbert F., Jr. Filling apparatus. 3,108,901, 10–29–63, Cl. 177—118.

Cox Industries, Inc.: *See*—
Cox, William T. 3,084,913.

Cox Instrument Corp.: *See*—
Brueckner, Alexander W., and Lewis. 3,088,481.

Cox, Irwin W. Scouring pad. 3,072,952, 1–15–63, Cl. 15—506.

Cox, Isaac E.: *See*—
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Cox, Isaac E., to American Brake Shoe Co. Bearing. Re. 25,330, 2–19–63, Cl. 308—88.

Cox, Ivan E. Can opener. 3,096,580, 7–9–63, Cl. 30—6.1.

Cox, John E., to International Telephone and Telegraph Corp. Four-wire transistorized conference call telephone system. 3,116,369, 12–31–63, Cl. 179—1.

Cox, John E., and W. Gibbon. Spacers for bundled overhead line conductors. 3,111,552, 11–19–63, Cl. 174—40.

Cox, Lewis J.: *See*—
Starr, Louis, Kaplan, Greenberg, and Cox. 3,100,986.

Cox, Marvin E.: *See*—
Chen, Ming C., and Cox. 3,103,408.

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Cox, Norman L., to E. I. du Pont de Nemours and Co. Process for producing ferromagnetic chromium oxide. 3,074,778, 1–22–63, Cl. 23—145.

Cox, Norman L., to E. I. du Pont de Nemours and Co. Ferromagnetic chromium oxide and preparation. 3,078,147, 2–19–63, Cl. 23—145.

Cox, Numan E. Boat trailer. 3,082,892, 3–26–63, Cl. 214—505.

Cox, Orville P.: *See*—
Stanulis, Joseph S., Cox, and Zapolski. 3,109,627.

Cox, Paul R., Jr.: *See*—
Woodard, William R., and Cox. 3,088,838.

Cox, Paul R., Jr., and P. A. Ucci, to Monsanto Chemical Co. Solutions of polyolefins and an alkoxyalkyl ester of an aliphatic monocarboxylic acid and a process for spinning same. 3,093,612, 6–11–63, Cl. 260—31.4.

Cox, Ralph E., and A. J. Cavanaugh, to Raytheon Co. Filling system including filling and relief valves. 3,074,423, 1–22–63, Cl. 137—205.

Cox, Robert J.: *See*—
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Cox, Robert M., and R. L. Burton, to Weston Hydraulics, Ltd. Pressure regulating valve. 3,111,962, 11–26–63, Cl. 137—505.18.

Cox, Robert O.: *See*—
Sanner, Medford D., and Cox. 3,091,755.

Cox, Robert P.: *See*—
Buetow, Ralph W., and Cox. 3,096,197.

Cox, Ronald T.: *See*—
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Cox, Rupert F., to Therm-O-Disc, Inc. Thermostatic controls. 3,081,388, 3–12–63, Cl. 200—138.

Cox, Thomas G.: *See*—
Polk, Ralph, Jr., Belk, and Cox. 3,073,365.

Cox, Walter W. Disposable sinker device. 3,077,694, 2–19–63, Cl. 43—43.12.

Cox, Wilbur C. S. Meyers, and E. F. Keon, to United States of America, Army. Explosive composition stabilized by nitro- or nitroso-triphenyl amine. 3,097,122, 7–9–63, Cl. 149—92.

Cox, William L., to Universal Oil Products Co. Stabilization of synthetic lubricants. 3,078,229, 2–19–63, Cl. 252—40.7.

Cox, William L., to Universal Oil Products Co. Sweetening of sour hydrocarbon distillates. 3,114,700, 12–17–63, Cl. 208—206.

Cox, William L., and A. Gaydasch, to Universal Oil Products Co. Preparation of thiuram disulfides. 3,116,328, 12–31–63, Cl. 260—567.

Cox, William T., to Cox Industries, Inc. Fence structure. 3,084,913, 4–9–63, Cl. 256—11.

Coxe, Charles D.: *See*—
Sistare, George H., and Coxe. 3,114,631.

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Keller, Ralph E., and Coy. 3,080,665.

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Silberels, Charles H., and Coy. 3,111,871.

Coy, Homer E., to Ace Tool Engineering Co., Inc. Clamp manipulating device. 3,091,143, 5–28–63, Cl. 81—9.3.

Coy, J. Almond: *See*—
Nicholls, Burwood P., Coy, and Kelsey. 3,103,556.

Coyne, John B. Apparatus for smoothing a coating on a surface of leather or the like. 3,090,351, 5–21–63, Cl. 118—223.

Coyner, Herbert N., to Phillips Petroleum Co. Production of foamed polyolefins in a high shear zone. 3,108,148, 10–22–63, Cl. 261—141.

Cozard, Lawrence H., C. W. Didde, and D. A. Glaser, to Didde-Glaser, Inc. Pile lift assembly. 3,072,398, 1–8–63, Cl. 271—62.

Cozza, Arthur: *See*—
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Cozzoli, Joseph M., and H. F. Scribner, to Cozzoli Machine Co. Multiple line-filler. 3,100,513, 8–13–63, Cl. 141—102.

Cozzoli Machine Co.: *See*—
Cozzoli, Joseph M., and Scribner. 3,100,513.

Crabb, Merle W., to General Precision, Inc. Pythagorean servo computer. 3,089,646, 5–14–63, Cl. 235—192.

Crabbe, Pierre: *See*—
Bowers, Albert, and Crabbe. 3,086,014.
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Bowers, Albert, and Crabbe. 3,103,524.

Crabbe, Pierre, to Syntex Corp. Androstane-16,17-dicarboxylic acid imides. 3,071,578, 1–1–63, Cl. 260—239.5.

Crabbé, Pierre, to Syntex Corp. 17-aminomethyl androstanes. 3,102,126, 8–27–63, Cl. 260—397.4.

Crabille, Arthur L. Automatic flip-up water rudder mechanism for sailboats and airboats. 3,085,540, 4–16–63, Cl. 114—162.

Crabtree, J. A., & Co., Ltd.: *See*—
Coleman, Edward. 3,105,131.

Crabtree, Mary J.: *See*—
La Pierre, Thomas H. 3,098,568.

Crabtree, R. W., & Sons Ltd.: *See*—
Phythian, Thomas E. 3,083,643.
Stevenson, Derek A. 3,071,372.

Crabtree, Russel S. Safety tablet dispenser. 3,102,662, 9–3–63, Cl. 221—151.

Crabtree, Wilbur, to General Motors Corp. Humidity sensing element. 3,073,161, 1–15–63, Cl. 73—336.5.

Crabtree, Willie A., to Texas Instruments Inc. Transponder. 3,079,557, 2–26–63, Cl. 325—9.

Cracknell, John and J. C., and D. N. Cooper. Apparatus for thinning growing seedlings, and hoeing between plants, growing in rows. 3,097,702, 7–16–63, Cl. 172—6.

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Cracknell, John and J. C., and Cooper. 3,097,702.

Craddock, Donald L., and A. S. Wasserman, to The B. F. Goodrich Co. Tapered collapsible container. 3,079,062, 2–26–63, Cl. 229—16.

Craddock, Ronald G., and M. M. King, to Shwayder Bros., Inc. Table. 3,115,108, 12–24–63, Cl. 108—155.

Crafa, Arthur S., to American Home Products Corp. Display support. 3,091,875, 6–4–63, Cl. 40—11.

Craft, Donald W., to General Electric Co. Gas pump with liquid removal means. 3,104,964, 9–24–63, Cl. 55—406.

Craft, Inc.: *See*—
Roy, Leo T. 3,100,073.

Craft, Sydney, to Musical Reeds Ltd. Sound producing devices. 3,075,317, 1–29–63, Cl. 46—180.

Craftint Mfg. Co., The: *See*—
Kenney, Emil J. 3,096,587.

Crafton, John M., to Woodcraft Corp. Process of apparatus for molding articles each having a central opening therethrough. 3,107,141, 10–15–63, Cl. 18—55.

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Crafts, Cecil A., to Robertshaw Controls Co. Method for phase or frequency demodulation. 3,111,625, 11–19–63, Cl. 325—349.

Crafts, Cecil A., and P. H. Goodwin, Jr., to Robertshaw-Fulton Controls Co. Phase demodulation of keyed carrier by use of synchronous gating, with phased lock driven stepwise in response to forbidden output. 3,078,344, 2–19–63, Cl. 178—88.

Crafts, Curtis S., to Miehle-Goss-Dexter, Inc. Mechanism for locating two printing plates on stereotype plate finishing machine. 3,075,276, 1–29–63, Cl. 29—21.

Crafts, Dermont B. Paste dispenser having collapsible tube supply and fluid pressure discharge. 3,081,914, 3–19–63, Cl. 222—252.

Cragg, Hoyt J., to Ethyl Corp. Hydrocarbon metal catalyst in preparation of formamides. 3,099,689, 7–30–63, Cl. 260—561.

Cragg, Richard E., and W. A. Raczynski, to Ditto, Inc. Duplicating machine with automatic controls. 3,102,470, 9–3–63, Cl. 101—144.

Craggs, Joseph, and K. McCann, to Goodman Mfg. Co. Flexible sideframe conveyor for spanning long unsupported distances. 3,106,284, 10–8–63, Cl. 198—192.

Craig, Albert S.: *See*—
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Craig, Burnie M.: *See*—
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Craig, Burnie M., and A. Brandes, to Ekco Products Co. Combined handle and latch actuating unit. 3,074,750, 1–22–63, Cl. 292—336.3.

Craig, Carroll C. Film holder. 3,091,168, 5–28–63, Cl. 95—66.

Craig, David J., and W. B. Moen, to Air Reduction Co., Inc. Hypergolic fuel-oxidizer system. 3,086,356, 4–23–63, Cl. 60—35.4.

Craig, Donald E.: *See*—
Severance, Ralph H., and Craig. 3,102,480.

Craig, Donald E., to The Magnavox Co. Centrifugal fuze. 3,075,465, 1–29–63, Cl. 102—70.2.

Craig, Dwin R., to Logetronics, Inc. Photographic printing method. 3,096,176, 7–2–63, Cl. 96—27.

Craig, Dwin R., and J. N. Street, to Logetronics, Inc. Electronic masking. 3,115,807, 12–31–63, Cl. 88—24.

Craig, Edward A., J. E. McRae, and P. D. Davison. Automobile coat hanger support. 3,104,041, 9–17–63, Cl. 224—29.

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Craig, Francis A., and F. Hollenton, to International Cigar Machinery Co. Cigar accumulator. 3,089,297, 5–14–63, Cl. 53—26.

Craig, Francis A., and N. R. Parlatore, to International Cigar Machinery Co. Cigar wrapping machine and bander. 3,090,176, 5–21–63, Cl. 53—133.

Craig, Glenn D.: *See*—
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Craig, Harold M., W. T. Kelran, and C. R. Wilson, to United Aircraft Corp. Blade damping device. 3,104,093, 9–17–63, Cl. 253—77.

Craig, Helen S.: *See*—
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Craig, Louis E.: *See*—
Weakley, Martin L., Moffett, and Craig. 3,098,872.

Craig, Paul N., to Smith Kline & French Laboratories. Dibenzazepines, process for their preparation and N-alkylated derivatives thereof. 3,074,931, 1–22–63, Cl. 260—239.

Craig, Paul N., to Smith Kline & French Laboratories. Novel substituted phenothiazines and intermediates therefor. 3,107,242, 10–15–63, Cl. 260—243.

Craig, Paul N., and C. L. Zirkle, to Smith, Kline & French Laboratories. Trifluoromethylphenylalkylamine derivatives. 3,078,307, 2–19–63, Cl. 260—570.8.

Craig, Ralph P., to Red Point Corp. Quick-release closure for pressure vessels. 3,076,577, 2–5–63, Cl. 220—40.

Craig, Richard W.: *See*—
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Chapman, Charles S., Jr., and Craig. 3,110,363

Craig, Robert G.: *See*—
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Craig, Robert G., to Air Products and Chemicals, Inc. Recovery of Cs dioleflns. 3,077,744, 2–19–63, Cl. 62—24

Craig, Robert G., and W. J. Cresson, Jr., to Air Products and Chemicals, Inc. Quench tower. 3,089,153, 3–5–63, Cl. 261—22.

Craig, Robert P., and L. E. Weinert, to Crown Zellerbach Corp. Bag packer and weigher. 3,092,194, 6–4–63, Cl. 177—154.

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Craig, Willis G., to The Lubrizol Corp. Asphalt roofing element. 3,095,339, 6–25–63, Cl. 154—51.

Craig, Winfred C.: *See*—
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Crain, Donald L., and H. A. Hartzfeld, to Phillips Petroleum Co. Preparation of methylbenzosuberane. 3,076,855, 2–5–63, Cl. 260—666.

Crain, Lee J., to Superior Industries, Inc. Retractable rope hook. 3,102,708, 9–3–63, Cl. 248—361.

Crain, Norman R., J. G. Levinthal, W. G. Facenda, and T. H. Ven, to General Electric Co. System for collating documents in response to indicia appearing thereon. 3,108,694, 10–29–63, Cl. 209—111.5.

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Crain, Robert E. Illuminated ash tray. 3,097,797, 7–16–63, Cl. 240—2.

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Crain, Roy I., & Associates, Inc.: *See*—
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Crain, Roy I., and J. D. Karnath, to Roy I. Crain & Associates, Inc. Poultry loading device. 3,103,915, 9–17–63, Cl. 119—82.

Cralle, James M., and C. B. Falson, to Little Giant Corp. Liquid pump. 3,072,062, 1–8–63, Cl. 103—87.

Cram, Milton E., and D. D. Dodge, to Ford Motor Co. Ultrasonic inspection method. 3,115,770, 12–31–63, Cl. 73—67.5.

Cramer, Henry G., to Milsco Mfg. Co. Film processing reel. 3,080,130, 3–5–63, Cl. 242—77.1.

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Cramer, Leonard L. Method of electrically fabricating a hair piece. 3,081,780, 3–19–63, Cl. 132—5.

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Cramer, Roy A., Jr. 3,086,744.

Cramer, Robert H., and A. B. Schwartz, to Socony Mobil Oil Co., Inc. Process for preparing alumina hydrosol and gel. 3,105,053, 9–24–63, Cl. 252—313.

Cramer, Robert, Jr., to Murphy Diesel Co. Automatic control of output reversal in slippable drives for transmitting torque. 3,102,434, 9–3–63, Cl. 74—472.

Cramer, Robert L., to The Bendix Corp. Pressure control valve. 3,071,128, 1–1–63, Cl. 128—1.

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Cramer, Roy A., Jr., to Cramer Posture Chair Co., Inc. Cast base for chair legs and method of making same. 3,086,741, 4–23–63, Cl. 248—194.

Cramer, Roy A., Jr., to Cramer Posture Chair Co., Inc. Floating locking device for chairs. 3,086,744, 4–23–63, Cl. 248—406.

Cramer, Stanley S. Means for providing variable lighting effects. 3,111,057, 11–19–63, Cl. 84—464.

Cramer, Thomas F., to Holley Carburetor Co. Diaphragm controlled air flow limiting valve for engine governing. 3,071,124, 1–1–63, Cl. 123—103.

Cramer, Thomas F., to Holley Carburetor Co. Engine speed governing means. 3,072,110, 1–8–63, Cl. 123—103.

Cramer, Thomas F., to Holley Carburetor Co. Pressure responsive valve. 3,072,111, 1–8–63, Cl. 123—103.

Cramer, Thomas F., to Holley Carburetor Co. Automobile speed control system. 3,072,210, 1–8–63, Cl. 180—82.1.

Cramer, Thomas F., to Holley Carburetor Co. Multi-stage governed fuel device. 3,081,757, 3–19–63, Cl. 123—103.

Cramer, Walter J.: *See*—
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Cramer, Ward C. Apparatus for filling containers of known volume in terms of the specific gravity of a liquid. 3,109,504, 11–5–63, Cl. 177—73.

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Crampton, Leslie: *See*—
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Cramwinckel, Johannes F., to Maatschappij van Berkel's Patent N.V. Circuit with compensated transformer. 3,100,546, 8–13–63, Cl. 177—211.

Crance, Harry W., Jr. Gauge for printed sheet register marks. 3,099,092, 7–30–63, Cl. 33—174.

Cranch, Edward J., E. T. Davis, and E. W. Voorhoeve, to Leeds and Northrup Co. Automatic control system of the current summing type. 3,092,321, 6–4–63, Cl. 236—15.

Crandell, Francis J. Vibration isolators. 3,115,323, 12–24–63, Cl. 248—20.

Crandell, Frank F.: *See*—
Farquhar, John P., and Crandell. 3,097,255.

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Anderson, Lynn T., and Crane. 3,312,930.

Crane, George R.: *See*—
Manley, Herbert A., and Crane. 3,115,314.

Crane, Gordon R., to Laycock Engineering Ltd. Flexible couplings. 3,115,759, 12–31–63, Cl. 64—11.

Crane, Harold S.: *See*—
Tousignant, Roland A., and Crane. 3,096,873.

Crane, Hartley J. Automatic marker. 3,094,922, 6–25–63, Cl. 101—44.

Crane, Harvey J., Jr. Non-rotatable valve tappet. 3,108,580, 10–29–63, Cl. 123—90.

Crane, Jack W., A. M. Rest, W. J. Dwyer, and W. G. Searles, to Sperry Rand Corp. Harvester. 3,090,295, 5–21–63, Cl. 100—97.

Crane, James E., and E. J. Richards, to Foster Grant Co., Inc. Molding apparatus for forming an undercut. 3,104,425, 9–24–63, Cl. 18—42.

Crane, John J. Static discharge device. 3,099,774, 7–30–63, Cl. 317—2.

Crane, Lawrence S., and I. M. Starr, to The Bendix Corp. Sonic altimeter. 3,093,807, 6–11–63, Cl. 340—1.

Crane, Milton, and D. J. Grace, to United States of America, Army. Magnetically tunable constant-width band-reject corrugated ferrite waveguide filter. 3,082,384, 3–19–63, Cl. 333—73.

Crane Packing Co.: *See*—
Schulz, Eugene A. 3,101,575.
Taukus, Harry. 3,090,627.

Crane, Robert R., to Flexible Plumbertools Inc. Power driven snake canister. 3,086,234, 4–23–63, Cl. 15—104.3.

Crane, Samuel P.: *See*—
Kent, Stephen D., and Crane. 3,086,821.

Crane, Samuel P. Electrically insulated fringe fingers for making Christmas tree branches and method. 3,090,147, 5–21–63, Cl. 41—15.

Crane, Samuel P., and S. D. Kent. Ventilating spacer. 3,107,368, 10–22–63, Cl. 5—347.

Crane, Walton B. Fresh fruit and vegetable container. 3,101,881, 8–27–63, Cl. 229—34.

Crane, Walton B., to Allied Plastics Co. Slit wrapper for use in packaging produce in baskets. 3,109,579, 11–5–63, Cl. 229—87.

Crane, William R.: *See*—
Parrish, Russell C., and Crane. 3,081,660.

Cranfill, John C. Double acting pump. 3,092,033, 6–4–63, Cl. 103—158.

Crankshaw, John H., to Dynetics, Inc. High speed synchronizing clutch. 3,071,224, 1–1–63, Cl. 192—53.

Crankshaw, John H., to Baldwin-Lima-Hamilton Corp. Sound isolating misalignment coupling. 3,080,732, 3–12–63, Cl. 64—9.

Crankshaw, John H., to Baldwin-Lima-Hamilton Corp. Misalignment coupling. 3,080,733, 3–12–63, Cl. 64—15.

Crankshaw, John H., to Baldwin-Lima-Hamilton Corp. Misalignment coupling with flexible force transmitting assemblies. 3,080,734, 3–12–63, Cl. 64—15.

Crankshaw, John H., to American Sterilizer Co. Support for hospital tables. 3,090,991, 7–9–63, Cl. 280—43.24.

Crankshaw, John H., and R. A. Lnaley, to Baldwin-Lima-Hamilton Corp. Apparatus for finishing tooth surfaces of misalignment couplings. 3,102,369, 9–3–63, Cl. 51—26.

Crammore, John J., to American Machine & Foundry Co. Self leveling, storing and dispensing apparatus. 3,082,876, 3–26–63, Cl. 211—49.

Cranskens, Georg: *See*—
Limberger, Walter, and Cranskens. 3,108,863.

Cranston, Hoy A., to Universal Oil Products Co. Method of masking a surface with a salt of a carboxylic acid and an aminoalkane prior to dyeing. 3,083,149, 3–26–63, Cl. 204—38.

Crapuchettes, Paul W., to Litton Electron Tube Corp. Microwave frequency heating apparatus. 3,104,303, 9–17–63, Cl. 219—10.55.

Crapuchettes, Paul W., to Litton Electron Tube Corp. Microwave frequency heating apparatus. 3,104,305, 9–17–63, Cl. 219—10.55.

Crapuchettes, Paul W., and J. F. Hull, to Litton Electron Tube Corp. Broadband klystron. 3,104,340, 9–17–63, Cl. 315—5.39.

Crass, Rosa A.: *See*—
Koenig, Nathan H., and Crass. 3,110,543.

Crater, Alson F., ⅓ to T. C. Hollingsworth, and ⅓ to H. M. Routh. Sinker operating mechanism and method of knitting. 3,071,947, 1–8–63, Cl. 66—107.

Crates, James C., and R. E. Potter. Drop clip. 3,085,775, 4–16–63, Cl. 248—61.

Crathern, Charles F. H., III, J. B. Bradicich, and J. S. Reen, to FMC Corp. Box making machine. 3,096,692, 7–9–63, Cl. 93—49.

Craue, Robert: *See*—
Granet, Charles, and Craue. 3,096,066.

Crauland, Marc J., to Compagnie de Saint-Gobain. Process of making polybutyl tin sulfides. 3,108,126, 10–22–63, Cl. 260—429.7.

Craven, Herman R.: *See*—
Andrews, Boley A., and Craven. 3,102,761.

Craven, Wilbur J., to The Capewell Mfg. Co. Container for band saws and the like. 3,087,608, 4–30–63, Cl. 206—52.

Craven, Wilbur J., to The Capewell Mfg. Co. Method for making a router bit or the like. 3,089,353, 5–14–63, Cl. 76—108.

Cravens, Cornelius A.: *See*—
Gooding, Chester M., and Cravens. 3,085,882.

Craver Industries, Inc.: *See*—
Day, John E., Jr., and Craver. 3,082,656.

Craver, William E., Jr.: *See*—
Day, John E., Jr., and Craver. 3,082,656.

Craveri, Renato, and G. Giolitti, to Montecatini Societa Generale per l'Industria Mineraria e Chimica. Antibiotic, flavensomycin, and process for preparing it. 3,093,543, 6–11–63, Cl. 167—65.

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Cravotta, Cosimo V. 3,094,721.

Cravotta, Cosimo V., to Cravotta Brothers, Inc. Water skis. 3,094,721, 6–25–63, Cl. 9—310.

Crawford, Archibald M., K. M. Lockerby, and R. H. Brown. Automatic retarder system for a railroad classification yard. 3,100,098, 8–6–63, Cl. 246—182.

Crawford, Arthur R., to International Research & Development Corp. Engine balance classifier. 3,098,379, 7–23–63, Cl. 73—116.

Crawford, Charles P. Valve having self-cleaning seat. 3,089,504, 5–14–63, Cl. 137—242.

Crawford, Cullen B. Tube coupling. 3,112,940, 12–3–63, Cl. 285—341.

Crawford, David J., deceased (by M. B. Sadtler, executrix), ½ to International Bank. Wood treating apparatus and process. 3,098,799, 7–23–63, Cl. 202—93.

Crawford Door Co.: *See*—
Herber, Joseph S. 3,094,163.

Crawford, Duffer R., to Air Products and Chemicals, Inc. Hydrogen liquefaction and conversion systems. 3,095,274, 6–25–63, Cl. 23—210.

Crawford, Duncan, J., and V. Arslanian, to Ex-Cell-O Corp. Container with pouring lip. 3,116,002, 12–31–63, Cl. 229—17.

Crawford Fitting Co.: *See*—
Cator, Edward J. 3,104,088.
Cator, Edward J. 3,112,767.
Lennon, Fred A., and Cator. 3,075,793.
Lennon, Fred A., and Zahuranec. 3,103,373.

Crawford, Francis W., to Phillips Petroleum Co. Enlargement of boreholes in carbonaceous strata for in situ combustion. 3,076,506, 2–5–63, Cl. 166—11.

Crawford, George D., R. R. Fontaine, and P. M. Roberts, to ACF Industries, Inc. Doppler radar simulator including frequency lock-on apparatus. 3,077,039, 2–12–63, Cl. 35—10.4.

Crawford, George H., Jr., to Minnesota Minning and Mfg. Co. Process for polymerization of fluorinated nitrosoalkane and solution of resulting polymer in fluorinated organic solvent. 3,072,592, 1–8–63, Cl. 260—32.6.

Crawford, George H., Jr., to Minnesota Mining and Mfg. Co. Process for polymerization of fluorine-containing organic compounds. 3,084,144, 4–2–63, Cl. 260—87.7.

Crawford, George H., Jr., to Minnesota Mining and Mfg. Co. Process for the preparation of fluorine-containing polymers. 3,089,866, 5–14–63, Cl. 260—92.1.

Crawford, Guy W. Compressing and shaping device. 3,104,609, 9–24–63, Cl. 100—296.

Crawford, H. E., Co., Inc.: *See*—
Johnson, Roy D. 3,078,697.

Crawford, Hugh B. Scribing tool for timber. 3,074,171, 1–22–63, Cl. 33—27.

Crawford, Lois K. Cat sanitary container enclosure. 3,085,550, 4–16–63, Cl. 119—1.

Crawford, Paul D. Attachment for flat irons. 3,101,562, 8–27–63, Cl. 38—78.

Crawford, Ralph W., and L. W. Sly, to Fisher-Price Toys, Inc. Sound and picture toy. 3,114,216, 12–17–63, Cl. 46—175.

Crawford, Robert D.: *See*—
Zebarth, Ralph S., and Crawford. 3,083,810.
Zebarth, Ralph S., and Crawford. 3,103,694.
Zebarth, Ralph S., and Crawford. 3,103,695.
Zebarth, Ralph S., and Crawford. 3,107,391.

Crawford, Russ: *See*—
Rasmussen, Donald E. 3,096,010.

Crawford, Thomas J. Apparatus for induction brazing of metal tubing. 3,076,884, 2–5–63, Cl. 219—10.79.

Crawford, Wayland H., to Modern Village Stores, Inc. Automatic checkstand. 3,090,467, 5–21–63, Cl. 186—1.

Crawford, Wilbur L. Supporting bracket for outlet boxes. 3,088,620, 5–7–63, Cl. 220—3.9.

Crawford, William B.: *See*—
Nourse, Jess H., and Crawford. 3,109,473.

Crawford, William B., D. V. Hitzfield, and B. H. Scott, to United States Rubber Co. Destructible mandrel for hollow vessels. 3,083,409, 4–2–63, Cl. 18—45.

Crawford, William B., W. C. Timmerman, Sr., W. C. Timmerman, Jr., C. B. Pekor, and F. K. Hanna, to United States Rubber Co. Underwater liquid storage system. 3,113,699, 12–10–63, Cl. 222—23.

Crawford, William R., and J. W. Lannert, to Whirlpool Corp. Incinerator. 3,104,629, 9–24–63, Cl. 110—8.

Crawley, William P.: *See*—
Inderfurth, Karl H., and Crawley. 3,075,794.

Crawley, William P., to The Carborundum Co. Heat resistant fibrous products containing ceramic fibers and method of making the same. 3,090,103, 5–21–63, Cl. 28—78.

Cray, Seymour R., to Control Data Corp. Bi-level amplifier and control device. 3,092,729, 6–4–63, Cl. 307—88.5.

Craycraft, Donald D., deceased; by D. S. Craycraft, administratrix, to Minnesota Mining & Mfg. Co. Reinforced rigid plastic pipe. 3,080,893, 3–12–63, Cl. 138—141.

Craycraft, Donna S.: *See*—
Craycraft Donald D. 3,080,893.

Crayton, Frank H.: *See*—
Hind, John D., and Crayton. 3,095,882.

Creager, Earl F., to The Anderson Co. Metal straightening apparatus and method. 3,072,173, 1–8–63, Cl. 153—39.

Creamer, Edgar M., Jr.: *See*—
Boothroyd, Wilson P., and Creamer. 3,087,011.

Creamer, Edgar M., Jr., to Philco Corp. Remote control system with pulse duration responsive means. 3,098,212, 7–16–63, Cl. 340—15.

Creamer, Vincent A., to United-Carr Fastener Corp. Method of assembling a threaded nut in non-rotatable engagement with a support. 3,091,842, 6–4–63, Cl. 29—432.

Creamery Package Mfg. Co., The: *See*—
McCabe, John B., and Schmid. 3,099,906.
Wakeman, Alden H. 3,093,358.

Creasey, Raymond F., and J. T. Froud, to The English Electric Co. Ltd. Vertical take-off aircraft. 3,110,456, 11–12–63, Cl. 244—12.

Creath, Roy E., and A. K. Cook; said Cook assor. to said Creath. Composite seal with resilient expansion member. 3,114,561, 12–17–63, Cl. 277—152.

Creative Advisers, Inc.: *See*—
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Creative Displays Inc.: *See*—
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Creative Packaging, Inc.: *See*—
Corey, Thomas M., and Wakefield. 3,107,783.

Creative Research Corp.: *See*—
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Creavey, William G., to North American Aviation, Inc. Spring seal. 3,083,023, 3–26–63, Cl. 277—206.

Crecellius, Samuel B. and T. E. Bruneile, to Economics Laboratory, Inc. Organic compounds and process of producing them. 3,098,065, 7–16–63, Cl. 260—234.

Cree, Charles M. Garment cover. 3,110,428, 11–12–63, Cl. 223—98.

Creech, Barnard, and E. R. Vierk, to Sinclair Research Inc. Production of foam inhibitor. 3,078,237, 2–19–63, Cl. 252—358.

Creech, Larry C. Portable washing apparatus for light fixture panels and the like. 3,098,250, 7–23–63, Cl. 15—77.

Creed & Co. Ltd.: *See*—
Mason, Frederick P. 3,110,765.
Wallens, Anthony W. 3,110,766.

Creed, Sherman H.: *See*—
Anderson, Gerald R., and Creed. 3,072,163.
Anderson, Gerald R., Creed, and Gardiner. 3,111,972.

Creed, Sherman H., to FMC Corp. Rotatable coring knife. 3,072,162, 1–8–63, Cl. 146—52.

Creed, Sherman H., and S. Csimma, to FMC Corp. Pear peeling machine. 3,088,508, 5–7–63, Cl. 146—43.

Creed, Sherman H., and S. Csimma, to FMC Corp. Pear bobber. 3,088,509, 5–7–63, Cl. 146—81.

Creed, Sherman H., and J. L. Reimers, to FMC Corp. Fruit orientator, cover and trimmer. 3,096,800, 7–9–63, Cl. 146—52.

Creed, Sherman H., and S. Csimma, to FMC Corp. Fruit feeding mechanism. 3,096,869, 7–9–63, Cl. 198—33.

Creedon, John E., S. Schneider, and N. L. Yeamans, to United States of America, Army. Reservoir container material for hydrogen filled devices. 3,095,518, 6–25–63, Cl. 313—180.

Creegan, Robert M., to General Foods Corp. Evacuated coffee package. 3,105,765, 10–1–63, Cl. 99—152.

Creel, Ernest S., to L. F. Howard. Self-locking renewable wing drilling bit. 3,075,594, 1–29–63, Cl. 175—412.

Crehore, Robert: *See*—
Korrell, Melvin H., and Crehore. 3,090,181.

Creighton, John E., and R. S. Short, to The Aro Corp. Torque release clutch. 3,115,230, 12–24–63, Cl. 192—56.

Creighton, John P.: *See*—
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Creighton, John P., to Ford Motor Co. Ltd. Hydraulic pumps or motors. 3,092,036, 6–4–63, Cl. 103—162.

Creighton, Martha, and W. Lelmgruber, to Hoffmann-La Roche Inc. Synthesis of aminomethylene malononitrile. 3,116,319, 12–31–63, Cl. 260—465.5.

Creme, Michael M. Precoiled artificial lure. 3,100,360, 8–13–63, Cl. 43—42.02.

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Cremer, George D., J. Y. Long, F. P. Filippi, and E. T. Price, to Solar Aircraft Co. Honeycomb sandwich structure. 3,072,225, 1–8–63, Cl. 189—34.

Cremer, Gottfried, and H. Behrens. Construction of the cooling zone of tunnel kilns, and especially though not essentially to such kilns, for firing ceramic goods. 3,104,442, 9–24–63, Cl. 25—142.

Cremer, Joseph: *See*—
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Cremer, Norman C. Receptacle plug to protect appliance theft. 3,090,948, 5–21–63, Cl. 340—280.

Cremin, John D., to Bell Telephone Laboratories, Inc. Microwave switching circuit. 3,292,789 6–4–63, Cl. 333—1.1.

Crenshaw, William F., to United States of America, Air Force. Collapsible bearing puller. 3,103,740, 9–17–63, Cl. 29—261.

Creo-Dipt Co., Inc.: *See*—
Fink, Carl J., and Heintz. 3,095,671.

Crep, John A.: *See*—
Cecere, Emil, and Crep. 3,107,666.

Crerar, John R.: *See*—
Dixon, Morris S., Marshall, and Crerar. 3,096,181.

Cresap, John. Single ram press. 3,113,540, 12–10–63, Cl. 113—38.

Crescent, Henri. Safety lock mechanism, notably for convertible seats. 3,100,125, 8–6–63, Cl. 297—26.

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Crescenzo, Francis C.: *See*—
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Schoppee, Lawrence W., and Crescenzo. 3,106,118.

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Creskoff, Jacob J., to Vacuum Concrete Corp. of America. Portable vacuum implement. 3,089,722, 5–14–63, Cl. 294—65.

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Cresson, William J., Jr.: *See*—
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Cretzmeyer, John W., to Lithium Corp. of America, Inc. Process for producing anhydrous lithium perchlorate. 3,075,827, 1–29–63, Cl. 23—85.

Creutz, Hans G.: *See*—
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Creuziger, Albert H. Mouthpiece for tobacco-containing products. 3,113,575, 12–10–63, Cl. 131—10.

Creveling, Cyrus J., to United States of America, Navy. "Exclusive or" logical circuit. 3,106,683, 10–8–63, Cl. 328—93.

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Cribbs, Robert A. Battery connector. 3,084,306, 4–2–63, Cl. 339—259.

Crick, Howard G., to Holcomb & Hoke Mfg. Co., Inc. Power operated curved track folding door. 3,073,383, 1–15–63, Cl. 160—193.

Crider, Thomas G., to Hupp Corp. Air conditioners and controls therefor. 3,073,132, 1–15–63, Cl. 62—183.

Crider, William A. Traction device for vehicles. 3,087,527, 4–30–63, Cl. 152—226.

Crile, Eugene E. Crane with tilt-up boom. 3,076,559, 2–5–63, Cl. 212—56.

Crile, Eugene E. Crane. 3,113,681, 12–10–63, Cl. 212—63.

Crile, Vaughn L. Grinder for shear blade. 3,099,903, 8–6–63, Cl. 51—94.

Crim, Elmo P., to Acme Steel Co. Material handling device. 3,110,033, 11–12–63, Cl. 1—106.

Crim, Hugh S., and R. D. Ransom, to United Aircraft Corp. Control system for afterburning gas turbine engine. 3,091,080, 5–28–63, Cl. 60—35.6.

Crimmins, David J., to The Thomas & Betts Co. Connector for conductors. 3,088,086, 4–30–63, Cl. 339—17.

Crimmins, David J., and M. C. Logan, to The Thomas & Betts Co. Connector for conductors. 3,079,579, 2–26–63, Cl. 339—49.

Crimmins, David J., and H. B. Martin, to The Thomas & Betts Co. Insulated terminal connector. 3,098,688, 7–23–63, Cl. 339—223.

Cripe, Maxwell L., to The Bendix Corp. Multi-position vacuum motor. 3,072,108, 1–8–63, Cl. 121—48.

Cripe, Maxwell L., to The Bendix Corp. Fluid pressure motor construction. 3,078,677, 2–26–63, Cl. 60—54.6.

Cripe, Maxwell L., to The Bendix Corp. Low cost fluid pressure servomotor. 3,106,873, 10–15–63, Cl. 91—369.

Cripe, Maxwell L., to The Bendix Corp. Reaction valve construction. 3,108,615, 10–29–63, Cl. 137—625.66.

Cripe, Maxwell L., to The Bendix Corp. Guide bearing for reciprocating structures. 3,113,806, 12–10–63, Cl. 308—3.5.

Crisp, Douglas R., to Frederick Sage & Co. Ltd. Brackets. 3,074,679, 1–22–63, Cl. 248—223.

Crissey, Jackson R., and W. A. Lansing, to Ling-Temco-Vought, Inc. Flow-control device. 3,112,765, 12–3–63, Cl. 137—505.

Crist, Elmer E.: *See*—
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Crist, Meredith F. Retractable wing. 3,086,730, 4–23–63, Cl. 244—43.

Criswell, Billie K., and H. W. Jones. Draft control mechanism. 3,096,830, 7–9–63, Cl. 172—9.

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Crittenden, Eugene C., Jr., J. N. Cooper, A. J. Learn, and F. W. Schmidlin, to Space Technology Laboratories, Inc. Analog-to-digital converter. 3,084,339, 4–2–63, Cl. 340—347.

Croall, Clifford V. Process for preserving tomatoes and the like. 3,101,271, 8–20–63, Cl. 99—154.

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Marechal, Robert G. A., and Croce. 3,090,281.

Crocker, Clark F., H. Schwab, and R. E. Jones, to Consolidated Electrodynamics Corp. Electronic counter. 3,083,907, 4–2–63, Cl. 235—92.

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Crocker, Henry P., to The Distillers Co. Ltd. Production of unsaturated ketones. 3,101,375, 8–20–63, Cl. 260—595.

Crocker, Norman J., to Associated Electrical Industries Ltd. Manufacture of transistors. 3,087,450, 4–30–63, Cl. 113—99.

Crocker, William G., to Union Carbide Corp. Wave ring thermocouple. 3,099,922, 8–6–63, Cl. 373—341.

Crockford, Jack A., F. A. Hayes, S. D. Feurt, J. H. Jenkins, and H. C. Palmer, to Palmer Chemical & Equipment Co., Inc. Method of slaughtering animals. 3,087,196, 4–30–63, Cl. 17—45.

Croessant, Ronald C., and W. R. Pascoe, to Polymer Processes, Inc. Coating process. 3,085,034, 4–9–63, Cl. 148—6.11.

Croft, Arthur, M. T. J. Goff, and F. O. Ackroyd, to Crofts (Engineers) Ltd. Hydraulic couplings. 3,107,492, 10–22–63, Cl. 60—54.

Croft, Bernard D., to American Seal-Kap Corp. Railway brake beam reversible strut structure. 3,115,221, 12–24–63, Cl. 188—229.6.

Croft, Charles P., to Pangborn Corp. Spring peening. 3,094,708, 6–25–63, Cl. 29—90.

Croft, William, and B. C. Shaw, to Crane Co. Voltage regulator. 3,075,138, 1–22–63, Cl. 323—45.

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Lemaire, Henry P., and Croft. 3,100,158.

Crofts (Engineers) Ltd.: *See*—
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Crofutt, George B., Jr.: *See*—
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Crolsant, Elmer E. Map holder and clip. 3,095,624, 7–2–63, Cl. 24—66.

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Croll, Samuel W., Jr.: *See*—
Hightower, John R. 3,108,448.

Crom, John M. Wire spacing mechanism. 3,089,656, 5–14–63, Cl. 242—7.

Cromer, Charles F., J. Sandin, and B. P. Baker, deceased (by Mellon National Bank and Trust Co., executor), to Westinghouse Electric Corp. Circuit interrupters. 3,095,490, 6–25–63, Cl. 200—148.

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Cromer, Charles W. and O. J. 3,089,245.

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Robb, Walter Y. 3,092,149.
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Stroup, John H. 3,077,063.
Van Eldik, Jan. 3,103,306.
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Wells, Richard D. 3,075,275.
Wells, Richard D. 3,077,657.
Wells, Richard D. 3,082,505.

Crompton & Knowles Packaging Corp.: *See*—
Engleson, Harry E., and Sramek. 3,074,326.
Engleson, Harry E., and Sramek. 3,074,567.

Cromwell, Harold J., to General Motors Corp. Ignition distributor. 3,114,803, 12–17–63, Cl. 200—30.

Cromberger, Luther C., to The Dow Chemical Co. Induction heater. 3,071,675, 1–1–63, Cl. 219—10.51.

Cromberger, Luther C., to The Dow Chemical Co. Casing heater. 3,097,282, 7–9–63, Cl. 219—10.49.

Cromberger, Luther C., and J. M. Reid, to The Dow Chemical Co. Well logging method. 3,083,567, 4–2–63, Cl. 73—154.

Crone, Alfred F., to Acme Highway Products Corp. Transverse joint for pavements. 3,089,395, 5–14–63, Cl. 94—17.

Crone, James D. Method of electro magnetic prospecting by transmitting from two spaced points electromagnetic fields of the same shape. 3,090,911, 5–21–63, Cl. 324—6.

Crone, John W., Jr., and C. O. Pike, to Shuford Mills, Inc. Color-changing pressure-sensitive adhesive indicator tapes. 3,078,182, 2–19–63, Cl. 117—68.5.

Cronin, David L., to Star Surgical Instrument and Mfg. Co. Joint for tubular members. 3,071,399, 1–1–63, Cl. 287—54.

Cronin, Dennis C.: *See*—
Justus, Edgar J., and Cronin. 3,082,819.

Cronin, Edward F., D. L. Johnston, and R. H. Delisle, to General Electric Co. Reduced height electrical insulating bushing with sight glass. 3,101,386, 8–20–63, Cl. 174—11.

Cronin, James F.: *See*—
Lang, John J., Oman, and Cronin. 3,090,259.

Cronin, Leo J., to Semicon of California, Inc. High-frequency energy absorbing material. 3,097,421, 7–16–63, Cl. 29—182.5.

Cronin, Stephen J. Pavement roller attachment for grading vehicle. 3,072,025, 1–8–63, Cl. 94—50.

Cronite Co., Inc., The: *See*—
Gillis, Edmund A. 3,094,927.

Cronkright, Russell. Stringing block apparatus. 3,077,337, 2–12–63, Cl. 254—134.3.

Cronkwright, Ray E.: *See*—
Behun, Eugene, Cronkwright, Griffith, Moore, and Stalcup. 3,090,583.

Crook, Kenneth J. Front wheel stabilizing device for motor vehicles. 3,075,785, 1–29–63, Cl. 280—94.

Crook, Kenneth J. Shoe scraper for motor vehicles. 3,103,681, 9–17–63, Cl. 15—237.

Crook, Lester: *See*—
Drake, Stephen, and Crook. 3,089,507.

Crook, Troy N., to Jersey Production Research Co. Interpretation of geophysical data. 3,112,397, 11–26–63, Cl. 235—181.

Crooks, Charles H.: *See*—
Cornforth, Jack W., and Crooks. 3,107,139.

Crooks, George C., to Sentinel Oil Tool Development & Services Ltd. Magnetic junk sub. 3,089,724, 5–14–63, Cl. 294—65.5.

Crooks, Marcius L., to Erie Resistor Corp. Trimmer condenser. 3,084,313, 4–2–63, Cl. 317—249.

Crooks, Robert C., to Lockheed Aircraft Corp. Welded joint tester. 3,106,838, 10–15–63, Cl. 73—67.2.

Crooks, Sheridan R.: *See*—
Cordray, Richard A., and Crooks. 3,109,331.

Crooks, William R., to The Cooper-Bessemer Corp. Method and apparatus for testing high pressure compressor components and the like. 3,091,116, 5–28–63, Cl. 73—168.

Crooks, William R., to The Cooper-Bessemer Corp. Fuel control system for internal combustion engines. 3,100,478, 8–13–63, Cl. 123—21.

Crookston, James A.: *See*—
Frank, Joseph M., Boyer, and Crookston. 3,100,677.

Crookston Millwork, Inc.: *See*—
Loucks, Lloyd W. 3,082,490.

Crosby, Alton L., and D. A. Dander, to Sylvania Electric Products Inc. Frame grid. 3,081,800, 3–19–63, Cl. 140—71.5.

Crosby Electronics, Inc.: *See*—
Feldman, Leonard. 3,079,463.

Crosby, Gifford W.: *See*—
Braunwarth, John B., and Crosby. 3,116,300.
Hutchings, Le Roi E., and Crosby. 3,076,841.
Millikan, Allen F., and Crosby. 3,073,857.
Millikan, Allen F., and Crosby. 3,098,824.
Millikan, Allen F., and Crosby. 3,102,130.

Crosby, Hartzell L., and N. N. Coe, to Dorr-Oliver Inc. Wood pulp and process for producing same. 3,073,737, 1–15–63, Cl. 162—18.

Crosby, Howard M., to General Electric Co. Liquid cooled transmission line. 3,106,600, 10–8–63, Cl. 174—15.

Crosby Laboratories, Inc.: *See*—
Baumel, Irwin D. 3,079,464.
Baumel, Irwin D. 3,083,338.

Crosby, Ralph M., A. Kander, and R. J. Mortonson, to Ideal Toy Corp. Trick shot gun. 3,088,451, 5–7–63, Cl. 124—27.

Crosby-Teletronics Corp.: *See*—
Baumel, Irwin D. 3,076,141.

Crosby, William F., and D. D. Sullivan, to Corning Glass Works. Reflector. 3,112,893, 12–3–63, Cl. 240—103.

Crose-Perrault Equipment Corp.: *See*—
Goekler, Robert G., and Handwerk. 3,095,501.
Handwerk, William B., and Pangborn. 3,090,513.

Crose-United Corp.: *See*—
Avera, Trent W., and Cunningham. 3,109,477.
Dixon, Willis O., and Cunningham. 3,110,277.

Croset, Louis P. Shaft couplings. 3,113,442, 12–10–63, Cl. 64—8.

Crosfield Electronics Ltd.: *See*—
Allen, Gordon S. J., Mawby, and Gresham. 3,096,394.
Allen, Gordon S. J., Mawby, and Gresham. 3,110,761.

Crosland, Howard C.: *See*—
Provenzano, Alex P., Ward, and Crosland. 3,090,075.

Crosley Broadcasting Corp.: *See*—
Schwesinger, William L. 3,083,363.

Crosman Arms Co., Inc.: *See*—
Merz, Rudolf. 3,071,883.
Merz, Rudolf. 3,103,212.

Cross, Carroll N. Well structure for display mounts. 3,079,715, 3–5–63, Cl. 40—159.

Cross, Cedric B., to Package Machinery Co. Article feeding and separating device. 3,106,279, 10–8–63, Cl. 198—25.

Cross Co., The: *See*—
Bryant, John A., II, and Pierce. 3,097,724.

Cross, Eason, Jr., and E. K. Mills, Jr. End structure and hinge for plastic containers. 3,072,283, 1–8–63, Cl. 220—31.

Cross, Edward D., to Alden Research Foundation. Mask for facsimile scanner. Re. 25,468, 10–29–63, Cl. 178—7.1.

Cross, Grosvenor M. Integrating mount for brushes and the like. 3,104,056, 9–17–63, Cl. 235—91.

Cross, S. C.: *See*—
Reeves, Willard D. 3,097,464.

Cross, St. Elmo: *See*—
Reeves, Willard D. 3,097,464.

Cross, Willis J., Jr., to Air Products and Chemicals, Inc. Disengagement and elutriation of pneumatically elevated solids. 3,115,370, 12–24–63, Cl. 302—59.

Crossen, William P., J. C. Howard, and H. A. Imhof, to United Shoe Machinery Corp. Insole molding machines. 3,102,285, 9–3–63, Cl. 12—21.

Crossland, Edward J.: *See*—
Wilcox, Stanley W., Crossland, and McCaskill. 3,092,311.

Crossland, Edward J., to Seismograph Service Corp. Continuous wave hyperbolic system for landing aircraft. 3,082,419, 3–19–63, Cl. 343—108.

Crossland, Edward J., M. P. Ragan, and J. E. Hawkins, to Seismograph Service Corp Voting machine. 3,095,142, 6–25–63, Cl. 235—54.

Crossland, Edward J., M. P. Ragan, H. H. Bright, and J. L. Hull, Jr., to Seismograph Service Corp. Counter type voting machine. 3,108,744, 10–29–63, Cl. 235—54.

Crossley Bros. Ltd.: *See*—
Beer, Wilhelm. 3,071,982.

Crossley, Harry E., Jr., to Robertshaw-Fulton Controls Co. Electro-hydraulic actuator system. 3,101,031, 8–20–63, Cl. 91—364.

Crossley Machine Co., Inc.: *See*—
Kinney, Robert E. 3,112,895.
Lamb, Harold W. 3,078,868.
Lamb, Harold W. 3,079,661.
Ulrich, Ray R. 3,089,286.

Crossley, Thomas J.: *See*—
Nelson, Earl W., and Crossley. 3,092,456.

Crossman, Robert F., to Carrier Corp. Air conditioning enclosure. 3,112,623, 12–3–63, Cl. 62—419.

Crosswell, Flay D., to Overhead Door Corp. Slidable closure lock. 3,103,805, 9–17–63, Cl. 70—142.

Crost, Joseph G.: *See*—
Sorensen, Egon, Crost, and Brown. 3,091,100.

Croswell, William H.: *See*—
Liebermann, John, Croswell, and Syfert. 3,103,567.

Croteau, Lionel Combination tool box and stand. 3,099,398, 7–30–63, Cl. 240—4.

Croteau, Thomas H., and W. A. Grouten, to The Seeburg Corp. Automatic electric can opener. 3,097,427, 7–16–63, Cl. 30—4.

Crotser, Frank P., to Revco, Inc. Refrigeration apparatus. 3,108,450, 10–29–63, Cl. 62—156.

Crouch, Brockway. Candelabra. 3,091,106, 5–28–63, Cl. 67—25.

Crouch, Eric A.: *See*—
Williams, David W., Jones, and Crouch. 3,092,565.

Crouch, Willie W., to Phillips Petroleum Co. Production of liquid polymers of controlled viscosity. 3,105,856, 10–1–63, Cl. 260—680.

Croucher, Antony H. Method of machining welded rail joints. 3,110,227, 11–12–63, Cl. 90—64.

Croucher, Antony H. Apparatus for the manufacture of sachets. 3,110,994, 11–19–63, Cl. 53—180.

Crouse, Benjamin F., and W. W. Reynolds, to Shell Oil Co. Stable esters. 3,115,519, 12–24–63, Cl. 260—488.

Crouse, George B.: *See*—
Arnold, Francis T., Kniffin, Brewster, and Crouse. 3,107,596.

Crouse-Hinds Co.: *See*—
Berry, Richard C. 3,078,435.
Berry, Richard C. 3,078,436.
Hilliker, Arthur E. 3,078,440.
Hilliker, Arthur E. 3,081,941.
Jeffers, Walter M. 3,078,441.
Jeffers, Walter M. 3,078,442.

Crouzet: Compagnie: *See*—
Jullien-Davin, Jean. 3,077,154.

Crouzet, Jean-Philippe. Head-protecting shells and the like articles obtained through deformation of sheets of synthetic material. 3,075,200, 1–29–63, Cl. 2—3.

Crow, Leonard R.: *See*—
Black, Roy D. 3,074,182.
Black, Roy D. 3,080,663.
Black, Roy D. 3,105,309.

Crow, William W. Automatic valve system for controlling fluid flow. 3,078,866, 2–26–63, Cl. 137—391.

Crowder, Wyly K. Swimming accessory. 3,078,482, 2–26–63, Cl. 9—309.

Crowdes, George J., Jr., to United States of America, Navy. Rigid helmet with shock-absorbing adjustable suspension for the head. 3,110,900, 11–19–63, Cl. 2—3.

Crowe, James W., to International Business Machines Corp. Non-destructive readout system. 3,094,685, 6–18–63, Cl. 340—173.1.

Crowe, James W., to International Business Machines Corp. Superconductive gating devices. 3,100,267, 8–6–63, Cl. 307—88.5.

Crowe, Talmadge L., to Baker Oil Tools, Inc. Well bore testing and pressuring apparatus. 3,096,823, 7–9–63, Cl. 166—150.

Crowe, Talmadge L., to Baker Oil Tools, Inc. Formation testing apparatus. 3,100,537, 8–13–63, Cl. 166—226.

Crowe, Talmadge L., to Baker Oil Tools, Inc. Retrievable plug for subsurface well tool passage. 3,102,594, 9–3–63, Cl. 166—125.

Crowe, Thomas J.: *See*—
Aaron, Charles, and Crowe. 3,101,915.

Crowe, Wylie W., and A. P. Livar; said Livar assor. to J. J. Perry, Sr. Electric heating and air circulating unit. 3,111,573, 11–19–63, Cl. 219—39.

Crowell, Donald R.: *See*—
Cruse, Paul R., and Crowell. 3,091,111.

Crowell, Ernest M., to United Shoe Machinery Corp. Resinous adhesive rods. 3,090,772, 5–21–63, Cl. 260—75.

Crowell, Merton H., to Bell Telephone Laboratories, Inc. Electron beam tube for translating Gray code to binary code. 3,108,203, 10–22–63, Cl. 315—8.5.

Crowley, Cornelius J.: *See*—
Berlepsch, Joseph C., Jr., and Crowley. 3,091,562.

Crowley, Delbert V., to Gulf Oil Corp. Foam or mist drilling process. 3,111,998, 11–26–63, Cl. 175—68.

Crowley, Edgar L., J. S. Mackay, M. Manes, and F. J. Vancheri, to Pittsburgh Chemical Co. Urea to melamine process. 3,095,416, 6–25–63, Cl. 260—249.7.

Crowley, Francis X., to Crowley Hession Engineers. Foam insulated prestressed concrete wall. 3,106,227, 10–8–63, Cl. 138—176.

Crowley, George W.: *See*—
Rowe, William E. 3,079,254.

Crowley Hession Engineers: *See*—
Crowley, Francis X. 3,106,227.

Crowley, James M.: *See*—
Liebermann, John, Syfert, Storer, and Crowley. 3,103,568.

Crowley, Richard P.: *See*—
Skarstrom, Charles W., Crowley, and Heilman. 3,102,853.

Crowley, Robert A.: *See*—
Le Bus, Franklin L., Sr., and Crowley. 3,079,130.

Crowley, Robert A., R. E. Smith, and F. L. Le Bus, Sr., to Le Bus Royalty Co. Automatic oscillating angle and off-center compensator shaft and floating sheave combination apparatus. 3,083,932, 4–2–63, Cl. 242—157.1.

Crowley, Robert A., and F. L. Le Bus, Sr., to Le Bus Royalty Co. Method of grooving a cable spooling drum. 3,110,096, 11–12–63, Cl. 29—416.

Crowley, Walter A., to Carwil Enterprises, Inc. Hydro-air vehicle. 3,090,327, 5–21–63, Cl. 104—134.

Crowley, Walter A., to Carwil Enterprises, Inc. Plenum chamber type ground effect machine with self-propulsion and steering means. 3,090,455, 5–21–63, Cl. 180—7.

Crown Controls Corp.: *See*—
Dicke, Paul A. 3,102,218.

Crown Cork & Seal Co., Inc.: *See*—
Albrecht, Ransom C., and Heyl. 3,074,115.
Cooke, Giles B., and Rainer. 3,101,992.
Fauth, Frederick E., and Breeback. 3,088,831.

Crown Industrial Products Co.: *See*—
Yetter, Dean B. 3,109,558.
Yetter, Dean B. 3,109,566.

Crown Industries, Inc.: *See*—
Linder, Josef M. 3,084,927.

Crown, Richard E.: *See*—
Harbage, Robert P., Vaughan, and Crown. 3,103,777.
Morr, Ralph V., Fuhwerk, Fent and Crown. 3,103,778.

Crown Zellerbach Canada Ltd.: *See*—
Vesak, Joseph. 3,107,840.

Crown Zellerbach Corp.: *See*—
Adams, Ernest P. 3,104,795.
Adler, Howard L. 3,084,984.
Babin, Alexander. 3,095,996.
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Craig, Robert P., and Weinert. 3,092,194.
Fallert, Clifford D. 3,089,589.
Grooms, Percy E. 3,114,495.
Hamilton, Joseph P. 3,095,968.
Helversen, Frederick D. 3,111,453.
Johnson, Ronald J. 3,074,615.
Milligan, Frederick H. 3,103,961.
Mugg, Jarrell B. 3,111,377.
Mugg, Jarrell B. 3,111,378.
Pitman, Gilbert A. 3,084,793.
Repking, Edward F. 3,115,292.
Roemer, Irving C. 3,084,006.
Shinn, Dalton L. 3,113,198.
Stuckert, Robert H. 3,107,780.
Stupfel, Clifford L. 3,101,754.
Stupfel, Clifford L., and McClane. 3,101,755.
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Wasyluka, Paul. 3,114,494.
Wetmore, Arthur W., and Frederich. 3,100,046.

Crowneo of San Diego: *See*—
Dall, Paul D. 3,094,288.

Crownfield, William K., H. W. Sachs, and C. W. Fromm, to Sperry Rand Corp. Apparatus for automatic centering of strips. 3,078,021, 2–19–63, Cl. 226—21.

Crownover, Joseph W.: *See*—
Williams, Robert L., Waddell, and Crownover. 3,105,225.

Crownover, Joseph W., 25% to W. W. Huefliger. Stereophonic transducer means. 3,073,915, 1–15–63, Cl. 179—100.41.

Crownover, Joseph W., to Litton Systems, Inc. Disk resonator. 3,074,034, 1–15–63, Cl. 333—72.

Crownover, Joseph W., to Litton Systems, Inc. Diodeless magnetic shift register. 3,088,100, 4–30–63, Cl. 340—174.

Crownover, Joseph W., to Gulton Industries, Inc. Variable capacitance transducer with a radioactive battery. 3,095,476, 6–25–63, Cl. 179—1.

Crowther, Edmond C. Terminal block. 3,072,879, 1–8–63, Cl. 339—198.

Crowther, Edmond C. Electrical connector. 3,083,348, 3–26–63, Cl. 339—95.

Crowther, Joan: *See*—
Boles, David B., Crowther, and Ryzner. 3,079,220.
Boles, David B., Crowther, and Ryzner. 3,081,146.

Crowther, John, to Concrete Carrying Co. Ltd. Means for loading and discharging bulk loads. 3,090,515, 5–21–63, Cl. 214—522.

Croxall, Willard J., and C. D. Burton, to Miles Laboratories, Inc. Para-phenoxy-acetylamino-phenol derivatives. 3,073,863, 1–15–63, Cl. 260—559.

Croy, Fred E. Bellows contained within a composite ball in a socket. 3,089,714, 5–14–63, Cl. 285—165.

Crozat, Donald F., and H. R. Hackbarth, to Auto-View Welding Helmet Co. Welding helmet. 3,086,213, 4–23–63, Cl. 2—8.

Crozier, Robert N.: *See*—
Fitzhugh, Andrew F., Lavin, and Crozier. 3,077,462.

Cruciani, Frido. Cable-way. 3,091,190, 5–28–63, Cl. 104—115.

Crucible Steel Co. of America: *See*—
Bomberger, Howard B., and Knapek. 3,113,227.
Chang, Melvin C., and Goldstein. 3,095,463.
Dulis, Edward J., and Day. 3,075,839.
Flowers, Ab. 3,109,044.
Flowers, Ab, and Foote. 3,114,991.
Hansen, John R. 3,095,525.
Payson, Peter, and Nehrenberg. 3,092,491.
Steven, Gary, and Philip. 3,114,630.

Crudgington, Cleveland B., and C. D. Murdoch; said Murdoch assor. to Crudgington. Vacancy indicator for motels and like establishments. 3,095,558, 6–25–63, Cl. 340—286.

Cruger, Robert W.: *See*—
Byrne, John J., and Cruger. Re. 25,406.

Cruickshank, Philip A., and J. C. Sheehan, to Research Institute for Medicine and Chemistry, Inc. Cevanidane derivatives and process for the preparation thereof. 3,072,638, 1–8–63, Cl. 260—239.5.

Cruise, Gary B., A. J. Detrie, and E. J. O'Neil, to Douglas Aircraft Co., Inc. Fuel tank drain system. 3,079,941, 3–5–63, Cl. 137—266.

Crum, Eben J. Coiling strand material. Re. 25,477, 11–12–63, Cl. 242—174.

Crum, Eben J. Wire handling apparatus. 3,103,237, 9–10–63, Cl. 140—2.

Crum, Harry O., and E. G. Randall, ½ to V. B. Axmear. Grave digging machine. 3,107,444, 10–22–63, Cl. 37—80.

Crumb, Charles F.: *See*—
Murray, Donald A., and Crumb. 3,080,666.

Crump, B. T. Co., Inc.: *See*—
Bass, Vincent K. 3,099,231.

Crump, Craven H. Receptacle support and holder. 3,091,342, 5–28–63, Cl. 211—71.

Crump, Eldon E.: *See*—
Hardway, Edward V., Jr., and Crump. 3,113,448.

Crump, Elmo E.: *See*—
Foster, Harry R., and Crump. 3,089,057.
Foster, Harry R., and Crump. 3,098,981.

Crump, Jack G., to Industrial Nucleonics Corp. Tank level measurement system. 3,098,154, 7–16–63, Cl. 250—43.5.

Crump, John W., to The Dow Chemical Co. Preparation of o-bromotoluene. 3,077,503, 2–12–63, Cl. 260—650.

Crump, Owen De M. Windrow attachment for rotary mowers. 3,105,341, 10–1–63, Cl. 56—192.

Crump, Ralph E., ½ to Electrofilm, Inc., and ¼ to Rohr Aircraft Corp. Method and apparatus for electrically brazing cellular structures. 3,088,019, 4–30–63, Cl. 219—85.

Crump, Rayburn E. Distance measuring device. 3,104,632, 9–24–63, Cl. 111—1.

Crumrine, Herbert E., and C. L. Huber, to Xerox Corp. Xerographic plate magazine and feeding apparatus. 3,083,869, 4–2–63, Cl. 221—293.

Crumrine, Herbert E., and C. L. Huber, to Xerox Corp. Xerographic plate feeding and supporting apparatus. 3,091,160, 5–28–63, Cl. 95—1.7.

Crumrine, Herbert E., and C. L. Huber, to Xerox Corp. Xerographic developing apparatus. 3,091,219, 5–28–63, Cl. 118—637.

Crumrine, Kenneth C., to Jersey Production Research Co. Fluid entry analyzer. 3,088,026, 4–30–63, Cl. 250—43.5.

Cruse, Oliver B., and C. B. Fites, to Wagner Electric Corp. Servo motor. 3,113,489, 12–10–63, Cl. 91—372.

Cruse, Paul R., and D. R. Crowell. Washing machine overflow control unit. 3,091,111, 5–28–63, Cl. 68—208.

Cruse, Philip M., to Santa Barbara Research Center. Apparatus for processing optically received electromagnetic radiation. 3,083,299, 3–26–63, Cl. 250—203.

Cruson, Izaak P., to Cruson Patents N.V. Method for making a seating on a tube. 3,103,742, 9–17–63, Cl. 29—482.

Cruson Patents N.V.: *See*—
Cruson, Izaak P. 3,103,742.

Crust, Trevor J.: *See*—
Hobbs, Edwin D., and Crust. 3,112,655.

Crutcher-Rolfs-Cummings, Inc.: *See*—
Cummings, James D., and Hatcher. 3,078,823.
Foster, Robert D. 3,105,537.
Homes, Samuel J. 3,080,034.

Crutchett, Richard H.: *See*—
Rudolph, Nathan H., and Crutchett. 3,082,023.

Cruz, Mamerto M., Jr., and R. L. McDowell, to FMC Corp. Water-laid web. 3,116,199, 12–31–63, Cl. 162—146.

Cruz, Paul L., to Ronson Corp. Tensioning apparatus for pliable material. 3,072,360, 1–8–63, Cl. 242—154.

Cruzen, Larry L., to Burroughs Corp. Sheet stopping mechanism. 3,098,648, 7–23–63, Cl. 271—46.

Cruzen, Larry L., to Burroughs Corp. Sheet stopping mechanism. 3,098,649, 7–23–63, Cl. 271—46.

Cryogenic Engineering Co.: *See*—
De Haan, James R. 3,110,324.

Cryogenics, Inc.: *See*—
Schmuell, Kalman. 3,085,433.

Csanady, Michael, Jr., to Westinghouse Electric Corp. Turbine apparatus. 3,073,964, 1–15–63, Cl. 290—4.

Csermely, Gyorgy, G. Lugosi, E. Jeney, and T. Zsolnai, to Chinoin Gyogyszer- es Vegyeszeti Termekek Gyara RT. Azo sulfonamide derivatives. 3,102,111, 8–27–63, Cl. 260—154.

Csimma, Sandor: *See*—
Creed, Sherman H., and Csimma. 3,088,508.
Creed, Sherman H., and Csimma. 3,088,509.
Creed, Sherman H., and Csimma. 3,096,869.

Csizmansky, Alex, to Dura Corp. Power operated latch for convertible tops. 3,089,719, 5–14–63, Cl. 292—25.

Cubberly, Walter E., Jr., to Schlumberger Well Surveying Corp. Borehole apparatus. 3,097,433, 7–16–63, Cl. 33—178.

Cubbidge, James F., W. D. Drukker, R. G. Fernald, E. N. Lenk, F. W. Turner, J. G. Weeks, and Q. W. Wiest, to Western Electric Co., Inc. Automatic positioning servosystem. 3,080,512, 3–5–63, Cl. 318—28.

Cubic Corp.: *See*—
Thompson, William J. 3,111,671.
Werner, Robert V., and Hose. 3,078,460.
Werner, Robert V., and Levy. 3,081,431.
Werner, Robert V., Zable, and Thompson. 3,085,242.
Werner, Robert V., Zable, and Thompson. 3,111,665.

Cucksey, Edward L.: *See*—
Du Buis, Edwin O., and Cucksey. 3,070,949.
Du Buis, Edwin O., and Cucksey. 3,077,725.

Cucullu, Jose C. Process of preserving sugar juices. 3,108,907, 10–29–63, Cl. 127—46.

Cudnohufsky, Sylvester R. Tracer control circuit for machine tools. 3,104,591, 9–24–63, Cl. 91—412.

Cuendet, Jacques C., to Unitra S.A. Arrangement for the tilting of a load. 3,086,670, 4–23–63, Cl. 214—701.

Culengnet, Alfred, to R. Dewas. Weaving looms. 3,095,015, 6–25–63, Cl. 139—1.

Cukier, Samuel T., to General Aniline & Film Corp. Asbestos paper containing vinyl alkyl ether-maleic anhydride copolymer and method of forming same. 3,113,064, 12–3–63, Cl. 162—155.

Culbertson, George T., to T. W. Hallerberg. Time delay circuit. 3,084,311, 4–2–63, Cl. 317—148.5.

Culbertson, Warren E. Bearing adjustment device. 3,110,957, 11–19–63, Cl. 29—260.

Cull, Neville L.: *See*—
Aldridge, Clyde L., and Cull. 3,098,101.

Cull, Neville L., and C. L. Aldridge, to Esso Research and Engineering Co. Removal of metal contaminants from polymers with chelating agents. 3,098,845, 7–23–63, Cl. 260—94.9.

Cullen, Albert E., and E. T. Franzen, to Philco Corp. Cabinet structure. 3,114,364, 12–17–63, Cl. 126—191.

Cullen, Charles C., and W. R. Duncan. Pneumatic splint. 3,075,522, 1–29–63, Cl. 128—87.

Cullen-Friestedt Co.: *See*—
Kaplan, Louis G. 3,086,808.
Kaplan, Louis G. 3,097,875.
Kaplan, Louis G., and Moro. 3,076,673.

Cullen, Glenn W.: *See*—
Amick, James A., and Cullen. 3,097,977.

Cullen, James J., R. P. Stokes, and R. Mackay, to W. R. Grace & Co. Nutating nozzle. 3,094,254, 6–18–63, Cl. 222—504.

Cullen, Roy H., L. D. Richards, and H. H. Hodgeman; said Richards and Hodgeman assors. to said Cullen. Fluid-driven engine. 3,088,529, 5–7–63, Cl. 175—107.

Culleton, John T., to Pacific Pumping Co. Submersible pump. 3,088,415, 5–7–63, Cl. 103—103.

Culligan, Inc.: *See*—
Lyall, Charles E., and Morrison. 3,105,512.
Schulze, Robert E., and Dicktel. 3,081,905.
Schulze, Robert E., Dicktel, and Kreusch. 3,078,224.
Schulze, Robert E., and Heartstedt. 3,089,508.
Schulze, Robert E., and Morrison. 3,083,728.

Cullinan, Edwin S.: *See*—
Etzrodt, Thomas J., Jr., and Cullinan. 3,081,403.

Cullinan, John C., W. M. Trowbridge, and O. T. Bergfald, to Detecto Co. Soil gas detecting apparatus. 3,084,553, 4–9–63, Cl. 73—421.5.

Cullinane, Alfred J. Bearings. 3,089,736, 5–14–63, Cl. 308—36.1.

Cullis, John, Jr., to Burroughs Corp. Lamp and method of manufacture. 3,077,022, 2–12–63, Cl. 29—25.13.

Culp, Charles R., to Armstrong Cork Co. Process for reducing aging period of cellular products formed with steam. 3,086,248, 4–23–63, Cl. 18—48.

Culp, George K., to J. Manning. Supplemental traction device. 3,103,242, 9–10–63, Cl. 152—230.

Culpepper, Arthur C., J. D. Orr, and L. C. Burk. Conveyor-weigher for cotton bales. 3,082,884, 3–26–63, Cl. 214—2.

Culver, Frederick H., J. A. Haeber, E. B. Lagucki, and R. F. Perner, to Shell Oil Co. Y-branched wellhead assembly. 3,101,118, 8–20–63, Cl. 166—75.

Culver, Irven H., and D. E. Walters, to Lockheed Aircraft Corp. Helicopter. 3,080,001, 3–5–63, Cl. 170—160.13.

Culver, Irven H., H. C. Danielson, and J. F. Johnston, to Lockheed Aircraft Corp. Helicopter rotor. 3,106,964, 10–15–63, Cl. 170—160.13.

Culver, Paul C., and E. L. Copony, to Symington Wayne Corp. Selective blend indicator. 3,075,310, 1–29–63, Cl. 40—68.

Culver, Perrin C., and O. P. Blake. Electronic therapeutic apparatus. 3,076,937, 2–5–63, Cl. 328—31.

Cumberland Case Co.: *See*—
Kimbrough, Jacob C. 3,081,898.

Cumingham, Joseph E.: *See*—
Palm, Clifford W., and Cumingham. 3,105,349.

Cumming, James C.: *See*—
House, Bryan E., and Cumming. 3,101,133.
Cumming, John, to G. S. Blakeslee & Co. Dishwashing machine conveyor. 3,086,641, 4–23–63, Cl. 198—131.
Cummings, Albert K. Slush pump valve with air cushioned valve. 3,088,550, 4–23–63, Cl. 137—514.
Cummings, Francis M.: *See*—
Blodgett, William G., Cummings, and Fleming. 3,116,428.
Cummings, Harold R., to General Electric Co. X-ray tube with gas gettering means. 3,081,413, 3–12–63, Cl. 313—60.
Cummings, Harry B., J. W. Drenning, J. L. McKewen, and G. L. Morgret, to Koppers Co., Inc. Electrostatic precipitation. 3,109,720, 11–5–63, Cl. 55—13.
Cummings, Jack E.: *See*—
Adams, John M., Cummings, Dalton, and Gaudet. 3,085,864.
Cummings, James D., and C. E. Hatcher, to Crutcher-Rolfs-Cummings, Inc. Internal pipe coating apparatus. 3,078,823, 2–26–63, Cl. 118—306.
Cummings, John R.: *See*—
Gallagher, James D., Cummings, Lipchuck, and Stokey. 3,098,009.
Cummings, Leslie L., to Otis Engineering Corp. Gas lift valve mechanism. 3,077,894, 2–19–63, Cl. 137—155.
Cummings, Robert L., and G. M. Lance, to Thomson Ramo Wooldridge Inc. Engine lubricating oil cooling systems for turbojets or the like. 3,080,716, 3–12–63, Cl. 60—39.66.
Cummings, Thomas F., to International Business Machines Corp. Educational device. 3,095,654, 7–2–63, Cl. 35—9.
Cummins-Chicago Corp.: *See*—
Duncan, James K. 3,087,725.
Duncan, James K., and Quinn. 3,087,612.
Quinn, James L. 3,074,525.
Snowdon, Donald R., and Jones. 3,087,724.
Cummins, Clarence R., 40% to T. B. Dempsey. Cast cutter. 3,091,851, 6–4–63, Cl. 30—167.
Cummins, Earl W., to E. I. du Pont de Nemours and Co. 3,3'-hydrocarbonylene bis(tetrahydro - 1,3,5 - thiadiazine - 2-thiones), unsymmetrically substituted corresponding compounds, fungicidal compositions, and methods. 3,085,046, 4–9–63, Cl. 167—33.
Cummins Engine Co., Inc.: *See*—
Reiners, Neville M. 3,104,594.
Reiners, Neville M. 3,110,293.
Cummins, Richard W., to FMC Corp. Process for production of phosphine and phosphite-free phosphates. 3,116,109, 12–31–63, Cl. 23—107.
Cummins, Russell: *See*—
Landrum, Ira T., Kennedy, Shanklin, Cummins, Steward, Boulware, Kleypas, Evans. 3,106,735.
Cundall, John H.: *See*—
Chapman, John F., Cundall, and Partridge. 3,094,434.
Cuneo, Carl J.: *See*—
Benning, Bennie L., and Cuneo. 3,082,066.
Cuneo, David K.: *See*—
Shaffer, James H., Strain, Cuneo, and Kelly. 3,110,555.
Cuneo Press Inc., The: *See*—
Fischer, Raymond P., and Terilli. 3,108,824.
Cunetta, Joseph, and N. F. Lamantia. Sludge pumping systems. 3,073,453, 1–15–63, Cl. 210—167.
Cunningham, Allen B., and F. N. Tullos, to Jersey Production Research Co. Fourier transform signal generator. 3,087,674, 4–30–63, Cl. 235—197.
Cunningham, Andrew: *See*—
Wainer, Eugene, and Cunningham. 3,077,380.
Cunningham, Arthur R., to Cunningham & Sons. Hay rake. 3,074,222, 1–22–63, Cl. 56—376.
Cunningham, Arthur R., to Cunningham & Sons. Hub and tine assembly for tedder. 3,083,521, 4–2–63, Cl. 56—372.
Cunningham, Arthur R., to Cunningham & Sons. Crop conditioner. 3,105,338, 10–1–63, Cl. 56—1.
Cunningham, Cecil R., to Owens-Corning Fiberglas Corp. Apparatus for traversing filamentary materials. 3,115,313, 12–24–63, Cl. 242—43.2.
Cunningham, Cecil R., M. D. Weiss, and R. Z. Schreffler, to Owens-Corning Fiberglas Corp. Method and apparatus for forming and collecting filaments. 3,090,570, 5–21–63, Cl. 242—18.
Cunningham, Clarence V., to General Electric Co. Motor operated cam contact assembly. 3,089,931, 5–14–63, Cl. 200—92.
Cunningham, Francis V., to McGraw-Edison Co. Spark gap assembly. 3,106,662, 10–8–63, Cl. 315—36.
Cunningham, Frederick C., to The M. W. Kellogg Co. Hydrocarbon separation. 3,111,402, 11–19–63, Cl. 62—27.
Cunningham, George L., to W. R. Grace & Co. Production of silica free hydrogen fluoride. 3,101,254, 8–20–63, Cl. 23—153.
Cunningham, George W.: *See*—
Paprocki, Stanley J., and Cunningham. 3,074,153.
Cunningham, Gerald A. Child carrier. 3,097,773, 7–16–63, Cl. 224—6.
Cunningham, Harold R.: *See*—
Reynolds, Daniel J., and Cunningham. 3,086,498.
Cunningham, James J. Automatic dialing attachment for telephones. 3,073,910, 1–15–63, Cl. 179—90.
Cunningham, James L., Jr.: *See*—
Cunningham, James L., Sr., J. L. Cunningham, Jr., and Galloway. 3,115,165.
Cunningham, James L., Sr., J. L. Cunningham, Jr., and R. E. Galloway. Weight regulation system. 3,115,165, 12–24–63, Cl. 141—83.
Cunningham, John A.: *See*—
Hazzard, Noel D., and Cunningham. 3,101,778.
Cunningham, John A. Electromechanical oscillators. 3,091,151, 5–28–63, Cl. 84—457.
Cunningham, John C.: *See*—
Konopacke, Henry A., and Cunningham. 3,096,543.
Cunningham, John H. Physiotherapy device for improving muscular coordination. 3,075,769, 1–29–63, Cl. 273—96.
Cunningham, Joseph A.: *See*—
Avera, Trent W., and Cunningham. 3,109,477.
Dixon, Willis O., and Cunningham. 3,110,277.
Cunningham, Joseph H. Soil consolidator. 3,075,357, 1–29–63, Cl. 61—1.
Cunningham, Morrison B.: *See*—
Silvey, Joseph K. G. 3,080,315.
Cunningham, Paul M., to Collins Radio Co. Voltage variable gain circuit with gate correction. 3,080,532, 3–5–63, Cl. 330—130.
Cunningham, Paul M., and R. E. Muhm, to Collins Radio Co. Constant magnetron current regulator. 3,080,518, 3–5–63, Cl. 323—66.
Cunningham, Paul M., and K. L. Scott, to Collins Radio Co. Background improvement circuit for direct view storage tube radar indicator. 3,090,887, 5–21–63, Cl. 315—12.
Cunningham, Richard G.: *See*—
Price, James R., and Cunningham. 3,112,267.
Cunningham, Robert A.: *See*—
Atkinson, Gerald O., Cline, and Cunningham. 3,075,781.
Cunningham, Robert G., and T. C. Whitmore, to Eastman Kodak Co. Control of static electrification by use of mixture brushes. 3,071,791, 1–8–63, Cl. 15—1.5.
Cunningham & Sons: *See*—
Cunningham, Arthur R. 3,074,222.
Cunningham, Arthur R. 3,083,521.
Cunningham, Arthur R. 3,105,338.
Cunningham, William E., and A. L. Ross. Micrometric grid calculator. 3,088,210, 5–7–63, Cl. 33—76.
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Tomaszek, Edward P., and Cuny. 3,106,100.
Cupo, William J. Carton closure. 3,074,613, 1–22–63, Cl. 229—39.
Cupo, William J., to Norcross Inc. Carrier and display for rolled material. 3,115,376, 12–24–63, Cl. 312—35.
Cupp, Victor: *See*—
Bellsten, Harry L., Cupp, and Murphy. 3,088,240.
Curci, Alfred. Time teaching device. 3,082,544, 3–26–63, Cl. 35—8.
Curci, Alfred. Phonograph record-changing apparatus. 3,097,850, 7–16–63, Cl. 274—10.
Curcio, Michael. Anti-splash gasoline pump nozzle adapter. 3,105,641, 10–1–63, Cl. 239—552.
Curfman, Ronald L., to Standard Oil Co. Valve seat refacing apparatus. 3,071,902, 1–8–63, Cl. 51—241.
Curie, Robert J.: *See*—
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Curiator Corp.: *See*—
Coghill, James T. 3,077,007.
Curlook, Walter: *See*—
Renzoni, Louis S., Curlook, and Laing. 3,094,409.
Curran, Bernard E., to H. H. Robertson Co. Building and air distributing system. 3,089,649, 5–14–63, Cl. 237—50.
Curran, Frank J., Co.: *See*—
Klingler, Josef F. 3,088,126.
Curran, George P.: *See*—
Batchelor, James D., Curran, and Gorin. 3,101,303.
Curran, Irene S., C. Glielmi, and M. Lafortezza, to Personal Products Corp. Container. 3,078,989, 2–26–63, Cl. 206—65.
Curran, Robert J. Maze with a mechanical memory. 3,087,732, 4–30–63, Cl. 273—153.
Curran, Thomas R.: *See*—
Leffler, Charles L., Jr., and Curran. 3,111,947.
Curran, William V., and R. B. Angier, to American Cyanamid Co. Cyanoethyl-pteridines. 3,071,587, 1–1–63, Cl. 260—251.5.
Currie, Chester C., to The Dow Corning Corp. Solvent defoamers. 3,115,472, 12–24–63, Cl. 252—358.
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Fischer, Richard L., and Currie. 3,115,938.
Currie, George D., to The Bendix Corp. Apparatus for photographic printing. 3,110,805, 11–12–63, Cl. 250—65.
Currie, Grover C., to Fulbright Laboratories, Inc. Dispersing device. 3,094,134, 6–18–63, Cl. 137—132.
Currie, Norman D. Undershot wad for shotgun shells. 3,115,835, 12–31–63, Cl. 102—42.
Currie, Robert B., to Merck & Co., Inc. Method of making amino nitrothiazole. 3,113,947, 12–10–63, Cl. 260—306.8.
Currie, Thomas E., to Foote Mineral Co. Single coat porcelain enamel. 3,114,646, 12–17–63, Cl. 106—48.
Currier, Edwin L., Jr., and J. H. Nicklas, to United States of America, Atomic Energy Commission. Nuclear reactor fuel element. 3,093,566, 6–11–63, Cl. 204—193.2.
Currier, Helen: *See*—
Rauhut, Michael M., and Currier. 3,074,999.
Currier, Vernon A., and P. H. Moss, to Jefferson Chemical Co., Inc. Preparation of alkylcyciohexylamines. 3,087,966, 4–30–63, Cl. 260—563.
Currin, Elbert E., and P. J. Davidson, to Bemis Bro. Bag Co. Method of making bags. 3,099,237, 7–30–63, Cl. 112—262.

Curriston, Loren E., to American Bosch Arma Corp. Gyroscope pickoff and torquer. 3,107,540, 10–22–63, Cl. 74—5.4.
Curry, Arnet A., to Motorola, Inc. Transistor voltage regulator. 3,101,441, 8–20–63, Cl. 323—22.
Curry, Charles D., Jr. Cooking utensil cover. 3,110,412, 11–12–63, Cl. 220—44.
Curry, John L., to Rector Well Equipment Co., Inc. Method for attaching overlapped members. 3,095,644, 7–2–63, Cl. 29—527.
Curry, Percy S. Paper-towel rack. 3,088,686, 5–7–63, Cl. 242—55.2.
Curry, Robert C., to General Dynamics Corp. Binary code to analog converter. 3,102,258, 8–27–63, Cl. 340—347.
Curry, Robert C., and C. B. Shook, to General Dynamics Corp. Inhibitor circuit. 3,102,255, 8–27–63, Cl. 340—146.2.
Curtenius, Frederick H., to The Kalamazoo Paper Co. Paper sheet stacker. 3,090,503, 5–21–63, Cl. 214—6.
Curtice, Jay S., A. I. Snow, and L. A. Baillie, to Sinclair Research, Inc. Detection of heat exchanger leaks. 3,087,064, 4–23–63, Cl. 250—106.
Curtin, Kenneth M., to The Vanderburgh County Society For Crippled Children and Adults, Inc. Wick assembly. 3,091,396, 5–28–63, Cl. 239—47.
Curtin, Leo P., deceased; L. V. Curtin, executor. Chromic phosphate bonding coats for metals. 3,094,441, 6–18–63, Cl. 148—6.16.
Curtin Leo P., deceased; L. V. Curtin, executor. Conditioning treatment for metal surfaces. 3,101,287, 8–20–63, Cl. 148—6.16.
Curtin, Leo V.: *See*—
Curtin, Leo P. 3,094,441.
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Curtin, Paul J.: *See*—
Van Dusen, Harold A., Jr., and Curtin. 3,116,023.
Curtin, W. H., and Co.: *See*—
Brown, Robinson W., and Mynatt. 3,097,531.
Brown, Robinson W., and Oakey. 3,097,532.
Curtis, Allen W.: *See*—
Mentel, Raymond, and Curtis. 3,084,736.
Curtis, Arvel C., to Pipelife Corp. Method of conditioning transmission lines in situ. 3,108,012, 10–22–63, Cl. 117—95.
Curtis, Arvel C., to Pipelife Corp. Rotary device for application of a protective compound coating on the inner wall of conduits. 3,112,227, 11–26–63, Cl. 118—406.
Curtis Automotive Devices, Inc.: *See*—
Curtis, Russell R. 3,101,768.
Curtis, Charles H.: *See*—
Atwood, George E., and Curtis. 3,102,854.
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Curtis, Charles R., and L. E. Roberts, to AMP Inc. Multicontact electrical connector. 3,112,974, 12–3–63, Cl. 339—49.
Curtis, Gerald R., G. Robinson, and R. W. Baugh, to Physical Sciences Corp. Key for connector. 3,077,571, 2–12–63, Cl. 339—186.
Curtis, John M., to W. C. Calton. Outdoor table. 3,078,815, 2–26–63, Cl. 108—14.
Curtis, Meanor: *See*—
Von Wranau, Guido, and Phillips. 3,095,311.
Curtis, Nicholas, and J. R. Robertella, to Trans-Lux Corp. Data reproducing apparatus. 3,108,156, 10–22–63, Cl. 178—24.
Curtis 1000, Inc.: *See*—
Clegg, Frank G. 3,084,846.
Curtis, Richard A.: *See*—
Robbins, James D., and Curtis. 3,089,325.
Curtis, Robert S.: *See*—
Milbourne, Benjamin K. 3,083,051.
Curtis, Russell R., to Curtis Automotive Devices, Inc. Resonant intermittent combustion devices. 3,101,768, 8–27–63, Cl. 158—4.
Curtis, S., & Son, Inc.: *See*—
Gorton, Robert T. 3,078,030.
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Curtis, William B. 3,090,386.
Curtis, William B. 3,109,257.
Curtis, William B., to Curtis-Scott Co. Surgical saturing instrument. 3,090,386, 5–21–63, Cl. 128—334.
Curtis, William B., to Curtis-Scott Co. Kite parachute. 3,109,257, 11–5–63, Cl. 46—86.
Curtiss, Floyd P., and E. F. Reith, to Continental Can Co., Inc. Cantaloupe containers. 3,100,595, 8–13–63, Cl. 229—27.
Curtiss-Wright Corp.: *See*—
Alper, Ralph H., and Biehl. 3,091,081.
Anderson, John R. 3,102,518.
Barrett, Hillard E., and Gallo. 3,081,596.
Bastian, Arthur L. 3,076,881.
Bentele, Max. 3,112,870.
Bentele, Max, Jones, and Raye. 3,098,605.
Bentele, Max, Jones, and Raye. 3,111,261.
Bentele, Max, Pierce, and Jones. 3,102,492.
Biehl, Richard E., Price, and Sternberg. 3,097,766.
Blews, Richard R., Jr. 3,115,936.
Bonhomme, Francois R. 3,107,966.
Borst, Henry V. 3,106,369.
Brunton, Donald C. 3,088,032.
Caspar, John, Hoffman, and Muhlfelder. 3,102,387.
Chillson, Charles W. 3,111,268.
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Curtiss-Wright Corp.: *See*—Continued
Constantino, Constantine S. 3,090,365.
Coons, William C. 3,077,706.
Dangler, Robert L. 3,110,920.
Dawson, William H., Jr., and Simpson. 3,078,595.
De Jong, Sijtze. 3,083,982.
De Jong, Sijtze, and Auzins. 3,083,783.
Gearhart, Walter S., and Hammond. 3,101,101.
Gearhart, Walter S., and Hammond. 3,101,102.
Gist, William B., and Sollinger. 3,102,516.
Goodwin, Roscoe H. Re. 25,325.
Goodwin, Roscoe H. 3,089,257.
Goodwin, Roscoe H. 3,114,869.
Goyarts, Wynand M. 3,083,981.
Haddad, Mitchell J., and Adkins. 3,071,691.
Hurley, Roy T. 3,081,745.
Hurley, Roy T., Bentele, and Kimberley. 3,081,753.
Johns, James F. 3,084,650.
Kimbleton, Cecil. 3,089,097.
Kimbleton, Cecil. 3,099,783.
Kohman, Wayne E. 3,112,901.
Lubkin, Samuel. 3,093,797.
Merlub-Sobel, Menahem. 3,102,848.
Minkow, Morse. 3,116,412.
Palm, Michael M. 3,080,995.
Pavlovich, Paul G., Jr. 3,100,960.
Pease, David W. 3,091,435.
Pedersen, George H., and Robb. 3,102,389.
Price, Harry N., and Raye. 3,103,208.
Rhodes, Edmund O. 3,091,543.
Sherman, Albert J., and Green. 3,114,211.
Sollinger, Ferdinand P. 3,096,746.
Stevens, Robert M. 3,073,109.
Thompson, Lionel D., and Tsakiris. 3,087,473.
Varga, John J. 3,094,344.
Young, Merrill A. 3,094,021.
Young, Merrill A. 3,094,022.
Young, Merrill A., and Sweet. 3,081,056.
Zahner, Charles F., and Samson. 3,071,873.
Curtiss-Wright Corp., Propulsion Products Division: *See*—
Stoner, Willis A., and Rains. 3,102,481.
Curzon, Thomas, to C.A.V. Ltd. Means for facilitating the starting of an internal combustion engine. 3,091,282, 5–28–63, Cl. 158—28.
Cusano, Dominic A., to General Electric Co. Method of preparing luminescent materials and luminescent screens prepared thereby. 3,108,904, 10–29–63, Cl. 117—211.
Cusano, Dominic A., and R. L. Sormberger, to General Electric Co. Method for making electrically conducting films and article. 3,095,324, 6–25–63, Cl. 117—215.
Cusden, Earl R. J. Honeycomb uncapping machine. 3,095,584, 7–2–63, Cl. 6—12.
Cushing, Cyril A., and J. H. W. Speaight, to The English Electric Co. Ltd. Emergency shut-down gear for multicylinder compression ignition engines. 3,101,702, 8–27–63, Cl. 123—198.
Cushing, Donald S.: *See*—
Brezosky, Bernard J., and Cushing. 3,079,094.
Hardy, Albert L., Cushing, and Jenkins. 3,084,701.
Cushing, Eugene G. Golf practicing device. 3,079,152, 2–26–63, Cl. 273—35.
Cushman Chuck Co., The: *See*—
Skillin, Walter F. 3,096,988.
Sloan, Harry E., H. E. Sloan, Jr., and Swanson. 3,086,784.
Cushman, Walton W. Combined shelter and pneumatic jack. 3,086,753, 4–23–63, Cl. 254—93.
Cushman, Walton W. Pneumatic tires and replaceable treads therefor. 3,107,713, 10–22–63, Cl. 152—187.
Cushman, Walton W. Load-bearing and transporting means constituting wheel and endless track substitute. 3,107,924, 10–22–63, Cl. 280—28.5.
Cusi, Eduardo L.: *See*—
Ritter, John W., and Cusi. 3,099,431.
Ritter, John W., and Cusi. 3,103,232.
Cusic, John W., and E. Le Von, to G. D. Searle & Co. Dibenzazepinylalkyl piperazinones. 3,091,615, 5–28–63, Cl. 260—268.
Cusic, John W., and E. Le Von, to G. D. Searle & Co. 1-benzhydryl substituted 4-(aminomethyl) piperidines and 4-(amidomethyl) piperidines. 3,101,341, 8–20–63, Cl. 260—293.
Cusic, John W., and H. S. Lowrie, to G. D. Searle & Co. Amides of phenothiazinecarboxylic acids. 3,112,309, 11–26–63, Cl. 260—243.
Cusic, John W., and H. S. Lowrie, to G. D. Searle & Co. 10 - alkylaminoalkylphenothiazine - 2-carboxamides. 3,112,310, 11–26–63, Cl. 260—243.
Cusick, Leo P., to Rubbermaid Inc. Adjustable car mat. 3,094,350, 6–18–63, Cl. 296—1.
Cuskie, Herman C., to Ford Motor Co. Automotive suspension system. 3,083,032, 3–26–63, Cl. 280—96.2.
Cuskie, Herman C., to Ford Motor Co. Independent suspension system. 3,111,307, 11–19–63, Cl. 267—20.
Cussons, Richard C.: *See*—
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Custer, Richard W., to Fenestra, Inc. Portable mats. 3,076,390, 2–5–63, Cl. 94—13.
Custer, Rolla B., and C. Field. Mercury pool discharge device. 3,073,983, 1–15–63, Cl. 313—165.
Custer, Rolla B., and C. Field. Voltage regulating circuit. 3,095,514, 6–25–63, Cl. 307—150.

Custers, Jan F. H., H. B. Dyer, B. W. Senior, and P. T. Wedepohl, to Adamant Laboratories (Proprietary) Ltd. Plunger dies. 3,082,477, 3–26–63, Cl. 18—16.5.

Custom Plastics, Inc.: *See*—
Fanning, Samuel P., Jr. 3,087,218.

Customark Corp.: *See*—
Vaurio, Frans V. E. 3,085,898.

Cusumano, Hector C. Rapid action seal-tight closure cover. 3,072,286, 1–8–63, Cl. 220—46.

Cutforth, Howard G.: *See*—
Hutchinson, William M., Pickett, and Cutforth. 3,072,510.

Cuthbert, Cecil: *See*—
Fagan, Brian E., and Cuthbert. 3,100,116.

Cuthbert, Harry L.: *See*—
Madak, Paul D., Cuthbert, and Kerr. 3,083,700.

Cuthbertson, George R., and E. B. Dodge, to United States Rubber Co. Anti-blemish paint compositions and method of applying them to the surfaces of uncured rubber articles. 3,106,443, 10–8–63, Cl. 18—53.

Cutlan, Roland S. Apparatus for retracting tow cable for water skiers. 3,071,099, 1–1–63, Cl. 114—235.

Cutler, Burton: *See*—
David, Donovan C., and Cutler. 3,080,557.

Cutler, Burton, to Gilfillan Bros., Inc. Semi-automatic ground controlled approach system. 3,099,513, 7–2–63, Cl. 343—7.

Cutler, Cassius C., to Bell Telephone Laboratories, Inc. High efficiency frequency modulation system for television and speech signals. 3,084,327, 4–2–63, Cl. 325—45.

Cutler, Cassius C., to Bell Telephone Laboratories, Inc. Attitude control for satellite vehicles. 3,088,697, 5–7–63, Cl. 244—14.

Cutler, Cassius C., to Bell Telephone Laboratories, Inc. Antenna for active satellite repeaters. 3,100,892, 8–13–63, Cl. 343—100.

Cutler, Cassius C., to Bell Telephone Laboratories, Inc. Attitude control of earth satellites. 3,116,035, 12–31–63, Cl. 244—1.

Cutler, Cassius C., to Bell Telephone Laboratories, Inc. Space satellite vehicles. 3,116,484, 12–31–63, Cl. 343—100.

Cutler, Clarence M., to General Electric Co. Lamp and ballast holder. 3,112,891, 12–3–63, Cl. 240—51.12.

Cutler, Clarence W., to United States of America, Navy. Controlled shock or impact testing fixture. 3,100,982, 8–20–63, Cl. 73—12.

Cutler, Frank A., Jr., and M. Sletzinger, to Merck & Co., Inc. Process for preparing 16-alkyl-$\Delta^{9,11}$-pregnenes. 3,083,215, 3–26–63, Cl. 260—397.45.

Cutler, Frank A., Jr., and J. M. Chemerda, to Merck & Co., Inc. Novel 16-alkyl-6,9-difluoro-steroids and processes. 3,116,290, 12–31–63, Cl. 260—239.55.

Cutler-Hammer, Inc.: *See*—
Battle, Frederick H., Jr. 3,089,138.
Charbonneau, Allan P. 3,090,419.
Charbonneau, Allan P., and Mukal. 3,100,824.
Dyer, John N., and Ruderfer. 3,108,469.
Elliot, William H., and Yager. 3,073,244.
Fischer, Paul M., and Siebers. 3,082,364.
Fath, Douglas W., Kraschinsky, and Lutsch. 3,103,347.
Fath, Douglas W., and Smith. 3,110,019.
Glass, Harvey W., and Tyler. 3,109,150.
Hartop, Robert W. 3,103,127.
Howdle, Frederic E., and Rauenbuehler. 3,083,014.
Hults, Harold W. 3,087,341.
Kitscha, Hector. 3,101,434.
Kliphuis, Jans. 3,105,941.
Koenig, Martin F., Pastene, and Williams. 3,081,386.
Koertge, Nobel H. 3,088,007.
Koertge, Nobel H., and Rosing. 3,109,904.
MacLean, Philip A. 3,114,247.
Meyers, Fredric J. 3,086,102.
Mukal, Roy A. 3,083,278.
Okwit, Seymour. 3,113,278.
Papa, Donald M. 3,080,890.
Pastene, Alexander J. 3,109,899.
Pastene, Alexander J., and Wischer. 3,089,930.
Peterson, Norman L. 3,082,390.
Rauenbuehler, John A. 3,089,394.
Rosing, Theodore F. 3,091,677.
Tolles, Walter E. 3,085,566.
Tolles, Walter E. 3,095,872.
Turner, Russell C. 3,107,820.
Turner, Russell C., and Walker. 3,099,368.
Van Inthoudt, John. 3,113,284.

Cutler, Lester M. Garments with self contained pockets. 3,085,254, 4–16–63, Cl. 2—243.

Cutler, Marvin B. Emergency exit door lock. 3,104,539, 9–24–63, Cl. 70—92.

Cutler, Melvin, to General Dynamics Corp. Measurement of thermal conductivity. 3,106,085, 10–8–63, Cl. 73—15.

Cutler, Royal A., to Sterling Drug Inc. 2-(alkoxy or aryloxy)-4-arylamino-6-(H-)-1,3,5-triazines. 3,097,205, 7–9–63, Cl. 260—249.5.

Cutler, Royal A., to Sterling Drug Inc. (Tertiary amino-lower alkoxy) indane compounds. 3,097,243, 7–9–63, Cl. 260—570.9.

Cutsogeorge, George A., to Specialties Development Corp. Liquid level indicating system. 3,089,337, 5–14–63, Cl. 73—295.

Cutsogeorge, George A., and W. J. Spaven, to Specialties Development Corp. Stable transistorized network responsive to a change in condition. 3,075,128, 1–22–63, Cl. 317—148.5.

Cutter Laboratories, Inc.: *See*—
Butler, William F. 3,092,106.

Cutting Room Appliances Corp.: *See*—
Deichmann, Walter. 3,094,319.
Niseuson, Jules. 3,113,744.
Theodosiou, Emmanuel. 3,112,107.

Cuttler, Harry A., and H. E. Jass, to Revlon, Inc. Amyl nitrite inhalant composition. 3,106,511, 10–8–63, Cl. 167—54.

Cutts, James H.: *See*—
Beer, Charles T., Cutts, and Noble. 3,097,137.

Cuvier, Pierre F. Apparatus for producing a photograph having a relief effect. 3,076,395, 2–5–63, Cl. 95—18.

Cuvin, Rita D. Separable maternity garment. 3,106,717, 10–15–63, Cl. 2—70.

Cvetko, Henry J., to The Astatic Corp. Stylus holder for phonograph pickup cartridges and the like. 3,075,054, 1–22–63, Cl. 179—100.41.

Cvjetkovic, Antun M., and M. Chanin, to General Dynamics Corp. High energy impactor apparatus. 3,105,414, 10–1–63, Cl. 91—172.

Cyba, Henry A., to Universal Oil Products Co. Alkylthiophosphoric acid salt of polymeric condensation product and use thereof. 3,074,990, 1–22–63, Cl. 260—461.

Cyba, Henry A., to Universal Oil Products Co. Stabilization of lubricants. 3,078,230, 2–19–63, Cl. 252—42.1.

Cyba, Henryk A., to Universal Oil Products Co. Esters of carboxylic acids and the condensation products of epihalohydrin and an aliphatic amine. 3,090,795, 5–21–63, Cl. 260—404.5.

Cyba, Henryk A., to Universal Oil Products Co. Carboxylic acid salts of the condensation product of epihalohydrin and an aliphatic amine. 3,090,796, 5–21–63, Cl. 260—404.5.

Cyba, Henryk A., to Universal Oil Products Co. Stabilization of lubricants. 3,093,586, 6–11–63, Cl. 252—51.5.

Cyba, Henryk A., to Universal Oil Products Co. Stabilized lubricants. 3,110,671, 11–12–63, Cl. 252—50.

Cybriwsky, Alex: *See*—
Reynolds, William G., and Cybriwsky. 3,106,210.
Reynolds, William G., and Cybriwsky. 3,106,211.

Cybriwsky, Alexander, and G. L. Hager, to Reynolds Metals Co. Method of multi-coloring anodized aluminum. 3,099,610, 7–30–63, Cl. 204—35.

Cyclodrama Inc.: *See*—
Caldwell, Frank A., and Brummer. 3,078,758.

Cypert, Jacob D., and J. T. Patton, to Jersey Production Research Co. Stabilized dextran solutions. 3,084,122, 4–2–63, Cl. 252—8.55.

Cyphers, Elmer B., to Esso Research and Engineering Co. Improved calcium salts of bridged phenol sulfides and method of preparing same. 3,100,800, 8–13–63, Cl. 260—609.

Cypress Garden Skis, Inc.: *See*—
Bennett, William N. 3,102,279.

Cyr, Frank P.: *See*—
Heinle, Albert W. 3,092,222.

Cyr, Gilman N.: *See*—
Hill, John A., and Cyr. 3,106,512.

Cyr, Howard M., and N. S. Nanovic, to The New Jersey Zinc Co. Production of conductive zinc oxide. 3,089,856, 5–14–63, Cl. 252—518.

Czaczkowski, Jerzy R., to North American Philips Co., Inc. Semiconductor to provide a step current function with plural emitters which inject minority carriers. 3,113,222, 12–3–63, Cl. 307—88.5.

Czapar, Frank, Jr. Meat scraper. 3,091,791, 6–4–63, Cl. 15—245.

Czapla, Steve F. Coiled cable dispenser. 3,105,654, 10–1–63, Cl. 242—110.3.

Czarecki, Louis V., to Hoffmann-La Roche Inc. Purification of a crude C_{18} aldehyde. 3,081,356, 3–12–63, Cl. 260—614.

Czarnecki, Ronald F., to Eastman Kodak Co. Aqueous, vitamin A oil emulsion. 3,089,823, 5–14–63, Cl. 167—81.

Czarnetzky, Edward J.: *See*—
Hallinan, Francis J., Czarnetzky, and Coombes. 3,115,409.

Czarnowski, Melvin S., to Illinois Tool Works, Inc. Insert fastener. 3,105,535, 10–1–63, Cl. 151—23.

Cziptschirsch, Kurt: *See*—
Herr, Gerhard, and Cziptschirsch. 3,071,023.
Herr, Gerhard, and Cziptschirsch. 3,106,853.

Czech, Maximilian: *See*—
Frensch, Heinz, Czech, and Emmel. 3,091,564.

Czecholinski, Stephen J. Building blocks. 3,076,286, 2–5–63, Cl. 46—19.

Czerbin, Alexander J.: *See*—
Saplievsky, Piotr F., Garkavi, Mikhailov, Filimoshina, Vlasova, and Czerbin. 3,087,225.

Czerbina, Anatoly G.: *See*—
Kolenko, Evgeny A., Tauber, and Czerbina. 3,097,425.

Czerkas, Alfred E., to Eastman Kodak Co. Method and apparatus for prevention of slug formation in the casting of film support and sheeting. 3,112,528, 12–3–63, Cl. 18—15.

Czorny, John S.: *See*—
Synk, John P., and Czorny. 3,094,024.

Czuha, Michael, Jr., to Consolidated Electrodynamics Corp. Method of making electrolytic measuring cell. 3,072,556, 1–8–63, Cl. 204—195.

Czulak, Joseph, and N. H. Freeman, to Commonwealth Scientific and Industrial Research Organization. Apparatus for adding one substance to another in controlled proportions. 3,103,871, 9–17–63, Cl. 99—243.

Czyzewski, Alfred: *See*—
Werres, Horst, Czyzewski, and Jager. 3,098,001.

Czyzewski, Harry: *See*—
Edminster, Lester R., and Czyzewski. 3,086,858.

D.B.A., Societe Anonyme: *See*—
Furia, Andre, and Chevreux. 3,088,283.

DCA Food Industries Inc.: *See*—
Block, Zenas, Hunter, and Hodges. 3,078,979.
Fries, Edward W., and Kaufman. 3,097,967.
Leiby, Dayton O. 3,085,499.

D & D Co., Inc.: *See*—
Dowling, Robert W., and Del Riccio. 3,076,381.
Dowling, Robert W., and Del Riccio. 3,076,382.

DPR, Inc.: *See*—
Hardman, Kenneth V. 3,088,586.

D. & W. Truck Load Indicator Ltd.: *See*—
Davis, Harold C., Jordan, and Arden. 3,109,505.

D-Y Trust: *See*—
Devine, James H. and E. Y. 3,096,678.

Daalderop, Wilhelmus H. J. D., to Koninklijke Metaalwarenfabrieken v/h J. N. Daalderop & Zonen, N.V. Tool support absorbing tool reactionary force. 3,088,358, 5–7–63, Cl. 83—317.

Daane, Robert A., and E. J. Justus, to Beloit Iron Works. Web moisture profile control for paper machine. 3,089,252, 5–14–63, Cl. 34—114.

Dabringhaus, Gustav H. Machine for deep drilling. 3,075,415, 1–29–63, Cl. 77—34.7.

Dabul, Ismael, to Orandi & Massera, Sociedad Anonima Industrial & Commercial. Recovery of tartaric acid, as the calcium salt, from wine dregs. 3,114,770, 12–17–63, Cl. 260—536.

Dacam Corp.: *See*—
Englander, Robert A., and Cato. 3,111,797.

Dacey, George C.: *See*—
Batdorf, Robert L., Dacey, and Kleinman. 3,109,758.

Dacey, George C., to Bell Telephone Laboratories, Inc. Negative resistance device modulator. 3,090,014, 5–14–63, Cl. 332—52.

Dachert, Francois, to Compagnie Generale de Telegraphie Sans Fil. Microwave phase-shift devices. 3,109,152, 10–29–63, Cl. 333—31.

D'Achille, Bernardo L. Vegetable peeling and slicing apparatus. 3,085,605, 4–16–63, Cl. 146—49.

Daco, Inc.: *See*—
Lindgren, Robert F. 3,090,213.

Da Costa, Harry: *See*—
Knowles, Carl H., and Da Costa. 3,092,522.

Da Costa, Harry, to Motorola, Inc. Apparatus for electrochemical etching. 3,086,936, 4–23–63, Cl. 204—224.

Da Costa, Harry, to Motorola, Inc. Feeding and positioning apparatus. 3,102,331, 9–3–63, Cl. 29—203.

Da Costa, Harry, and C. H. Knowles, to Motorola, Inc. Method of electrolytically etching a semiconductor element. 3,075,903, 1–29–63, Cl. 204—143.

Dacus, Edward N., to Bill Jack Scientific Instrument Co. Accelerometer. 3,090,239, 5–21–63, Cl. 73—517.

Dadant & Son, Inc.: *See*—
Krekel, Richard W. 3,105,978.

Dadas, Gust A., to Pyronics, Inc. Burner means for air-gas mixtures. 3,114,411, 12–17–63, Cl. 158—116.

Dadd, Morris V.: *See*—
Bergmann, Paul F., Humphreys, and Dadd. 3,115,128.
Humphreys, John W., and Dadd. 3,111,138.

Dadds, Floyd S.: *See*—
Reinsma, Harold L., and Dadds. 3,096,661.

Dade Reagents, Inc.: *See*—
Brown, James R., Adam, and Whitney. 3,107,204.

Dadoly, Georgia, and T. G. Finzel, to Hercules Powder Co. Dyeing with leuci-vat dye esters polypropylene fibers and cellulosic fiber unions therewith. 3,104,150, 9–17–63, Cl. 8—21.

Dadura, James G., W. R. Siegart, N. R. Odell, and C. J. Henry, to Texaco Inc. Lubricant containing copper corrosion inhibitor. 3,108,966, 10–29–63, Cl. 252—46.3.

Daeche, Hans-Joachim, to VEB Kamera- und Kinowerke Dresden. Cameras. 3,089,399, 5–14–63, Cl. 95—42.

Daeche, Hans-Joachim, to VEB Kamera- und Kinowerke Dresden. Monocular mirror reflex camera with between-the-lens shutter. 3,098,419, 7–23–63, Cl. 95—42.

Daeche, Hans-Joachim, to VEB Kamera- und Kinowerke Dresden. Monocular mirror reflex camera. 3,106,143, 10–8–63, Cl. 95—42.

Daedy, Emmett F.: *See*—
Houghton, Daniel E., Daedy, and Reed. 3,088,496.

Daeniker, Hans U.: *See*—
Druey, Jean, and Daeniker. 3,098,078.

Daester, Henri. Process and apparatus for the granulation of plastic masses. 3,108,320, 10–29–63, Cl. 18—1.

Daffin Corp.: *See*—
Mast, Aquila D. 3,104,965.
Walstrom, Stanley R., and Nash. 3,083,058.

D'Agati, Ignazio J.: *See*—
Vander Laan, D'Agati, and Sasadi. 3,077,270.

Daggett, Albert K., to United States of America, Navy. Submarine mounted antenna erection device. 3,106,712, 10–8–63, Cl. 343—709.

Daggett, Frederick K., M. A. Hall, and P. A. Roush, to Flexible Tubing Corp. Flexible conduit. 3,107,697, 10–22–63, Cl. 138—131.

Dagnall, Clarence H., Jr.: *See*—
Cahill, Harold D., and Dagnall. 3,071,650.

Dagnoli, Donato F.: *See*—
Rice, Livingston L., and Dagnoli. 3,100,857.

Dagrell, Knut, to Aktiebolaget Svenska Flaktfabriken. Propeller fan blades. 3,085,631, 4–16–63, Cl. 170—159.

Dahl, Carl B., to Beloit Iron Works. Suppression of objectionable noise in rotating machinery. 3,080,014, 3–5–63, Cl. 181—33.

Dahl, Einar S., to Borg-Warner Corp. Fuel injection pump. 3,100,449, 8–13–63, Cl. 103—2.

Dahl, Emily J. Nursing bottle holder. 3,110,407, 11–12–63, Cl. 215—12.

Dahl, Hendrick C. Sprinkler head trimmer. 3,111,995, 11–26–63, Cl. 172—18.

Dahl, Henry A.: *See*—
Relph, Earl B., Dahl, and Christiansen. 3,075,859.

Dahl, Joseph D. Stethoscopic device. 3,087,016, 4–23–63, Cl. 179—1.

Dahl, Joseph D. Timing apparatus. 3,102,380, 9–3–63, Cl. 58—125.

Dahl, Madsen, to Allmanna Svenska Elektriska Aktiebolaget. Nuclear reactor plant. 3,089,834, 5–14–63, Cl. 204—193.2.

Dahl, Norman C. Automatic telephone timer. 3,089,303, 5–14–63, Cl. 58—145.

Dahl, Robert R., and C. C. Bauerlein, to The Dole Valve Co. Fluid dispensing valve. 3,073,490, 1–15–63, Cl. 222—453.

Dahlberg, Robert S., Jr., to Philco Corp. Combined limiter and threshold circuit. 3,072,801, 1–8–63, Cl. 307—88.5.

Dahlblom, Rolf A.: *See*—
Brunberg, Karl G., Dahlblom, and Lillsunde. 3,088,999.

Dahlbom, Johan R., N. M. Lofgren, C. P. Tegner, S. E. S. Wiedling, and A. P. Truant, to Astra, Apotekarnes Kemiska Fabriker, Aktiebolaget. Morpholino lower alkanoyl xylidides and toluidides. 3,108,997, 10–29–63, Cl. 260—247.1.

Dahle, Orvar, and L. Berggren, to Allmanna Svenska Elektriska Aktiebolaget. Magnetoelastic force measuring device. 3,093,999, 6–18–63, Cl. 73—141.

Dahlgren, Sven A. B., to Separator, Aktiebolaget. Heat exchange apparatus. 3,092,180, 6–4–63, Cl. 257—28.

Dahlin, Carl E. I., to von Tell trading Co. A.B. Hatch covers. 3,108,631, 10–29–63, Cl. 160—193.

Dahlin, Carl E. I., to von Tell Trading Co. AB. Hatch covers. 3,114,346, 12–17–63, Cl. 114—202.

Dahlin, Curt V., to Sandvikens Jernverks Aktiebolag. Drill bits and cutting inserts therefor. 3,096,836, 7–9–63, Cl. 175—410.

Dahlin, Robert K., to North American Aviation, Inc. Radar error signal memory circuit. 3,079,600, 2–26–63, Cl. 343—17.1.

Dahlinder, David G.: *See*—
Wikander, Erik L., and Dahlinder. 3,098,481.

Dahlke, Hugo E.: *See*—
Welkowitz, Walter, and Dahlke. 3,100,885.

Dahlman, Karl R., to Flymo, Aktiebolaget. Grass cutting machines. 3,110,996, 11–19–63, Cl. 56—25.4.

Dahlman Mfg. & Sales, Inc.: *See*—
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Dahlquist, Emil F., and B. E. West, to Link-Belt Co. Apparatus for abrading by vibratory flowing of the abrading material. 3,108,408, 10–29–63, Cl. 51—163.

Dahlquist, Robert L., to J. I. Case Co. Means for mounting spring fingers. 3,099,347, 7–30–63, Cl. 198—198.

Dahlstrom, Arvid O. Pellet gun. 3,094,112, 6–18–63, Cl. 124—29.

Dahlstrom, Howard L.: *See*—
McNabb, Robert W., and Dahlstrom. 3,116,245.

Dahlstrom Mfg. Corp.: *See*—
Anderson, Raymond Q. 3,110,535.

Dahlstrom, Richard L., and R. J. Wert, to E. I. du Pont de Nemours and Co. Twistless, heat relaxed interlaced yarn. 3,083,523, 4–2–63, Cl. 57—140.

Dahlstrom, Robert V.: *See*—
Sfat, Michael R., Bauknecht, Bawden, and Dahlstrom. 3,116,221.

Dahmlos, Johannes, to Wasag-Chemie Aktiengesellschaft. Process for the preparation of chlorofluoro derivatives of aliphatic hydrocarbons. 3,113,157, 12–3–63, Cl. 260—653.8.

Dahms, Francis A., to Embart Mfg. Co. Glassware inspection apparatus. 3,085,160, 4–9–63, Cl. 250—234.

Dahms, James B.: *See*—
Edmonds, Byron P., Dahms, and Helvenston. 3,096,969.

Daifotes, Theodore S. Automatic steering mechanism for lawnmowers and the like. 3,073,409, 1–15–63, Cl. 180—6.2.

Daigh, Harold D., to Richfield Oil Corp. Crankcase ventilating system for internal combustion engines. 3,077,871, 2–19–63, Cl. 123—119.

Daigle, Emile J., Jr., to Radio Corp. of America. Pulse timing circuit. 3,073,971, 1–15–63, Cl. 307—88.5.

Daigler, Franklin A., to American Optical Co. Stylus recorder. 3,104,929, 9–24–63, Cl. 346—105.

Dai-Ichi Yakuhin Sangyo Kabushiki Kaisha: *See*—
Hayashi, Shiro. 3,072,689.

Dail, Paul D., to Crownco of San Diego. Lamp. 3,094,288, 6–18–63, Cl. 240—51.11.

Dailey, Joseph P., and R. L. Colescott, to Armour Pharmaceutical Co. Method of increasing blood clotting time with a liver lipid. 3,089,820, 5-14-63, Cl. 167—74.6.

Dailey, Leon E., to Dailey Ultrasonics, Inc. Transducer device. 3,102,535, 9-3-63, Cl. 128—24.

Dailey Ultrasonics, Inc.: *See*—
Dailey, Leon E. 3,102,535.

Dailey, William H., Jr., to Midland-Ross Corp. Combustion system. 3,087,715, 4-30-63, Cl. 263—33.

Dailey, William H., Jr., to Midland-Ross Corp. Combustion system for soaking pits. 3,107,904, 10-22-63, Cl. 263—15.

Daily, Arthur M., and W. L. Kelver, to CTS Corp. Variable resistor. 3,096,500, 7-2-63, Cl. 338—183.

Daily, Howard R., to Sun Oil Co. Process for regulating flow of contact material. 3,098,815, 7-23-63, Cl. 208—167.

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Anders, Ulrich W. P. 3,090,421.
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Barényi, Béla. 3,080,189.
Barényi, Béla. 3,080,190.
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Bierwirth, Friedhelm. 3,111,809.
Bruder, Werner A. 3,105,355.
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Fiala, Ernst J. H. 3,089,710.
Fiala, Ernst J. H., and Andres. 3,075,356.
Fiala, Ernst J. H., and Kafka. 3,090,644.
Foerster, Hans Joachim M. 3,080,772.
Foerster, Hans-Joachim M. 3,103,832.
Föerster, Hans Joachim M. 3,107,555.
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Dale, Thomas L., to J. Miller, M. Young, S. Novak, M. Adelman, and H. Adelman. Method and apparatus for applying adhesive backings to articles. 3,080,911, 3-12-63, Cl. 156—518.

D'Alello, Gaetano F. Combustion process using irradiated polymeric fuel. 3,071,923, 1-8-63, Cl. 60—35.4.

D'Alello, Gaetano F. Irradiated polymers. 3,074,866, 1-22-63, Cl. 204—154.

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D'Alello, Gaetano F., to Dal Mon Research Co. Compounds consisting of hydrocarbon groups and aluminum and/or boron atoms. 3,084,180, 4-2-63, Cl. 260—448.

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D'Alello, Gaetano F., to Dal Mon Research Co. Polymerization of olefins using an aluminum halide and an organometallic compound as catalyst. 3,090,776, 5-21-63, Cl. 260—93.7.

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Harman, Marion W., and D'Amico. 3,078,273.
Harman, Marion W., and D'Amico. 3,109,006.
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Tung, Ching C., and D'Amico. 3,094,407.
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Zerbe, Richard O., and D'Amico. 3,113,126.

D'Amico, John J., to Monsanto Chemical Co. Process for making N-substituted thiazolesulfenamide. 3,075,990, 1-29-63, Cl. 260—306.6.

D'Amico, John J., to Monsanto Chemical Co. 2-cyclohexenyl esters of hydrogen substituted dithiocarbamic acids. 3,082,237, 3-19-63, Cl. 260—455.

D'Amico, John J., to Monsanto Chemical Co. Method for control of soil borne pathogenic organisms. 3,096,236, 7-2-63, Cl. 167—22.

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Damm, Carl A., to United States of America, Navy. Cincture-type suspension band apparatus. 3,089,387, 5-14-63, Cl. 89—1.5.

Damm, Carl A., to United States of America, Navy. Universal store suspension apparatus. 3,093,031, 6-11-63, Cl. 89—1.5.

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Dammers, August, to Compagnie de Saint-Gobain. Glass sheet bending apparatus. 3,106,464, 10-8-63, Cl. 65—291.

Damon, Nell. Electrical controls. 3,102,173, 8-27-63, Cl. 200—11.

Damon, Richard W., to General Electric Co. Ferromagnetic amplifier and frequency converter. 3,078,419, 2-19-63, Cl. 330—56.

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Danel, Pierre F., to Societe Grenobloise d'Etudes et d'Applications Hydrauliques. Hydraulic gates. 3,086,366, 4–23–63, Cl. 61—28.

Danel, Pierre F., to Societe Grenobloise d'Etudes et d'Applications Hydrauliques. Blocks for protecting hydraulic constructions. 3,091,087, 5–28–63, Cl. 61—4.

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Daniel, David W., to National Broach & Machine Co. Method and apparatus for finishing gears. 3,092,935, 6–11–63, Cl. 51—105.

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Danielson, Arthur C., to United States Rubber Co. Adhering textile materials to rubber. 3,097,110, 7–9–63, Cl. 117—162.

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Danis, Robert A., to General Fittings Co. Centrifugal pump. 3,088,416, 5–7–63, Cl. 103—103.

Danko, Donald M., to International Resistance Co. Bistable semiconductor circuit responsive to sensing device. 3,106,647, 10–8–63, Cl. 307—88.5.

Dankwardt, Renate (nee Maro), and J. Ellrich; said Ellrich, assor. to said Dankwardt (nee Maro). Device for treating, disinfecting and cleansing cavities in the human body. 3,084,689, 4–9–63, Cl. 128—270.

Danley, Dayton H. Rotary valve for fluid operated musical instruments. 3,071,155, 1–1–63, Cl. 137—625.

Danline Mfg. Co.: *See*—
Nielsen, Albert T. 3,082,458.

Danly Machine Specialties, Inc.: *See*—
Georgeff, Vasil. 3,111,100.
Martin, John W. 3,108,470.
McCallum, Albert R., and Danly. 3,084,777.

Danly, Philo H.: *See*—
McCallum, Albert R., and Danly. 3,084,777.

Dann, Otto. Synthesis of khellin and intermediates therefor. 3,099,660, 7–30–63, Cl. 260—345.2.

Danner, Jacob D., to Argus Inc. Reversible slide magazine drive. 3,110,120, 11–12–63, Cl. 40—79.

Danner, Thomas A.: *See*—
Placek, Raymond L., Danner, and Arthur. 3,107,748.

Dano, Take H., and H. E. O. Pedersen, to F. L. Smidth & Co. Rotary kiln and method of burning material therein. 3,074,705, 1–22–63, Cl. 263—33.

Danowsky, John A. Protective device. 3,106,715, 10–15–63, Cl. 2—9.

D'Antonio, Renato A., and F. Gerrand, to International Business Machines Corp. Signaling system. 3,100,293, 8–6–63, Cl. 340—146.1.

Dantowitz, Philip, to General Electric Co. Acceleration control for fluid turbines. 3,107,896, 10–22–63, Cl. 253—59.

Dantro, Horace F., A. T. Kalinowski, and W. T. Sluta, to National Lead Co. Method for producing titanium dioxide pigments. 3,091,515, 5–28–63, Cl. 23—202.

Danvers, Ellis: *See*—
Godden, Thomas E., Danvers, and Morris. 3,080,928.

Dan-Way Corp., The: *See*—
Shaffett, Richard D., and Pourciau. 3,110,678.

Danyluke, Ostap, and F. A. Fawcett, to Bath Iron Works Corp. Dust prevention device for rotary impactor. 3,083,921, 4–2–63, Cl. 241—186.

Danziger, Harry: *See*—
Bauer, Kurt, Danziger, and Schulze. 3,082,259.

Dapper, Edward R.: *See*—
Achorn, Glenwood B., Bokesch, Dapper, Lehherz, Schwab, Smith, Rawson, and Metcalfe. 3,075,888.

Dapprich, William R. Rotary wiper. 3,076,990, 2–12–63, Cl. 15—250.22.

Da Prato, Joseph M., and P. R. Bemount, to Da Prato Mfg. Co. Hand truck. 3,075,662, 1–29–63, Cl. 214—375.

Da Prato Mfg. Co.: *See*—
Da Prato, Joseph M., and Bemount. 3,075,662.

Dapses, William P., ½ to W. C. Lodding. Drying drum. 3,073,038, 1–15–63, Cl. 34—110.

Darakos, William. Geological sample trays. 3,106,788, 10–15–63, Cl. 35—50.

Darash, Nicholas P.: *See*—
Diener, Robert E., and Darash. 3,111,044.

Darble, Arthur M., C. W. Harrison, and D. J. Tighe, to Hewlett-Packard Co. Transistorized direct-voltage regulated power supply. 3,101,442, 8–20–63, Cl. 323—22.

Darby & Darby: *See*—
Dersch, Irwin F. 3,088,457.

Darby, James W. Vehicle with retractable wheels. 3,080,196, 3–5–63, Cl. 298—1.

Darby, Joseph B., Jr.: *See*—
Zegler, Sylvester T., and Darby. 3,084,041.

D'Arcy, Donald F.: *See*—
Hutchins, Roger W., and D'Arcy. 3,095,744.

D'Arcy, James. Magnetically controlled switch. 3,076,877, 2–5–63, Cl. 200—87.

Dard, Lucien. Apparatus for bending tubes, bars and metal sections. 3,112,787, 12–3–63, Cl. 153—38.

Dardaine, Edgar J. M., and R. Mailbeaux, to E. P. Remy et Cie. Devices for gripping bottles and the like. 3,086,805, 4–23–63, Cl. 294—27.

Dardaine, Edgard J. M., and R. Mailbeaux, to E. P. Remy & Cie. Device for grouping miscellaneous objects. 3,107,775, 10–22–63, Cl. 198—34.

Darden, John A. Work holding clamp. 3,079,883, 3–5–63, Cl. 113—99.

Dare, Earl J., to Columbian Bronze Corp. Anchor well 3,106,181, 10–8–63, Cl. 114—210.

Dare Products, Inc.: *See*—
Wilson, Robert M. 3,098,117.
Wilson, Robert M. 3,104,076.

Dargene, Carl J., to Amerock Corp. Drawer guide. 3,090,662, 5–21–63, Cl. 312—343.

Daria, Mary: *See*—
Field, Harold, and Daria. 3,081,367.

Darling, Alan S., to Johnson, Matthey & Co. Ltd. Production of powders of metal, alloy or other electrically conductive material. 3,115,569, 12–24–63, Cl. 219—69.

Darling, George W.: *See*—
Kimball, Richard H., and Darling. 3,112,339.

Darling, Horace E., to The Foxboro Co. Electrical ratio control magnetic amplifier. 3,085,208, 4–9–63, Cl. 330—8.

Darling, Horace E., to The Foxboro Co. Industrial process control apparatus employing magnetic amplification. 3,102,229, 8–27–63, Cl. 323—89.

Darling, James L., G. K. Merdinian, and J. N. Georas, to Eltel-McCullough, Inc. Support device. 3,077,980, 2–19–63, Cl. 206—46.

Darling, L. A., Co.: *See*—
Nowicki, Edwin J. 3,110,531.

Darling, Larry C. M., to Macro Development, Ltd. Apparatus for testing casing. 3,105,378, 10–1–63, Cl. 73—40.5.

Darling, Marvin C.: *See*—
Mayfield, Alfred B., and Darling. 3,091,132.

Darling, Ralph E., to Big Five Shoe Brake Corp. Brake mechanism. 3,085,660, 4–16–63, Cl. 188—78.

Darling, Samuel M.: *See*—
Emrick, Donald D., and Darling. 3,099,665.
Emrick, Donald D., and Darling. 3,104,255.

Darlington, Walter A., to Monsanto Chemical Co. Plant virus growth inhibitors. 3,085,931, 4–16–63, Cl. 167—33.

Darlington, William H., A. Dean, and J. Fulton, to Associated Electrical Industries (Manchester) Ltd. Turbine power plants. 3,100,067, 10–8–63, Cl. 60—102.

Darman, Joseph M., to Darman Mfg. Co., Inc. Towel roll winding machine. 3,097,806, 7–16–63, Cl. 242—57.

Darman Mfg. Co., Inc.: *See*—
Darman, Joseph M. 3,097,806.

Darmstadt, Louis J., and G. W. Fuller, to King-Seeley Thermos Co. Closure assembly for vacuum bottles. 3,115,981, 12–31–63, Cl. 215—13.

Darnell, George, to Damac Tool Co. Mold registering and locking device. 3,081,494, 3–19–63, Cl. 18—44.

Darnell, Walter T. Apparatus for spray drying pulverulent materials. 3,113,062, 12–3–63, Cl. 159—4.

Darnier-Werke G.m.b.H.: *See*—
Laufer, Theodor. 3,073,394.

Daro, Philip E.: *See*—
Serra, Gerald F. Daro, and Buchtenkirch. 3,108,473.

Da Roid, James: *See*—
Church, Donald R., and Da Roid. 3,101,422.

Da Roza, Frank G., H. Nowawski, and A. J. Schenk, to Jervis B. Webb Co. Station selector apparatus for conveyor installations. 3,077,164, 2–12–63, Cl. 104—88.

Darrell, George H. Target throwing trap. 3,108,582, 10–29–63, Cl. 124—6.

Darrieus, Georges, and F. Müllner, to Brown, Boveri & Cie, Aktiengesellschaft. Alternating current machine with magnetic shield enclosing end tube of stator winds. 3,100,271, 8–6–63, Cl. 310—256.

Darrow, Weudell L., and J. W. Kass, to FMC Corp. Process for the production of calcined phosphate agglomerates. 3,076,248, 2–5–63, Cl. 25—156.

Dart, David M., to The Marley Co. Apparatus for conditioning air prior to passage over liquid condensing means. 3,112,621, 12–3–63, Cl. 62—305.

Darton, Kenneth S.: *See*—
Cattermole, Kenneth W., Herman, Bezdel, and Darton. 3,073,903.

Darwin, Daniel P., D. K. Rex, and R. M. Kellogg, to International Business Machines Corp. Data storage apparatus. 3,107,346, 10–15–63, Cl. 340—174.1.

Darwin, Lee E. Fueling mechanism for automobiles. 3,095,020, 6–25–63, Cl. 141—232.

Darworth Inc.: *See*—
Donaldson, Chase. 3,091,262.
Donaldson, Chase. 3,113,061.

Das, Peter. Traction device. 3,108,587, 10–29–63, Cl. 128—75.

Daschke, Arthur W., to J-B-T Instruments, Inc. Vibrating reed electro-responsive device. 3,079,555, 2–26–63, Cl. 324—80.

D'Ascoli, Ralph G.: *See*—
Jore, Bjorn, D'Ascoli, and Olson. 3,098,116.

D'Ascoli, Ralph G., to Anaconda Wire and Cable Co. Fluid-cooled power cable. 3,111,551, 11–19–63, Cl. 174—15.

D'Ascoli, Ralph G., and L. C. Ebel, to Anaconda Wire and Cable Co. Method of making polyethylene-insulated power cables. 3,100,136, 8–6–63, Cl. 18—59.

Dash, Carl S. Variable resistor. 3,085,218, 4–9–63, Cl. 338—163.

Dash, Edward. Welding stud for electric arc welding. 3,114,031, 12–10–63, Cl. 219—99.

Dashwood, George, Jr. Cap for vertical exhaust pipe of internal combustion engine. 3,110,239, 11–12–63, Cl. 98—59.

Da Silva, Edward M., to International Business Machines Corp. Evaporative coating method. 3,104,178, 9–17–63, Cl. 117—106.

Daspit, John I., and D. C. Thomas, to Tasker Instruments Corp. Air traffic control system. 3,096,433, 7–2–63, Cl. 235—151.

Da Sylva, Gerald L.: *See*—
Futch, Robert N., and Da Sylva. 3,104,903.

Data Presentations, Inc.: *See*—
Foley, Daniel E., and Skrobisch. 3,099,711.

Data Products Corp.: *See*—
Irwin, Samuel N., and Booth. 3,087,421.

Datanamics, Inc.: *See*—
Biegel, Donald R., and Willis. 3,102,552.

Date, Kazuo H., to McGraw-Edison Co. Arc extinguishing chambers. 3,080,467, 3–5–63, Cl. 200—150.

Datex Corp.: *See*—
Bazard, Richard J. 3,076,598.
Spaulding, Carl P., and Wilson. 3,099,002.
Spaulding, Carl P., and Wilson. 3,099,003.

Datou, Robert H., to Corning Glass Works. Opaque glass and semiconductive device made therefrom. 3,114,863, 12–17–63, Cl. 317—234.

Datow, Joachim, and K. Wimmer, to Badische Anilin- & Soda-Fabrik Atkiengeselischaft. Production of nitriles from alcohols. 3,096,361, 7–2–63, Cl. 260—465.

Daubach, Ewald: *See*—
Deuschel, Werner, Gundel, Wuest, and Daubach. 3,074,950.

Daubenspeck, Benjamin K.: *See*—
Covington, Robert A., Jr., Daubenspeck, Dickey, and Yacko. 3,103,170.

Daubenspeck, Benjamin K., R. E. Dickey, D. S. Foote, and J. H. Whipple, to Remington Arms Co., Inc. Firearm cartridges. 3,099,958, 8–6–63, Cl. 102—42.

Daubert Chemical Co.: *See*—
Fessler, William A., Hutter, Buckmaster, and Stricker. 3,080,211.

D'Aubin, Leo G. Fast draw game apparatus. 3,095,195, 6–25–63, Cl. 273—1.

Daubman, Edward A., to Ametek, Inc. Centrifugal separators. 3,092,576, 6–4–63, Cl. 210—146.

Dauenhauer, Florian F. Power trommel. 3,102,857, 9–3–63, Cl. 209—308.

Dauenhauer, Florian F. Hop separation flights. 3,106,522, 10–8–63, Cl. 209—267.

Daugherty, Edgar P.: *See*—
Prezioso, Nicholas, Jr. 3,112,729.

Daugherty, Frank Z.: *See*—
Sebok, Albert L., and Daugherty. 3,096,929.

Daugherty, Frank Z., and A. L. Sebok, to Ametek Inc. Electric motor assembly. 3,096,451, 7–2–63, Cl. 310—42.

Daugherty, Phillip M., to Scripto, Inc. Flame-producing ignition device. 3,085,411, 4–16–63, Cl. 67—7.

Daugherty, Ralph K.: *See*—
Magnuson, Roy M., and Daugherty. 3,087,517.

Daugherty, Robert L., to Robertshaw-Fulton Controls Co. Load control device. 3,077,542, 2–12–63, Cl. 307—34.

Daugherty, Samuel S., to Burroughs Corp. Braille tape reader. 3,103,074, 9–10–63, Cl. 35—35.

Daugherty, T. Stevens, to Reynolds Metals Co. Method of forming wrought aluminous metal. 3,076,706, 2–5–63, Cl. 75—211.

Daugirdas, Kristupas, to Holtzer-Cabot, Corp. Gear reduction motor. 3,073,176, 1–15–63, Cl. 74—421.

Daugirdas, Kristupas, to Vapor Corp. Door operator. 3,104,098, 9–17–63, Cl. 268—53.

Daumy, Georges F. A. Gate-valve. 3,073,565, 1–15–63, Cl. 251—229.

Daunt, John G.: *See*—
Malaker, Stephen F., and Daunt. 3,074,244.

Dauphinee, Thomas McC., and H. Preston-Thomas, to National Research Council. Direct reading resistance thermometer. 3,087,337, 4–30–63, Cl. 73—362.

Dautremont, Joseph L., Jr., to Telautograph Corp. Telescriber communications system. 3,080,451, 3–5–63, Cl. 178—19.

Da Valle, Bruno. Apparatus for starting gasoline engine powered air compressors. 3,071,978, 1–8–63, Cl. 74—7.

Da Valle, Bruno. Pole gripping mechanism. 3,092,265, 6–4–63, Cl. 214—3.

Davenport, Arthur N.: *See*—
Jeffreys, Roy A., Davenport, and Saunders. 3,095,302.

Davenport, Earl K., to Republic Aviation Corp. Proportional fluid control apparatus. 3,103,228, 9–10–63, Cl. 137—98.

Davenport, Granger, to Norton Co. Machine tool lead screw. 3,113,488, 12–10–63, Cl. 90—4.

Davenport, Granger, and J. E. Van Acker, to Norton Co. Automatic hob shifter. 3,096,686, 7–9–63, Cl. 90—4.

Davenport Machine and Foundry Co.: *See*—
Hagen, Carl. 3,076,269.

Davenport, Philip A.: *See*—
Thonemanu, Peter C., Cowbig, and Davenport. 3,085,189.

Davenport, Thomas I., to The Budd Co. Photoelastic transducers. 3,096,388, 7–2–63, Cl. 88—14.

Davenport, William A., 25% to H. I. Jaffe, 25% to H. B. Lasting, and 25% to M. Forster. Putting cup. 3,074,722, 1–22–63, Cl. 273—177.

Davenport, William G., and E. C. Addison, to Beaumont Birch Co. Drainage type coal bunker gate. 3,104,747, 9–24–63, Cl. 193—21.

Daverman, Edward H.: *See*—
Rookus, James E. 3,089,628.

Davey, Gerald F., to Riley Stoker Corp. Method of welding. 3,110,103, 11–12–63, Cl. 29—491.

Davey, Hazel W. Combined cigarette package and ash tray. 3,112,029, 11–26–63, Cl. 206—41.

Davey, James R., J. S. Engel, and M. A. Flavin, to Bell Telephone Laboratories, Inc. Linear automatic volume control system. 3,080,524, 3–5–63, Cl. 325—187.

Davey, Paxman & Co. Ltd.: *See*—
Walford, Alexander G. 3,083,697.

Davey, Sidney M.: *See*—
Branda, Robert W., Davey, Ebbert, and McBride. 3,076,548.

Davey, Sidney M., R. J. Ebbert, and W. R. McBride; said Ebbert and McBride assors. to Davey. Packaging machine. 3,094,826, 6–25–63, Cl. 53—131.

Davey, Thomas R. A.: *See*—
Woods, Stephen E., and Davey. 3,080,227.

Davey, Thomas R. A., and W. L. Linton, to Metallurgical Processes Ltd. and The National Smelting Co. Ltd., doing business together as Metallurgical Development Co. Cooling arrangements for molten metals. 3,098,110, 7–16–63, Cl. 266—15.

David, Anthony: *See*—
Blumenstein, Walter K., and David. 3,094,121.

David, Charles E., to United States of America, Navy. Automatic gain control for transistor amplifier. 3,103,636, 9–10–63, Cl. 330—29.

David, Clara W.: *See*—
David, Edmonds and C. W. 3,082,759.

David, Edmonds and C. W. Fireplace closure. 3,082,759, 3–26–63, Cl. 126—155.

David, Edward E., Jr., to Bell Telephone Laboratories, Inc. Sound control system. 3,109,066, 10–29–63, Cl. 179—1.

David, Edward E., Jr., and J. R. Pierce, to Bell Telephone Laboratories, Inc. Pitch synchronous autocorrelation vocoder. 3,109,070, 10–29–63, Cl. 179—15.55.

David, Edward J., to Ivers-Lee Co. Method of and apparatus for making a suppository package. 3,092,940, 6–11–63, Cl. 53—29.

David, Freddy, to General Dynamics Corp. Solid-state binary code multiplexing and demultiplexing device. 3,105,875, 10–1–63, Cl. 178—50.

David, George J.: *See*—
Stoehr, Rudolph O., and David. 3,106,614.

David Industries: *See*—
Barnes, George W. 3,092,429.

David, Lawrence J., to E. I. du Pont de Nemours and Co. Lubricating device. 3,096,986, 7–9–63, Cl. 277—32.

Davidon, Jack, to Merritt-Chapman & Scott Corp. Submergible barge structure for off-shore operations. 3,081,600, 3–19–63, Cl. 61—46.5.

Davids, John H., to Desalination Plants (Developers of Zardin Process) Ltd. Means for freezing exposure of salt water in a salt water purification system. 3,103,792, 9–17–63, Cl. 62—123.

Davidson, Alastair R., to A. B. Plastics Ltd. Access doors. 3,094,238, 6–18–63, Cl. 220—25.

Davidson, Arthur R.: *See*—
Lamb, Frank G., and Davidson. 3,109,468.

Davidson, Charles A., to Thermotank, Inc. Air distributor valve. 3,099,949, 8–6–63, Cl. 98—40.

Davidson, Charles R., Jr., and W. P. Mitchell, to Pittsburgh Plate Glass Co. Handling rigid sheet articles. 3,084,969, 4–9–63, Cl. 294—118.

Davidson, Charles R., Jr., to Pittsburgh Plate Glass Co. Apparatus for gripping and supporting glass sheets. 3,092,413, 6–4–63, Cl. 294—86.

Davidson, Charles S.: *See*—
Fender, Norman N., and Davidson. 3,079,809.

Davidson, Donald E., to Davidson Optronics, Inc. Optical instrument for determining rotation of a remote object. 3,114,842, 12–17–63, Cl. 250—234.

Davidson, Edward E., to Howard Smith Co. Rotary wash screen setting combination and rotary washing tool therefor. 3,101,784, 8–27–63, Cl. 166—158.

Davidson, Emil: *See*—
Hammond, Cleon, and Davidson. 3,112,825.

Davidson, Emil, to Guild Molders, Inc. Decanter assembly. 3,073,473, 1–15–63, Cl. 215—48.

Davidson, Emil, to Guild Molders, Inc. Sealing device. 3,092,281, 6–4–63, Cl. 215—40.

Davidson, Emil, to Guild Molders, Inc. Dispenser. 3,109,427, 11–5–63, Cl. 128—261.

Davidson, Frank H. Ornament for pierced ears having pendant attaching means. 3,071,938, 1–8–63, Cl. 63—13.

Davidson, Glenn. Method of making a cylindrical filter element for cigarette tips. 3,094,450, 6–18–63, Cl. 156—209.

Davidson, Howard M., to Paramount Fabricating Co. Rocker arm and method of making the same. 3,096,749, 7–9–63, Cl. 123—90.

Davidson, Hugh W., to The General Electric Co. Ltd. Production of graphite. 3,104,159, 9–17–63, Cl. 23—209.1.

Davidson, Hugh W., and J. W. Ryde, to The General Electric Co. Ltd. Methods of joining graphitic surfaces. 3,097,931, 7–16–63, Cl. 29—195.

Davidson, Ian, and E. L. Jewett, to Florida Brace Corp. Surgical brace. 3,095,875, 7–2–63, Cl. 128—78.

Davidson, Ivor M., and I. C. Cheeseman, to Power Jets (Research and Development) Ltd. Aerofoil systems. 3,109,494, 11–5–63, Cl. 170—135.4.

Davidson, James C., to Burroughs Corp. Blocking oscillator comprising cascaded transistor pair with impedance means to control output pulse width. 3,115,587, 12–24–63, Cl. 307—88.5.

Davidson, James J., to Radio Corp. of America. Transistor amplifier circuits utilizing a Zener diode for stabilization. 3,080,528, 3–5–63, Cl. 330—22.

Davidson, James P.: *See*—
Renard, Roland E., and Davidson. 3,085,532.

Davidson, James P., and E. A. Glassey. Density control apparatus. 3,089,502, 5–14–63, Cl. 137—90.

Davidson, John D., to Westinghouse Electric Corp. Automatic synchronizing system. 3,073,963, 1–15–63, Cl. 307—87.

Davidson, John K., to United States of America, Atomic Energy Commission. Fuel element for a nuclear reactor. 3,111,475, 11–19–63, Cl. 204—193.2.

Davidson, Joseph W., to American Machine & Foundry Co. Thresher. 3,074,415, 1–22–63, Cl. 131—145.

Davidson, Louis. Pallet for industry. 3,092,046, 6–4–63, Cl. 108—56.

Davidson, Louis. Load bearing industrial pallet. 3,099,969, 8–6–63, Cl. 108—56.

Davidson Optronics, Inc.: *See*—
Davidson, Donald E. 3,114,842.

Davidson, Paul J.: *See*—
Currin, Elbert E., and Davidson. 3,099,237.

Davidson, Per, to Sandvikens Jernverks Aktiebolag. Hot top casing for casting molds. 3,072,981, 1–15–63, Cl. 22—147.

Davidson, Per, to Sandvikens Jernverks Aktiebolag. Ingot mold hot top structure. 3,076,239, 2–5–63, Cl. 22—147.

Davidson, Richard S., Jr., to Hughes Aircraft Co. Low pass filter. 3,076,947, 2–5–63, Cl. 333—79.

Davidson, Robert W., to Vari-Typer Corp. Photocomposing machine. 3,079,146, 2–26–63, Cl. 271—5.

Davidson Rubber Co., Inc.: *See*—
Hood, Bruce G. and R. S., and Gardella. 3,101,244.
Hood, Bruce G. and R. S., and Gardella. 3,111,365.

Davidson, William L., P. E. Levesque, and H. K. Latourette, to FMC Corp. Vulcanizable rubber composition containing, as a reinforcing agent, a partial polyvalent metal salt of coal derived humic acids. 3,075,931, 1–29–63, Cl. 260—17.4.

Davies, Alan Co.: *See*—
Giddings, Ronald W., and Davies. 3,095,431.

Davies, Ben, and A. L. Renkey, to Harbison Walker Refractories Co. Refractory compositions. 3,075,848, 1–29–63, Cl. 106—58.

Davies, Ben, and E. P. Weaver, to Harbison-Walker Refractories Co. Burned refractory product. 3,106,475, 10–8–63, Cl. 106—58.

Davies, Ben, and O. M. Wilken, to Harbison-Walker Refractories Co. Firing of dolomite and lime refractories. 3,108,860, 10–29–63, Cl. 25—156.

Davies, David A.: *See*—
Bland, Albert N., and Davies. 3,083,804.

Davies, David E. N.: *See*—
Tucker, David G., and Davies. 3,099,833.

Davies, David K., and E. E. Schoessow, to The Babcock & Wilcox Co. Heat exchange apparatus. 3,084,742, 4–9–63, Cl. 165—133.

Davies, David R., to Associated Electrical Industries (Manchester) Ltd. Mechanical handling apparatus for loading and unloading heterogeneous nuclear reactors. 3,071,529, 1–1–63, Cl. 204—193.2.

Davies, Edward R., to Jered Industries, Inc. Torque responsive clutch disconnect mechanism. 3,107,765, 10–22–63, Cl. 192—56.

Davies, Evan H., Jr. Fuel oil piping system with pressure responsive safety device. 3,094,162, 6–18–63, Cl. 158—42.1.

Davies, Gail F., to Clevite Corp. Steering and speed control for jet propelled vehicles. 3,113,429, 12–10–63, Cl. 60—35.54.

Davies, Gilbert E., and G. L. Gasparini, to Superior Ball Joint Corp. Joint having set screw with non-marring grooved engaging face. 3,095,222, 6–25–63, Cl. 287—52.08.

Davies, Harry S., to Lever Brothers Co. Apparatus for preforming and prefolding cartons. 3,104,598, 9–24–63, Cl. 93—53.

Davies, Jack, to The Ever Ready Co. (Great Britain) Ltd. Galvanic cells. 3,095,331, 6–25–63, Cl. 136—107.

Davies, James A., to Texaco Inc. Hydrocarbon conversion process. 3,097,250, 7–9–63, Cl. 260—683.62.

Davies, James J.: *See*—
Walles, Wilhelm E., Davies, and Gold. 3,086,865.

Davies, John R.: *See*—
Caldwell, Harry F., and Davies. 3,112,238.

Davies, Leslie D., to Pittsburgh Plate Glass Co. Cylinder leak stopping device. 3,084,828, 4–9–63, Cl. 220—57.

Davies, Mervin W.: *See*—
Busby, Terence S., and Davies. 3,088,898.

Davies, Raymond J., and P. D. Mills, to Dunlop Rubber Co. Ltd. Fluid-pressure suspension system for a tractor semi-trailer assembly having a coupling controlled release. 3,081,109, 3–12–63, Cl. 280—423.

Davies, Richard E., and L. J. Rosen, to Marco Chemical Corp. Composition comprising a polyester and a ring member containing two pairs of conjugated ethylenic linkages, method of cross linking same and cross-linked product. 3,078,253, 2–19–63, Cl. 260—45.4.

Davies, Richard J.: *See*—
Gregoire, Stephen E., Davies, and Schroeder. 3,084,303.
Twaddell, Russell W., Davies, and Hanni. 3,086,070.

Davies, Richard S., to Philco Corp. Object detecting system. 3,088,111, 4–30–63, Cl. 343—12.

Davies, Robert R., and C. E. Vellins, to Imperial Chemical Industries Ltd. Metal-containing azo dyestuffs having sulphonyloxy-substituted alkyl sulphone groups. 3,086,967, 4–23–63, Cl. 260—145.

Davies, Thomas J., to United Kingdom Atomic Energy Authority. Metal fabrication. 3,112,165, 11–26–63, Cl. 18—59.2.

Davies, Trevor, N. Fletcher, and J. E. McIntyre, to Imperial Chemical Industries Ltd. Manufacture of filament and film-forming polyesters. 3,074,913, 1–22–63, Cl. 260—75

Davies, Will S.: *See*—
Marshall, Edmund V., and Davies. 3,099,938.

Davies, William, to The United Steel Companies Ltd. Production of sinter. 3,083,090, 3–26–63, Cl. 75—5.

Davies, William R. Attachment for patio chaise lounge and combination. 3,107,941, 10–22–63, Cl. 297—170.

Davin, Joseph, to American Brake Shoe Co. Pressure balanced vane. 3,102,493, 9–3–63, Cl. 103—135.

Davino, Alphonso. Suspended rapid transit constructions. 3,081,711, 3–19–63, Cl. 104—95.

Davis Aircraft Products Inc.: *See*—
Higuchi, Nori. 3,081,506.
Higuchi, Nori. 3,081,869.
Higuchi, Nori. 3,110,071.

Davis, Alice B. Diaper panty. 3,072,123, 1–8–63, Cl. 128—284.

Davis, Ariel R. Spotlight. 3,116,022, 12–31–63, Cl. 240—3.

Davis, Benjamin L., and W. C. Myberg, to United States of America, Navy. Tape capacitor. 3,098,955, 7–23–63, Cl. 317—242.

Davis, Billy E., and L. E. Gormley, to Computers, Inc. Flow meter. 3,097,527, 7–16–63, Cl. 73—205.

Davis, Calvin D., Jr., to G. Mohi. Apparatus for dispensing rolled paper. 3,101,913, 8–27–63, Cl. 242—55.53.

Davis, Charles A., to W. J. Young Machinery Co., Inc. Nailing machine feed mechanism. 3,071,291, 1–1–63, Cl. 221—68.

Davis, Charles J., to Massey-Ferguson Inc. Combination frame and stabilizer construction for tractor mounted equipment. 3,079,009, 2–26–63, Cl. 212—145.

Davis, Charles J., to Davis Mfg., Inc. Two speed transmission. 3,091,975, 6–4–63, Cl. 74—330.

Davis, Charles J. Crawler trencher with tiltable body. 3,099,098, 7–30–63, Cl. 37—86.

Davis, Charles L.: *See*—
Roper, Dean W., Davis, and Wingrove. 3,091,153.

Davis, Charles L., J. R. Blanchard, and C. S. Shira, to North American Aviation, Inc. Brazing alloy application method. 3,091,029, 5–28–63, Cl. 29—496.

Davis, Charles L., and J. W. Alexander, to Phillips Petroleum Co. Cooling subdivided product. 3,112,186, 11–26–63, Cl. 34—10.

Davis, Charles L., J. W. Alexander, and J. B. Wallace, to Phillips Petroleum Co. Method for latex coagulation. 3,112,288, 11–26–63, Cl. 260—33.6.

Davis, Charles M., Jr., to United States of America, Navy. Magnetostrictive ferrite. 3,078,234, 2–19–63, Cl. 252—62.5.

Davis, Charles R., to Robinson Technical Products, Inc. Shock and vibration isolating mountings for aircraft engines and the like. 3,078,557, 1–15–63, Cl. 248—5.

Davis, Charles S.: *See*—
Cahill, Frank T., and Davis. 3,074,241.

Davis, Charles S. Patient chair. 3,083,055, 3–26–63, Cl. 297—345.

Davis, Charles S. Hook and lure protective device for fishing rods. 3,086,312, 4–23–63, Cl. 43—25.2.

Davis, Charles T. Elastic shuttle drive. 3,109,462, 11–5–63, Cl. 139—145.

Davis, Chester. Novel method of eradicating certain colors. 3,103,405, 9–10–63, Cl. 8—102.

Davis, Claude E., Jr. Method for attaching a fitting to a pipe. 3,070,874, 1–1–63, Cl. 29—157.

Davis, Claude G., to Bell Telephone Laboratories, Inc. Dual encoder for PCM. 3,073,904, 1–15–63, Cl. 179—15.

Davis, Clyde O., and J. I. Reilly, to E. I. du Pont de Nemours and Co. Explosive method of powder compaction. 3,081,498, 3–19–63, Cl. 18—59.3.

Davis, Clyde W.: *See*—
Murdock, Stanley A., Davis, and Ehlers. 3,072,599.
Murdock, Stanley A., Davis, and Ehlers. 3,072,600.
Murdock, Stanley A., Davis, and Ehlers. 3,082,186.
Murdock, Stanley A., Davis, and Ehlers. 3,083,176.
Murdock, Stanley A., Davis, and Ehlers. 3,083,179.
Murdock, Stanley A., Davis, and Ehlers. 3,084,138.

Davis, Craig E., to Raymond Bag Corp. Manufacture of multi-wall bag having heat-sealed liner. 3,097,618, 7–16–63, Cl. 112—10.

Davis, Curtis W., Jr.: *See*—
Walters, Emmett L., Davis, and Young. 3,107,456.

Davis, Curtis W., Jr., D. A. Ottens, and D. A. St. John, to Libbey-Owens-Ford Glass Co. Method and apparatus for surfacing glass. 3,103,085, 9–10–63, Cl. 51—112.

Davis, Curtis W., Jr., D. E. Carney, J. F. Kurick, and D. A. Schultz, to Libbey-Owens-Ford Glass Co. Polishing composition feed system. 3,107,463, 10–22–63, Cl. 51—283.

Davis, David A., to Link-Belt Co. Screw conveyor coupling. 3,072,243, 1–8–63, Cl. 198—213.

Davis, Debs V. Rotary bit stabilizing structure. 3,104,726, 9–24–63, Cl. 175—331.

Davis, Dee C., F. A. Traino, and J. Dichtiar, to Wolverine Diesel Power Co. Power transmissions. 3,078,972, 2–26–63, Cl. 192—35.

Davis, Delmar B., to Titanium Metals Corp. of America. Purification of crude titanium tetrachloride. 3,108,854, 10–29–63, Cl. 23—87.

Davis, Donal B., and A. B. Matthews. Stud bolt remover. 3,104,569, 9–24–63, Cl. 81—53.

Davis, Donald G., to Douglas Aircraft Co., Inc. Antenna float with actuating system. 3,112,447, 11–26–63, Cl. 325—118.

Davis, Donald W.: *See*—
Ptertyl, Sidney V., and Davis. 3,080,316.

Davis, Donald W., to Lighting Products, Inc. Lighting diffuser. 3,096,032, 7–2–63, Cl. 240—106.

Davis, Donna M.: *See*—
Frye, Carl L., Jr., Orman, and Davis. 3,078,620.

Davis, Donovan C., L. A. Ule, and J. R. Stoltz, to Gilfillan Bros., Inc. Frequency discriminator. 3,076,940, 2–5–63, Cl. 329—140.

Davis, Donovan C., and B. Cutler, to Gilfillan Bros. Inc. Automatic video switching device. 3,080,557, 3–5–63, Cl. 343—7.7.

Davis, Earl K., to Bausch & Lomb Inc. Neutral colored glass composition. 3,094,423, 6–18–63, Cl. 106—52.

Davis, Edward J., to United States of America, Navy. Integral nozzle separator for a multi-stage reaction motor. 3,086,359, 4–23–63, Cl. 60—35.6.

Davis, Edward J. A.: *See*—
Davis, Frederick L. and E. J. A., and Berry. 3,073,089.

Davis, Edward M., Jr., to International Business Machines Corp. Pulse counter using tunnel diodes and having an energy storage device across the diodes. 3,094,631, 6–18–63, Cl. 307—88.5.

Davis, Edward W., to United States Forgecraft Corp. Snap hook. 3,105,280, 10–1–63, Cl. 24—234.

Davis, Elwood A.: *See*—
Plunkett, Gilman, and Davis. 3,107,852.

Davis, Elwood T.: *See*—
Cranch, Edward J., Davis, and Voorhoeve. 3,092,321.

Davis, Elwin W., to C. L. Berger & Sons, Inc. Hand level with mirror. 3,085,465, 4–16–63, Cl. 88—2.3.

Davis, Ernest, to Ward Industries Corp. Pressing machine. 3,087,658, 4–30–63, Cl. 223—52.1.

Davis, Eugene L. Well pumps for abrasive fluids. 3,098,452, 7–23–63, Cl. 103—165.

Davis, Eugene L., Jr., to E. I. du Pont de Nemours and Co. Improved apparatus for collecting annular strand packages. 3,075,343, 1–29–63, Cl. 57—76.

Davis, Evan E., Jr., to Sun Oil Co. Removal of pepper sludge from acid treated mineral oils. 3,108,062, 10–22–63, Cl. 208—274.

Davis, Felix A.: *See*—
Appelt, Weldon F., and Davis. 3,115,848.
Goodell, Murel G., Appelt, and Davis. 3,090,326.
Goodell, Murel G., Appelt, and Davis. 3,092,041.

Davis, Floyd. Ball throwing device. 3,092,093, 6–4–63, Cl. 124—4.

Davis, Floyd O., and W. E. Bush. Safflower decorticator. 3,104,692, 9–24–63, Cl. 146—293.

Davis, Francis E., Jr., and A. Ramella, to Socony Mobil Oil Co., Inc. Two-stage pretreatment of reformer charge naphtha. 3,071,542, 1–1–63, Cl. 208—254.

Davis, Frank L. Lock pin with pivotable cam means and having substantially 360° holding effect. 3,081,663, 3–19–63, Cl. 85—5.

Davis, Frank L. Seat belt buckle. 3,091,010, 5–28–63, Cl. 24—77.

Davis, Frank L. Litter and stacking cot. 3,104,401, 9–24–63, Cl. 5—82.

Davis, Frank L. Safety belt buckle. 3,104,440, 9–24–63, Cl. 24—230.

Davis, Frederick B., 3rd, to Leeds and Northrup Co. Generation control system. 3,071,693, 1–1–63, Cl. 307—53.

Davis, Frederick J. Impact tamping roller. 3,114,305, 12–17–63, Cl. 94—50.

Davis, Frederick L. and E. J. A., and F. D. Berry, to London Rubber Co. Ltd. Packaging machines. 3,073,089, 1–15–63, Cl. 53—180.

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Kooistra, John A. 3,077,069.
Kooistra, John A. 3,107,479.

Davis, George E.: *See*—
Mead, Gile A., Dale, and Davis. 3,090,505.

Davis, George T.: *See*—
Turbak, Albin F., and Davis. 3,079,337.

Davis, Glenn B. Surround for horizontal cemetery grave marker tablets. 3,082,559, 3–26–63, Cl. 40—124.5.

Davis, Gordon A., G. P. Trost, and J. W. White, to Texas Instruments Inc. Method of bonding the abutted edges of metal members. 3,070,880, 1–1–63, Cl. 29—471.1.

Davis, Gordon P., to Electric & Musical Industries Ltd. Alkali metal generators. 3,096,211, 7–2–63, Cl. 117—224.

Davis, Harold C., L. H. Jordan, and J. Arden, to D. & W. Truck Load Indicator Ltd. Load measuring apparatus for vehicles. 3,109,505, 11–5–63, Cl. 177—137.

Davis, Harry E. Twisted plastic sticks. 3,112,604, 12–3–63, Cl. 57—154.

Davis, Henry B. O.: *See*—
Meyers, Robert A., Davis, and Dietrich. 3,105,145.

Davis, Herman E.: *See*—
Goins, Rex H., and Davis. 3,096,324.
McConnell, Wayne V., and Davis. 3,082,258.

Davis, Herman E., and V. A. Hoyle, Jr., to Eastman Kodak Co. Unsaturated esters of 2,2,4-trimethyl 1,3-pentanediol monoisobutyrate. 3,082,243, 3–19–63, Cl. 260—486.

Davis, Horace R.: *See*—
Landrum, Billy F., Davis, and Errede. 3,087,916.

Davis, Horace R., Jr., F. J. Honn, C. B. Griffis, and J. C. Montermoso, to Minnesota Mining and Mfg. Co. Cross-linking of polymers. 3,071,565, 1–1–63, Cl. 260—77.5.

Davis, Howard C.: *See*—
Weiss, Robert L., Hunt, and Davis. 3,090,063.

Davis, Howard C., R. H. Eichorn, F. D. Pannett, H. E. Trumbull, and J. W. Wagner, to Xerox Corp. Document feed mechanism. 3,100,112, 8–6–63, Cl. 271—53.

Davis, Hugh F. Multiple separable fastener device for body harness. 3,106,004, 10–8–63, Cl. 24—205.17.

Davis, Hugo: *See*—
Feltx, Joseph, and Davis. 3,100,004.

Davis, Irwin J.: *See*—
Goldberg, Albert I., and Davis. 3,108,986.

Davis, Isaac: *See*—
Jacobson, Donald, and Davis. 3,084,442.

Davis, James C., and S. B. Spracklen, to Beckman Instruments, Inc. Peak value detector. 3,114,090, 12–10–63, Cl. 318—65.

Davis, James C., Jr., to Raytheon Co. Frequency multipliers. 3,080,525, 3–5–63, Cl. 328—38.

Davis, James E.: *See*—
Freund, Dean H., and Davis. 3,096,753.

Davis, James E., to General Motors Corp. Rotary actuator. 3,090,244, 5–21–63, Cl. 74—89.

Davis, James E., to Whirlpool Corp. Home appliance. 3,090,371, 5–21–63, Cl. 126—21.

Davis, James E. P., to Sierra Engineering Co. Back pack. 3,106,323, 10–8–63, Cl. 224—25.

Davis, James F. Coffee maker. 3,072,042, 1–8–63, Cl. 99—283.

Davis, James K., to Corning Glass Works. Method of stabilizing the electrical resistance of a metal oxide film. 3,108,019, 10–22–63, Cl. 117—201.

Davis, James T.: *See*—
Hamilton, Thomas E. 3,110,307.

Davis, Jerome I., J. E. Steinback, and R. J. Enyeart, to Consolidated Diesel Electric Corp. Apparatus for ground handling of heavy aircraft. 3,089,557, 5–14–63, Cl. 180—14.

Davis, John B., to The Permutit Co. Ltd. Electrodialysis cells and inserts therefor. 3,085,970, 4–16–63, Cl. 204—301.

Davis, John C. Electromagnetic contact device. 3,115,560, 12–24–63, Cl. 200—87.

Davis, John H. Means for audibly reproducing printed data. 3,114,980, 12–24–63, Cl. 35—35.

Davis, John H., Jr.: *See*—
Kuzell, Charles R., Fowler, Klein, and Davis. 3,071,454.

Davis, John S., to Equitable Paper Bag Co. Inc. Hospital refuse bag or the like. 3,109,578, 11–5–63, Cl. 229—62.

Davis, John V., to The Udylite Corp. Frameless track automatic conveying apparatus. 3,100,453, 8–13–63, Cl. 104—128.

Davis, John V., and L. J. Pianowski, to The Udylite Corp. Work handling apparatus. 3,074,418, 1–22–63, Cl. 134—76.

Davis, John V., and L. J. Pianowski, to The Udylite Corp. Apparatus for liquid treating and conveying work. 3,078,859, 2–26–63, Cl. 134—66.

Davis, Kenneth J., to National Broach & Machine Co. Gear finishing tool. 3,088,251, 5–7–63, Cl. 51—168.

Davis, Kenneth J., to National Broach & Machine Co. Automatic loader. 3,095,980, 7–2–63, Cl. 214—1.

Davis, Kenneth J., to National Broach & Machine Co. Gear finishing machine. 3,110,224, 11–12–63, Cl. 90—1.6.

Davis, Kent L.: *See*—
Davis, Steven S. and K. L. 3,096,280.

Davis, Lee C.: *See*—
Hanson, Elco E. Re. 25,349.

Davis, Linly H., and J. E. Ellsworth. Folding shelter. 3,097,400, 7–16–63, Cl. 20—2.

Davis, Louis A. Portable gun type spot welder. 3,080,470, 3–5–63, Cl. 219—86.

Davis, Lyle. Marine anchor. 3,071,095, 1–1–63, Cl. 114—208.

Davis Mfg., Inc.: *See*—
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Mayfield, Alfred B., and Darling. 3,091,132.

Davis, Marion H. Driven variable pitch pulley. 3,114,271, 12–17–63, Cl. 74—230.17.

Davis, Martin A.: *See*—
Winthrop, Stanley O., and Davis. 3,084,155.

Davis, Martin A., to American Home Products Corp. 10-(2-morpholinoethoxyacetyl) phenothiazine and its preparation. 3,074,939, 1–22–63, Cl. 260—243.

Davis, Martin A., to American Home Products Corp. Phenothiazine derivatives and their preparation. 3,084,162, 4–2–63, Cl. 260—243.

Davis, Martin A., to American Home Products Corp. 2-(dimethylaminoethoxy) ethyl trimethoxybenzoate and its hydrochloride. 3,091,630, 5–28–63, Cl. 260—473.

Davis, Martin A., to American Home Products Corp. Derivative of 4-phenyl-carbethoxypiperidine, and salts thereof. 3,094,528, 6–18–63, Cl. 260—243.

Davis, Martin A., to American Home Products Corp. 2-(thiamorpholinoethoxy)ethyl phenothiazine-10-carboxylate and salt thereof. 3,104,239, 9–17–63, Cl. 260—243.

Davis, Martin A., and S. O. Winthrop, to American Home Products Corp. 3,4-dihydro-6-sulfamyl-3-oxo-2H-1,4-benzothiazine and process for preparation. 3,071,584, 1–1–63, Cl. 260—243.

Davis, Martin A., and S. O. Winthrop, to American Home Products Corp. 5-(3'-(4-phenyl-4-carbethoxy piperidino) propylidene) dibenzo (a,d) (1,4) cycloheptadiene. 3,074,953, 1–22–63, Cl. 260—294.3.

Davis, Martin A., and S. O. Winthrop, to American Home Products Corp. Alicyclic carbamate and its preparation. 3,104,256, 9–17–63, Cl. 260—482.

Davis, Marvin A., to Westinghouse Electric Corp. Digital position control servosystem. 3,099,777, 7–30–63, Cl. 318—28.

Davis, Mary A.: *See*—
Leland, Gerald H., and Davis. 3,075,395.

Davis, Matthew W., Jr.: *See*—
Erhart, Francis J., and Davis. 3,075,688.

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Davis, Merton L., to E. I. du Pont de Nemours and Co. Acrylonitrile fiber and process for preparing same. 3,097,415, 7–16–63, Cl. 28—82.

Davis, Michael. Soft sided luggage construction. 3,084,771, 4–9–63, Cl. 190—41.

Davis, Mike B. Cellular cigarette package. 3,087,609, 4–30–63, Cl. 206—56.

Davis, Miles: *See*—
Ceraami, Americo J., Codichini, Davis, and Lewis. 3,105,425.

Davis, Oliver F.: *See*—
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Davis, Perry J. Means for preparing mattress profile chart. 3,100,992, 8–20–63, Cl. 73—172.

Davis, Phil E., bankrupt: W. Perry, trustee, to Sperry Rand Corp. Trip mechanism for rotary multiple blade scraper. 3,089,264, 5–14–63, Cl. 37—143.

Davis, Ralph A.: *See*—
Rub, Robert P., Davis, and Allswede. 3,092,458.

Davis Ralph E.: *See*—
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Davis, Ray F.: *See*—
Gudmundsen, Austin, and Davis. 3,098,325.

Davis, Raymond C.: *See*—
Mathues, Thomas O., Beck, Davis, and Forward. 3,088,539.

Davis, Raymond L., II, to Leeds and Northrup Co. Measurement and control of constituent potentials. 3,084,999, 4–9–63, Cl. 23—232.

Davis, Richard C., and D. C. Wood, to Whirlpool Corp. Method of bleaching fibrous material. 3,113,928, 12–10–63, Cl. 252—187.

Davis, Richard S.: *See*—
Blau, Henry H., Jr., and Davis. 3,077,539.

Davis, Richmond L., W. C. Williams, and J. L. Hanner, to United Carbon Co., Inc. (Maryland). Multiple unitizer. 3,073,431, 1–15–63, Cl. 198—209.

Davis, Robert E., Jr.: *See*—
Davis, Robert E., Sr., and R. E. Davis, Jr. 3,091,247.

Davis, Robert E., Sr., and R. E. Davis, Jr. Steel clip for holding coiled hair. 3,091,247, 5–28–63, Cl. 132—41.

Davis, Robert H., and E. Laug, to Socony Mobil Oil Co., Inc. Cutting fluid. 3,071,545, 1–1–63, Cl. 252—34.7.

Davis, Robert L., to United States of America, Navy. Ring for imparting spin. 3,088,376, 5–7–63, Cl. 89—1.7.

Davis, Robert O., to The Gene Olsen Corp. Block molding machine. 3,107,410, 10–22–63, Cl. 25—41.

Davis, Robert S., to Scientific Design Co., Inc. Condenser for recovery of sublimable materials. 3,084,914, 4–9–63, Cl. 257—300.

Davis, Robley W., and J. H. Wagner, to Pan American Petroleum Corp. Method for treating selected formations penetrated by a well. 3,111,988, 11–26–63, Cl. 166—42.

Davis, Roy C., to Dresser Industries, Inc. Gas lift check valve. 3,089,431, 5–14–63, Cl. 103—232.

Davis, Roy L. Explosive powered knock out punch. 3,074,165, 1–22–63, Cl. 30—228.

Davis, Selby B.: *See*—
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Davis, Steven S., to The Eimco Corp. Filtration apparatus. 3,075,647, 1–29–63, Cl. 210—401.

Davis, Steven S. and K. L., to The Eimco Corp. Filter apparatus. 3,096,280, 7–2–63, Cl. 210—404.

Davis, Steven S., and R. C. Bunker, to The Eimco Corp. Belt aligning apparatus. 3,116,244, 12–31–63, Cl. 210—401.

Davis, Thomas L.: *See*—
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Davis, Thomas R., to Goodman Mfg. Co. Load responsive belt training troughing idler assembly. 3,078,981, 2–26–63, Cl. 198—192.

Davis, Thomas R., to Goodman Mfg. Co. Belt training troughing idler assembly. 3,078,982, 2–26–63, Cl. 198—192.

Davis, Thomas R., to Goodman Mfg. Co. Troughing roller assemblies. 3,106,286, 10–8–63, Cl. 198—192.

Davis, Wallace C. Boatless water skiing facility. 3,080,164, 3–5–63, Cl. 272—32.

Davis, Walter: *See*—
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Davis, Walter H., Jr., to Monsanto Chemical Co. Apparatus for packaging tow. 3,083,437, 4–2–63, Cl. 28—21.

Davis, William A., and J. S. Van Alaburg, to Chicago Bridge & Iron Co. Mast extension jib. 3,074,564, 1–22–63, Cl. 212—64.

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Davis, William D., and A. J. Miller, said Davis assor. to Amserv., Inc. Treatment of mouths of animals. 3,087,857, 4–30–63, Cl. 167—53.2.

Davis, William F. Means for regulating fluid control apparatus. 3,110,254, 11–12–63, Cl. 101—365.

Davis, William ..., to The Polymer Corp. Filling of polytetrafluoroethylene. 3,080,258, 3–5–63, Cl. 117—100.

Davis, William L., Jr., to United States Steel Corp. Heat exchanger and method. 3,075,580, 1–29–63, Cl. 165—1.

Davis, William P.: *See*—
Garfield, Sidney R., and Davis. 3,099,020.

Davis, William R., to Sonoco Products Co. Container with pouring spout. 3,096,011, 7–2–63, Cl. 229—17.

Davis, William R., to Sonoco Products Co. Dispenser carton. 3,114,474, 12–17–63, Cl. 221—92.

Davis, William T., Jr., and F. M. Murdock, to Anchor Serum Co. Bacterin in aqueous polyethylene, mineral oil emulsion. 3,099,601, 7–30–63, Cl. 167—78.

Davison, Gordon W.: *See*—
Ferm, Glenn O., and Davison. 3,079,495.

Davison, James M., and W. W. McGaughy, to Union Carbide Corp. Polyolefin purification with diethylene glycol monobutyl ether. 3,083,192, 3–26–63, Cl. 260—93.7.

Davison, Richard R., and D. W. Hood, to United States of America, Interior. Mixed solvents for saline water extraction. 3,088,909, 5–7–63, Cl. 210—22.

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Strang, John M., Davy, and Hope. 3,111,570.

Davy and United Engineering Co., Ltd.: *See*—
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Bond, Harry L. F. 3,100,605.
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Daw, Donald G., to American Flange & Mfg. Co. Inc. Paint brushes and the like. 3,076,989, 2–12–63, Cl. 15—192.

Dawe, Ernest L., and E. L. Dawe, Jr. Wheel structure with replaceable segments and method. 3,083,585, 4–2–63, Cl. 74—243.

Dawe, Ernest L., Jr.: *See*—
Dawe, Ernest L., and E. L. Dawe, Jr. 3,083,585.

Dawe, Garfield A., E. F. Ewen, and P. H. Sherrick, to E. H. Sargent & Co. Measuring and recording instrument. 3,087,115, 4–23–63, Cl. 324—100.

Dawes, Bailey P. Rudder and rudder-propeller combination. 3,082,728, 3–26–63, Cl. 114—166.

Dawes, Leslie J., to The Bendix Corp. Variable-restriction valve. 3,093,155, 6–11–63, Cl. 137—269.

Dawkins, Kenneth, to Franklin Mfg. Co. Miniaturized hydrometer. 3,079,887, 3–5–63, Cl. 116—114.

Dawkins, Kenneth, to Studebaker Corp. Charge terminating circuits. 3,098,188, 7–16–63, Cl. 320—31.

Dawrs, Harvey P., to Libby, McNeill & Libby. Soil tilling and fumigating apparatus. 3,111,917, 11–26–63, Cl. 111—6.

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Monnikendam, Philip, and Dawson. 3,078,314.

Dawson, Douglas W.: *See*—
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Dawson, Edward: *See*—
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Dawson, Euzell. Spraying device. 3,097,794, 7–16–63, Cl. 239—78.

Dawson, Fred, H. Perry, and E. O. Peterson, to Compo Shoe Machinery Corp. Machine for grinding and roughing shoe bottoms. 3,110,989, 11–19–63, Cl. 51—135.

Dawson, Jack C.: *See*—
Jacobson, John W., and Dawson. 3,107,023.

Dawson, John, to Ericsson Telephones Ltd. Electrical pulse counting devices. 3,116,457, 12–31–63, Cl. 328—44.

Dawson, John B., and B. Krzesinski, to Courtaulds Ltd. Production of crimped filaments. 3,084,993, 4–9–63, Cl. 18—54.

Dawson, Joseph C., and R. P. Millard, to Ferguson Fumigants, Inc. Fumigation of grain. 3,097,916, 7–16–63, Cl. 21—58.

Dawson, Norman D., to Miles Laboratories, Inc. N-2-propynyl alkylenediamines. 3,106,553, 10–8–63, Cl. 260—247.5.

Dawson, Percy B., Jr., and B. E. Wheeler, to Baldwin-Lima-Hamilton Corp. Governor controller. 3,110,472, 11–12–63, Cl. 253—24.

Dawson, Richard B., to Corn Products Co. Animal feeding block and process for preparing the same. 3,087,820, 4–30–63, Cl. 99—2.

Dawson, Timothy L., I. D. Rattee, I. Seltzer, and A. H. Wyld, to Imperial Chemical Industries Ltd. Process for coloring cellulose textile materials with water-insoluble reactive dyestuffs. 3,084,016, 4–2–63, Cl. 8—54.2.

Dawson, William H., Jr., and D. W. Simpson, to Curtiss-Wright Corp. Simulated r.p.m. system for propeller-type aircraft. 3,078,595, 2–26–63, Cl. 35—12.

Dawson, William O., and R. K. Fraser. Launching device for water skiers. 3,095,845, 7–2–63, Cl. 114—43.5.

Dawson-Vogel Engineering Co.: *See*—
Vogel, Arthur E. 3,104,114.

Day, Donald B., and W. J. Koerner, to The Marquardt Corp. Nutating disc internal combustion engine. 3,102,517, 9–3–63, Cl. 123—8.

Day, Charles E.: *See*—
Mambourg, James E., Sporer, and Day. 3,074,568.

Day Co., N.Y.: *See*—
Zeblisky, Rudolph J., McCormack, Williamson, and Schnoble. 3,095,309.

Day, Frederick M. Thrust augmentation for fluid current propulsion motors. 3,092,184, 6–4–63, Cl. 170—135.28.

Day, Guy C. Paint roller. 3,103,690, 9–17–63, Cl. 15—510.

Day, Harold R., Jr., to General Electric Co. Method of making storage electrode structure. 3,116,191, 12–31–63, Cl. 156—3.

Day, Harry W.: *See*—
Wick, Edward J., and Day. 3,100,464.

Day, James M.: *See*—
Stoops, Charles E., and Day. 3,112,252.

Day, James R., deceased; L. O. Day, executrix, to Radio Engineering Laboratories, Inc. Frequency modulated generators. 3,111,633, 11–19–63, Cl. 332—23.

Day, John J., Jr., and W. E. Craver, Jr., to Craver Industries, Inc. Automatic contour die cut-off apparatus. 3,082,656, 3–26–63, Cl. 83—320.

Day, Kelly B., Jr., and R. G. Rinadli, to International Business Machines Corp. Comparing circuit. 3,107,339, 10–15–63, Cl. 340—146.2.

Day, Leslie A., to Imperial Chemical Industries Ltd. Ferrocene derivatives. 3,109,852, 11–5–63, Cl. 260—439.

Day, Leslie R., to Monroe Calculating Machine Co. Flexible record transport apparatus. 3,098,617, 7–23–63, Cl. 242—55.11.

Day, Louise O.: *See*—
Day, James R. 3,111,633.

Day, Maurice J.: *See*—
Dulls, Edward J., and Day. 3,075,839.

Day, Nancy, and M. Epstein, to American Cyanamid Co. Organophosphorus compounds and methods of preparing same. 3,116,314, 12–31–63, Cl. 260—465.

Day, Raymond N. Vehicle carrying tractor-trailer. 3,084,970, 4–9–63, Cl. 296—1.

Day, Richard J., to The Avon India Rubber Co. Ltd. Central buffing and draft gear. 3,082,882, 3–26–63, Cl. 213—49.

Day, Robert H.: *See*—
Day, William B. and R. H. 3,104,888.

Day, Robert L., and H. L. Williams, to American Frame Co. Prefabricated door frame and molding structure. 3,107,759, 10–22–63, Cl. 189—46.

Day, Roy. Water heating device for livestock tanks. 3,078,840, 2–26–63, Cl. 126—360.

Day, William B. and R. H. Disassembleable ski. 3,104,888, 9–24–63, Cl. 280—11.13.

Day, William M., to Landers, Frary & Clark. Coffee basket assembly. 3,081,693, 3–19–63, Cl. 99—312.

Day, William M., to The C. A., Olsen Mfg. Co. Air cooled condenser. 3,115,757, 12–31–63, Cl. 62—507.

Day, Winterton U., H. F. Donnelly, and H. L. Rohs, to Kimberly-Clark Corp. Manufacture of cellulosic product. 3,096,228, 7–2–63, Cl. 162—112.

Day-Brite Lighting, Inc.: *See*—
Garnett, Willard R. 3,077,536.

Dayco Corp.: *See*—
Rothermel, Edward M. 3,115,898.
Waddell, Russell B., Jr. 3,091,261.

Dayden William R., J. W. Harrison, and L. W. Keller, to W. R. Grace & Co. Method of decorating heat shrinkable, irradiated, biaxially oriented polyethylene. 3,081,571, 3–19–63, Cl. 41—26.

Day's, Mrs., Ideal Baby Shoe Co., Inc.: *See*—
McGinnity, James R. 3,077,621.

Daystrom, Inc.: *See*—
Barber, Gene D. 3,105,154.
Barber, Gene D., and Waddell. 3,105,155.
Blanco, Elias. 3,100,883.
Cherundolo, Michael, and Wandel. 3,100,407.
Gilbert, Roswell W. 3,074,057.
Hageman, George F. 3,089,340.
Keogh, Howard G., Jr. 3,087,066.
King, Robert R. 3,073,283.
Langford, Robert C., and Sippach. 3,077,560.
Malaker, Stephen F. 3,086,471.
McConnell, James L. 3,090,005.
Nichols, Basil B. 3,105,158.
Norris, Bevitt J., Nichols, Gilbert, and Cohen. 3,087,147.
Pignone, Joseph. 3,077,368.
Rouy, Auguste L. M. A. 3,113,171.
Stolar, Gerard, Gropp, and Higley. 3,095,537.
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Welss, Eric. 3,094,609.
Williams, David R. 3,112,693.
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Dayton, Arthur B., Jr., to The Risdon Mfg. Co. Cosmetic container. 3,108,687, 10–29–63, Cl. 206—56.

Dayton, Charles A., and J. D. Kirby; said Kirby assor. to said Dayton. Work-actuated rotary brush. 3,106,732, 10–15–63, Cl. 15—28.

Dayton, David R.: *See*—
Biggs, Orrick H., Wroblewski, and Dayton. 3,096,568.
Biggs, Orrick H., Wroblewski, and Dayton. 3,096,805.

Dayton Machine Tool Co.: *See*—
Stults, John O. 3,087,366.

Dayton Rogers Mfg. Co.: *See*—
Dulebohn, David H., and Gold. 3,084,576.
Gold, Robert M. 3,081,746.

Dayton Steel Foundry Co., The: *See*—
Dotto, Gianni A., and Walther. 3,081,843.
Walther, Daniel A. 3,079,175.
Walther, George, Sr. 3,090,649.

Dayton, Wilbur T., to W. W. Mildrum Jewel Co. Manufacture of guide holders. 3,080,638, 3–12–63, Cl. 29—33.

Dazey, Harry D. Solicitation kit for fund raising drives. 3,115,351, 12–24–63, Cl. 282—22.

Deacon, Albert H.: *See*—
Walker, Gordon R., and Deacon. 3,081,099.

Deacon, George P. Electrical heating devices. 3,095,491, 6–25–63, Cl. 219—19.

Deacon, James S. Methods and apparatus for mixing foundry sand. 3,070,858, 1–1–63, Cl. 22—89.

Deady, Emmett F.: *See*—
Reed, Stanley F., Houghton, and Deady. 3,103,954.

Deady, Emmett F., S. F. Reed, and D. E. Houghton, to Cambridge Wire Cloth Co. Method and apparatus for weft projection. 3,095,910, 7–2–63, Cl. 139—127.

Deal, Bruce E., and W. Peterson, to Raytheon Co. Chemical reactor. 3,098,763, 7–23–63, Cl. 118—49.5.

Deal, Elmer F., I. M. Richlin, and B. W. Wilson, to Lithoplate, Inc. Resinous coatings adapted to receive a light-sensitive layer in the production of lithographic printing plates. 3,073,723, 1–15–63, Cl. 117—161.

Deal, Robert L. Handle for cans, bottles and the like. 3,088,767, 5–7–63, Cl. 294—31.2.

Dealer Associates, Inc.: *See*—
Brewer, William L., Jr. 3,112,599.

Dean, Albert G., to The Budd Co. Sidewall-to-floor connection for vehicles. 3,102,498, 9–3–63, Cl. 105—397.

Dean, Albert G., and P. W. Gaenssle, to The Budd Co. Third rail shoe mount. 3,089,005, 5–7–63, Cl. 191—49.

Dean, Arthur: *See*—
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Dean, Francis H., to Pak-Mar Mfg. Co. Power transmission assembly for refuse handling vehicles. 3,074,571, 1–22–63, Cl. 214—82.

Dean, Frank J., Jr., to Tempmaster Corp. Air mixing and sound attenuating chamber. 3,094,189, 6–18–63, Cl. 181—36.

Dean, George A., to The Benson Mfg. Co. Contra-rotating blower. 3,083,893, 4–2–63, Cl. 230—117.

Dean, Gordon W., to Cannon Electric Co. Electrical connector insulator block construction. 3,072,340, 1–8–63, Cl. 339—49.

Dean, Harry N.: *See*—
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Dean, Harry N., to Johns-Manville Corp. Method and apparatus for continuously gathering fiber. 3,073,136, 1–15–63, Cl. 18—8.

Dean, Harry N., and A. W. Olson, to Libbey-Owens-Ford Glass Co. Apparatus for producing multiple glass sheet glazing units. 3,097,943, 7–16–63, Cl. 65—152.

Dean, James C. Moving window display system. 3,082,294, 3–19–63 Cl. 178—6.8.

Dean, James M. Flying toy. 3,109,256, 11–5–63, Cl. 46—74.

Dean, Karl C., to United States of America, Interior. Flotation process for concentration of pollucite ores. 3,107,215, 10–15–63, Cl. 209—166.

Dean, Lester M., and W. D'Esopo. Insulated butter dispenser. 3,097,899, 7–16–63, Cl. 312—36.

Dean, Lloyd G.: *See*—
Olstowski, Franciszek, and Dean. 3,114,684.

Dean, Mills, III, to United States of America, Navy. Waterproofing strain gages. 3,089,107, 5–7–63, Cl. 338—2.

Dean, Peter P. Two-speed power transmission. 3,115,791, 12–31–63, Cl. 74—750.

Dean, Ralph K., E. J. Slatkovski, and H. E. Wegner, to National Distillers and Chemical Corp. Ventilated metal awning. 3,098,267, 7–23–63, Cl. 20—57.5.

Dean, Reginald I. R. Torque pins. 3,089,334, 5–14–63, Cl. 73—139.

Dean, Reginald I. R. Torque recorders. 3,099,155, 7–30–63, Cl. 73—134.

Dean, Robert B.: *See*—
Booth, Clifford C., and Dean. 3,100,754.
Boschert, Ulrich, and Dean. 3,083,183.

Dean, Ronald A., and R. B. Girdler, to The British Petroleum Co. Ltd. Removal of metals from petroleum fractions. 3,098,816, 7–23–63, Cl. 208—253.

Dean, Val B., to The Union Supply Co. Means for joining flexible belts. 3,093,005, 6–11–63, Cl. 74—232.

Dean, Walter B., to The Budd Co. Column gripping means. 3,079,789, 3–5–63, Cl. 73—93.

Dean, Walter B., H. W. Wessells III, and B. Labaree, to The Budd Co. Fabricated spoked wheel. 3,080,198, 3–5–63, Cl. 301—64.

Dean, Walter B., H. W. Wessells, III, and B. Labaree, to The Budd Co. Method and apparatus for testing vehicle bodies. 3,113,452, 12–10–63, Cl. 73—91.

Deaner, Leland D. Posture indicating device and hat. 3,099,245, 7–30–63, Cl. 116—67.

De Angelis, Donald. Zipper attachment for overcoat. 3,085,249, 4–16–63, Cl. 2—97.

De Angelus, Millet R.: *See*—
Dersch, Fritz, and De Angelus. 3,071,465.
Dersch, Fritz, and De Angelus. 3,084,044.

Dear, Ervin J., and R. W. Staples. Ore pulverizer with centrifugal impact action. 3,096,037, 7–2–63, Cl. 241—275.

Dearborn Chemical Co.: *See*—
Hwa, Chih M. 3,078,236.
Kerst, Herman. 3,080,747.
Kerst, Herman. 3,116,105.
Rai, Charanjit, Tehle, and Kambara. 3,101,319.

Dearborn, Elizabeth C., and P. K. Isaacs, to W. R. Grace & Co. Carboxylic acid-polyethylene polyamine reaction mixture. 3,093,655, 6–11–63, Cl. 260—309.6.

Dearborn, Eugene L. Lay-out gage. 3,078,585, 2–26–63, Cl. 33—189.

Dearborn, Robert J., to Hooker Chemical Corp. Flameproof paper and process of making same. 3,087,836, 4–30–63, Cl. 117—136.

Dearling, Harry S., to Charles of The Ritz, Inc. Powder box. 3,103,224, 9–10–63, Cl. 132—82.

Dearsley, George, to American Machine & Foundry Co. Cigarette making machine. 3,074,414, 1–22–63, Cl. 131—84.

Dearsley, George, to American Machine & Foundry Co. Method of making a cigarette having a composite filter plug. 3,081,778, 3–19–63, Cl. 131—94.

Dearsley, George, to American Machine & Foundry Co. Mouthpiece cigarette making machine. 3,094,128, 6–18–63, Cl. 131—94.

Dearsley, George, to American Machine & Foundry Co. Cigarette making machine and method. 3,096,770, 7–9–63, Cl. 131—21.

Deaton, Charles U. Bi-level desk. 3,079,207, 2–26–63, Cl. 312—195.

Deaton, Charles U. Chair. 3,087,758, 4–30–63, Cl. 297—445.

Deaton, Charles U. Light-ray baffle construction. 3,088,025, 4–30–63, Cl. 240—78.

Deaver, Charles G.: *See*—
Deaver, Lloyd C. and C. G. 3,100,540.

Deaver, Lloyd C. and C. G. Stone picking implement. 3,100,540, 8–13–63, Cl. 171—63.

De Back, William. Apparatus for blanching comestibles. 3,086,444, 4–23–63, Cl. 99—239.

De Back, William, to FMC Corp. Apparatus for handling articles. 3,102,630, 9–3–63, Cl. 198—78.

De Baere, Richard D. Self-gripping and readily releasable rope tie. 3,085,823, 4–16–63, Cl. 289—17.

De Barba, Albert E., to Consolidated Electronics Industries Corp. Means for effecting undirectional rotation. 3,101,137, 8–20–63, Cl. 192—4.

De Barr, Albert E.: *See*—
Linnert, Arthur, Catling, and De Barr. 3,109,204.

De Beaubien, William J., to General Motors Corp. Heating systems with shut-off. 3,084,867, 4–9–63, Cl. 237—12.3.

De Beaubien, William J., and J. H. Flatt, to General Motors Corp. Multi-stroke fluid power actuator. 3,077,186, 2–12–63, Cl. 121—48.

De Beausacq, Alfred R. Safety securing means for skis. 3,079,163, 2–26–63, Cl. 280—11.35.

De Beer, Edwin J., deceased, by H. I. de Beer, executrix; said E. J. de Beer, assor. to Burroughs Wellcome & Co. (U.S.A.) Inc. Method for the treatment of clonic type seizures. Re. 25,502, 12–24–63, Cl. 167—65.

De Beer, Helen I.: *See*—
De Beer, Edwin J. Re. 25,502.

De Bell, John M., W. S. Larson, and K. W. Flynn, to Cheney Bigelow Wire Works, Inc. Seam structure for Fourdrinier type screen fabric and method of making same. 3,109,219, 11–5–63, Cl. 28—74.

De Benneville, Peter L., and H. W. Blessing, to Rohm & Haas Co. Chlorinated 2-iminoisopyrroles. 3,072,673, 1–8–63, Cl. 260—313.

De Benneville, Peter L., and H. W. Blessing, to Rohm & Haas Co. Tetra- and pentachlorinated cyanoesters. 3,082,241, 3–19–63, Cl. 260—465.4.

De Benneville, Peter L., and H. W. Blessing, to Rohm & Haas Co. Process for preparing monochlorinated cyanoesters. 3,110,723, 11–12–63, Cl. 260—465.4.

De Besme, Henry G., and W. Weiss, to Rotary Hospital Equipment Corp. Facial massage mask. 3,094,118, 6–18–63, Cl. 128—39.

De Blasi, Charles P. Material spreader for use on a dump truck. 3,071,382, 1–1–63, Cl. 275—8.

De Blasi, Charles P. Spreader and hopper assemblies with lump eliminator. 3,072,290, 1–8–63, Cl. 222—23.

De Boer, Clarence: *See*—
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De Boer, Clarence, A. Dietz, L. R. E. Johnson, T. E. Eble, and H. Hoeksema, to The Upjohn Co. Decoyinine. 3,094,460 6–18–63, Cl. 167—65.

De Boer, Geert, to Volma, N.V. Cheese mold assembly. 3,098,297, 7–23–63, Cl. 31—44.

De Boer, Herman R., T. E. King, and E. L. Knoechel, to The Upjohn Co. Process for sealing capsules. 3,071,513, 1–1–63, Cl. 167—83.

De Bogory, Alexander, Sr. Hernia support. 3,091,238, 5–28–63, Cl. 128—95.

Debol, Herbert H.: *See*—
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De Boice, William F., to North American Aviation, Inc. Passive control circuit for electrostatic bearing. 3,098,679, 7–23–63, Cl. 308—8.

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Marra, Maria V., and De Bonis. 3,091,339.

De Bottari, Louis A.: *See*—
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De Bough, Bjorn N. Automatic watering systems. 3,113,724, 12–10–63, Cl. 239—63.

De Boy, Marvin F.: *See*—
Flexman, Ralph E., and De Boy. 3,081,886.

Debrie, André V. L. C. Means for guiding film in cinematographic apparatus. 3,112,053, 11–26–63, Cl. 226—89.

De Brosse, Kenneth L., to International Telephone and Telegraph Corp. Optical search system. 3,087,986, 4–30–63, Cl. 178—6.8.

De Bruin, Calvin N.: *See*—
Burns, Leo C., Warrick, and De Bruin. 3,105,695.

De Bruyne Norman A., to Techne (Cambridge) Ltd. Improved apparatus for testing the viscosity of a liquid. 3,081,621, 3–19–63, Cl. 73—55.

Debs, Victor, to American Machine & Foundry Co. Workholding device having means for angular cutoff. 3,083,006, 3–26–63, Cl. 269—110.

De Buhr, Harold E., and B. G. Sawyer, to Deere & Co. Bale handling mechanism. 3,115,976, 12–31–63, Cl. 214—83.3.

De Buigne, Carl, to United States of America, Atomic Energy Commission. Extrusion cladding apparatus. 3,095,973, 7–2–63, Cl. 207—4.

Debus, Karl, to Linotype G.m.b.H. Multidistributing device for die-setting and line-casting machines. 3,080,046, 3–5–63, Cl. 199—39.

Debus, Karl, to Linotype G.m.b.H. Keyboard lock. 3,107,771, 10–22–63, Cl. 197—107.

De Butts, Edward H., J. T. Hays, and H. L. Young, to Hercules Powder Co. Preparation of ethers of p-nitrosophenol. 3,107,205, 10–15–63, Cl. 260—512.

De Callatay, Armand. Suspension insensitive to brief force applicable to vehicles and engine bearers. 3,106,388, 10–8–63, Cl. 267—65.

De Camillis, Mason, J. J. Hoehn, and W. E. Johnson, to Radio Corp. of America. Combined sensing and switching device. 3,076,069, 1–29–63, Cl. 200—61.41.

De Camp, Albert E., to The Williamson Co. Electric heating unit. 3,111,571, 11–19–63, Cl. 219—34.

De Carbo, Charles J., and J. W. Korda, to The Leece-Neville Co. Electric generating systems. 3,086,161, 4–16–63, Cl. 322—11.

De Carbon, Christian M. L. L. B. Shock absorbers. 3,088,556, 5–7–63, Cl. 188—88.

De Caro, Charles J., to Olin Mathieson Chemical Corp. Fastener device. 3,074,071, 1–22–63, Cl. 1—44.5.

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Decatur, Paul S., to The Maytag Co. Time delay control apparatus. 3,084,799, 4–9–63, Cl. 210—144.

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Matthews, Robert, and Knowles. 3,076,120.
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Parker, Eric. 3,113,292.
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De Cerma, Paolo, and R. Vironda, to Montecantini Societa Generale per l'Industria Mineraria e Chimica. Process for degreasing and oxalating in a single spray stage. 3,116,177, 12–31–63, Cl. 148—6.14.

De Cesare, Nicholas. Cement block cap plate construction. 3,109,260, 11–5–63, Cl. 50—190.

Dechamps, Elsa: *See*—
Binon, Fernand A. G., and Dechamps. 3,096,368.

Dechamps, Georges J. L. *See*—
Binon, Fernand A. G., and Dechamps. 3,096,368.

Dechau, Edward, Jr. Log debarker feed apparatus. 3,100,514, 8–13–63, Cl. 144—208.

De Chelbor, William J., to Novo Industrial Corp. Carrying case for soft drinks and the like. 3,107,026, 10–15–63, Cl. 220—21.

Dechene, Joseph N. G., to E. I. du Pont de Nemours and Co. Guide. 3,083,931, 4–2–63, Cl. 242—157.

Dechene, Joseph N. G., to E. I. du Pont de Nemours and Co. Melt level alarm. 3,102,301, 9–3–63, Cl. 18—8.

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Deckel, Dr. Ing. Hans: *See*—
Ostler, Josef. 3,103,746.

Deckel, Friedrich W.: *See*—
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Deckel, Hans: *See*—
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Zwick, Kurt. 3,085,477.

Decker, David L., to Collins Radio Co. Overload and short circuit protector for transistor voltage regulator. 3,079,543, 2–26–63, Cl. 323—22.

Decker, Elmer L., to Martin Decker Corp. Mud gauge. 3,080,758, 3–12–63. Cl. 73—414.

Decker, Hanns, H.-J. Maeder, and P. Wehren, to Klockner-Humboldt-Deutz Aktiengesellschaft. Grinding mill of the swinging type with a plurality of grinder drums. 3,082,965, 3–26–63, Cl. 241—153.

Decker, Herman W. Method and apparatus for applying liquids. 3,079,090, 2–26–63, Cl. 239—142.

Decker, Johannes B., and H. Meder, to Klockner-Humboldt-Deutz Aktiengesellschaft. Briquetting roller press for compacting ore coal and similar material. 3,072,043, 1–8–63, Cl. 100—168.

Decker, Raymond F., A. J. Goldman, and J. T. Eash, to The International Nickel Co., Inc. Age-hardenable, martensitic iron-base alloys. 3,093,519, 6–11–63, Cl. 148—31.

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Decker, William H., to Maxant Button & Supply Co. Fabric-faced belt-buckle and forming device. 3,091,141, 5–28–63, Cl. 79—5.

Deckert, Franz, to Daimler-Benz Aktiengesellschaft. Frame construction for vehicles. 3,108,836, 10–29–63, Cl. 296—28.

De Claire, Alton G., Jr., and W. H. Cowles, to Holley Carburetor Co. Ratio computing device. 3,073,166, 1–15–63, Cl. 73—419.

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De Corte, Michael A., to Ford Motor Co. Break point fluid pressure governor mechanism. 3,086,541, 4–23–63, Cl. 137—56.

De Corte, Michael A., and R. W. Townsend, to Ford Motor Co. Automatic transmission control system. 3,085,449, 4–16–63, Cl. 74—752.

De Corte, Michael A., R. O. Dameron, and R. P. Zundel, to Ford Motor Co. Automatic power transmission control. 3,103,831, 9–17–63, Cl. 74—677.

De Courcy, Rowland J. J., to Baker Perkins Inc. Link conveyor with article supported hook. 3,097,736, 7–16–63, Cl. 198—177.

De Courteix, Joseph B., to Societe Civile d'Etude de Procedes de Scellement. Packings for anchoring missiles. 3,072,912, 1–15–63, Cl. 1—44.5.

De Courteix, Joseph B., to Societe Civile d'Etudes de Procedes de Scellement. Casing for the controlled plugging by means of plugging guns and the like apparatus. 3,110,032, 11–12–63, Cl. 1—44.5.

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De Kanter, Scipio, to General Electric Co. Heat pump having drain pan heating means. 3,077,084, 2-12-63, Cl. 62—278.

Dekel, Joseph. Clip construction. 3,111,129, 11-19-63, Cl. 132—48.

Dekel, Joseph. Clip construction. 3,111,130, 11-19-63, Cl. 132—48.

Dekker, Arien. Crude-oil burners. 3,102,577, 9-3-63, Cl. 158—66.

De Klotz, Leonard A., to Tregreen Co. Christmas tree stand. 3,073,538, 1-15-63, Cl. 248—48.

De Kolb, Eric, to Coty, Inc. Atomizers. 3,086,716, 4-23-63, Cl. 239—333.

De Koning, Arle A.: *See*—
Van Eldik Thieme, Herman C. A., and Keizer. 3,092,137.

De Koning, Cornelis, to North American Philips Co., Inc. Device for selectively erasing two or more adjacent magnetic tracks of a magnetic tape. 3,102,170, 8-27-63, Cl. 179—100.2.

De Koning, Edwin W. Stacker apparatus. 3,092,266, 6-4-63, Cl. 214—6.

De Koning, Jacob, to Stamicarbon N.V. Discharging device for a bunker. 3,104,038, 9-17-63, Cl. 222—409.

De Koning, Kornelis K. K.: *See*—
Van Eldik Thieme, Herman C. A., and Keizer. 3,092,137.

De Kuzmik, Paul, deceased (by J. R. Montgomery). Electronic pressure measuring means for internal combustion engines responsive to pressure caused spark gap resistance charge. 3,101,444, 8-20-63, Cl. 324—33.

De Laat, Theodorus H. J.: *See*—
Tauttner, Erwin, and De Laat. 3,088,080.

Delachanal, Michel: *See*—
Grenon, Michel, Berthod, Cohen de Lara, Delachanal, and Halbronn. 3,074,874.

Delachanal, Michel to Societe Grenobloise d'Etudes et d'Applications Hydrauliques and Commissariat a l'Energie Atomique. Apparatus and process for sorting solid particle material in a fluidized liquid medium. 3,075,643, 1-29-63, Cl. 209—158.

Delachapelle, Richard P., and H. T. Hidler, to Sylvania Electric Products Inc. Electroluminescent devices with overload protection. 3,109,958, 11-5-63, Cl. 315—74.

Delachapelle, Richard P., and H. T. Hidler, to Sylvania Electric Products Inc. Electroluminescent device with a fusible element. 3,109,959, 11-5-63, Cl. 315—74.

Delacretaz, Richard E., to Monsanto Chemical Co. Molecular weight control in polymerization of vinylidene monomers. 3,110,702, 11-12-63, Cl. 260—85.5.

De la Cuadra, Antonio, J. L. Jimenez, and J. L. Torrubiano. Electric impulse generating system for spectral analysis with controlled arc. 3,102,971, 9-3-63, Cl. 315—171.

De Lacy, Joseph H.: *See*—
Suter, Oswald, and De Lacy. 3,076,966.

De Lacy, Joseph H. Drive socket insert for bolt heads having tapered conical surface to match bolt. 3,078,754, 2-26-63, Cl. 85—45.

Delafontaine, Charles, to Bank of America National Trust and Savings Association. Strip sharpening method. 3,071,904, 1-8-63, Cl. 51—281.

Delamater, William B., to Imperial Valve Co. Flush valve for toilet tanks. 3,115,153, 12-24-63, Cl. 137—426.

De Lancey, Leslie W., to E. I. du Pont de Nemours and Co. Flexible tool. 3,086,411, 4-23-63, Cl. 78—1.

De Lancey, Warren H., to Hardel Laboratories. Gas or fluid compressor. 3,081,932, 3-19-63 Cl. 230—58.

De Lancey, Warren H., to Hardel Laboratories. Clutch motor. 3,082,335, 3-19-63, Cl. 310—78.

Delaney, Augustine P., to McGraw-Edison Co. Metal enclosed switchgear. 3,080,459, 3-5-63, Cl. 200—50.

Delaney Gallay Ltd.: *See*—
Morley, Frederick W. W., Wilkinson, and Broad. 3,082,-010.

Delaney, Louis A.: *See*—
Colvin, Charles H., and Delaney. 3,071,189.

Delaney, Vincent N., to The Torrington Mfg. Co. Blower wheel blade construction and method of assembly. 3,091,-384, 5-28-63, Cl. 230—134.

Delaney, William, to Kadison Laboratories, Inc. Method of dust-proofing of an edible, dry, finely divided product and the resulting product. 3,082,095, 3-19-63, Cl. 99—140.

Delano, James K., deceased; A. G. Steinmetz, administrator, to J. K. Delano. Compact fuel burner with electric ignition means. 3,071,182, 1-1-63, Cl. 158—28.

De Lano, Walter W.: *See*—
Yost, Kenneth J., and De Lano. 3,105,982.

Delaporte, Louis A., and J. A. Denisselle. Electromagnetic valves. 3,098,635, 7-23-63, Cl. 251—54.

De Lapp, Darwin F.: *See*—
Malley, Thomas J., and De Lapp. 3,073,677.
Malley, Thomas J., De Lapp, Giddings, and Cosway. 3,102,000.

De Larber, Mathew. Putty removing tool. 3,091,852, 6-4-63, Cl. 30—172.

De La Rue Instruments, Ltd.: *See*—
Middleditch, Stanley W. 3,077,983.

Delaruelle, Jacques, and M. Banal, to Electricite de France (Service National, and Gaz de France (Service National). Floats. 3,114,920, 12-24-63, Cl. 9—8.

De Lashmutt, Robert F. Toggle switch extension actuator. 3,077,789, 2-19-63, Cl. 74—503.

De Lashmutt, Robert F. Electrical cord plug retainer. 3,102,922, 9-3-63, Cl. 174—135.

De la Sierra, Carlos, to Gadget-of-the-Month Club, Inc. Drafting machine. 3,103,747, 9-17-63, Cl. 33—174.

De Laval Separator Co., The: *See*—
Cierl, Frank V. 3,091,799.

De Laval Steam Turbine Co.: *See*—
Wagner, Vincent S. 3,094,041.

De Laval Turbine Inc.: *See*—
McFarland, Chester R. 3,103,892.
Rieppel, Perry J., Niemann, Sopher, and Pennell. 3,104,-313.
Sennet, Morgan B. 3,086,474.
Sennet, Morgan B. 3,103,894.

Delavan Electronics Corp.: *See*—
Richard, Grant M. and K. L. 3,105,213.

Delavan Mfg. Co.: *See*—
Soth, John M. 3,095,153.

De Lay, Manford S., 21.55% to R. B. Melhaus, and 21.55% to G. T. Moran. Load-equalizing device for trailers. 3,087,-741, 4-30-63, Cl. 280—81.

Delbert, Guy J. Resuscitator. 3,091,236, 5-28-63, Cl. 128—29.

Del Bo, Giorgio, to Universal Business Machines Corp. Check writer. 3,078,790, 2-26-63, Cl. 101—95.

Delbove, Emile, to General American Transportation Corp. Methods of making printed electric circuits. 3,081,525, 3-19-63, Cl. 29—155.5.

Del Chiocca, Frank, to McNab, Inc. Time recording maneuvering system and safety device. 3,082,423, 3-19-63, Cl. 346—33.

Delcon Corp.: *See*—
Simpkins, Alan B. 3,114,800.

De Leo, Richard V.: *See*—
Werner, Frank D., and De Leo. 3,099,160.

De Leo, Vito R. *See*—
Valeriotti, George N., and De Leo. 3,080,571.

De Leon Methods, Inc.: *See*—
De Leon, Paul A. 3,070,935.

De Leon, Paul A., to De Leon Methods, Inc. Water degasifier. 3,070,935, 1-1-63, Cl. 55—170.

Delevoy, Victor, and F. Cassalette, to Ateliers de Constructions Electriques de Charlerol. Circuit interrupter. 3,086,-097, 4-16-63, Cl. 200—144.

Delevoy, Victor, and F. Cassalette, to Ateliers de Constructions Electriques de Charlerol. Circuit interrupter. 3,086-098, 4-16-63, Cl. 200—144.

Delf, George A., and A. E. Stevenson, to Narragansett Gymnasium Equipment Co. Floating floor anchor. 3,087,206, 4-30-63, Cl. 20—6.

Delf, George A., and R. E. Kortum, to Narragansett Gymnasium Equipment Co. Folding bleacher. 3,088,176, 5-7-63, Cl. 20—1.126.

Delfin, Juan, to Dow Corning Corp. Method of clarifying cane sugar juice. 3,097,970, 7-16-63, Cl. 127—48.

Del Francia, Joel A., to Institutional Food Equipment Corp. Fully adjustable electrical broiler. 8,098,427, 7-23-63, Cl. 99—446.

Del Franco, Guy J.: *See*—
Aronoff, Eli J., Del Franco, and Rooney. 3,083,171.
Hamermesh, Charles L., Bolstad, and Del Franco. 3,077,-427.

Delfs, Detlef: *See*—
Bocker, Ernst, Delfs, Unterstenhofer, and Behrenz. 3,111,539.

Delfs, Hans J., to Babcock & Wilcox Ltd. Apparatus for classifying air-dust mixture. 3,078,651, 2-26-63, Cl. 55—422.

Delgar, Inc.: *See*—
Gardel, Rober*, and Rogovin. 3,077,052.

Delguste, Paul, to Ateliers de Constructions Electriques de Charleroi. Apparatus for the preservation and regeneration of insulating oil for electrical apparatus provided with an oil reservoir. 3,098,891, 7-23-63, Cl. 174—15.

Del'Homme, Daniel L.: *See*—
Kucera, Clement M., and Del'Homme. 3,099,324.

Delliere, Edouard: *See*—
Brichard, Edgard, Plumat, Meunier, and Delliere. 3,088,-850.

De Lisle, Auguste L., to Phoenix Gems, Inc. Method of drying dilute biological solutions to prepare a food supplement. 3,078,164, 2-19-63, Cl. 99—2.

De Lisle, Auguste L., to Phoenix Gems, Inc. Production of improved synthetic stone bodies with controlled properties. 3,078,175, 2-19-63, Cl. 106—97.

Delisle, Robert H.: *See*—
Cronin, Edward F., Johnston, and Delisle. 3,101,386.

Dell, Harold R., to Link Aviation, Inc. Character generation and display. 3,090,041, 5-14-63, Cl. 340—324.

Dell, Joseph C., B. R. Fauber, V. P. Poe, and F. J. Peters, deceased (by I. F. Peters, administratrix); said Poe assor. to Aluminum Burial Vaults of America, Inc. Burial vaults. 3,070,868, 1-1-63, Cl. 27—35.

Dell, Paul A., and E. G. Fridrich, to General Electric Co. Mechanism for forming ribbon leads. 3,102,443, 9-3-63, Cl. 80—25.

Dellario, Patrick J., to General Electric Co. Rotary compressor injection cooling arrangement. 3,105,633, 10-1-63, Cl. 230—139.

Deller, Konrad, to Alweg-Forschung G.m.b.H. Monorail vehicles. 3,095,828, 7-2-63, Cl. 105—144.

Deller, William B.: *See*—
Warman, Bloomfield J., and Deller. 3,075,183.
Warman, Bloomfield J., and Deller. 3,075,184.
Warman, Bloomfield J., and Deller. 3,085,162.

Dellert, Richard M.: *See*—
Case, Everett N., Patinkin, and Dellert. 3,083,086.

Delli-Gatti, Frank A., Jr., to C. E. Compton. Cutter bit and holder. 3,073,582, 1-15-63, Cl. 262—33.

Delligatti, Patrick. Marking devices. 3,081,697, 3-19-63, Cl. 101—35.

Dellinger, Hartley C.: *See*—
Kasbohm, Martin L., Portzer, Dellinger, Cohen, and Franson. 3,093,697.

Delmag-Maschinenfabrik Reinhold Dornfeld: *See*—
Glowon, Paul. 3,109,500.
Kummel, Fritz. 3,100,630.

Delman Co., The: *See*—
Lovell, Ernest E. 3,095,595.
Mandy, Robert R. 3,094,733.
Mandy, Robert R. 3,103,684.
Mandy, Robert R., and Erkfritz. 3,094,732.
McCleery, Robert N. 3,113,190.
McCleery, Robert N., and Mandy. 3,103,685.
Neufeld, Leonard C. 3,103,683.
Neufeld, Leonard C., and Schmalfeldt. 3,114,167.
Webb, Edmond F. 3,094,932.
Webb, Edmond F. 3,112,507.

Delmar Chemicals Ltd.: *See*—
Klosa, Josef. 3,094,529.
Klosa, Josef. 3,094,531.
Klosa, Josef. 3,116,311.

Del Mar Engineering Laboratories: *See*—
Elder, Boyd B. 3,113,739.
Hopper, Robert J., and Elder. 3,086,202.
Jones, Donald M. 3,085,769.

Del Mar, Robert. Building material and manufacture thereof. 3,094,426, 6-18-63, Cl. 106—109.

Delmege, James W., Jr., to International Business Machines Corp. Ring checking circuit. 3,088,095, 4-30-63, Cl. 340—146.1.

Delmer, Jacob R. Art paper. 3,084,455, 4-9-63. Cl. 35—26.

Delmon, Anne M. L.: *See*—
Hadancourt, Alain C., and Poujade. 3,089,983.

Delmonte, John, to Furane Plastics Inc. Coating composition for asphaltic paving. 3,114,304, 12-17-63, Cl. 94—7.

De Loach, Bernard C., Jr., to Bell Telephone Laboratories, Inc. Low noise amplifier input network. 3,079,569, 2-26-63, Cl. 330—185.

Delobelle, Emile J. G. P., to Societe Anonyme Pneumatiques et Caoutchouc Manufacture Kleber Colombes. Tire bead structure. 3,111,976, 11-26-63, Cl. 152—362.

Delong Corp.: *See*—
Suderow, George E. 3,107,496.

De Long, Herbert K., to The Dow Chemical Co. Method of treating magnesium metal article prior to spotwelding 3,087,841, 4-30-63, Cl. 134—27.

De Long, Herbert K., to The Dow Chemical Co. Method of suppressing bimetallic couple corrosion of magnesium metal articles. 3,099,083, 7-30-63, Cl. 29—527.

De Long, Herbert K., and J. A. Brown, to The Dow Chemical Co. Process for vitreous enameling of magnesium and its alloys. 3,087,834, 4-30-63, Cl. 117—70.

De Long, Horace J., to Gainesville Machine Co., Inc. Chilling shackle. 3,103,696, 9-17-63, Cl. 17—44.1.

De Long, Richard M.: *See*—
Besemer, Paul J., and De Long. 3,078,629.

De Long, Vincent R., and J. D. Duncan, to Collins Radio Co. Variable threshold high gain ALC circuit. 3,106,680, 10-8-63, Cl. 325—187.

De Lorean, Charles J.: *See*—
De Lorean, Jack Z. 3,075,764.

De Lorean, Jack Z., ½ to C. J. De Lorean. Acrobatic toy. 3,075,764, 1-29-63, Cl. 272—54.

Delott, Richard: *See*—
Zander, Jason M., and Delott. 3,078,180.

Delp, Christopher. Weed destroying implement. 3,077,166, 2-12-63, Cl. 111—7.3.

Delpla, Jean: *See*—
Leo, Bertrand, Delpla, and Pounhet. 3,109,516.

Del Ponte, Otello, to G. Re. Mixing-stirring cap for nail polish bottles and the like. 3,115,664, 12-31-63, Cl. 15—510.

Del Riccio, Lorenzo: *See*—
Dowling, Robert W., and Del Riccio. 3,076,381.
Dowling, Robert W., and Del Riccio. 3,076,382.

Delta Electric Co.: *See*—
Smaltz, John D. 3,073,949.
Smaltz, John D. 3,116,025.

Delta Engineering Corp.: *See*—
Klapes, Michael C., and Cleveland. 3,081,588.

Deltec, Inc.: *See*—
Uhrain, Michael C. 3,102,697.

Deltown Foods, Inc.: *See*—
Jaffe, Benjamin, and Textor. 3,093,149.

De Luca, Jack R.: *See*—
Dettloff, Helmut W., Wagner, and De Luca. 3,112,488.

De Lucia, John J.: *See*—
Pizzarello, Roy A., De Lucia, and Maguire. 3,072,661.

De Lucia, Victor E., to Resitron Laboratories, Inc. Valve for vacuum systems. 3,112,759, 12-3-63, Cl. 137—315.

Demag Aktiengesellschaft: *See*—
Isenberg, Gustav. 3,079,811.
Müller, Ernst. 3,080,051.

Demain, Arnold L., to Merck & Co., Inc. Production of cephalosporin C by fermentation. 3,116,216, 12-31-63, Cl. 195—36.

Demain, Arnold L., to Merck & Co., Inc. Production of cephalosporin C by fermentation. 3,116,217, 12-31-63, Cl. 195—36.

Demaison, Raymond J., to Quigley Co., Inc. Reversible water-cooled open hearth furnace doors. 3,081,751, 3-19-63, Cl. 122—498.

Demaison, Raymond J., to Quigley Co., Inc. Open hearth furnace doors. 3,081,752, 3-19-63, Cl. 122—498.

Demaison, Raymond J., to Quigley Co., Inc. Refractory insulating and sealing compound. 3,092,505, 6-4-63, Cl. 106—99.

Demaison, Raymond J., to Quigley Co., Inc. Method of spraying multiple coatings of refractory compositions for hot furnace repair. 3,093,458, 6-11-63, Cl. 25—155.5.

Demaison, Raymond J., to Quigley Co., Inc. Sprayable basic refractory composition for repairing the hot basic refractory linings of high temperature furnaces, and method. 3,093,497, 6-11-63, Cl. 106—59.

Demaison, Raymond J., to Quigley Co., Inc. Light weight ingot casting mold hot tops and covers. 3,106,756, 10-15-63, Cl. 22—147.

Demaison, Raymond J., to Quigley Co., Inc. Furnace repair gun. 3,114,536, 12-17-63, Cl. 259—151.

Demaison, Raymond J., and L. J. Dreyling, to Quigley Co., Inc. Heat resisting coating composition and method of applying it to the basic refractory surface of a furnace. 3,093,496, 6-11-63, Cl. 106—59.

De Man, Heiko T., to General Motors Corp. Press transfer mechanism. 3,080,840, 3-12-63, Cl. 113—50.

Demand, Erhart E., to Philco Corp. Heat transfer apparatus. 3,095,709, 7-2-63, Cl. 62—3.

De Marco, Curtiss J., to The Weatherhead Co. Hose end fitting for a hose made from annular layers of flexible film. 3,073,629, 1-15-63, Cl. 285—256.

De Marco, Louis, to The Langenau Mfg. Co. Catch construction. 3,112,943, 12-3-63. Cl. 292—111.

De Marco, Robert F., to The Helfred Corp. Industrial truck and rocking wheel assemblage therefor. 3,080,175, 3-5-63, Cl. 280—95.

De Marco, Robert F., to The Cyril Bath Co. Metal forming machine and auxiliary fixture and combination thereof. 3,096,807, 7-9-63, Cl. 153—40.

De Marco, Robert F., to The Helfred Corp. Hydraulically driven industrial truck. 3,098,574, 7-23-63, Cl. 214—74.

De Marco, Robert F., and H. W. Hein, to The Helfred Corp. Elevating shelf for stock bin servicing truck. 3,099,332, 7-30-63, Cl. 182—14.

Demarest, Philip C., to Ohmega Laboratories. Multiple toggle switch. 3,071,658, 1-1-63, Cl. 200—5.

Demarest, Reynaldo R. Body member rest. 3,114,527, 12-17-63, Cl. 248—118.

De Maris, Elbert E., C. D. Forrest, and G. A. Noddin, to E. I. du Pont de Nemours and Co. Explosive composition and process for making same. 3,089,796, 5-14-63, Cl. 149—19.

De Mart, Le Roy S.: *See*—
McDaniels, John D., Jr., and De Mart. 3,099,075.
Singleton, John C., and De Mart. 3,115,332.

De Mart, Le Roy S., to The Babcock & Wilcox Co. Stud tensioner. 3,099,076, 7-30-63, Cl. 29—252.

De Mart, Le Roy S., to The Babcock & Wilcox Co. Power-operated stud tensioner. 3,099,434, 7-30-63, Cl. 254—29.

Demas, Louis, to American Motors Corp. Vehicle wheel suspension and drive. 3,100,549, 8-13-63, Cl. 180—73.

De Mers, Francis F., to Solar Aircraft Co. Convolution forming machine. 3,083,754, 4-2-63, Cl. 153—73.

De Mert & Dougherty: *See*—
Drell, Leonard B. 3,085,752.

De Mestral, George, to Velcro S.A. Device for connecting two flexible parts. 3,076,244, 2-5-63, Cl. 24—203.

De Mestral, George, to International Velcro Co. Apparatus for manufacturing separable fasteners. 3,083,737, 4-2-63, Cl. 139—46.

De Mestral, George, to Velcro S.A. Device for joining two flexible elements. 3,114,951, 12-24-63, Cl. 24—204.

De Matteo, Adolph J., to Farrel-Birmingham Co., Inc. Multiple injection molding apparatus. 3,100,913, 8-20-63, Cl. 18—20.

De May, George B.: *See*—
Brandel, Albert J., and De May. 3,106,841.

Demay, Peter P., to Minneapolis-Honeywell Regulator Co. Pneumatic fire alarm system. 3,109,409, 11-5-63, Cl. 116—103.

Demay, Peter P., to Minneapolis-Honeywell Regulator Co. Continuously operated compressors. 3,111,259, 11-19-63, Cl. 230—58.

Dembinski, Berek. Diamond cutting and polishing device. 3,098,326, 7-23-63, Cl. 51—125.

Demeo, Nicholas L.: *See*—
Leupold, Henry G., and Demeo. 3,105,638.

Demer, Frederick M., and M. J. Kelly, to International Business Machines Corp. Magnetic data processing. 3,100,834, 8-13-63, Cl. 235—61.12.

Demeter, Béla: *See*—
Szőts, Géza, Szetey, Kocsis, Kondor, Havasi, Ritter, Demeter, Gulyás, and Bitter. 3,089,226.

Demi, Roy C.: *See*—
Wantz, Clarence, and Demi. 3,071,341.

Deming, Andrew F., and E. V. Schneider, to Consolidated Electronics Industries Corp. Transistor motor circuit. 3,088,396, 3-26-63, Cl. 318—138.

Deming, Roy, to Kent-Moore Organization, Inc. Liquid measuring device. 3,098,385, 7-23-63, Cl. 73—270.

Demint, Robert J.: *See*—
Arthur, Jett C., Jr., and Demint. 3,109,798.

De Miranda, Heine A. R., and T. J. Tulp, to North American Philips Co., Inc. Magnetic core counting circuit. 3,075,084, 1-22-63, Cl. 307—88.

De Mire, Haig A. Bowler's lift ring. 3,091,455, 5-28-63, Cl. 273—54.

Demitz, Roberts S., to ACF Industries, Inc. Carburetor. 3,093,699, 6-11-63, Cl. 261—65.

Demler, Henry W., to AMP Inc. Connector assembling tool. 3,098,289, 7-23-63, Cl. 29—203.

Demmel, Georg, to Siemens-Schuckertwerke Aktiengesellschaft. Apparatus for producing communication cables. 3,091,074, 5-28-63, Cl. 57—12.

Demmler, Kurt: *See*—
Meyer, Ferdinand, and Demmler. 3,096,349.

Demmy, Robert C., to Radio Corp. of America. Electroluminescent device. 3,096,458, 7-2-63, Cl. 313—108.

De Mocko, Gerald G.: *See*—
Evans, Robert J., and De Mocko. 3,102,677.

De Molin, Arrigo V., and S. D. Barlow. Pressurized stopper construction. 3,115,868, 12-31-63, Cl. 120—42.4.

De Monte, Robert W., to Bell Telephone Laboratories, Inc. Negative-impedance repeater. 3,116,378, 12-31-63, Cl. 179—170.

De Montfort, Gerald S. Chair. 3,073,649, 1-15-63, Cl. 297—396.

De Montfort, Gerald S. Oil well fire control vehicle. 3,086,465, 4-23-63, Cl. 102—22.

De Moon, Carl F., 35% to A. Zelnick and E. J. Lobato. Peg and board game. 3,074,721, 1-22-63, Cl. 273—133.

Demos, George, to N. Demos. Drive-away method and apparatus for transporting automotive vehicles. 3,100,124, 8-6-63, Cl. 296—1.

Demos, Nicholas: *See*—
Demos, George. 3,100,124.

De Moss, John, and R. Peel, to Singer-Fidelity, Inc. Cutting assembly for circular knitting machines. 3,083,553, 4-2-63, Cl. 66—140.

Demosthenes, Stratton A. Riser pipe stabilizer. 3,105,510, 10-1-63, Cl. 137—236.

De Moude, Adrian J. Senl. 3,083,974, 4-2-63, Cl. 277—86.

De Monstier, Marie E., to L'Air Liquide, Societe Anonyme pour l'Etude et l'Exploitation des Procedes Georges Claude. Method for refining iron using technically pure oxygen. 3,079,249, 2-26-63, Cl. 75—52.

Dempsey, James F., to Sun Oil Co. Heat removal in xylene oxidation for preparation of carboxylic acid. 3,077,497, 2-12-63, Cl. 260—524.

Dempsey, James F., and F. R. Shuman, Jr., to Sun Oil Co. Method and apparatus for dispensing motor fuel. 3,097,761, 7-16-63, Cl. 222—1.

Dempsey, John M. Water toy. 3,078,617, 2-26-63, Cl. 46—92.

Dempsey, Malcolm T.: *See*—
Wall, James R., Gordon, and Dempsey. 3,080,613.

Dempsey, Thomas R.: *See*—
Cummins, Clarence R. 3,091,851.

Dempster Brothers, Inc.: *See*—
Dempster, George R., and Herpich. 3,078,121.
Dempster, George R., and Herpich. 3,085,703.
Dempster, George R., and Herpich. 3,090,512.
Dempster, George R., and Herpich. 3,094,227.
Dempster, George R., and Herpich. 3,094,231.
Dempster, George R., and Herpich. 3,107,021.
Dempster, George R., Herpich, and Harvey. 3,107,020.
Dempster, George R., Herpich, and Wender. 3,078,000.
Dempster, John S. 3,085,704.

Dempster, George R., W. A. Herpich, and N. F. Wender; said Wender and said Herpich assors. to Dempster Bros., Inc. Front end loaders. 3,078,000, 2-19-63, Cl. 214—302.

Dempster, George R., and W. A. Herpich; said Herpich assor. to Dempster Bros., Inc. End gate for compaction-type bodies. 3,078,121, 2-19-63, Cl. 296—56.

Dempster, George R., and W. A. Herpich; said Herpich assor. to Dempster Brothers, Inc. Front end loader equipment. 3,085,703, 4-16-63, Cl. 214—302.

Dempster, George R., and W. A. Herpich; said Herpich assor. to Dempster Brothers, Inc. Front end loaders. 3,090,512, 5-21-63, Cl. 214—302.

Dempster, George R., and W. A. Herpich; said Herpich assor. to Dempster Brothers, Inc. Compaction bodies. 3,094,227, 6-18-63, Cl. 214—82.

Dempster, George R., and W. A. Herpich; said Herpich assor. to Dempster Brothers, Inc. Front end loaders. 3,094,231, 6-18-63, Cl. 214—302.

Dempster, George R., H. C. French, and N. F. Wender; said Herpich and said Harvey assors. to Dempster Bros., Inc. Vehicle body loading and unloading mechanism. 3,107,020, 10-15-63, Cl. 214—505.

Dempster, George R., and W. A. Herpich; said Herpich assor. to Dempster Brothers, Inc. Vehicle body loading and unloading mechanisms. 3,107,021, 10-15-63, Cl. 214—505.

Dempster, George R., W. A. Herpich, and S. E. Harvey; said French and said Wender assors. to Dempster Brothers, Inc. Front end loaders. 3,112,834, 12-3-63, Cl. 214—302.

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Demuth, Hans, to Sulzer Freres, S.A. Method and apparatus for simultaneously weaving lengths of fabric. 3,111,966, 11-26-63, Cl. 139—126.

De Muth, Russell T., to The Bendix Corp. Multi-piston prime mover. 3,106,415, 10-1-63, Cl. 91—175.

De Muth, Russell T., and D. M. Lawrence, to The Bendix Corp. Axially movable turbine for varying the turbine inlet in response to speed. 3,073,117, 1-15-63, Cl. 60—39.25.

De Muth, Russell T., and D. M. Lawrence, to The Bendix Corp. Gas turbine drive having oil pump. 3,074,688, 1-22-63, Cl. 253—39.15.

Demuth, Walter, to Maag Gear Wheel & Machine Co. Ltd. Device for machining the flanks of spur and helical gears. 3,096,685, 7-9-63, Cl. 90—1.6.

De Napoli, Anthony C., Jr., and D. F. Balmer, to The Soundscriber Corp. Indicating and place-finding apparatus for phonographic machines. 3,096,983, 7-9-63, Cl. 274—9.

Dence, Donald S., to Clark Equipment Co. Power wheel assembly. 3,115,204, 12-24-63, Cl. 180—10.

Dench, Edward C., to Raytheon Co. Traveling wave tubes. 3,084,277, 4-2-63, Cl. 315—39.3.

Dench, Edward C., to Raytheon Co. Traveling wave tube systems. 3,096,481, 7-2-63, Cl. 325—17.

De Neergaard, Leif E., deceased, by Northern Trust Co., executor, to F. W. Olmstead, H. Trechsel, D. A. Gerard, and N. S. Parker, trustees. System and mechanism for measuring displacements. 3,076,374, 2-5-63, Cl. 88—14.

Denenberg, Maurice. Insulating wall board and method of forming same. 3,097,124, 7-9-63, Cl. 154—44.

De Net, Robert W.: *See*—
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Zaugg, Harold E., De Net, and Michaels. 3,103,519.
Zaugg, Harold E., De Net, and Michaels. 3,103,520.

De Neui, Richard P., and J. H. Casey, to Minnesota Mining and Mfg. Co. Dispenser for adhesive coated sheet material having a liner adhered to an adhesive surface. 3,107,193, 10-15-63, Cl. 156—527.

De Nevers, Noel H., to California Research Corp. Thermostat apparatus. 3,077,112, 2-12-63, Cl. 73—363.5.

Dengle, Sydney H., and T. G. Stratton, to Meredith Publishing Co. Machine for scarfing printing plates. 3,108,358, 10-29-63, Cl. 29—21.

Dengler, Carl E., to E. I du Pont de Nemours and Co. Process for orienting polyethylene film. 3,076,232, 2-5-63, Cl. 18—48.

Denham, Kenneth E., to Great Western Consolidated No Liability. Mechanical loaders. 3,090,511, 5-21-63, Cl. 214—140.

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Schramel, Franz J., Den Hertog, and Brok. 3,112,363.

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Denlau, Andre J. A., to Societe Generale de Constructions Electriques et Mecaniques. Fluid system. 3,096,390, 7-2-63, Cl. 174—11.

De Niet, Edmond, to North American Philips Co., Inc. Circuits for converting electric signals logarithmically for detectors and the like. 3,092,779, 6-4-63, Cl. 329—103.

Denisco, John R. Bowling ball jig. 3,106,111, 10-8-63, Cl. 77—63.

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Denison, Robert B. 3,097,271.

Denison, Robert B., to R. B. Denison Mfg. Co. Electric limit switch. 3,097,271, 7-9-63, Cl. 200—47.

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Schimmelschmidt, Kurt, and Denk. 3,101,362.

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Denison, George H., R. O. Bolt, J. W. Kent, and F. A. Christiansen, to United States of America, Atomic Energy Commission. Method of inhibiting irradiation-induced viscosity increase of organic fluids. 3,115,462, 12-24-63, Cl. 252—46.6.

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Denman, Stephen A., to General Motors Corp. Intermittent pulse valve control system. 3,092,143, 6-4-63, Cl. 137—624.14.

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Denney, Joseph M., S. S. Friedland, and F. Keywell, to Hughes Aircraft Co. Solid state radiation detector with wide depletion region. 3,110,806, 11-12-63, Cl. 250—83.3.

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Calamaras, George, Denning, and Gelberman. 3,110,181.

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Dennis, Clement O., and W. C. Shaver, to Poplar Foundaries, Inc. Means for molding core members. 3,082,494. 3-26-63, Cl. 22—13.

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Dennis, David H. High speed ground transportation system. 3,100,454, 8-13-63, Cl. 104—138.

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Dennis, George E., and R. C. Quittenton, to John Labatt Ltd. Production of brewers' wort with enzymes. 3,081,172, 3-12-62, Cl. 99—51.

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Dennis, Wolcott, to Air Reduction Co., Inc. Liquefaction and purification of low temperature gases. 3,098,732, 7-23-63, Cl. 62—9.

Dennis, Wolcott, to Air Reduction Co., Inc. Separation of the elements of air. 3,108,867, 10-29-63, Cl. 62—22.

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Bone, Arnold R. 3,103,666.
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Dent, Harry L., and D. M. Thompson, to J. S. Kamborian. Shoe conforming and wiper heating apparatus. 3,070,819, 1-1-63, Cl. 12—12.4.

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Denton, Arnold E., J. F. Beuk, J. M. Hogan, and W. J. McBrady, to Swift & Co. Enzymatic removal of meat from bones. 3,098,014, 7-16-63, Cl. 195—2.

Denton, Gene W., and B. L. Harris, to Westinghouse Electric Corp. High-speed clamp using two biased hyperconductive negative resistance diodes. 3,103,598, 9-10-63, Cl. 307—88.5.

Denton, Richard A., and M. P. Rivera, to The New York Air Brake Co. Ultra high vacuum device. 3,095,494, 6-25-63, Cl. 219—35.

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Denyssen, Ivanhoe P. Strain gage and method of manufacture. 3,078,431, 2-19-63, Cl. 338—2.

Denzer, Romeo S., to La Crosse Cooler Co. Vending machine. 3,104,779, 9-24-63, Cl. 221—200.

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De Paoli, Giovanni, to K. P. Engineering Corp., Ltd. Transportable elevators and particularly to car lifters. 3,102,713, 9-3-63, Cl. 254—8.

De Paolo, Gerard R., to Aluma-Rail, Inc. Portable aluminum fence construction. 3,107,900, 10-22-63, Cl. 256—65.

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De Penti, Kenneth L., and D. Willison, to National Castings Co. Car coupler. 3,100,050, 8-6-63, Cl. 213—21.

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Gaines, John R. and C. F., De Pew, and Carry. 3,103,-260.
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Desautels, Robert E., to Baxter Laboratories, Inc. Surgical drainage tube. 3,100,490, 8–13–63, Cl. 128—350.
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Sproule, Robert S., and Desbaillets. 3,081,975.
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Fairbairn, Bruce A., and Deschambault. 3,100,161.
Deschamps, Jacques D., and J.-P. Vesigot, to Societe Nationale d'Etude et de Constructions de Moteurs d'Aviation. Indicator device for vertical landings. 3,080,546, 3–5–63, Cl. 340—27.
Deschamps, Jacques D., and J. Combelles, to Societe Nouvelle d'Electronique (S.A.R.L.) Wide angle scanning reflector. 3,112,483, 11–26–63, Cl. 343—100.
Deschenes, Emile A., to United Shoe Machinery Corp. Lasting machines. 3,087,176, 4–30–63, Cl. 12—12.5.
Deschenes, Emile A., and R. L. Hill, to United Shoe Machinery Corp. Heel and shank lasting machines. 3,105,-983, 10–8–63, Cl. 12—10.1.
Descovich, Theodore: *See*—
Soussloff, Dimitri G., Godel, Descovich, and Davis. 3,090,915.
De See, Peter G., to Halkey-Roberts Corp. Two-way relief valve. 3,108,610, 10–29–63, Cl. 137—493.
De Sena, Vincent A., to Esso Research and Engineering Co. Combination flexible hose connection and ball pig launcher-receiver. 3,100,308, 8–13–63, Cl. 15—104.06.
Desenberg, Ned E., to Malleable Iron Fittings Co. Double arming connection box. 3,075,259, 1–29–63, Cl. 20—92.
De Senna, Richard A.: *See*—
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Desgagne, Leonce. Chimneyless fireplace unit with mechanical draft. 3,080,862, 3–12–63, Cl. 126—62.
De Shay, Robert V., to Shawinigan Resins Corp. Coating compositions of aqueous vinyl acetate polymer emulsions modified with ketone-aldehyde resins. 3,075,935, 1–29–63, Cl. 260—29.6.
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De Simone, Ralph F. Mechanical grading device. 3,093,915, 6–18–63, Cl. 35—48.
Desio, Frank R., and J. F. Marquis, to Littelfuse, Inc. Circuit breaker with improved reset means. 3,107,282, 10–15–63, Cl. 200—113.
Desjardins, John L., and R. E. Kennison, to Edlund Co. Inc. Can openers. 3,075,285, 1–29–63, Cl. 30—4.
Desmond, John D., to Container Corp. of America. Multipiece article formed from unitary blank. 3,103,080, 9–10–63, Cl. 40—70.
Desmond, John D., to Container Corp. of America. Slide view assembly. 3,106,029, 10–8–63, Cl. 40—62.
Desnick, Mandel L. Package insertion method and apparatus. 3,105,333, 10–1–63, Cl. 53—24.
Desnoes, Arnold B., D. P. Fullerton, and P. D. Shea, to American Telephone and Telegraph Co. Cordless type switchboard. 3,101,393, 8–20–63, Cl. 179—27.
Desnoyers, Joseph H., and E. Robert. Retractible chair coupler. 3,095,237, 6–25–63, Cl. 297—248.
De Socio, George, to United States of America, Air Force. Broadband jammer utilizing a duplex power distribute amplifier. 3,072,848, 1–8–63, Cl. 325—132.
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Despard, Victor R., to Pass & Seymour, Inc. Electric cable connecting means. 3,097,035, 7–9–63, Cl. 339—99.
D'Esposito, Julian C., and G. A. Vizzarrondo, to Container Corp. of America. Container with interlocking tray and cover. 3,116,007, 12–31–63, Cl. 229—45.
Despres, Justin, ½ to H. E. Sommer. Process and apparatus for the manufacture of fibres from fusible mineral materials, more particularly glass and its derivatives. 3,083,405, 4–2–63, Cl. 18—2.5.
Desrosiers, George L., to Paintex Mfg. Co. Preload releasable clutch. 3,091,950, 6–4–63, Cl. 64—29.
Dess, Howard M., to Union Carbide Corp. Method of making foamed silicon nitride. 3,084,998, 4–9–63, Cl. 23—191.
Dess, Howard M., to Union Carbide Corp. Foamed silicon carbide. 3,100,688, 8–13–63, Cl. 23—208.
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Dessauer, Rolf, to E. I. du Pont de Nemours and Co. Coloring of oxide-coated aluminum. 3,108,026, 10–22–63, Cl. 148—6.1.
Dessauer, Rolf, and S. B. Maerov, to E. I. du Pont de Nemours and Co. Nickel and cobalt chelates of ortho-hydroxy benzophenones. 3,098,863, 7–23–63, Cl. 260—439.
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De Staat der Nederlanden, te Desen Vertegenwoordigd door de Hoofdingenieur-Directeur van de Rykswaterstaat in de Directie Algemen Dienst en Waterhuishouding: *See*—
Eggink, Anton, Wentink, and Stamhuis. 3,111,811.
De Staat der Nederlanden Ten Deze Vertegenwoordigd door de Directeur-Generaal der Posterijen, Telegrafie en Telefonie: *See*—
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Dethloff, Jurgen. Fishing method and apparatus. 3,089,274, 5–14–63, Cl. 43—4.5.
Dethloff, Jurgen, and H. Matusche. Method and apparatus for preventing collisions between vehicles. 3,095,566, 6–25–63, Cl. 343—106.
De Toledo, Fernando A., and G. S. McElroy, to Owens-Corning Fiberglas Corp. Method and apparatus for splicing yarns. 3,070,947, 1–1–63, Cl. 57—22.
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Detterbeck, Heinrich, and R. Rau, to Siemens-Electrogerate Aktiengesellschaft. Kitchen range with switch-position indicator. 3,114,824, 12–17–63, Cl. 219—37.
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De Turk, Harry M. Track insulating washers. 3,080,120, 3–5–63, Cl. 238—152.
De Turk, John E., W. G. Brown, J. R. McReynolds, R. L. Snyder, and L. Fulkerson, to The Western Union Telegraph Co. Automatic telegraph switching system. 3,087,010, 4–23–63, Cl. 178—2.
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Detwiler, Vinton V. Clasps for file cards and the like. 3,081,775, 3–19–63, Cl. 129—30.

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Deubel, Justin A., to General Controls Co. Remote reset safety control for gaseous fuel burners. 3,115,180, 12–24–63, Cl. 158—124.

Deubelbeiss, Klaus. Boat. 3,083,677, 4–2–63, Cl. 115—2.

Deuschel, Werner, F. Gundel, H. Wuest, and E. Daubach, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Process for producing a modification of gamma 7,14-dioxo-5,7, 12,14 - tetrahydroquinolino - (2,3 - b) acridine. 3,074,950, 1–22–63, Cl. 260—279.

Deuss, Peter R. Floorboard lifters and the like. 3,085,786, 4–16–63, Cl. 254—100.

Deussner, Herbert, to Klockner-Humboldt-Deutz Aktiengesellschaft. Pneumatic mixer for pulverulent or fine-granular material. 3,073,576, 1–15–63, Cl. 259—4.

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D'Eustachio, Dominic, to Pittsburgh Corning Corp. Sound absorbers. 3,094,188, 6–18–63, Cl. 181—33.

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Deutsch, Carl J.: *See*—
McDougall, Franklin M. 3,072,137.
McDougall, Franklin M. 3,084,634.

Deutsch, Herman: *See*—
McDougall, Franklin M. 3,072,137.
McDougall, Franklin M. 3,084,634.

Deutsch, Richard E., d.b.a. Products For Industry: *See*—
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Devall, James W. Bird feeder with removable components. 3,094,973, 6–25–63, Cl. 119—52.

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Devaney, Richard G., and J. W. Tamblyn, to Eastman Kodak Co. Colloidal dispersion of metals in plastics. 3,082,109, 3–19–63, Cl. 106—193.

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Dever, James L., and G. H. Birum, to Monsanto Chemical Co. Phosphinyloxyalkenyl containing phosphorus esters. 3,089,893, 5–14–63, Cl. 260—461.

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Devereux, Robert F. Inherently stabilized deep sea floating observation stations. 3,092,852, 6–11–63, Cl. 9—8.

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De Vilbiss Co., The: *See*—
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De Vilbiss, Tom G. Adjustable wire gate. 3,091,045, 5–28–63, Cl. 39—74.

De Villemure, Georges, and H. Umbriaco. Wick and base for votive candles and the like. 3,105,373, 10–1–63, Cl. 67—22.

De Villers, Edmund J., to Paperlynen Co. Disposable-type paper headdress. 3,082,429, 3–26–63, Cl. 2—195.

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Devine, James H., and E. Y. 3,096,678.

Devine, Harvey D.: *See*—
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De Vines, Hollis, to Schlage Lock Co. Door latch and lock mechanism. 3,072,427, 1–8–63, Cl. 292—169.

De Vines, Hollis L., to Schlage Lock Co. Lock box. 3,108,-685, 10–29–63, Cl. 206—45.33.

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Devon, Harry J., to Pittsburgh Envelope Co. License plate mailing package. 3,073,435, 1–15–63, Cl. 206—46.

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De Vost, Valmore F., to United States of America, Navy. Dropable shock tester. 3,100,983, 8–20–63, Cl. 73—12.

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Dew, Arthur W. Kit for vacuum cleaner attachments. 3,115,971, 12–31–63, Cl. 211—13.

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De Wald, Lee H., deceased (E. K. De Wald, administratrix), and J. B. Lapota, to Chemetron Corp. Controlled chemistry cupola. 3,089,766, 5–14–63, Cl. 75—43.

Dewalt, Inc.: *See*—
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Dewan, John T., to Schlumberger Well Surveying Corp. Apparatus for exploring boreholes. 3,095,505, 6–25–63, Cl. 250—83.3.

Dewan, John T., and C. W. Johnstone, to Schlumberger Well Surveying Corp. Nuclear well logging. 3,108,188, 10–22–63, Cl. 250—83.3.

Dewar, Douglas: *See*—
Mercer, George K., and Dewar. 3,075,208.

Dewar, Douglas, and R. C. Cussons, to Dunlop Rubber Co. Ltd. Improvements in brake discs. 3,105,575, 10–1–63, Cl. 188—218.

Dewas, Raymond: *See*—
Birmans, Josef, and Steinert. 3,092,150.
Culengnet, Alfred. 3,095,015.

Dewas, Raymond. Process for the formation of selvedges on looms. 3,090,405, 5–21–63, Cl. 139—124.

Dewas, Raymond. Weft detecting means for shuttleless looms. 3,095,911, 7–2–63, Cl. 139—370.

Dewas, Raymond. Weft end tucking device. 3,115,902, 12–31–63, Cl. 139—124.

Dewberry, Albert W.: *See*—
Friedell, Morley V., and Dewberry. 3,071,209.

Dewees, Thomas G.: *See*—
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Deweld, Inc.: *See*—
Kastler, Joseph G., and Saro. 3,089,946.

Dewender, Edward J.: *See*—
Fowler, Mark S., and Dewender. 3,082,487.

Dewey, Clyde G., to General Electric Co. Protective device. 3,105,920, 10–1–63, Cl. 317—36.

Dewey, Davis R., and L. Kopito, to Baird-Atomic, Inc. Infrared radiating source. 3,095,506, 6–25–63, Cl. 250—83.3.

Dewey, G. C., & Co., Inc.: *See*—
Dewey, Gordon C. 3,085,214.

Dewey, Gordon C., to G. C. Dewey & Co., Inc. Electrical delay line with capacitive pick-off. 3,085,214, 4–9–63, Cl. 333—31.

Dewey, John L., to Reynolds Metals Co. Refractory lining for alumina reduction cells. 3,093,570, 6–11–63, Cl. 204—243.

Dewey, John L., and T. J. West, to The Dow Chemical Co. Foundry sand compositions containing polyelectrolytes and salts of the oxy acids of phosphorus and sulfur. 3,104,230, 9–17–63, Cl. 260—29.6.

Dewey, Philip W.: *See*—
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Dewhirst, Harold D.: *See*—
Stewart, Flank C., Jr., and Dewhirst. 3,072,564.

Dewhurst, Ernest J., to Somerville Industries Ltd. Cartons and method of forming same. 3,106,876, 10–15–63, Cl. 93—37.

De Wilde, Pieter C., and M. P. Rappoldt, to North American Philips Co. Inc. Method of stabilizing crystalline compounds against oxidation. 3,100,783, 8–13–63, Cl. 260—397.2.

Dewing, John: *See*—
Tayler, Frederick M., and Dewing. 3,103,417.

Dewing, Kenneth F.: *See*—
Harlander, Leslie A., and Dewing. 3,078,115.

De Wit, Nicolaas P. M., to Union Carbide Corp. Process for producing silanes. 3,072,700, 1–8–63, Cl. 260—448.8.

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Correy, Thomas B., De Witt, and Nelson. 3,087,045.

De Witt, Earl G.: *See*—
Brown, Jerome E., De Witt, and Shapiro. 3,086,034.
Brown, Jerome E., Shapiro, and De Witt. 3,110,577.
De Pree, David O., and De Witt. 3,114,771.

De Witt, Raymond H., to The Fate-Root-Heath Co. Saw chain grinder. 3,071,026, 1–1–63, Cl. 76—40.

De Witt, Raymond H., to The Fate-Root-Heath Co. Cleaning stand. 3,096,776, 7–9–63, Cl. 134—174.

De Witt, Stuart L., and T. F. Dymek, to General Electric Co. Refrigerating apparatus. 3,099,914, 8–6–63, Cl. 62—276.

De Woody, Charles M., to Ace Glass Inc. Stopcock for laboratory glassware and the like. 3,093,359, 6–11–63, Cl. 251—314.

De Woody, Charles M., R. L. Pearce, W. Mueller, and E. A. Egizi, to Ace Glass Inc. Resistance coating for articles of glassware and the like. 3,092,704, 6–4–63, Cl. 219—19.

De Woskin, David N. Formula container and nipple cap. 3,115,980, 12–31–63, Cl. 215—11.

De Woskin, Irvin S. Absorbent pads and the manufacture thereof. 3,085,575, 4–16–63, Cl. 128—290.

De Wouters d'Oplinter, Jean G. M. J., to La Spirotechnique. Focal-plane photographic shutter. 3,109,357, 11–5–63, Cl. 95—55.

Dewyer, Peter J. Tape dispenser. 3,101,538, 8–27–63, Cl. 30—131.

Dexheimer, Hans: *See*—
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Dexion Ltd.: *See*—
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Dexter Axle Co., Inc.: *See*—
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Dexter Industries, Inc.: *See*—
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Dexter, John F., and H. A. Clark, to Dow Corning Corp. Silicone resin solutions and method for coating with same. 3,079,281, 2–26–63, Cl. 117—161.

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Dexter, Robert G., to Emile Bernat & Sons Co. Means and method of wrapping. 3,078,626, 2–26–63, Cl. 53—3.

Dexter, Robert G., to Barkley & Dexter, Inc. Intermittent movement. 3,106,109, 10–8–63, Cl. 74—822.

Dexter, Wilbur H., and H. A. Wilson. Can punch. 3,085,-326, 4–16–63, Cl. 30—6.1.

Deykin, Ronald F., to Hordern Mason & Edwards Ltd. Power-presses and other similar machine tools. 3,092,228, 6–4–63, Cl. 192—85.

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Degrup, Alden J., to E. I. du Pont de Nemours and Co. Chromium and boron containing product and process for producing same. 3,088,801, 5–7–63, Cl. 23—50.

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Dezurik Corp.: *See*—
Traut, Bernard E. 3,081 974.

Dhénein, Paul, to Acieries de Pompey, Societe des. Injection devices. 3,076,642, 2–5–63, Cl. 266—41.

D'Hooge, Emile, to Ateliers de Construction Emile D'Hooge S.P.R.L. Installation for fully automatic operation in laundry and other physico-chemical processes, mainly for washing machines. 3,083,273, 3–26–63, Cl. 200—38.

D'Hooge, Emile, to Ateliers de Construction Emile D'Hooge S.P.R.L. Device for the automatic adjustment of the composition of bath fluids in apparatus for the chemical cleaning of textile materials and similar matter. 3,085,416, 4–16–63, Cl. 68—13.

Diack, Arthur G. Mirror frame. 3,078,608, 2–26–63, Cl. 40—152.1.

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Dial, Edward W. Variable resistance device. 3,111,640, 11–19–63, Cl. 338—160.

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Diamant, Frederick J. Laminated sole structure having controlled slippage. 3,083,477, 4–2–63, Cl. 36—28.

Diamant, Henri R., to HRB-Singer, Inc. Magnetic reading/writing circuit and channel selector therefor. 3,092,817, 6–4–63, Cl. 340—174.1.

Diamant, Marcus. Books of matches. 3,081,866, 3–19–63, Cl. 206—29.

Diamantides, Nick D. Stamp handling implement. 3,092,410, 6–4–63, Cl. 294—2.

Diamond, Alfred, to S. Simpson Ltd. Self-supporting trousers. 3,098,238, 7–23–63, Cl. 2—237.

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Dowling, Arthur P. 3,089,784.
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Fordham, James W. L., and McCain. 3,100,199.
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Peeler, Cletus E., Jr. 3,094,846.
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Shanley, Thomas J. 3,077,222.
Skeeters, Maxwell J. 3,076,040.
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Diamond Antenna & Microwave Corp.: *See*—
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Diamond Crystal Salt Co.: *See*—
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Diamond, Harry L. Setting tool for heat sealing die machines. 3,097,434, 7–16–63, Cl. 33—181.

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Diamond, Milton J., and R. F. Spain, to General Motors Corp. Magnetic crack detector with vibrated pickup. 3,089,084, 5–7–63, Cl. 324—37.

Diamond, Milton J., R. F. Spain, and R. H. Lutch, to General Motors Corp. Sonic testing decay detector. 3,097,523, 7–16–63, Cl. 73—69.

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Singleton, John C. 3,077,335.
Singleton, John C., and De Mart. 3,115,332.

Diamond, Thomas J. Three-way pipe fitting tool. 3,105,401, 10–1–63, Cl. 81—1.

Diamond Tool Associates: *See*—
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Costantini, Anthony R., and Di Angelus. 3,110,536.

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Diassi, Patrick A.: *See*—
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Diassi, Patrick A., and J. Fried, to Olin Mathieson Chemical Corp. Method for producing dihydroxyprogesterone derivatives. 3,073,817, 1–15–63, Cl. 260—239.55.

Diassi, Patrick A., and P. A. Principe, to Olin Mathieson Chemical Corp. C-ring substituted 6a-halo steroids and process for producing them. 3,079,384, 2–26–63, Cl. 260—239.55.

Diassi, Patrick A., and S. C. Pan, to Olin Mathieson Chemical Corp. Testololactone derivatives. 3,083,210, 3–26–63, Cl. 260—343.2.

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Diaz, Juan, to Reed Electramech Corp. Purchase-change device. 3,114,446, 12–17–63, Cl. 194—9.

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Di Benedetto, Vincenzo. Wrecking truck. 3,085,648, 4–16–63, Cl. 182—2.

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Du Bois, Edgar H., Mazzio, and Niesen. 3,095,796.
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Dick, Adolph A. Boat mooring apparatus and boarding ramp therefor. 3,095,848, 7–2–63, Cl. 114—230.

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Dickinson, Clayton D., S. Abkowitz, and R. J. Nylen, to National Distillers and Chemical Corp. High strength titanium base zirconium-aluminium alloy. 3,114,632, 12–17–63, Cl. 75—175.5.

Dickinson, Donald L., to Continental Vending Machine Corp. Ice storing and dispensing mechanism for beverage dispensing machines and the like. 3,101,872, 8–27–63, Cl. 222—197.

Dickinson, Gerald E., ½ to Coeur d'Alene Creamery, Inc. Method of making a frozen confection. 3,091,194, 5–28–63, Cl. 107—54.

Dickinson, Henry M. N., to Abbott Laboratories. Cyclohexylsulfamic acid salt. 3,074,996, 1–22–63, Cl. 260—465.

Dickinson, Horace, to The Vapor Recovery Systems Co. Tank gauging system. 3,074,274, 1–22–63, Cl. 73—309.

Dickinson, John T. Fishing lure having detachable hook supporting means. 3,096,597, 7–9–63, Cl. 43—42.05.

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Dickinson, Ronald S., and M. Bartram, to Armstrong Patents Co. Ltd. Hydraulic pumps. 3,073,245, 1–15–63, Cl. 103—41.

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Dickson, Edgar V., and T. E. Weber, to Hussmann Refrigerator Co. Food merchandiser. 3,091,942, 6–4–63, Cl. 62—89.

Dickson, Edgar V., and T. E. Weber, to Hussmann Refrigerator Co. Refrigeration system. 3,103,796, 9–17–63, Cl. 62—234.

Dickson, George, and W. H. Zuercher. Method of and apparatus for forming pulping chips incident to lumber finishing. 3,082,802, 3–26–63, Cl. 144—326.

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Dickson, Herbert F., Jr., and P. Haas, to Sylvania Electric Products Inc. Indirectly heated cathode. 3,092,748, 6–4–63, Cl. 313—270.

Dickson, James J., to United States of America, Atomic Energy Commission. Fuel element for nuclear reactors. 3,105,026, 9–24–63, Cl. 204—193.2.

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Dickstein, Jack, M. Bodnar, and R.-M. Hoegerle, to The Borden Co. Amino acrylate esters. 3,094,554, 6–18–63, Cl. 260—482.

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Dieckelmann, Gerhard, and J. Plapper, to Böhme Fettchemie G.m.b.H. Process for the preparation of surface active reaction products. 3,084,176, 4–2–63, Cl. 260—400.

Diedrich, Gunther E., to General Electric Co. Radial flow gas turbine power plant. 3,088,279, 5–7–63, Cl. 60—39.36.

Diefendorf, Russell J., to General Electric Co. Process for deposition of pyrolytic graphite. 3,107,180, 10–15–63, Cl. 117—226.

Dieguez, Lloyd E., to Larkin Specialty Mfg. Co. Box handle. 3,106,332, 10–8–63, Cl. 229—52.

Diehl, Gordon H., to General Motors Corp. Heat exchanger assemblies for forced air furnaces. 3,102,530, 9–3–63, Cl. 126—99.

Diehl, John M.: *See*—
Girardot, Peter R., and Zeldin. 3,083,230.

Diehl Mfg. Co.: *See*—
Abel, George J. 3,085,169.
Happe, Reynold, and Yelpo. 3,072,768.

Diehl, Max H., to General Electric Co. Transistorized black video clipper. 3,085,131, 4–9–63, Cl. 178—7.1.

Diehl, Max H., to General Electric Co. Vidicon camera input stage. 3,098,120, 7–16–63, Cl. 178—7.2.

Diehl, Philip A. Cup carrier. 3,094,259, 6–18–63, Cl. 224—48.

Diekmann, Heinrich: *See*—
Krauss, Kurt, and Diekmann. 3,110,563.

Dielectric Products Engineering Co., Inc.: *See*—
Sewell, Donald N. 3,107,967.

Dielman, Harold J.: *See*—
Domsic, Paul M., and Dielman. 3,095,225.

Diemer, Gesinus, to North American Philips Co., Inc. Device for amplifying, producing or modulating electrical oscillations. 3,102,959, 9–3–63, Cl. 250—211.

Diemer, Gesinus, and W. van Gool, to North American Philips Co., Inc. Method of manufacturing layers consisting of chalcogenides. 3,084,397, 4–9–63, Cl. 18—59.3.

Diener, Adolf, Apparate und Maschinenbau: *See*—
Rosch, Karl. 3,082,898.

Diener, Richard, to Hoesch Aktiengesellschaft. Tube-welding machines. 3,114,341, 12–17–63, Cl. 113—35.

Diener, Robert E., to The Warner & Swasey Co. Machine tool turret. 3,094,025, 6–18–63, Cl. 82—36.

Diener, Robert E., to The Warner & Swasey Co. Fluid system. 3,094,042, 6–18–63, Cl. 91—414.

Diener, Robert E., and N. P. Darash, to The Warner & Swasey Co. Machine with indexing mechanism. 3,111,044, 11–19–63, Cl. 74—826.

Diener, Rudolf, to Elemag-Anstalt. Circuit for controlling the striking phase of one or more gas-filled triodes connected to an A.C. voltage. 3,082,352, 3–19–63, Cl. 315—163.

Dienes, Edward K.: *See*—
Arnold, Melvin R., McCarthy, and Dienes. 3,075,915.
Dier, Stephen A., and A. W. Gair, to Thompson Ramo Wooldridge Inc. Method of making sockets. 3,079,680, 3–5–63, Cl. 29—432.
Dierichs, Helmut: *See*—
Holzrichter, Hermann, König, and Dierichs. 3,092,662.
Dierks, Bernhard. Grinding machine. 3,073,071, 1–15–63, Cl. 51—72.
Dierstein, Roy H.: *See*—
Rademaker, Leo C., and Dierstein. 3,074,149.
Diesel Equipment Ltd.: *See*—
Martin, John C. 3,097,009.
Martin, John C. 3,112,949.
Diesing, Fred W., to Fairchild Stratos Corp. Fluid cooled valve. 3,075,542, 1–29–63, Cl. 137—338.
Diessel Molkereimaschinen-Fabrik G.m.b.H.: *See*—
Sonnberg, Joachim. 3,106,844.
Dieter, Norman H., Jr., and E. H. Bauer, to Sonotone Corp. Dual stylus phonograph pickup and holder. 3,087,027, 4–23–63, Cl. 179—100.41.
Dieterich, Francis L. Food holder. 3,084,618, 4–9–63, Cl. 99—427.
Dietert, Harry W., to Harry W. Dietert Co. Apparatus for measuring and controlling moisture content of materials. 3,092,882, 6–11–63, Cl. 22—89.
Dietert, Harry W., to Harry W. Dietert Co. Moisture teller. 3,093,460, 6–11–63, Cl. 34—1.
Dietert, Harry W. and R. L., A. L. Graham, and M. R. Kabel, to Harry W. Dietert Co. Apparatus for electrical moisture measurement. 3,090,091, 5–21–63, Cl. 22—89.
Dietert, Harry W., Co.: *See*—
Dietert, Harry W. 3,092,882.
Dietert, Harry W. 3,093,460.
Dietert, Harry W., and Graham. 3,083,829.
Dietert, Harry W. and R. L., Graham, and Kabel. 3,090,091.
Jameson, Howard L. 3,109,210.
Dietert, Harry W., and A. L. Graham, to Harry W. Dietert Co. Continuous clay washer. 3,083,829, 4–2–63, Cl. 209—161.
Dietert, Randolph L.: *See*—
Dietert, Harry W. and R. L., Graham, and Kabel. 3,090,091.
Dietrich, Alvin L. Thresher beater bars. 3,079,924, 3–5–63, Cl. 130—27.
Dietrich, Cornelius F. Optical projection pantometers. 3,113,485, 12–10–63, Cl. 88—24.
Dietrich, Gerhard: *See*—
Willersinn, Herbert, Dietrich, Fust, Friederich, and Siebel. 3,110,694.
Dietrich, Gerhard, to J. Kihlberg. Staple. 3,077,812, 2–19–63, Cl. 85—49.
Dietrich, Henri: *See*—
Stoll, Willy, and Dietrich. 3,095,447.
Dietrich, Karl A., to Dorr-Oliver Inc. Pressure vessel joint. 3,098,577, 7–23–63, Cl. 220—3.
Dietrich, Karl K.: *See*—
Rudy, Hermann, Rauch, Dietrich, and Constabel. 3,085,049.
Dietrich, Rosahl: *See*—
Sinn, Gustav, Dietrich, and Esser. 3,078,247.
Dietrich, Wallace E.: *See*—
Meyers, Robert A., Davis, and Dietrich. 3,105,145.
Dietrich, Wallace E., Jr., to United States of America, Navy. Digitized analog computer. 3,103,578, 9–10–63, Cl. 235—151.
Dietrich, Walter, to International Standard Electric Corp. Automatic character-recognition method and associated arrangement of apparatus therefor. 3,081,444, 3–12–63, Cl. 340—146.3.
Dietrich, Wolfgang, to International Business Machines Corp. Binary information transfer device. 3,113,297, 12–3–63, Cl. 340—174.
Dietrick, Charles J. Collating device. 3,108,796, 10–29–63, Cl. 270—58.
Dietsch, Arne K.: *See*—
Alexandersson, Harald V., and Dietsch. 3,096,422.
Dietz, Alma: *See*—
De Boer, Clarence, Dietz, Johnson, Eble, and Hoeksema. 3,094,460.
Dietz, Alma, C. De Boer, R. M. Smith, P. Sliminoff, G. A. Boyack, and G. B. Whitfield, Jr., to The Upjohn Co. Antibiotic streptovaricin and process for its production. 3,116,202, 12–31–63, Cl. 167—65.
Dietz, Elise: *See*—
Dietz, Karl, Lorentz, and Stroh. 3,080,253.
Dietz, Erich: *See*—
Schilling, Karl, and Dietz. 3,109,842.
Dietz, Georg: *See*—
Dietz, Karl, Lorentz, and Stroh. 3,080,253.
Dietz, Karl, deceased (by E. and G. Dietz, heirs), and G. M. R. Lorentz, and R. Stroh, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Process for providing concrete surfaces with impermeable layers that are resistant to the action of chemical substances and heat. 3,080,253, 3–5–63, Cl. 117—26.
Dietz, Murray W. Dental burr holder and sterilizer. 3,092,443, 6–4–63, Cl. 21—87.
Dietz, R. E., Co.: *See*—
Knapp, George A. 3,093,320.
Leeder, Harry A., Jr. 3,113,242.
Dietz, Richard M. Combined dressing tool and work piece holder. 3,085,370, 4–16–63, Cl. 51—92.
Dietz, Robert E.: *See*—
Dessert, Edward P., Dietz, and Pickett. 3,109,907.
Dietze, Ruthard, to Solida Textil- und Netzwaren-Manufactur Ruthard Dietze K.G. Hair net. 3,094,995, 6–25–63, Cl. 132—49.
Dietzel, Walter, and H. Hillebrand, to Braunschweigische Maschinenbauanstalt A.G. Centrifugal apparatus. 3,108,067, 10–22–63, Cl. 210—380.
Dietzgen, Eugene, Co.: *See*—
Brownscombe, Philip J. 3,076,377.
Brownscombe, Philip J. 3,078,760.
Dietzler, Andrew J., and C. L. Stacy, Jr., to The Dow Chemical Co. Stabilized polyolefin compositions. 3,082,188, 3–19–63, Cl. 260—45.95.
Dietzsch, Clara H.: *See*—
Dietzsch, Otto, Sr., H. R. O. Dietzsch and O. H. E. Dietzsch. 3,086,134.
Dietzsch, Hans-Joachim and O., to Trikotfabriken J. Schiesser A.G. Multiple hole spinning nozzle and process of manufacture. 3,075,241, 1–29–63, Cl. 18—8.
Dietzsch, Hans-Joachim R. O.: *See*—
Dietzsch, Otto, Sr., H. R. O. Dietzsch and O. H. E. Dietzsch. 3,086,134.
Dietzsch, Otto: *See*—
Dietzsch, Hans-Joachim and O. 3,075,241.
Dietzsch, Otto H. E.: *See*—
Dietzsch, Otto, Sr., H. R. O. Dietzsch and O. H. E. Dietzsch. 3,086,134.
Dietzsch, Otto, Sr., deceased (C. H. Dietzsch, H. R. O. Dietzsch, and O. H. E. Dietzsch, heirs), H. R. O. Dietzsch, and O. H. E. Dietzsch; said H. R. O. Dietzsch and O. H. E. Dietzsch assors. to Verwaltungsgesellschaft der Werkzeugmaschinenfabrik Oerlikon. Device for the two-dimensional arrangement, variable according to pattern, of a plurality of elongated control means for multi-member machines. 3,086,134, 4–16–63, Cl. 310—78.
Diffee, Henry S. Vernier Calibrated angle and distance layout instrument. 3,105,305, 10–1–63, Cl. 33—189.
Differential-Diesel-Vaduz (Furstentum Liechtenstein): *See*—
Glamann, Wilhelm. 3,077,730.
Glamann, Wilhelm. 3,090,194.
Differential Hydraulics, Inc.: *See*—
Berry, Frank. 3,075,506.
Di Francesco, Emilio. Washing and drying apparatus for fishing lines. 3,082,972, 3–26–63, Cl. 242—104.
Diggelmann, Hans, to Hasler A.G. Electrical synchronizing arrangement. 3,090,922, 5–21–63, Cl. 328—72.
Diggins, Bartholomew, to S. G. Bair. Journal stop. 3,075,815, 1–29–63, Cl. 308—40.
Di Giovanni, Mario, to Statham Instruments, Inc. Unbonded strain gage transducer. 3,086,185, 4–16–63, Cl. 338—6.
Digitronics Corp.: *See*—
Cohen, William D. 3,072,311.
Di Giullo, Arnold O.: *See*—
Block, Charles, and Di Giullo. 3,085,668.
Di Giullo, Enzo, and F. Denti, to Montecatini Societa Generale per l'Industria Mineraria e Chimica. Spinning solution of sulfochlorinated ethylene-propylene copolymer, filaments thereof, and process for obtaining them. 3,079,218, 2–26–63, Cl. 18—54.
Di Gregorio, Adamo E.: *See*—
Pascoe, George, and Di Gregorio. 3,114,029.
Di Ianni, Daniel A., to American Machine & Foundry Co. Mechanism for reclaiming tobacco from rejected filter tip cigarettes. 3,103,222, 9–10–63, Cl. 131—96.
Di Ienno, John J., to Carey-McFall Co. Artificial tree. 3,085,774, 4–16–63, Cl. 248—39.
Dijkema, Leendert F. W., to Heineken's Brouwerijen Nederland N.V. Apparatus for periodically determining the carbon dioxide content of a carbon dioxide containing liquid flowing through a conduit. 3,077,765, 2–19–63, Cl. 73—19.
Dike, Roy W., to Continental Can Co., Inc. Plastic captive seal closure and spout. 3,104,039, 9–17–63, Cl. 222—536.
Dike, Sheldon H., G. J. Strickroth, and J. Jenkins, to Martin-Marietta Corp. Guidance system for aircraft. 3,087,155, 4–23–63, Cl. 343—112.
Dilatush, John E., to Ingwersen Mfg. Co., Inc. Receptacle. 3,086,676, 4–23–63, Cl. 220—31.
Di Laurenzio, Anthony C. Mobile car washing apparatus. 3,072,131, 1–8–63, Cl. 134—123.
Di Lella, Paul. Grinding machine. 3,100,954, 8–20–63, Cl. 51—165.
Dilgard, Lemoyne W., to Joy Mfg. Co. Conveyor device. 3,089,580, 5–14–63, Cl. 198—192.
Dilks, John H., to Lukens Steel Co. Slab grinder, hydraulic counterbalance and lift control. 3,089,287, 5–14–63, Cl. 51—35.
Dill, Johann G., to Hughes Aircraft Co. Pulse generating circuit utilizing avalanche transistors and tunnel diodes. 3,075,092, 1–22–63, Cl. 307—88.5.
Dill, Walter R., to Halliburton Co. Acidizing of wells. 3,076,762, 2–5–63, Cl. 252—8.55.
Dill, William J. Electrically operable toy game. 3,112,931, 12–3–63, Cl. 273—139.
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Banford, John A., Hill, and Dillard. 3,105,791.
Dillaway, Robert B., to North American Aviation, Inc. Dual propellant tank control system. 3,073,110, 1–15–63, Cl. 60—35.6.

Dille, Roger M.: *See*—
Chapman, Ronald W., and Dille. 3,110,333.
Dillehay, John W.: *See*—
Hlavacek, Robert J., Sauvage, Dillehay, and Swift. 3,112,519.
Hlavacek, Robert J., Sauvage, and Dillehay. 3,115,670.
Dillemuth, Arnold H. Level. 3,103,749, 9–17–63, Cl. 33—207.
Dillenburger, Wolfgang, to Fernseh G.m.b.H. Method and arrangement for the transmission of television signals. 3,102,927, 9–3–63, Cl. 178—69.5.
Dilley, William. Wind oriented marauder-proof bird feeder. 3,086,499, 4–23–63, Cl. 119—51.
Dilliard, Allen E., and E. L. Miffiin, Jr., to United States of America, Army. Abrasive drilling apparatus. 3,075,318, 1–29–63, Cl. 51—8.
Dille, Roger M., R. W. Chapman, J. C. Ahlborn, and D. B. Eastman, to Texaco Inc. Hydration of acetylene to produce acetaldehyde. 3,095,453, 6–25–63, Cl. 260—605.
Dillin, George R. Fish line and plug ejector. 3,111,783, 11–26–63, Cl. 43—19.
Dilling, Elmer D.: *See*—
Cooper, Donald E., and Dilling. 3,078,529.
Dillingham, Edward, to Thompson Ramo Wooldridge Inc. Superconductive bistable circuit. 3,093,749, 6–11–63, Cl. 307—88.5.
Dillingham, Frederick L., to Soderhamn Machine Mfg. Co. Log debarking machine. 3,082,801, 3–26–63, Cl. 144—208.
Dillman, Earnest J., to American Radiator & Standard Sanitary Corp. Constant fluid flow device. 3,073,350, 1–15–63, Cl. 138—46.
Dillman, Earnest J., and T. E. Noakes, to American Radiator & Standard Sanitary Corp. Condition controller. 3,073,930, 1–15–63, Cl. 219—140.
Dillman, Edward E., D. Ringo, and F. C. Boston, to Engineers & Fabricators, Inc. Adsorption process. 3,085,380, 4–16–63, Cl. 55—62.
Dillman, Edward E., D. Ringo, and F. C. Boston, to Engineers & Fabricators, Inc. Separation of close boiling components. 3,086,065, 4–16–63, Cl. 260—676.
Dillon, Harold P., II, to Union Carbide Corp. High temperature coatings. 3,091,548, 5–28–63, Cl. 117—70.
Dillon, John A., Jr.: *See*—
Hatch, Melvin J., and Dillon. 3,099,529.
Dillon, Paul W., W. R. Stewart, C. G. Bosco, and C. G. Robinson, to Northwestern Steel & Wire Co. Electric arc furnace power cable arrangement. 3,078,325, 2–19–63, Cl. 13—9.
Dillon, Richard C., and W. R. Dunbar. Strain wire flowmeter. 3,114,261, 12–17–63, Cl. 73—228.
Dillon, Robert M., to Massey-Ferguson Ltd. Snapping rolls for corn picking apparatus. 3,100,491, 8–13–63, Cl. 130—5.
Dillon, W. C., and Co.: *See*—
Glerum, Irvin L. 3,092,995.
Dillon, W. C. & Co., Inc.: *See*—
Dillon, William C., and Kehm. 3,086,171.
Glerum, Irvin L. 3,084,297.
Glerum, Irvin L. 3,090,227.
Glerum, Irvin L. 3,097,524.
Glerum, Irvin L. 3,101,445.
Van Mastrigt, Max. 3,096,839.
Dillon, Wendell M., to Watts Regulator Co. Pressure regulator with integral relief valve. 3,115,154, 12–24–63, Cl. 137—493.8.
Dillon, William C., and C. H. Kehm, to W. C. Dillon & Co., Inc. Carrier wave telephony. 3,086,171, 4–16–63, Cl. 325—55.
Dills, Raymond L., to General Electric Co. Oven thermostat. 3,096,420, 7–2–63, Cl. 200—140.
Di Lorenzo, John A.: *See*—
Brodewski, Frank S. 3,074,135.
Dils, Eugene W., Jr.: *See*—
Larsen, Paul V., Eyolfson, Hill, and Dils. 3,079,710.
Di Luzio, Nicholas R., to United States of America, Atomic Energy Commission. Process for reducing exogenous cholesterol levels in animal organisms. 3,081,226, 3–12–63, Cl. 167—55.
Dilworth, J. E., Co., Inc.: *See*—
Wellford, Walker L., Jr., Farnham, and Carson. 3,091,351.
Dilworth, William G., to General Motors Corp. Thrust bearing. 3,090,655, 5–21–63, Cl. 308—37.
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Peck, Kenneth L., and DiMartino. 3,099,313.
Di Marzio, Emilio, to Fabbrica Italiana Machine Aziendali. Apparatus for inserting and securing labels in printing plates. 3,114,200, 12–17–63, Cl. 29—211.
Di Mattia, Alfred L.: *See*—
Sioles, George W., Di Mattia, and Bauer. 3,074,726.
Di Mattia, Alfred L., and E. Kaulins, to Zenith Radio Corp. Universal mount for stylus assembly. 3,088,743, 5–7–63, Cl. 274—36.
Dimeff, John, to United States of America, National Aeronautics and Space Administration. High-speed low-level electrical stepping switch. 3,076,065, 1–29–63, Cl. 200—19.
Dimeff, John, to United States of America, National Aeronautics and Space Administration. Two-plane balance. 3,100,990, 8–20–63, Cl. 73—147.
Dimensions, Inc.: *See*—
Ruderfer, Martin. 3,077,256.
Dimitracopoulos, Pannyotis C., and C. D. Pezaris. Method and means for variable realatance recording. 3,081,383, 3–12–63, Cl. 179—100.4.
Dimmick, Robert L., to The Regents of the University of California. Dilution pipette. 3,106,845, 10–15–63, Cl. 73—425.6.
Dimmig, John D., and R. T. Vaughan, to Philco Corp. Combination packaging assembly and packaged article. 3,088,587, 5–7–63, Cl. 206—56.
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Enochs, John R., Dimond, and Springer. 3,078,358.
Dimond, Thomas L., to Bell Telephone Laboratories, Inc. Machine reading of handwritten characters. 3,108,254, 10–22–63, Cl. 340—146.3.
Dimroth, Peter, and H. Pasedach, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Production of 4,4-disubstituted 5-alkylidene-1,3-dioxolane-2-ones. 3,082,216, 3–19–63, Cl. 260—340.2.
Dinan, Frank J., to The Carborundum Co. Method of making magnesium oxide. 3,081,155, 3–12–63, Cl. 23—201.
Dineen, John J., to Chandler Evans Corp. Air cycle cooling unit. 3,109,583, 11–5–63, Cl. 230—190.
Dinehart, Marjory E. Artificial lures for game fish. 3,086,313, 4–23–63, Cl. 43—35.
Dinerman, Bernhart V., and A. H. Dove, to United States of America, Navy. Warhead detonation indicator. 3,104,383, 9–17–63, Cl. 340—213.
Dinerstein, Samuel: *See*—
Boles, La Clare B., Dinerstein, and Niznik. 3,112,605.
Dinger, Edward H., to General Electric Co. Pulse generator utilizing transistor with saturable core feedback and adjustable bias to vary load current. 3,071,697, 1–1–63, Cl. 307—88.5.
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Swanson, Robert K., Jameson, and Dingus. 3,090,867.
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Nickerson, George R., Shull, and Dininger. 3,080,774.
Dinn, Leo J. Simulated four-in-hand tie construction. 3,097,362, 7–16–63, Cl. 2—153.
Dinning, John R., to Toledo Scale Corp. Elevator controls. 3,080,946, 3–12–63, Cl. 187—29.
Dinning, John R., W. V. Weaver, and D. H. Wilson, Jr., to Toledo Scale Corp. Elevator controls. 3,080,945, 3–12–63, Cl. 187—29.
Dinning, Robert W., and C. M. Peters, to U.S. Industries. Well apparatus. 3,073,392, 1–15–63, Cl. 166—224.
Dinning, Robert W., to U.S. Industries, Inc. Well tool. 3,107,731, 10–22–63, Cl. 166—217.
Di Noia, Emanuel J., to Aerotec Industries, Inc. Magnetic ball switch for electric circuits. 3,103,562, 9–10–63, Cl. 200—87.
Dinolfo, Michael, and E. W. Farmer, to Sanders Associates, Inc. Air dropped buoy release mechanism. 3,074,671, 1–22–63, Cl. 244—138.
Dinsmore, David W., and A. H. Smith, to Monsanto Chemical Co. Lubricating composition. 3,103,492, 9–10–63, Cl. 252—32.7.
Dinsmore, Joseph A., and R. I. Seddon, to Ampex Corp. Strip tensioning apparatus. 3,092,344, 6–4–63, Cl. 242—55.12.
Dinter, Henry A., Jr., to Minneapolis-Honeywell Regulator Co. Gyrocompass. 3,098,306, 7–23–63, Cl. 33—226.
Dinu, Madeline C. Receptacle for storing electric cords. 3,110,454, 11–12–63, Cl. 242—134.
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Bedson, Donald E., Di Nuzzo, and Suleski. 3,102,213.
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Dion, Henry W.: *See*—
Frohardt, Roger P., Dion, and Ehrlich. 3,111,523.
Dion, Henri, and J. Couthon, to J. Couthon Etablissement. Vibratory roller device. 3,105,424, 10–1–63, Cl. 94—50.
Dion, John F., to Package Machinery Co. Carton forming machines. 3,081,675, 3–19–63, Cl. 93—51.
Dionne, Emilien: *See*—
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Dionne, Henry E. Carburetor air filter detecting device. 3,095,866, 7–2–63, Cl. 123—196.
Dionne, Leonard J., to Green Instrument Co. Depth control device for cutting machine. 3,110,226, 11–12–63, Cl. 90—62.
Di Paola, Anthony J., to Reliance Mfg. Co. Jacket. 3,086,215, 4–23–63, Cl. 2—93.
Di Paolo, John, to Fairchild Camera and Instrument Corp. Deflecting circuit. 3,094,645, 6–18–63, Cl. 315—27.
Di Pasqua, Joseph, to Mechanical Swinging Cradle Co. Spring motor for swings. 3,073,416, 1–15–63, Cl. 185—38.
Di Pasqua, Joseph, to Mechanical Swinging Cradle Co. Spring motor for swings. 3,112,814, 12–3–63, Cl. 185—37.
Di Pasquale, Fred A.: *See*—
Wistreich, Hugo E., and Di Pasquale. 3,080,604.
Di Pierro, Michael J. Hinge construction for lids. 3,113,692, 12–10–63, Cl. 220—31.
Di Pierro, Michael J., and P. M. Nigro. Leakproof oiling device. 3,081,921, 3–19–63, Cl. 222—525.
Di Pietro, Harry R.: *See*—
Johns, Iral B., and Di Pietro. 3,113,940.
Johns, Iral B., and Di Pietro. 3,113,941.
Johns, Iral B., and Di Pietro. 3,113,942.
Johns, Iral B., and Di Pietro. 3,113,943.
Di Ponte, Sabato A. Alphabet set for the practical teaching of reading and writing. 3,101,556, 8–27–63, Cl. 35—35.
Dirac, Jules F.: *See*—
Paul, Gerard T., Bahnsen, and Dirac. 3,115,574.

Dirck, Alden C. Animal cage. 3,087,459, 4-30-63, Cl. 119—17.

Dirian, Gregoire, H. Sack, F. Botter (born Bergheaud), and B. Lefrancois, to Houilleres du Bassin du Nord et du Pas-de-Calais, and Commissariat a l'Energie Atomique. Process for the isotopic enrichment or fractionation of hydrogen. 3,098,020, 7-16-63, Cl. 204—59.

Di Ricco, Leo, to International Business Machines Corp. Wear resistant magnetic recording media. 3,109,749, 11-5-63, Cl. 117—72.

Di Rito, Vincent L. J., and L. B. Hary, to United States of America, Air Force. Multiuse adapter for manipulators. 3,111,328, 11-19-63, Cl. 279—41.

Dirks, Gerhard. Signal transfer in cyclic storages. 3,088,102, 4-30-63, Cl. 340—174.1.

Dirks, Gerhard. Tape perforation and movement control system. 3,093,303, 6-11-63, Cl. 234—108.

Dirks, Gerhard. Sorting of signals recorded on a magnetizable signal carrier. 3,094,684, 6-18-63, Cl. 340—172.5.

Dirks, Gerhard. Selective transfer of magnetically stored data. 3,102,997, 9-3-63, Cl. 340—172.5.

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Di Sabatino, Roland, to Radio Corp. of America. Spindle adapter. 3,071,380, 1-1-63, Cl. 274—10.

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Di Settembrini, Antoine. Method and apparatus for manufacturing hollow plastic objects. 3,089,185, 5-14-63, Cl. 18—5.

Dishman, Russell G., to United States Pipe and Foundry Co. Method and apparatus for centrifugal casting of pipe. 3,077,013, 2-12-63, Cl. 22—17.

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Disley, Aubrey, to George Goodman Ltd. Collapsible screw fastening means having auxiliary resilient rotation preventing means. 3,110,213, 11-12-63, Cl. 85—40.

Dismuke, William O., to P & D Corp. Apparatus for vulcanizing ornamental trim on tire walls. 3,113,902, 12-10-63, Cl. 156—416.

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Dison, Ernest E. Automobile fender assembly. 3,081,119, 3-12-63, Cl. 293—48.

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Dissen, Israel J., to Velsicol Chemical Corp. Oil modified alkyl resins modified with a thermal polymer of dicyclopentadiene. 3,088,927, 5-7-63, Cl. 260—22.

Disson, Stanley B., and P. Winsor, III, to Burroughs Corp. High speed analog-digital converter. 3,074,058, 1-15-63, Cl. 340—347.

Disson, Stanley B., A. J. Meyerhoff, and P. Winsor III, to Burroughs Corp. Pulse regenerator system with fault location facilities. 3,100,869, 8-13-63, Cl. 325—38.

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Bethell, James R., and Hadley. 3,098,102.
Bethell, James R., Hadley, and Wood. 3,094,565.
Crocker, Henry P. 3,101,375.
Gasson, Edward J., and Hadley. 3,108,141.
Godin, George W., and Graham. 3,075,989.
Graham, Archibald R., Long, and Quin. 3,076,818.
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Hadley, David J., and Stewart. 3,086,041.
Philip, Thomas B. 3,077,802.
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Raum, Alaric L. J. 3,091,607.
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McCallum, John, Johnson, Ditmars, and McGraw. 3,093,513.
McCallum, John, Johnson, Ditmars, and McGraw. 3,093,514.

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Ditto, Richard S., to E. I. du Pont de Nemours and Co. Controller. 3,102,689, 9-3-63, Cl. 236—46.

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Di Tullio, Alfred, E. S., and P. A. Pre-cast sectional concrete septic tank. 3,106,044, 10-8-63, Cl. 50—13.

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Di Tullio, Patsy: *See*—
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Di Tullio, Patsy A.: *See*—
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Dixon, Ellsworth A. Flexible cushioned horse shoe. 3,090,-718, 5-21-63, Cl. 168—7.

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Dixon, Morris S., R. B. Marshall, and J. R. Crerar, to H. J. Heinz Co. Food processing method and apparatus. 3,096,-181, 7-2-63, Cl. 99—150.

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Djerassi, Carl, F. A. Kincl, and J. Iriarte, to Syntex Corp. Δ^4-estrene-10β,17β-diol-3-one compounds and process therefor. 3,088,953, 5-7-63, Cl. 260—397.4.

Djerassi, Carl, O. Halpern, and O. Mancera, to Syntex Corp. Intermediates in the conversion of 11α-hydroxydiosgenin to cortisone. 3,093,636, 6-11-63, Cl. 260—239.55.

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Busch, Theodore N. 3,087,247.

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Doane, John E. Pallet construction. 3,079,877, 3-5-63, Cl. 108—56.

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Dobbins, Grover L., to Kaiser Aluminum & Chemical Corp. Method for removing complex sodium aluminum silicate scale. 3,074,823, 1-22-63, Cl. 134—18.

Dobbins, Mark, to Fenestra, Inc. Method of producing a sound absorbing structure. 3,103,410, 9-10-63, Cl. 18—56.

Dobbratz, Ervin C., deceased (W. Dobbratz, administratrix), and J. A. Green. Wear plate unit for scarifier shanks. 3,098,532, 7-23-63, Cl. 172—719.

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Dobbratz, Ervin C., and Green. 3,098,532.

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Dobell, Curzon, to Dorr-Oliver Inc. Pressure vessel. 3,074,-584, 1-22-63, Cl. 220—3.

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Dobens, William L., to American Can Co. Apparatus for treating all surfaces of a thermoplastic tube with corona discharge. 3,102,193, 8-27-63, Cl. 250—49.5.

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Dobkin, William J., deceased; E. M. Dobkin, executrix. Ticket severing device. 3,082,654, 3-26-63, Cl. 83—95.

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Horowitz, Charles, and Dobrikin. 3,109,456.

Dobrikin, Harold L., to Berg Airlectro Products Co. Vehicle lamp. 3,093,324, 6-11-63, Cl. 240—8.2.

Dobrikin, Harold L., to Berg Airlectro Products Co. Relay emergency valve. 3,097,021, 7-9-63, Cl. 303—29.

Dobrikin, Harold L., and E. J. Brodl, to Berg Airlectro Products Co. Air system timer. 3,088,311, 5-7-63, Cl. 73—39.

Dobrin, Saxe, and J. F. Kincaid, to United States of America, Army. Outward burning neutral granulation for cast propellants. 3,099,963, 8-6-63, Cl. 102—98.

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Dobrosavljevic, Slobodan M. Internal combustion engine. 3,110,292, 11-12-63, Cl. 123—32.

Dobslaw, Gerhardt A., to Portable Electric Tools, Inc. Radial saw adjustment means. 3,092,154, 6-4-63, Cl. 143—6.

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Dodge, George W. Trash burner. 3,111,097, 11-19-63, Cl. 110—18.

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Dodge, Howard M., to The General Tire & Rubber Co. Molded rubber girdle. 3,075,532, 1-29-63, Cl. 128—521.

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Dodge, Milton L. Method of and mechanism for shaping the uppers of low-cut footwear. 3,080,588, 3-12-63, Cl. 12—53.5.

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Dodgson, Douglas P., to Monsanto Chemicals Ltd. Preparation of organic silicon compounds. 3,073,856, 1-15-63, Cl. 260—448.8.

Dodinat, Camille. Method of making lazy tongs linkage, each link being made from one piece of stock. 3,082,595, 3-26-63, Cl. 59—35.

Dodington, Sven H. M., to International Telephone and Telegraph Corp. Pulse shaping klystron modulator. 3,098,980, 7-23-63, Cl. 332—7.

Dodson, Harold L., to United States of America, Army. Frangible firing device. 3,111,089, 11-19-63, Cl. 102—20.2.

Dodson, Harold L., and W. A. Danesi, to United States of America, Army. Frangible firing device. 3,111,901, 11-26-63, Cl. 102—70.2.

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Doe, Walter P., to Fisher-Price Toys, Inc. Sound producing device for toy vehicle. 3,090,893, 8-6-63, Cl. 46—111.

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Doede, Donald J., to Marmet Corp. Insulating unit for curtain wall. 3,093,217, 6-11-63, Cl. 189—34.

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Doetsch, Ernst, and G. Kller. Method of interconnecting electrodes, especially carbon and graphite electrodes for electric furnaces. 3,084,419, 4-9-63, Cl. 29—155.5.

Doggett, Roger H., L. R. B. Hervey, and C. E. Lanyon, to John A. Manning Paper Co., Inc. Process of drying mucilaginous plant materials. 3,100,143, 8-6-63, Cl. 34—9.

Doggett, Roger H., G. H. Hall, D. B. Montgomery, and R. S. Robinson, to Johnson & Johnson. Apparatus for cleaning animal tissue. 3,112,518, 12-3-63, Cl. 17—43.

Doggett, Towers, and J. H. Cady to S. D. Warren Co. Electrostatic recording paper. 3,110,621, 11-12-63, Cl. 117—218.

Doherty, Jack R. Safety clamp. 3,105,281, 10-1-63, Cl. 24—249.

Doherty, Lewis S., to Doherty-Silentaire. Adjustable motor supports. 3,113,753, 12-10-63, Cl. 248—23.

Doherty, Robert H.: *See*—
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Dohr, Manfred, H.-J. Krause, and C. Wulff, to Henkel & Cie. G.m.b.H. Esters of acylaminocarboxylic acids. 3,089,883, 5-14-63, Cl. 260—404.

Dohr, Roman, and W. J. Kaiser, to Therachemie Chemisch therapeutische Gesellschaft m.b.H. Process for treating human hair with amino oxide compositions. 3,098,794, 7-23-63, Cl. 167—87.

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Doktor, Theodore L., G. Parker, L. A. Weber, and H. M. Zydney, to Bell Telephone Laboratories, Inc. Teletypewriter subscriber set. 3,113,176, 12-3-63, Cl. 178—3.

Dokuchitz, Peter S., and L. H. Segall, to The Bendix Corp. Method of making electrical condensers. 3,084,415, 4-9-63, Cl. 29—25.42.

Dokuchitz, Peter S., and L. H. Segall, to The Bendix Corp. Electrical condensers and method of making same. 3,085,183, 4-9-63, Cl. 317—258.

Dolan, David J.: *See*—
Haner, Lambert, and Dolan. 3,108,207.

Dolan, Gordon R.: *See*—
Zartman, John D., and Dolan. 3,108,175.

Dolan, Thomas L., and E. K. Harley, Jr., to Hupp Corp. Refrigerators and components. 3,111,818, 11-26-63, Cl. 62—419.

Dolbeare, Edwin F., to Crompton & Knowles Corp. Harness connection for looms. 3,085,597, 4-16-63, Cl. 139—58.

Dolby, Ray, M. L. J. Kabell, H. E. Murphy, and H. L. Walsh, to Ampex Corp. Video recording system and method. 3,095,472, 6-25-63, Cl. 178—5.4.

Dolce, Thomas J., to Celanese Corp. of America. Oxymethylene polymers containing amide stabilizers. 3,116,267, 12-31-63, Cl. 260—45.9.

Dolce, Thomas J., and F. M. Berardinelli, to Celanese Corp. of America. Thermal stabilization of oxymethylene polymers. 3,103,499, 9-10-63, Cl. 260—45.7.

Dolcemore, Aladino W. Slanted cleat assembly for athletic shoes. 3,082,549, 3-26-63, Cl. 36—2.5.

Dold, John F. Resuscitation device. 3,090,380, 5-21-63, Cl. 128—29.

Dolde, Alfred: *See*—
Brandt, Fritz W., and Dolde. 3,113,015.

Dole, Fred E., to Ace Electronics Associates, Inc. Potentiometer. 3,090,025, 5-14-63, Cl. 338—183.

Dole Valve Co., The: *See*—
Algino, Joseph M. 3,078,872.
Bauerlein, Carl C. 3,074,248.
Dahl, Robert R., and Bauerlein. 3,073,490.
Eskin, Samuel G., and Couffer. 3,105,375.
Obermaier, Frank E. 3,082,955.
Ostrem, Fred. 3,088,482.
Rimsha, Victor E. 3,079,950.
Schwartz, Samuel H., Lund, and Nowak. 3,074,431.

Dolega, Kowalewski: *See*—
Whicher, Charles H., Nickle, and Dolega. 3,106,448.

Doleo S.A.: *See*—
Germann, Werner. 3,074,800.

Dolgorukov, Gregory S. T-square. 3,103,071, 9-10-63, Cl. 33—112.

Dolin, Herbert S. Cutting tool. 3,080,653, 3-12-63, Cl. 30—317.

Doll Bottles, Inc.: *See*—
Gardel, Robert, and Gorsky. 3,105,325.

Doll, Donald P., and H. H. Volkening, to National Lead Co. Composite pigment. 3,073,711, 1-15-63, Cl. 106—296.

Doll, Frank A., and M. J. McLean, to The American Hardware Corp. Lock cylinder assembly machine. 3,111,748, 11-26-63, Cl. 29—208.

Doll, Henri-Georges, to Schlumberger Well Surveying Corp. Electrical measuring systems. 3,072,844, 1-8-63, Cl. 324—54.

Doll, Theodore F.: *See*—
Schroeder, Carl J., and Doll. 3,081,879.

Dollac Corp.: *See*—
Brudney, Harry. 3,086,318.
Brudney, Harry. 3,091,891.
Brudney, Harry. 3,105,326.
Brudney, Harry, and Turshen. 3,091,893.

Dollar Electric Co.: *See*—
Bracken, Garland C. 3,082,287.

Dollison, William W., to Otis Engineering Corp. Retrievable drill pipe plug. 3,102,592, 9-3-63, Cl. 166—125.

Dollison, William W., to Otis Engineering Corp. Pressure controlled pilot valve operating device. 3,115,330, 12-24-63, Cl. 251—62.

Dolliver, Morris A., to Olin Mathieson Chemical Corp. Preparation of ortho-phenethylbenzoic acids by hydrogenation of 3-benzalphthalides. 3,116,324, 12-31-63, Cl. 260—515.

Dolman, Henry J. Print wheel indexing means. 3,110,249, 11-12-63, Cl. 101—79.

Dolnick, Seymour S., to Glen Mfg. Inc. Toilet bowl cover. 3,085,611, 4-16-63, Cl. 150—52.

Dolnick, Seymour S., to Glen Mfg. Inc. Cover for toilet tanks. 3,087,524, 4-30-63, Cl. 150—52.

Dolph, Ake A. H.: *See*—
Stedt, Tore p. G., and Dolph. 3,087,897.

Dolph, James L., to Harbison-Walker Refractories Co. Aluminum melting furnace refractory. 3,078,173, 2-19-63, Cl. 106—62.

Dolphin, Carl: *See*—
Wells, Arthur F., Jr., Dolphin, and Gobert. 3,096,214.

Dolza, John: *See*—
Bouvy, Christiaan H., and Dolza. 3,096,750.

Dolza, John, to General Motors Corp. Charge forming means. Re. 25,492, 12-3-63, Cl. 123—140.

Dolza, John. Internal combustion engines. 3,092,089, 6-4-63, Cl. 123—76.

Domagk, Gerhard: *See*—
Schellhammer, Carl-Wolfgang, and Domagk. 3,108,108.
Schellhammer, Carl-Wolfgang, Petersen, and Domagk. 3,084,165.
Westphal, Kurt, and Domagk. 3,112,316.

Doman, Glidden S., and S. Du Pont, to Doman Helicopters, Inc. Rotor head with collective pitch control. 3,082,826, 3-26-63, Cl. 170—135.7.

Doman, Glidden S., and S. Du Pont, to Doman Helicopters, Inc. Rotor with two joints in drive shaft. 3,087,690, 4-30-63, Cl. 244—17.27.

Doman Helicopters, Inc.: *See*—
Doman, Glidden S., and Du Pont. 3,082,826.
Doman, Glidden S., and Du Pont. 3,087,690.
Du Pont, Stephen. 3,080,002.

Domann, Helmut, to Robert Bosch, G.m.b.H. Regulating device for electric generators. 3,106,673, 10-8-63, Cl. 322—73.

Domash, Lionel, and R. A. Flinn, to Gulf Research & Development Co. Improvement in hydrodesulfurization with an irradiated catalyst. 3,074,880, 1-22-63, Cl. 208—216.

Domash, Lionel, S. L. Peake, and R. C. Odioso, to Gulf Research & Development Co. Process for alkylation in the presence of a silica-alumina-fluorine catalyst. 3,084,204, 4-2-63, Cl. 260—671.

Dombeck, Edward K., to The Bendix Corp. 3,096,857, 7-9-63, Cl. 188—78.

Dombeck, Edward K., to The Bendix Corp. Automatic adjuster. 3,103,992, 9-17-63, Cl. 188—79.5.

Dombeck, Edward K., to The Bendix Corp. Cam shaft actuated internally expanding brake. 3,109,519, 11-5-63, Cl. 188—78.

Dombeck, Edward K., and D. D. Johannesen, to The Bendix Corp. Quick check master cylinder filler cap. 3,096,648, 7-9-63, Cl. 73—334.

Dombrow, Bernard A., to Nopco Chemical Co. Flexible urethane foams and a process for producing same. 3,100,752, 8-13-63, Cl. 260—2.5.

Dombrowik, Eugene S., to Landers, Frary and Clark. Coffee maker. 3,081,709, 3-19-63, Cl. 103—231.5.

Dombrowski, Edward J., to Sperry Rand Corp. Transfer mechanism for calculating machines. 3,076,602, 2-5-63, Cl. 235—137.

Dombrowski, Edward J., to Sperry Rand Corp. Restoring mechanism for pin carriages. 3,098,608, 7-23-63, Cl. 235—60.

Dombrowski, Henry S., to E. I. du Pont de Nemours and Co. Metal processing. 3,072,347, 1-8-63, Cl. 241—3.

Dombrowski, Henry S., and F. E. Edlin, to E. I. du Pont de Nemours and Co. Production of refractory metals. 3,114,625, 12-17-63, Cl. 75—10.

Dome Chemicals, Inc.: *See*—
Wershaw, Irving B., and Logun. 3,071,510.

Dôme, Peter, to Societe Suisse pour l'Industrie Horlogere S.A. Electromagnetic device for maintaining the oscillatory movement of a balance wheel comprising a hair spring. 3,095,528, 6-25-63, Cl. 318—132.

Dôme, Peter, to Societe Suisse pour l'Industrie Horlogere S.A. Device for electromagnetically maintaining oscillating movement. 3,095,529, 6-25-63, Cl. 318—132.

Dome, Robert B., to General Electric Co. Stereophonic system. 3,099,707, 7-30-63, Cl. 178—5.6.

Dome, Robert B., to General Electric Co. Video frequency amplifiers for television receivers. 3,102,925, 9-3-63, Cl. 178—7.5.

Dome, Robert B., to General Electric Co. Bridged-T time delay network. 3,116,373, 12-31-63, Cl. 179—15.

Domeck, Corneal L., Jr., and C. J. Moll, Jr., to General Cigar Co., Inc. Tobacco manufacture. 3,115,882, 12-31-63, Cl. 131—17.

Domeisen, Karl A., to Avco Corp. Mechanism for observing nozzle spray patterns. 3,081,623, 3-19-63 Cl. 73—119.

Domenighetti, Domenico. Completely pneumatic suspension device for a towed vibrating tamping road roller. 3,075,437, 1-29-63, Cl. 94—50.

Domenighetti, Domenico. Device for the transmission of rotary motion to vibrating members with simultaneous damping of the vibrations. 3,108,519, 10-29-63, Cl. 94—50.

Domicone, Joseph J., to Corning Glass Works. Laminated glass articles and method of making same. 3,089,799, 5-14-63, Cl. 154—2.7.

Domicone, Joseph J., and W. C. Smith, to Corning Glass Works. Method of joining two glass bodies. 3,099,549, 7-30-63, Cl. 65—30.

Domina, Delfried, to G. Fritzmeier. Roof structure for tractors and the like. 3,083,994, 4-2-63, Cl. 296—107.

Domina, Delfried, to G. Fritzmeier. Adjustable support for vehicle roofs and friction joint therefor. 3,102,547, 9-3-63, Cl. 135—5.

Dominion Bridge Co., Ltd.: *See*—
Mutch, Robert D. 3,090,495.

Dominion Engineering Works Ltd.: *See*—
Berlyn, Martin J. 3,115,098.
Devé, Vagn. 3,098,502.
Deve, Vagn, and Miloradovitch. 3,097,003.
Freemantle, Robert E. 3,079,123.
Goddard, Denis A. 3,105,789.
Goddard, Denis A. 3,097,993.
Greding, Robert. 3,107,873.
Ozgur, Cahit. 3,088,414.
Miloradovitch, Leonid. 3,086,473.
Sproule, Robert S., and Desbaillets. 3,081,975.

Dominion Gulf Co.: *See*—
Spence, Walter C., and Svendsen. 3,087,809.

Dominion Textile Co. Ltd.: *See*—
Kolb, Robert W. 3,113,886.

Dommer, Henry. Illuminated spirit level. 3,114,507, 12-17-63, Cl. 240—6.44.

Domning, William E., to The Dow Chemical Co. Production and separation of molten cerium from 4ts reducing metal chloride which is in solid form. 3,104,166, 9-17-63, Cl. 75—84.5.

Domsic, Paul M., and H. J. Dielman, to The Sanymetal Products Co., Inc. Automatic door locking assemblies. 3,095,225, 6-25-63, Cl. 292—169.

Donadio, Joseph G. Method of manufacturing synthetic star sapphire jewelry piece. 3,088,194, 5-7-63, Cl. 29—160.6.

Donahue, Daniel J.: *See*—
Jordan, Eugene L., and Donahue. 3,089,793.

Donahue, Frank M.: *See*—
Selle, Bernard G. 3,092,301.

Donahue, Gary M., J. Scher, and D. B. Train, to Owens-Illinois Glass Co. Display shipper. 3,093,240, 6-11-63, Cl. 206—45.19.

Donaldson, Chase, to Darworth Inc. Metal-fiber reinforced resin laminate. 3,091,262, 5-28-63, Cl. 138—143.

Donaldson, Chase, to Darworth, Inc. Method of making a glass reinforced fibrous web. 3,113,061, 12-3-63, Cl. 156—167.

Donaldson, Coleman Du P., to Thompson Ramo Wooldridge Inc. Helical path plasma. 3,110,843, 11-12-63, Cl. 315—111.

Donaldson Co., Inc.: *See*—
Anderson, Dale K., and Wolff. 3,078,650.

Donaldson, David R. Lifts with inclined track. 3,084,766, 4-9-63, Cl. 187—12.

Donaldson, Donald J., to Kaiser Aluminum & Chemical Corp. Method for continuous digestion of aluminous ore. 3,112,994, 12-3-63, Cl. 23—143.

Donaldson, Raymond E., and C. C. White, to Eastman Kodak Co. Flameproof cellulose acetate fabrics. 3,082,121, 3-19-63, Cl. 117—136.

Donaldson, Raymond W., to The Ohio Brass Co. Third rail apparatus. 3,071,656, 1-1-63, Cl. 191—32.

Donaldson, Richard L. Adjustable outboard motor mounting. 3,106,375, 10-8-63, Cl. 248—4.

Donaldson, Robert D., and E. V. Welch, to General Aniline & Film Corp. Process for manufacturing α-anthraquinone disulfonate containing low amounts of mercury. 3,079,404, 2-26-63, Cl. 260—370.

Donaldson, Robert M.: *See*—
Malmstrom, Homer E., and Donaldson. 3,099,543.

Donals, Carl W. Portable angle drill jig. 3,086,408, 4-23-63, Cl. 77—62.

Donat, Ralph J.: *See*—
McIlvaine, Robert L., and Donat. 3,088,183.

Donati, Mario: *See*—
Marullo, Gerlando; Rinaudo, Dakli, Donati, Fornasieri, and Garlanda. 3,116,294.

Donato, Everal: *See*—
Kemelhor, Robert E., and Donato. 3,086,170.

Donau-Pharmagie Gesellschaft m.b.H.: *See*—
Zellner, Hugo. 3,113,948.

Donawa, Carlton S. Lathe spindle and collet stops. 3,115,798, 12-31-63, Cl. 82—34.

Doncaster, Daniel P., B. B. Bauer, and A. A. Goldberg, to Minnesota Mining & Mfg. Co. Magnetic tape magazine. 3,090,574, 5-21-63, Cl. 242—55.13.

Doncaster, Daniel & Sons Ltd.: *See*—
Walton, Eric, Lord, and Austin. 3,094,160.

Donegan, Joseph W., to Allied Chemical & Dye Corp. Roof deck structure having a continuous vapor barrier and composite insulating element therefor. 3,079,730, 3-5-63, Cl. 50—346.

Donelan, James A.: *See*—
Cooke, Edward I., and Donelan. 3,095,643.

Donelan, James A., to The General Electric Co. Ltd. Welding electrode arrangements. 3,108,177, 10-22-63, Cl. 219—81.

Doner, Byron, to F. Maurits. Infant feeding bottle. 3,071,272 1-1-63, Cl. 215—11.

Doner, Ralph D., to United States of America, Army. Apparatus and method for testing solid propellant for aging. 3,092,992, 6-11-63, Cl. 73—19.

Dongelmans, Pieter, to International Training Centre for Aerial Survey. Marking device for apparatus for observing photograms. 3,083,468, 4-2-63, Cl. 33—189.

Donguy, René: *See*—
Cochinal, Roland, Roguin, and Donguy. 3,116,210.

Donguy, Rene, to Commissariat a L'Energie Atomique. Device for the production of a discontinuous rotary movement. 3,071,015, 1-1-63, Cl. 74—88.

Donkin, Arthur W., to Conoo-Trol, Inc. Spring. 3,091,447, 5-28-63, Cl. 267—1.

Donle, Edwin S., to Coro, Inc., of Rhode Island. Locket having a hinged leaf with a marginal opening facing said hinge. 3,079,771, 3-5-63, Cl. 63—19.

Donlevy, Alfred L.: *See*—
Hum, Jack K. Y., and Donlevy. 3,115,407.

Donlevy, Alfred L., and J. K. Y. Hum, to Stauffer Chemical Co. Alloy. 3,075,840, 1-29-63, Cl. 75—174.

Donlevy, James A., to United States of America, Air Force. Canister unit with latching means. 3,075,165, 1-22-63, Cl. 339—91.

Donlin, John E., to Contemporary Structures, Inc. Ridge beam hanger. 3,109,208, 11-5-63, Cl. 20—94.

Donnell, Conrad K., to Sun Oil Co. Colorimeter with linear absorbance scale. 3,076,375, 2-5-63, Cl. 88—23.

Donnell, Howard K., to Radio Corp. of America. Method of making electrode spacing means. 3,081,526 3-19-63, Cl. 29—155.5.

Donnelley, R. R., & Sons Co.: *See*—
Cline, Ernest E., and Griner. 3,114,314.
Kile, Otho, and Golbeck. 3,101,164.
Schoenberger, Robert L., Jr. 3,103,843.
Singer, Charles. 3,110,396.
Swanson, Kermit E., Thompson, and Wilk. 3,111,312.

Donnelly, Frank M., to Belmont Blower Corp. Self-modulating air moving device. 3,086,699, 4-23-63, Cl. 230—117.

Donnelly, Harold F.: *See*—
Day, Winterton U., Donnelly, and Rohs. 3,096,228.

Donnelly, Ralph G., R. G. Gilliland, and G. M. Slaughter, to United States of America, Atomic Energy Commission. Brazing alloys. 3,079,251, 2-26-63, Cl. 75—134.

Donnelly, William T., to Purex Corp., Ltd. Plastic object blow molding method and apparatus. 3,114,932, 12-24-63, Cl. 18—5.

Donner, Hans O. Tail of mortar projectile. 3,085,511, 4-16-63, Cl. 102—650.

Donner, Verne P., and E. Mayer, to International Harvester Co. Gear pump or the like. 3,083,645, 4-2-63, Cl. 103—126.

Donofrio, Alfonso M., to Silver Creek Precision Corp. Method and machine for similarly arranging open-topped containers or the like. 3,086,639, 4–23–63, Cl. 198—33.

D'Onofrio, Anthony. Tabulating apparatus for typewriters or like machines. 3,099,343, 7–30–63, Cl. 197—127.

D'Onofrio, Joseph V., L. Welsman, I. Steinberg, and C. G. Valavanis, to Sperry Rand Corp., Ford Instrument Co. Division. Compensator for variations of parameters in telemetry systems. 3,087,156, 4–23–63, Cl. 343—225.

Donohue, Frank L.: *See*—
Hurley, Thomas P., Donohue, and Teeple. 3,103,734.

Donohue, John A.: *See*—
Papesh, Steven A., and Donohue. 3,076,756.

Donovan, Arthur F., H. T. Jacquot, and R. E. Richardson, to Pittsburgh Plate Glass Co. Glass bending method. 3,102,016, 8–27–63, Cl. 65—107.

Donovan, Joseph J.: *See*—
Milliken, Thomas H., Jr., Krause, and Donovan. 3,101,998.

Donovan, Joseph J., and A. H. Weiss, to Air Products Chemicals, Inc. Coke oven light oil purification. 3,081,259, 3–12–63, Cl. 208—216.

Donovan, Roy L., to Sun Oil Co. Fixed bed apparatus for the catalytic conversion of hydrocarbons. 3,100,141, 8–6–63, Cl. 23—288.

Donrico Inc.: *See*—
Grossman, Aaron, and Transport. 3,075,683.

Donzis, Byron A.: *See*—
Arvanetakis, Kiryako, and Donzis. 3,087,058.

Doolittle, Charles M., to International Business Machines Corp. Specific heat measuring device. 3,095,739, 7–2–63, Cl. 73—190.

Doolittle, Gerald R. Scaffolding clamp. 3,116,079, 12–31–63, Cl. 287—20.

Doolittle, Marcus C., to The Trane Co. Air register. 3,086,443, 4–23–63, Cl. 98—121.

Doom, Lewis G.: *See*—
Oakes, Earle T., Doom, McElligott, and Sundheim. 3,072,486.

Doorenbos, Norman J.: *See*—
Clark, Charles A., Doorenbos, and Horwitz. 3,101,343.
Clark, Charles A., Doorenbos, and Horwitz. 3,102,141.

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Heath, Thomas D., and Aconsky. 3,102,092.

Doppelt, Alvin: *See*—
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Doppelt, Theodore, ½ to A. Doppelt. Stapling machine. 3,087,160, 4–30–63, Cl. 1—49.

Doppler, Werner: *See*—
Heuck, Claus, Stark, and Doppler. 3,111,499.

Doran, Donald P. Multi-unit packet. 3,071,244, 1–1–63, Cl. 206—45.31.

Doran, John T. Cement floor finishing machine. 3,098,329, 7–23–63, Cl. 51—177.

Doran, Leo L., and M. H. Olson, to Oxy-Dry Sprayer Corp. Web cleaning apparatus. 3,078,496, 2–26–63, Cl. 15—346.

Doran, Wilbur J., and N. R. Easton, to Eli Lilly and Co. Hindered amino alcohols and ketones. 3,111,542, 11–19–63, Cl. 260—584.

Doray Lamp Co., Inc.: *See*—
Dover, Samuel M. 3,100,085.

Dore Development Co., The: *See*—
Theodore, David T. 3,109,571.

Dore, James E.: *See*—
Stauffer, William O., and Dore. 3,084,925.

Dorendorf, Heinz, to Siemens & Halske Aktiengesellschaft. Double-base semiconductor device for producing a defined number of impulses. 3,114,050, 12–10–63, Cl. 307—88.5.

Dorey, George B., to Enterprise Railway Equipment Co. Closure means. 3,079,032, 2–26–63, Cl. 220—38.

Dorey, George B., to Enterprise Railway Equipment Co. Hopper car discharge outlet sliding closure actuating mechanism. 3,082,700, 3–26–63, Cl. 105—253.

Dorey, George B., to Enterprise Railway Equipment Co. Sliding hopper closure operating assembly. 3,082,701, 3–26–63, Cl. 105—253.

Dorey, George B., to Enterprise Railway Equipment Co. Sliding closure outlet frame assembly. 3,082,703, 3–26–63, Cl. 105—282.

Dorey, George B., to Enterprise Railway Equipment Co. Sliding hopper discharge outlet closure actuating mechanism. 3,082,704, 3–26–63, Cl. 105—282.

Dorey, George B., to Enterprise Railway Equipment Co. Sliding hopper discharge outlet closure actuating mechanism. 3,082,705, 3–26–63, Cl. 105—282.

Dorey, George B., to Enterprise Railway Equipment Co. Sliding hopper discharge outlet closure actuating mechanism. 3,082,706, 3–26–63, Cl. 105—282.

Dorey, George B., to Enterprise Railway Equipment Co. Outlet structure for railway hopper cars. 3,097,612, 7–16–63, Cl. 105—282.

Dorey, George B., to Enterprise Railway Equipment Co. Latching device for railway hopper car doors. 3,100,455, 8–13–63, Cl. 105—253.

Dorey, George B., to Enterprise Railway Equipment Co. Hopper discharge outlet sealing sliding closure assembly. 3,100,456, 8–13–63, Cl. 105—253.

Dorey, George B., to Enterprise Railway Equipment Co. Sliding closure hopper closure outlet assembly. 3,100,457, 8–13–63, Cl. 105—282.

Dorey, George B., to Enterprise Railway Equipment Co. Railway hopper car pivoted closure latching mechanism. 3,104,623, 9–24–63, Cl. 105—248.

Dorey, George B., to Enterprise Railway Equipment Co. Sliding closure hopper outlet construction. 3,106,899, 10–15–63, Cl. 105—253.

Dorey, George B., to Enterprise Railway Equipment Co. Sliding closure discharge outlet assembly for a hopper. 3,109,388, 11–5–63, Cl. 105—253.

Dorfelt, Christoph, and H. Gelbert, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning. Process for the preparation of hexa-organo-distannoxanes. 3,082,230, 3–19–63, Cl. 260—429.7.

Dorff, Arlo: *See*—
Smith, John K., and Dorff. 3,104,023.

Dorfmann, Oskar: *See*—
McCormick, Frank, and Dorfmann. 3,105,626.

Dorgelo, Eduard G., to North American Philips Co., Inc. Magnetron. 3,076,387, 2–19–63, Cl. 315—39.75.

Doring, Erwin: *See*—
Greger, Paul, and Doring. 3,087,398.
Greger, Paul, Doring, and Sommer. 3,073,226.

Dorius, Carl B., G. M. Jones, and P. L. Morse, to American Gilsonite Co. Cold-laid bituminous paving materials. 3,074,807, 1–22–63, Cl. 106—273.

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Schrader, Gerhard, and Dörken. 3,076,009.

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Bomm, Heinz, and Berghaus. 3,098,259.

Dorkins, Evan E., and P. D. Gernhardt, to Young Spring & Wire Corp. Road working machine. 3,088,385, 5–7–63, Cl. 94—49.

Dorman, Isidore, to Ideal Toy Corp. Swimming pool alarm. 3,092,822, 6–4–63, Cl. 340—261.

Dorman, Isidore. Balloon and spring clip. 3,094,807, 6–25–63, Cl. 46—90.

Dorman, Isidore. Toy balloon sealing means and method. 3,108,396, 10–29–63, Cl. 46—90.

Dorman, William H., and D. D. Sullivan, to Corning Glass Works. Luminaire. 3,113,730, 12–10–63, Cl. 240—106.

Dormandy, William L.: *See*—
Bahn, John J., and Dormandy. 3,112,415.

Dornak, Henry J. Boat hull. 3,077,172, 2–12–63, Cl. 114—62.

Dornbhierer, Fritz. Mixing faucet assembly. 3,110,038, 11–12–63, Cl. 4—145.

Dornbos, Peter B. Plasterer's finishing tool. 3,095,594, 7–2–63, Cl. 15—235.4.

Dornbusch, Aaron P., to Minneapolis-Honeywell Regulator Co. Asynchronous to synchronous converter for use in data processing apparatus. 3,103,649, 9–10–63, Cl. 340—174.

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Dornhoefer, Edna M.: *See*—
Dornhoefer, Warren J. 3,074,032.

Dornhoefer, Warren J., deceased (by E. M. Dornhoefer, administratrix), to The Warren Mfg. Co. Inc. Transistor L-C oscillator with inductive feedback. 3,074,032, 1–15–63, Cl. 331—117.

Dornier, Peter, to Dornier-Werke G.m.b.H. Aircraft with ground effect landing gear. 3,082,976, 3–26–63, Cl. 244—12.

Dornier, Peter, to Dornier-Werke G.m.b.H. Airplane for vertical and horizontal take-off and landing. 3,109,609, 11–5–63, Cl. 244—12.

Dornier, Silvius, to Dornier-Werke G.m.b.H. Aircraft having two or more jet power units placed symmetrically to the central axis. 3,075,725, 1–29–63, Cl. 244—12.

Dornier, Silvius, to Dornier-Werke G.m.b.H. Airplane wing flaps. 3,112,089, 11–26–63, Cl. 244—42.

Dornier-Werke G.m.b.H.: *See*—
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Dorofnchuk, Gus J., to Coutainer Corp. of America. Paperboard carrier for frangible articles. 3,090,539, 5–21–63, Cl. 229—40.

Dorosz, Adolph S.: *See*—
Clark, Alfred S., Dorosz, Gilbride, and Walsh. 3,086,230.

Dorr-Oliver Inc.: *See*—
Crosby, Hartzell L., and Coe. 3,073,737.
Dietrich, Karl A. 3,098,577.
Dobell, Curzon. 3,074,584.
Glasson, John G. 3,073,516.
Halbach, Ralph H. 3,080,109.
Halbach, Ralph H. 3,111,490.
Helbig, Fritz, and Jukkola. 3,089,251.
Jacobson, Kenneth E. 3,080,108.
Strong, Michael D. 3,074,842.
Van Note, Robert H. 3,089,789.

Dorr Sales & Engineering Co., Inc.: *See*—
Taylor, Harvey C. 3,103,169.

Dorr Woolen Co.: *See*—
Mortensen, Rudolf W. 3,108,428.

Dorrance, John G.: *See*—
Bradt, Lynn, and Dorrance. 3,078,810.
Bradt, Lynn, and Dorrance. 3,094,944.
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Bradt, Lynn, and Dorrance. 3,103,895.

Dörre, Heinrich: *See*—
Günther, Alfred, Dörre, and Thieme. 3,080,635.

Dorris, George J., Jr.: *See*—
Christopher, Benjamin G., and Dorris. 3,072,058.

Dorros, Irwin, to Bell Telephone Laboratories, Inc. Transmitter and receiver signaling circuits. 3,103,647, 9–10–63, Cl. 340—167.

Dorrow, Henry E., to R. L. Crain Ltd. Continuous form marginal connections. 3,112,125, 11–26–63, Cl. 282—11.5.

Dorsak, John W., and T. F. Van Denberg, to Air Reduction Co., Inc. Filter for incubator. 3,084,492, 4–9–63, Cl. 55—265.

Dorse, Thomas J.: *See*—
Hamlin, Charles E., and Dorse. 3,106,413.

Dorset-Rex, Inc.: *See*—
Levine, Sol. 3,091,329.
Ramsbotham, Robert W. 3,080,989.

Dorsett, Charles M.: *See*—
Kerr, Ralph O., Decker, and Dorsett. 3,074,069.

Dorsett, Clarence T. Magnetic blocks. 3,095,668, 7–2–63, Cl. 46—25.

Dorsey, Clarence A. Carriage chair. 3,083,053, 3–26–63, Cl. 297—153.

Dorsey, Dennis B. Safety closure. 3,097,756, 7–16–63, Cl. 215—9.

Dorsey, Mercer M. Head and mantle assemblies for crushers. 3,097,803, 7–16–63, Cl. 241—293.

Dorsey, William J., to International Latex Corp. Deposited latex undergarments. 3,098,486, 7–23–63, Cl. 128—521.

Dorst, Richard W., to Textron, Inc. Jet drive mounting mechanism for power boat. 3,109,407, 11–5–63, Cl. 115—14.

Dorst, W.: *See*—
Korf, Christiaan, and Wachholtz. 3,083,113.

Dortort, Isadore K., to I-T-E Circuit Breaker Co. Semi-conductor rectifier bridge construction. 3,081,424, 3–12–63, Cl. 321—8.

Dortort, Isadore K., to I-T-E Circuit Breaker Co. Shockless automatic to manual changeover system for regulators. 3,086,165, 4–16–63, Cl. 323—66.

Dortort, Isadore K., to I-T-E Circuit Breaker Co. Bias for current transformer. 3,089,999, 5–14–63, Cl. 323—56.

Dory, Jacques, to Realisations Ultrasoniques. Centrifugal acceleration siren device. 3,089,458, 5–14–63, Cl. 116—147.

Dory, Jacques, and J.-J. Renaut, to Realisations Ultrasoniques. Improvements in the mounting of electromagnetic transducer elements. 3,102,210, 8–27–63, Cl. 310—26.

Dory Lamp Co., Inc.: *See*—
Magazanik, Louis, and Dover. 3,077,326.

Dosamatic Dropper Corp: *See*—
Ballin, Gene. 3,101,751.

Doschek, Antony Z., to Allied Instructional Developments, Inc. Loudspeaker resonator. 3,101,810, 8–27–63, Cl. 181—31.

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Bischof, Julius L., and Dosenbach. 3,085,334.

Dosie, Erwin F., ½ to L. P. Dosie. Filter for the exhaust gases of internal combustion engines and the like. 3,083,524, 4–2–63, Cl. 60—29.

Dosie, Lillian P.: *See*—
Dosie, Erwin F. 3,083,524.

Dosker, Cornelius D., to Conch International Methane Ltd. Insulated space and elements employed therein. 3,079,026, 2–26–63, Cl. 220—9.

Dosker, Cornelius D., to Conch International Methane Ltd. Insulated floor construction and elements. 3,082,726, 3–26–63, Cl. 114—74.

Dosker, Cornelius D., to Conch International Methane Ltd. Membrane type storage tank. 3,085,708, 4–16–63, Cl. 220—9.

Dosker, Cornelius D., to Conch International Methane Ltd. Insulation, method of construction, and elements. 3,091,817, 6–4–63, Cl. 20—4.

Dosker, Cornelius D., to Gamble Brothers, Inc. Wooden bowling pins of spherical belly type and prefabricated segments therefor. 3,099,449, 7–30–63, Cl. 273—82.

Dosker, Cornelius D., to Conch International Methane Ltd. Insulated storage tank. 3,104,025, 9–17–63, Cl. 220—15.

Dosmar, Kurt J. Cabinet with shiftable shelves. 3,101,982, 8–27–63, Cl. 312—223.

Doss, Joseph H. Metallurgical composition. 3,087,812, 4–30–63, Cl. 75—171.

Doss, Joseph H., and G. A. Graham, to Boeing Airplane Co. Full body restraint system. 3,099,261, 7–30–63, Cl. 128—1.

Dossier, Michel. One-way clutches and in particular freewheels. 3,092,227, 6–4–63, Cl. 192—41.

Dostal, Joseph B. Combination car seat and stroller. 3,116,069, 12–31–63, Cl. 280—30.

Dotson, Lionel E., to E. I. du Pont de Nemours and Co. Filtration of viscose. 3,073,815, 1–15–63, Cl. 260—217.

Dotter, Paul, to Fichtel & Sachs A.G. Variable speed transmission arrangement for a bicycle and the like. 3,104,559, 9–24–63, Cl. 74—489.

Dotter, Paul, to Fichtel & Sachs A.G. Anti-friction bearing. 3,113,812, 12–10–63, Cl. 308—187.1.

Dottlinger, Alfred, ½ to Jacob Ritter, K.G. Writing instrument. 3,084,670, 4–9–63, Cl. 120—42.3.

Dottlinger, Alfred, ½ to Jacob Ritter, K.G. Writing instrument. 3,084,671, 4–9–63, Cl. 120—42.3.

Dottlinger, Alfred, to Jacob Ritter K.G. Push-button mechanisms. 3,100,403, 8–13–63, Cl. 74—503.

Dotto, Gianni A., and W. D. Walther, to The Dayton Steel Foundry. Improvement in caliper type disk brakes. 3,081,843, 3–19–63, Cl. 188—73.

Dotts, Walter M., Jr., and W. E. Stevens, to Development, Ltd. Method for high pressure selective absorption of gases. 3,097,917, 7–16–63, Cl. 23—2.

Doty, George L.: *See*—
Logan, Hugh H., Doty, and Lockhart. 3,106,722.
Logan, Hugh H., Doty, and Nelson. 3,093,002.

Doty, George L., J. F. Nelson, and R. M. Ege, to Logan Mfg. Co. Multi-station plumbing fixture and outlet manifold therefor. 3,078,476, 2–26–63, Cl. 4—192.

Doty, Joseph C., and R. J. Buchwalder, to Harris-Intertype Corp. Safety control for a cutting machine clamping device. 3,081,079, 3–12–63, Cl. 269—23.

Doubek, Edward R., Jr., to Western Electric Co., Inc. Decelerating circuit. 3,100,554, 8–13–63, Cl. 188—161.

Double A Products Co.: *See*—
Johnson, Charles E. 3,106,897.

Double, Plummer E., and J. H. Steward, to Multifastener Corp. Method of applying stress relieved fasteners. 3,091,843, 6–4–63, Cl. 29—432.

Dougherty, Allison L., and R. G. Milosevich. Screw conveyor coupling. 3,104,757, 9–24–63, Cl. 198—213.

Dougherty Brothers, Inc.: *See*—
Cholet, Bertrand. 3,107,035.
Dougherty, Frank E. 3,087,656.

Dougherty, Frank E., to Dougherty Brothers, Inc. Squeeze cap for dispensing liquid in drop units. 3,087,656, 4–30–63, Cl. 222—518.

Dougherty, Frank H. Collapsible load carrying device. 3,085,815, 4–16–63, Cl. 280—47.33.

Dougherty, Patrick F.: *See*—
Closs, George M., and Dougherty. 3,089,309.

Dougherty, Patrick F., to Sun Oil Co. Storage of normally gaseous material in underground caverns. 3,083,537, 4–2–63, Cl. 61—.5.

Dougherty, Patrick F., to Sun Oil Co. Underground storage of liquids. 3,084,515, 4–9–63, Cl. 61—.5.

Dougherty, Walter J., Jr., to Hughes Tool Co. Ball director for rock bits. 3,087,558, 4–30–63, Cl. 175—65.

Doughty, Joseph B.: *See*—
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Doughty, Joseph B., to West Virginia Pulp and Paper Co. Reaction of lignin and product. 3,081,293, 3–12–63, Cl. 260—124.

Douglas Aircraft Co., Inc.: *See*—
Amason, Myron P. Re. 25,417.
Ball, Kenneth H. 3,075,068.
Banios, Edward W. 3,086,140.
Clark, Winslow R. M. 3,103,657.
Cruise, Gary B., Detrie, and O'Neil. 3,079,941.
Davis, Donald G. 3,112,447.
Hoffstrom, Bo N. 3,093,352.
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Linderfelt, Hal R. 3,085,297.
Mayo, Alfred M., and Nichols. 3,106,203.
McCloud, Willys W. 3,105,236.
McDill, William H. 3,114,470.
Petersen, Thorvald K. 3,108,698.
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Smith, Paul L. 3,094,223.
Speakman, Eugene R. 3,075,234.
Weise, Carl A. 3,094,251.
Wheelon, Orville A. 3,084,716.

Douglas, Alvin P., to The Murray Ohio Mfg. Co. Juvenile vehicle body construction. Re. 25,382, 5–7–63, Cl. 296—28.

Douglas, Bradley C., to Micro Controls, Inc. Liquid dispenser. 3,085,715, 4–16–63, Cl. 222—70.

Douglas, Bradley C., to Micro Controls, Inc. Thermostatic gas valve. 3,091,395, 5–28–63, Cl. 236—99.

Douglas, Catherine M.: *See*—
Tesi, Giorgio, and Douglas. 3,079,431.
Tesi, Giorgio, Douglas, and Haber. 3,087,937.

Douglas, David D. Building panels for and coupling joints therebetween in prefabricated buildings. 3,082,489, 3–26–63, Cl. 20—8.

Douglas, Edwin J., to H. L. Stoker Co. Removable screw assembly. 3,080,045, 3–5–63, Cl. 198—213.

Douglas, Edwin J., to H. L. Stoker Co. Material-handling device. 3,093,271, 6–11–63, Cl. 222—413.

Douglas, Gerald R. Swage rifling method and apparatus. 3,071,840, 1–8–63, Cl. 29—1.1.

Douglas, James: *See*—
Swick, Michael V., Ward, and Douglas. 3,092,532.

Douglas, James K., to The Oilgear Co. Pilot operated balanced relief valve with accumulator. 3,083,727, 4–2–63, Cl. 137—489.

Douglas, John P.: *See*—
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Douglas, Peyton W., to Blackstone Corp. Clothes washing machine having a gyratory suspension system. 3,083,558, 4–2–63, Cl. 68—23.

Douglas, Peyton W., to Blackstone Corp. Combined lint filter and dispenser for washing substances in automatic washing machines. 3,085,418, 4–16–63, Cl. 68—17.

Douglas, Robert I., to Permali Ltd. Insulating fish plates. 3,071,325, 1–1–63, Cl. 238—159.

Douglas, Samuel A., to General Precision, Inc., Link Division. Electrical potentiometer. 3,072,871, 1–8–63, Cl. 338—171.

Douglas, Samuel A., to General Precision, Inc. Tap setter. 3,085,321, 4–16–63, Cl. 29—203.

Douglas, Stuart D., deceased, by The National Bank of Commerce of Charleston, executor, to Union Carbide Corp. Reactive polyvinyl chloride resin reactive acrylate ester plasticizer compositions. 3,074,905, 1–22–63, Cl. 260—45.5.

Douglas, William S., to Ericsson Telephones Ltd. Electrical pulse-counting devices. 3,108,226, 10–22–63, Cl. 328—42.

Douls, Michel, J. Godart, J. Jouin, H. Laurent, and M. Sougi, to Commissariat a l'Energie Atomique. Devices for opening and handling from a distance a container, and in particular an irradiated tube. 3,085,327, 4–16–63, Cl. 30—11.

Douls, Michel, and U. Rosa, to Commissariat a l'Energie Atomique. Methods of producing Iodine-131. 3,114,608, 12–17–63, Cl. 23—218.

Doukas, George, to E. I. du Pont de Nemours and Co. Process for making acetylene. 3,073,769, 1–15–63, Cl. 204—171.

Douma, Tjiski, to Radio Corp. of America. Inductive circuits. 3,076,106, 1–29–63, Cl. 307—106.

Doundoulakis, Hellas, to C. A. Michalos. Electrical resistor. 3,092,800, 6–4–63, Cl. 338—143.

Doundoulakis, Hellas, to Teleglobe Pay-TV-System, Inc. Television communication system. 3,116,363, 12–31–63, Cl. 178—5.1.

Dourdeville, Theodore A., to David Gessner Co. Seam jumping apparatus for cloth shearing machines. 3,099,871, 8–6–63, Cl. 26—17.

Dournow, Frederic, to Brevets Aero-Mecaniques S.A. Rockets carried in clusters by a launching machine and in particular an aircraft. 3,110,218, 11–12–63, Cl. 89—1.7.

Douros, John D., Jr., R. L. Raymond, and J. J. Melchiore, to Sun Oil Co. Alkylated naphthalene fungal growth inhibitors. 3,080,278, 3–5–63, Cl. 167—32.

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Douty, Alfred, and D. E. Buczkowski, to Amchem Products, Inc. Chemical feed control system. 3,095,121, 6–25–63, Cl. 222—52.

Douwes, Cornelis T., P. A. van Weeren, and H. de Ruiter, to Shell Oil Co. Process for the catalytic desulfurization of hydrocarbon oils. 3,112,257, 11–26–63, Cl. 208—216.

Douwes, Cornelis T., and G. J. F. Stijntjes, to Shell Oil Co. Low-temperature selective hydrogenation of dienes. 3,116,233, 12–31–63, Cl. 208—143.

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Dove, Starr A. Shaft straightening device. 3,103,963, 9–17–63, Cl. 153—32.

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Costley, Vivian G., Dovell, and Luh. 3,094,928.

Doven, Eugene, to The Appleton Machine Co. Machine for slitting sheet material. 3,096,039, 7–2–63, Cl. 242—56.2.

Doven, Eugene, and P. W. Lenke, to The Appleton Machine Co. Winding and slitting machine. 3,104,072, 9–17–63, Cl. 242—66.

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Been, Hollis R. 3,077,820.
Bersworth, Frederick C., and Frost. 3,076,701.
Billow, Norman. 3,075,937.
Blatz, Paul E. 3,097,238.
Bozer, Keith B., Montgomery, and Archer. 3,075,942.
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Brust, Harry F. 3,071,574.
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Currie, Chester C. 3,115,472.
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Hearns, Harold L. 3,091,411.
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Hemwall, John B. 3,082,076.
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Hickner, Richard A. 3,105,080.
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Hoelzer, Russell L., and Schmidt. 3,075,459.
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Howard, William L., and Lorette. 3,072,727.
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Kenaga, Duane L. 3,077,418.
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Kroon, James L., and Blue. 3,072,544.
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Draper, John H., Jr. 3,097,413.

Draper, Charles H., and R. C. Sutter, to Diamond Alkali Co. Cooling process for HCl-containing gas. 3,079,231, 2–26–63, Cl. 23—154.

Draper, Charles S., W. Wrigley, R. B. Woodbury, and J. F. Hutzenlaub, to Massachusetts Institute of Technology. Guidance system. 3,104,545, 9–24–63, Cl. 73—178.

Draper Corp.: *See*—
Banks, Waldo H. 3,097,669.
Belforti, George F. 3,085,598.
Blake, Donald L. 3,094,297.
Cadorette, George. 3,095,016.
Consoletti, Paul C. 3,098,511.
Flamand, Maurice R. 3,081,797.
Fregeolle, Oscar. 3,094,854.
Fregeolle, Oscar. 3,102,405.
Fregeolle, Oscar. 3,104,587.
Fregeolle, Oscar, and White. 3,115,022.
Giacomuzzi, Kenneth L. 3,081,855.
Gulndon, Bertrand E. 3,088,497.
Nichols, Edward C. 3,108,617.
Remington, Elliott L. 3,077,905.
Remington, Elliott L. 3,081,796.
Turner, William E. 3,104,852.

Draper, John H., Jr., to Draper Brothers Co. Unwoven papermaker's felt. 3,097,413, 7–16–63, Cl. 28—79.

Draper, Montrose L. Grease blotting device. 3,088,151, 5–7–63, Cl. 15—210.

Draucker, Claude D.: *See*—
Bright, Forbe E. 3,075,568.

Draut, Charles F.: *See*—
Scheitlin, George E., and Draut. 3,090,677.

Dravnieks, Andrew, and A. J. Freedman, to Standard Oil Co. Conductometric corrosion measurement system. 3,094,865, 6–25–63, Cl. 73—86.

Dravo Corp.: *See*—
Anthes, John A. 3,080,157.
Koontz, Victor F., and Antbes. 3,092,473.
Koontz, Victor F., and Phelps. 3,110,570.

Drayer, William L., and S. A. Makela, to General Motors Corp. Vibratory apparatus for atomizing liquids. 3,108,749, 10–29–63 Cl. 239—102.

Drayton, John W. Apparatus for handling mandrels used in the fabrication of tubular stock. 3,090,575, 5–21–63, Cl. 242—66.

Dreamland Electrical Appliances Ltd.: *See*—
Owers, Leonard C. 3,102,186.

Drechsel, Armin: *See*—
Van Winsen, Friedrich H., and Drechsel. 3,102,573.

Drechsel, Armin, to Daimler-Benz Aktiengesellschaft. Tire pressure control device. 3,101,111, 8–20–63, Cl. 152—416.

Drees, Jan M., to Bell Aerospace. Method of second harmonic control. 3,102,597, 9–3–63, Cl. 170—160.25.

Drees, Lothar. Multiple-writing set. 3,084,955, 4–9–63, Cl. 282—11.5.

Dreher, Emil, F. Raeck, and K. Bolz, to Byk-Gulden Lomberg Chemische Fabrik G.m.b.H. Process of retarding sedimentation of pigments in film-forming coating materials and compositions. 3,075,849, 1–29–63, Cl. 106—177.

Dreher, John L., and J. E. Goodrich, to California Research Corp. Pyromellitdiimides. 3,093,656, 6–11–63, Cl. 260—326.

Dreibelbis, Richard C., to Carrier Corp. Thermostatic control mechanism. 3,100,078, 8–6–63, Cl. 236—47.

Dreier, Melvin E. Testing device for tractor pulling power. 3,110,176, 11–12–63, Cl. 73—141.

Dreier, Raymond C. Machine tool. 3,094,816, 6–25–63, Cl. 51—92.

Dreier, Sidney, and S. Lubash. Floor construction and method of providing same. 3,093,932, 6–18–63, Cl. 50—83.

Dreissen, Hubert H., to Stamicarbon N.V. Manufacturing starch and by-products from potatoes, cassava roots and the like. 3,079,283, 2–26–63, Cl. 127—67.

Drelich, Arthur H., to Johnson & Johnson. Fibrous structures and methods of making the same. 3,087,833, 4–30–63, Cl. 117—38.

Drelich, Arthur H., to Johnson & Johnson. Nonwoven fabrics and methods of manufacturing the same. 3,093,502, 6–11–63, Cl. 117—38.

Drell, Leonard B., to De Mert & Dougherty. Pressure dispenser. 3,085,752, 4–16–63, Cl. 239—308.

Drengler, George R.: *See*—
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Drengler, George R., M. B. Clark, R. E. Stark, and T. R. Beatty, to Union Carbide Corp. High rate primary batteries. 3,087,003, 4–23–63, Cl. 136—10.

Drennan, Emil J. Cleaner for swimming pool floors. 3,074,087, 1–22–63, Cl. 15—1.7.

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Malone, Homer F., and Drennan. 3,109,078.

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Stewart, Warren A., and Drenning. 3,104,997.

Drenth, John B. Jig for making custom chairs. 3,112,137, 11–26–63, Cl. 297—284.

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Drescher, Philipp. Continuous band of form sets. 3,081,110, 3–12–63, Cl. 282—11.5.

Dresden, Anton. Valve having elastomer sleeve. 3,102,710, 9–3–63, Cl. 251—9.

Dresen, Eshern. Plaval motor powered toothbrush. 3,104,347, 9–17–63, Cl. 318—5.

Dressen, De Wayne J. Three point hitch. 3,088,752, 5–7–63, Cl. 280—508.

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Dresser Industries, Inc.: *See*—
Brokaw, Adrian P. 3,113,289.
Burton, Robert G., Lamb, and Schopper. 3,103,626.
Davis, Roy C. 3,089,431.
Dyer, Norman D., and Franks. 3,101,928.
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Lamb, Jefferson P. 3,075,141.
Marx, Paul F. 3,078,332.
Norris, William F. 3,105,190.
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Porter, Forrest V. 3,080,005.
Risley, Roger E. 3,096,105.
Risley, Roger E., and Newell. 3,106,069.
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Smith, Harold W., Duesterhoeft, Bostick, and Garner. 3,096,477.
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Wilson, John C. 3,081,401.
Winter, Arthur B. 3,109,101.

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Dresser, Richard. Pneumatic safety tire construction. 3,100,518, 8–13–63, Cl. 152—347.

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Smith, Reading B., and Dresser. 3,103,541.

Dresser, Thorpe, to Sinclair Research, Inc. Process for duremo recovery by crystallization. 3,113,982, 12–10–63, Cl. 260—674.

Dresser, Walter K. Paper towel dispenser cabinet. 3,087,662, 4–30–63, Cl. 225—43.

Dretzke, Carl F., to Sperry Rand Corp. Devices for unloading materials from silos and similar structures. 3,079,016, 2–26–63, Cl. 214—17.

Dreve, Wolfgang. Extrusion method and device. 3,114,935, 12–24–63, Cl. 18—30.

Drew Chemical Corp.: *See*—
Batey, Robert W. 3,103,957.
McGinn, Earl P. 3,107,519.
Reider, Malcolm J. 3,098,694.

Drew, E. F. & Co., Inc.: *See*—
Babayan, Vigen K. Re. 25,488.

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Hruby, John O., Jr. 3,081,036.

Drew, John H.: *See*—
Berglund, David B., and Drew. 3,095,655.

Drews, Harald J., and E. K. Fields, to Standard Oil Co. Synthesis of diarylalkanes. 3,071,631, 1–1–63, Cl. 260—668.

Drews, John W. Charcoal grill. 3,087,416, 4–30–63, Cl. 99—345.

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Drexel Dynamics Corp.: *See*—
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Brown, Laurence R. 3,085,226.
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Drexinger, Robert M., and S. Kuba, to Western Electric Co., Inc. Apparatus for treating articles. 3,098,494, 7–23–63, Cl. 134—70.

Dreyer, H., Amazonen-Werke: *See*—
Dreyer, Heinz. 3,109,657.

Dreyer, Heinz, to H. Dreyer Amazonen-Werke. Centrifugal spreader. 3,109,657, 11–5–63, Cl. 275—8.

Dreyer, Ulrich, and W. Kirst, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius und Bruning. Complex metal compounds of water-insoluble mono azo 3-indazole dyestuffs. 3,096,319, 7–2–63, Cl. 260—147.

Dreyfus, Philip S., deceased, and L. G. Fernstrom (The First National Bank of Chicago, executor of P. S. Dreyfus). Dry concentrator. 3,080,056, 3–5–63, Cl. 209—466.

Dreyfus, Robert L.: *See*—
Howe, Milton A., Jr., and Dreyfus. 3,091,904.

Dreyfus, Robert L., and W. C. Kirkpatrick, to W. R. Grace & Co. Method of packaging articles. 3,095,677, 7–2–63, Cl. 53—30.

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Demaison, Raymond J., and Dreyling. 3,093,496.

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Driesch, Theodore W., to General Electric Co. Drum brake mechanism. 3,106,265, 10–8–63, Cl. 188—75.

Drieschman, Donald F., and T. M. Lott, to Eitel-McCullough, Inc. Klystron apparatus. 3,076,116, 1–29–63, Cl. 315—5.35.

Driesel, Gustav: *See*—
Schiffers, Josef, Robra, and Driesel. 3,102,672.

Driessen, Henricus J.: *See*—
Timmerman, Jan, Koolstra, Starre, and Driessen. 3,078,571.

Drilco Oil Tools, Inc.: *See*—
Garrett, William R. 3,099,918.

Drillick, Jacob H., to Clary Sales & Supply Corp. Intermittent drive mechanism. 3,111,854, 11–26–63, Cl. 74—126.

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Grounds, Robert W. 3,102,590.

Drimus, Iosif, G. C. Matusa, and M. Klang, to Ministerul Industriei Petrolului Si Chimie. Process for the nitration of organic compound in gas phase. 3,115,527, 12–24–63, Cl. 260—644.

Dripps, William F.: *See*—
Broverman, Michael, and Dripps. 3,073,479.

Driscoll, Anthony F., ½ to J. E. Masboch. Closure for sealing container outlet. 3,101,877, 8–27–63, Cl. 222—520.

Driscoll, Paul A.: *See*—
Tankersley, James A., and Driscoll. 3,095,064.

Driscoll, Timothy J.: *See*—
Antonazzi, Mario, Driscoll, Snyder, and Wolujczyk. 3,107,515.

Driscoll, William J.: *See*—
Kehe, Henry J., Johnson, Driscoll, and Bloor. 3,071,619.

Dritz, Arthur. Belt with corrugated fastening means. 3,112,496, 12–3–63, Cl. 2—322.

Druce, Harry F., J. T. Bell, and T. D. Jaeger, to Container Corp. of America. Box cover forming machine. 3,115,813, 12–31–63, Cl. 93—36.

Druce, Harry F., J. T. Bell, and T. D. Jaeger, to Container Corp. of America. Paperboard container. 3,116,006, 12–31–63, Cl. 229—45.

Drobil, Francis W.: *See*—
Schlecht, Charles H., and Drobil. 3,099,291.

Drobilits, Martin E.: *See*—
Lantz, George H., and Drobilits. 3,104,400.

Drobne, John R.: *See*—
Cope, Richard P., Jr., and Drobne. 3,093,557.

Drobnick, James L.: *See*—
Lewis, Clifford J., and Drobnick. 3,083,085.

Drobnick, James L., and C. J. Lewis, to General Mills, Inc. Control of molybdenum during liquid-liquid extraction of uranium using amine extractants. 3,083,076, 3–26–63, Cl. 23—14.5.

Drodofsky, Martin, to C. Zeiss. Orientation compass. 3,088,217, 5–7–63, Cl. 33—222.

Droege, Frederick J.: *See*—
Klotz, Herman J., Droege, and Krysiuk. 3,084,856.

Droegkamp, Robert E., E. R. Slaughter, and A. H. Thomas, to Westinghouse Electric Corp. Zirconium-base brazing alloys. 3,104,972, 9–24–63, Cl. 75—177.

Droescher, Le Roy A., to C. H. Wheeler Mfg. Co. Deaerating system for condensers. 3,094,165, 6–18–63, Cl. 165—39.

Droeske, Gordon W. Tractor-trailer wheel steering assembly. 3,092,398, 6–4–63, Cl. 280—426.

Dromboski, Stephen. Hydraulic chain mover. 3,095,181, 6–25–63, Cl. 254—105.

Drone, Kingsley C.: *See*—
Wheeler, Walter G., and Drone. 3,073,373.

Drong, Thomas J. Meat slicing apparatus. 3,078,893, 2–26–63, Cl. 146—153.

Dronoff, Tima. Seamless shoe. 3,081,563, 3–19–63, Cl. 36—49.

Dronsek, Gunter: *See*—
Bielenberg, Waldemar, Rodis, Ziegler, Dronsek, and Hinz. 3,100,106.

Dros, Albert A., to North American Philips Co., Inc. Refrigerator. 3,078,683, 2–26–63, Cl. 62—6.

Dros, Albert A., to North American Philips Co., Inc. Multistage refrigerating arrangement. 3,091,092, 5–28–63, Cl. 62—6.

Dros, Albert A., to North American Philips Co., Inc. Gas refrigerator. 3,101,597, 8–27–63, Cl. 62—6.

Drost, Wilfred, R. W. Kebler, and E. E. Dutcheas, to Union Carbide Corp. Method of making synthetic unicrystalline bodies. 3,077,752, 2–19–63, Cl. 65—18.

Drott Mfg. Corp.: *See*—
Baudhuin, George J. 3,075,603.
Knight, Sidney G. 3,112,035.

Droz, Arthur. Diving watch. 3,111,003, 11–19–63, Cl. 58—126.

Drubel, Richard B., and F. J. Buege, to The Dow Chemical Co. Coating compositions of epoxy novolac resins, amino resins and acid esters of diethylene glycol and dibasic carboxylic acids. 3,097,183, 7–9–63, Cl. 260—44.

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Drucker, Rudolph, to G.K.N. Reinforcements Ltd. Means for use in restressing concrete structures. 3,102,312, 9–3–63, Cl. 24—126.

Druckknopf- und Metallwarenfabrik A. Raymond: *See*—
Engelmann, Walter. 3,102,745.

Druey, Jean, P. Schmidt, and K. Eichenberger, to Ciba Corp. New pyrazolo-pyrimidines. 3,098,075, 7–16–63, Cl. 260—256.4.

Druey, Jean, and H. U. Daeniker, to Ciba Corp. Thio alkane carboxylic acids and functional derivatives thereof. 3,098,078, 7–16–63, Cl. 260—327.

Druey, Jean, and K. Schenker, to Ciba Corp. Meta-substituted phenoxyethylamines. 3,105,854, 10–1–63, Cl. 260—570.7.

Drugmand, Lester D., to Edwin L. Wiegand Co. Electric immersion heater assembly. 3,111,572, 11–19–63, Cl. 219—38.

Drugmand, Lester D., to Edwin L. Wiegnand Co. Electric heaters. 3,116,401, 12–31–63, Cl. 219—38.

Drugmand, Lester D., to Edwin L. Wiegnand Co. Electric heaters. 3,116,402, 12–31–63, Cl. 219—38.

Drukker, Willard D.: *See*—
Cubbidge, James F., Drukker, Fernald, Lenk, Turner, Weeks, and Wiest. 3,080,512.

Drumm, William R.: *See*—
Loomis, Robert C., and Drumm. 3,101,177.

Drummond, Oliver E.: *See*—
Anderson, John P., and Drummond. 3,112,764.

Drushel, Robert W.: *See*—
Porterfield, Cecil P., and Drushel. 3,089,059.

Drutchas, Gilbert H.: *See*—
Clark, Hubert M., and Drutchas. 3,101,673.

Drutchas, Gilbert H., and H. M. Clark, to Thompson Ramo Wooldridge, Inc. Pressure intensifier. 3,079,864, 3–5–63, Cl. 103—57.

Drutchas, Gilbert H., and H. M. Clark, to Thompson Ramo Wooldridge, Inc. Slipper sealing means for a dual acting pump. 3,081,706, 3–19–63, Cl. 103—4.

Druz, Walter S., to Zenith Radio Corp. Code signal generator. 3,073,892, 1–15–63, Cl. 178—5.1.

Druz, Walter S., to International Commodities, Inc. Recording and reproducing apparatus. 3,075,775, 1–29–63, Cl. 274—17.

Druz, Walter S., and J. Isabeau, to Zenith Radio Corp. Remote control system. 3,078,444, 2–19–63, Cl. 340—171.

Dry, Claud J., and D. C. Orcutt. Chassis support apparatus and system. 3,115,945, 12–31–63, Cl. 180—56.

Dry, John P. Adjustable air diffuser and damper. 3,103,869, 9–17–63, Cl. 98—40.

Dry Screen Process, Inc.: *See*—
Sherman, Anson G. 3,071,069.
Sherman, Anson G. 3,082,688.

Dryden, E. David: *See*—
Parks, Noble L. 3,073,467.

Dryden, Eva. Vehicle sun visor means having a main shield mounting a horizontally slidingly positionally changeable auxiliary shield. 3,095,233, 6–25–63, Cl. 296—97.

Dryden, Hugh L., Deputy Administrator to the National Aeronautics and Space Administration, with respect to the invention of J. F. Meyer. Time-division multiplexer. 3,100,294, 8–6–63, Cl. 340—147.

Dryer, Eldon O.: *See*—
Glasgow, Lyle E., and Dryer. 3,098,497.

Dryer, Peter J., and D. C. Harding, to Boyne Products, Inc. Direction signaling apparatus. 3,076,067, 1–29–63, Cl. 200—61.3.

Drysdale, John, to Cable Covers Ltd. Stay rods. 3,085,306, 4–16–63, Cl. 24—126.

Dual, George C., and T. F. Drake, to Courtaulds, Ltd. Method of modifying cellulose with formaldehyde using Lewis acid catalyst solutions for use in such method and product thereof. 3,113,826, 12–10–63, Cl. 8—116.4.

Dual Jet Refrigeration Co.: *See*—
Beckwith, Sterling. 3,082,612.
Beckwith, Sterling. 3,094,851.

Dual Mfg. & Engineering Inc.: *See*—
Belisle, Adelard J., Allyn, and Re. 3,084,974.

Duane, John J.: *See*—
Boyle, Francis K., and Duane. 3,088,158.

Duane, John J., and G. F. Tappan, to Union Carbide Corp. Deicer composition. 3,096,290, 7–2–63, Cl. 252—70.

Duarte, Tom F. Automatic wood trimming saw machine. 3,072,158, 1–8–63, Cl. 143—19.

Dubberke, Walther H. Adjustable tractor wheel means. 3,084,000, 4–2–63, Cl. 301—1.

Dubberley, Charles A., to General Electric Co. Hermetic refrigerant compressor. 3,098,604, 7–23–63, Cl. 230—206.

Dube, Alfred, and J. A. Kasper, to Stetson China Co. Time analyzer. 3,095,253, 6–25–63, Cl. 346—20.

Dube, Emile. Hook for facial tissue box and the like. 3,110,467, 11–12–63, Cl. 248—311.

Dubeck, Emil, to The Kenmar Mfg. Co. Reclining chair mechanism with leg platform extension. 3,096,118, 7–2–63, Cl. 297—75.

Dubeck, Michael, to Ethyl Corp. Cyclomatic nickel allyl compounds. 3,086,984, 4–23–63, Cl. 260—439.

Dubeck, Michael, to Ethyl Corp. Acetylenic nickel compounds. 3,088,962, 5–7–63, Cl. 260—439.

Dubeck, Michael, to Ethyl Corp. Manufacture of cyclopentadienyl nickel nitrosyl compounds. 3,088,963, 5–7–63, Cl. 260—439.

Dubeck, Michael, to Ethyl Corp. Acetylene nickel compounds. 3,097,224, 7–9–63, Cl. 260—439.

Dubeck, Michael, to Ethyl Corp. Acetylenic nickel compounds. 3,097,225, 7–9–63, Cl. 260—439.

Dubecky, Petro, to Johns-Manville Corp. Punch for forming perforations in coated asbestos-cement sheets. 3,078,574, 2–26–63, Cl. 30—358.

Dubeller, Morton A. Hair holders. 3,099,271, 7–30–63, Cl. 132—46.

Du Berger, Roland J. Core drilling apparatus. 3,095,049, 6–25–63, Cl. 175—244.

Du Berger, Roland J. Core drilling apparatus. 3,095,050, 6–25–63, Cl. 175—254.

Dubey, Michael B.: *See*—
Mann, Alfred E., Dubey, Wolf, Ralph, Oliver, and Shuster. 3,094,439.

Duble, Orville L. Bulk truck with flexible conveyor. 3,092,241, 6–4–63, Cl. 198—213.

Dubled, Edouard, et Cie (Societe Anonyme): *See*—
Musy, Andre P. 3,100,424.
Seiler, Fritz. 3,102,404.

Dubiel, Joseph M.: *See*—
Brunson, Thomas H. 3,092,844.

Dubil Mfg., Inc.: *See*—
Dubil, Matthew. 3,098,747.

Dubil, Matthew, to Dubil Mfg., Inc. Method for preparing a ground beef product. 3,098,747, 7–23–63, Cl. 99—108.

Dubini, Camillo, to Giuseppe Dubini & C. S.A. Apparatus for refining yarns. 3,085,390, 4–16–63, Cl. 57—34.

Dubini, Giuseppe, & C. S.A.: *See*—
Dubini, Camillo. 3,085,390.

Dublirer, Robert, S. M. Barbaresi, and L. Katzman. Therapeutic warming pad for animals. 3,096,428, 7–2–63, Cl. 219—46.

Dubofsky, Nicholas. Balance for safety razors. 3,111,757, 11–26–63, Cl. 30—90.

Du Bois, Chester: *See*—
Rappleen, Eugene L., and Du Bois. 3,115,114.

Du Bois, Edgar H.: *See*—
Joschke, Richard R., and Du Bois. 3,110,255.

Du Bois, Edgar H., to A. B. Dick Co. Oscillating roller mechanism for printing presses. 3,110,253, 11–12–63, Cl. 101—348.

Du Bois, Edgar H., A. J. Mazzio, and G. P. Niesen, to A. B. Dick Co. Photocopy developing machine having automatic squeeze roller operation. 3,095,796, 7–2–63, Cl. 95—89.

Dubois, Jacques R. N. Process for welding thermoplastic materials. 3,071,503, 1–1–63, Cl. 156—272.

Du Bois, John H. Provision of surface markings on plastics. 3,072,969, 1–15–63, Cl. 18—55.

Du Bois Plastic Products, Inc.: *See*—
Bright, Roy A. 3,113,346.

Du Bois, Robert C., to Manning, Maxwell & Moore, Inc. Instrument case for universal mounting. 3,096,654, 7–9–63, Cl. 73—431.

Dubois, Sven-Otto. Device for keeping index cards. 3,073,050, 1–15–63, Cl. 40—124.

Du Bois, William H., and D. J. Roth, to The Bendix Corp. Brake element having metal fiber reinforcing. 3,114,197, 12–17–63, Cl. 29—182.2.

Dubouchet, Jacques, to Etablissements Neyrpic. Automatic gate for maintaining a constant and adjustable water level. 3,070,963, 1–1–63, Cl. 61—23.

Du Broff, Warren. Carton inverting apparatus. 3,070,934, 1–1–63, Cl. 53—374.

Du Brow, Paul, to Armour and Co. Isothiouronium compounds. 3,093,666, 6–11–63, Cl. 260—404.5.

Dubsky, Borivoj, O. Straka, H. Felkel, and R. Feuereisl, to Vyzkumny a zkusebni letecky ustav. Electromagnetic open-circuit spirometer. 3,081,766, 3–19–63, Cl. 128—2.08.

Dubsky, Borivoj, and O. Straka, to Vyzkumny a zkusebni letecky ustav. Fourfold electromagnetic tensometer with adjustable prestressing. 3,092,795, 6–4–63, Cl. 336—30.

Du Buis, Edwin O., and E. L. Cucksey, to Willcox & Gibbs Sewing Machine Co. Doffing device. 3,070,949, 1–1–63, Cl. 57—53.

Du Buis, Edwin O., and E. L. Cucksey, to Willcox & Gibbs Sewing Machine Co. Doffing and donning machine. 3,077,725, 2–19–63, Cl. 57—53.

Dubuit, Louis G. Surface treatment of cylindrical articles. 3,076,640, 2–5–63, Cl. 263—6.

Dubuit, Louis. Silk screen printing machine. 3,090,300, 5–21–63, Cl. 101—123.

Dubuit, Louis G. Silk-screen printing device. 3,113,510, 12–10–63, Cl. 101—124.

Dubuque Awning & Tent Co.: *See*—
Frommelt, Cyril P. and S. J. 3,095,886.

Dubuque Products, Inc.: *See*—
Carlo, Clarence E. Re. 25,422.
Carlo, Clarence E. 3,090,424.
Carlo, Clarence E. 3,090,425.
Carlo, Clarence E. 3,090,426.
Carlo, Clarence E. 3,090,430.

Ducati, Adriano C., to Plasmadyne Corp. Method of making glass fibers. 3,099,548 7–30–63, Cl. 65—5.

Ducati, Adriano C., and R. D. Buhler. Hyperthermal tunnel apparatus and electrical plasmajet torch incorporated therein. 3,075,065, 1–22–63, Cl. 219—75.

Duchange, Guillaume, to B. Titeux. Establishment of pH value of a phosphoric acid solution by its reaction with iron prior to its use to treat ferrous surfaces. 3,102,830, 9–3–63, Cl. 148—6.16.

Ducharme, Alphonse, 49% to J. C. Marcotte. Fuel oil burner. 3,090,422, 5–21–63, Cl. 158—77.

Duchene, William R., and H. C. Shook, to Research, Inc. Flue caps for chimneys and the like. 3,101,039, 8–20–63, Cl. 98—59.

Duchesne, Normand. Driver for rotary tools. 3,088,338, 5–7–63, Cl. 74—757.

Duchin, Maurice, Creations, Inc.: *See*—
Ross, Lon. 3,097,615.

Duchin, Paul J. Vacuum breaker. 3,083,723, 4–2–63, Cl. 137—218.

Duclaux, Daniel, to Pechiney, Compagnie de Produits Chimiques et Electrometallurgiques. Clamping device for electric connections. 3,093,369, 6–11–63, Cl. 269—221.

Ducommun, Georges, to Baumgaitner Freres S.A. Clock with several dials. 3,106,817, 10–15–63, Cl. 58—2.

Ducon Co., Inc., The: *See*—
Krochta, Harry. 3,093,468.
Leech, Robert R., Weits, and Held. 3,078,646.

Ducros, Andre C.: *See*—
Cottet, Emile C., and Ducros. 3,107,206.
Cottet, Emile C., and Ducros. 3,107,207.

Dudak, Rita M.: *See*—
Mann, David J., Perry, and Dudak. 3,083,235.

Duddy, Joseph C., to The Electric Storage Battery Co. Storage battery electrodes and method of making the same. 3,099,586, 7–30–63, Cl. 136—43.

Dudek, Edwin K.: *See*—
Witt, Victor R., Prentky, and Dudek. Re. 25,405.

Dudgeon, John E. Nail with head removable by twisting. 3,096,680, 7–9–63, Cl. 85—28.

Dudgeon, John E. Removable spring check valve. 3,111,961, 11–26–63, Cl. 137—327.

Dudler, Hans A.: *See*—
Smith, Paul E., Jr., and Dudler. 3,092,742.

Dudley, Earl A. Vegetation harvester. 3,090,138, 5–21–63, Cl. 37—2.

Dudley, Edmond R., to Peerless Equipment Co. Can feeding and dividing apparatus and system. 3,098,551, 7–23–63, Cl. 193—31.

Dudley, Elizabeth, to Scott Paper Co. Sanitary napkin and method of manufacture. 3,106,207, 10–8–63, Cl. 128—290.

Dudley, George, Jr., to The Narrow Fabric Co. Distending device for uniform caps and the like. 3,076,199, 2–5–63, Cl. 2—195.

Dudley, Homer T. Illuminated decoy and lure for fishing. 3,091,882, 6–4–63, Cl. 43—17.5.

Dudley, Horace C. Apparatus for the promotion and control of vehicular flight. 3,095,167, 6–25–63, Cl. 244—62.

Dudley, Jerome M. Wing shot arrow. 3,096,091, 7–2–63, Cl. 273—106.5.

Dudley, John W., to Minneapolis-Honeywell Regulator Co. Underwater search apparatus. 3,084,331, 4–2–63, Cl. 340—3.

Dudley, Leslie P. C. J. Three-dimensional spatial image producing display device. 3,096,389, 7–2–63, Cl. 88—75.

Dudyak, Michael, to American Cyanamid Co. Capsule inspection and separation. 3,097,161, 7–9–63, Cl. 209—12.

Dudzik, Chester J., to Leesona Corp. Yarn guiding device. 3,094,761, 6–25–63, Cl. 28—62.

Dudzinski, Clarence A.: *See*—
Adams, Arthur A., Arval, Bartson, Dudzinski, Grant, and McAnulty. 3,113,019.

Dudzinski, Leonard R., to Bendix-Westinghouse Automotive Air Brake Co. Fluid pressure feed or reducing valve. 3,071,147, 1–1–63, Cl. 137—116.5.

Dueker, Gordon W.: *See*—
Woodcock, Eugene L., Dueker, and Golay. 3,094,001.

Dueker, Gordon W., and C. R. Sebens, to Mine Safety Appliances Co. Chromatographic system. 3,070,989, 1–1–63, Cl. 73—23.

Dueker, Stanley T., to Schlumberger Well Surveying Corp. Perforating apparatus. 3,106,130, 10–8–63, Cl. 89—1.

Duenke, Clarence G., to Moloney Electric Co. Electrical core loop winding apparatus. 3,078,053, 2–19–63, Cl. 242—9.

Duenke, Clarence G., to Moloney Electric Co. Electrical core loop fabrication. 3,093,889, 6–18–63, Cl. 29—155.57.

Duenke, Kenneth L., to The Clarken Co. Bushing assembly. 3,084,305, 4–2–63, Cl. 339—202.

Duenke, Kenneth L., to The Clarken Co. Quick connector. 3,099,509, 7–30–63, Cl. 339—255.

Duennenberger, Max: *See*—
Ackermann, Franz, Duennenberger, and Siegrist. 3,076,812.
Liechti, Peter, Siegrist, Duennenberger, and Maeder. 3,095,421.

Duennenberger, Max, E. Maeder, A. E. Siegrist, and P. Liechti, to Ciba Ltd. New phenylbenzazoles. 3,095,422, 6–25–63, Cl. 260—307.

Duennenberger, Max, and A. E. Siegrist, to Ciba Ltd. 2,5-di[6'-methoxybenzimidazole-(2')-furan]. 3,103,518, 9–10–63, Cl. 260—309.2.

Duensing, Maurice W. Sheath for retaining heat of body temperature and supporting muscle structure of wearer. 3,074,405, 1–22–63, Cl. 128—293.

Duensing, Maurice W. Muscular thermal support sheath. 3,092,110, 6–4–63, Cl. 128—293.

Duer, Morris J., to General Motors Corp. Compound epicyclic gear mechanism. 3,081,648, 3–19–63, Cl. 74—801.

Duer, Morris J., to General Motors Corp. Self-cleaning air filter. 3,104,962, 9–24–63, Cl. 55—302.

Duer, Morris J., to General Motors Corp. Self-purging air filter and speed reducing drive therefor. 3,107,987, 10–22–63, Cl. 55—294.

Duerden, David, to Abbott Laboratories. Method of rendering alcohols anhydrous. 3,105,099, 9–24–63, Cl. 260—643.

Duerksen, Arnold, to Super Mold Corp. of California. Press for portable tire retreading molds. 3,074,109, 1–22–63, Cl. 18—18.

Duesel, Bernard F., and G. Wilbert, to Nepera Chemical Co. Inc. Aluminum salts of nicotinic acid and process therefor. 3,072,659, 1–8–63, Cl. 260—270.

Duesterhoeft, William C., Jr.: *See*—
Smith, Harold W., Duesterhoeft, Bostick, and Garner. 3,096,477.

Du Fault, Homer D., to Heatbath Mfg. Co., Inc. Steel space heater construction. 3,099,257, 7–30–63, Cl. 126—90.

Du Ferodo, Francaise, Societe Anonyme: *See*—
Maurice, Jean, and Rist. 3,091,315.

Duff, Harold H., to Synchro Machine Co. Transfer device for continuous spoolers. 3,086,721, 4–23–63, Cl. 242—25.

Duff, Jack E., to The Hoover Co. Extensible hose. 3,080,891, 3–12–63, Cl. 138—122.

Duff, Jack E., and M. C. Pavlic, to The Hoover Co. Suction washing appliance. 3,072,950, 1–15–63, Cl. 15—320.

Duff-Norton Co.: *See*—
Carroll, Charles. 3,086,090.
Carroll, Charles. 3,092,369.
Sample, Basil S. 3,096,578.

Duff, Philip, to United States of America, Navy. Explosive diaphragm valve. 3,092,286, 6–4–63, Cl. 220—47.

Duff, Samuel. Apparatus for garaging or storing motor vehicles. 3,104,019, 9–17–63, Cl. 214—16.1.

Duffey, Billy J., and L. H. Finnern. Tool tray for vehicle grease racks. 3,084,764, 4–9–63, Cl. 187—8.41.

Duffey, Joseph G., to Arnold Equipment Corp. Method of recovering carbon dioxide. 3,100,685, 8–13–63, Cl. 23—150.

Duffield, Joseph F., to Amalgamated Electric Corp., Ltd. Wiring device assembly. 3,114,792, 12–17–63, Cl. 174—54.

Duffield, Robert B.: *See*—
Koutz, Stanley L., Duffield, Minogue, Compton, and Lynch. 3,072,549.

Duffy, Basil, to Combustion Engineering, Inc. Method of fitting circumferential seal members. 3,108,366, 10–29–63, Cl. 29—405.

Duffy, Dan W.: *See*—
Fuetterer, Charles T. 3,113,605.

Duffy, Edward J., to Radio Corp. of America. Loading apparatus. 3,074,526, 1–22–63, Cl. 193—29.

Duffy, James J., to Ford Motor Co. Control circuit for a power transmission mechanism. 3,095,755, 7–2–63, Cl. 74—472.

Duffy, John R., to Lindberg Engineering Co. Heat treating furnace. 3,071,356, 1–1–63, Cl. 263—6.

Duffy, Walter M., to E. I. du Pont de Nemours and Co. Upgraded oil comprising at least one unsaturated oil which is an ester of a C_{16} to C_{26} fatty acid and an at least trihydric alcohol. 3,074,896, 1–22–63, Cl. 260—23.

Dufour, Georges, to Brevets Aero-Mecaniques S.A. Armor-piercing projectiles. 3,096,715, 7–9–63, Cl. 102—52.

Dufresne, Robert J.: *See*—
Karpovich, John, and Dufresne. 3,106,983.

Dugan, John W. Method of and apparatus for preparing aqua ammonia. 3,073,678, 1–15–63, Cl. 23—193.

Dugan, Martin, to Arthur Vale, d.b.a. La Trique Brassieres Co. Brassiere. 3,093,137, 6–11–63, Cl. 128—443.

Dugan, Patrick J. Games. 3,090,623, 5–21–63, Cl. 273—142.

Duggan, Raymond J.: *See*—
Papero, Patrick V., Jr., Snider, and Duggan. 3,090,778.

Duggan, Raymond J., E. J. Murray, and L. O. Winstrom, to Allied Chemical Corp. Process for the production of cyclohexanone. 3,076,810, 2–5–63, Cl. 260—586.

Duggan, Robert B., and A. A. Klapheke, to American Radiator & Standard Sanitary Corp. Electrical heating element. 3,086,187, 4–16–63, Cl. 338—283.

Dugger, Lonnie R. Spring bending tool. 3,094,151, 6–18–63, Cl. 140—106.

Dugger, Ralph L. Door and latching. 3,103,995, 9–17–63, Cl. 189—46.

Duggins, William E., to General Aniline & Film Corp. Process of defoliating chlorophyllaceous plants. 3,092,485, 6–4–63, Cl. 71—2.7.

Duhaime, Raymond A.: *See*—
Lasto, Stephen W., and Duhaime. 3,071,402.

Du Hamel, Raymond H., and F. R. Ore, to Collins Radio Co. Logarithmically periodic rod antenna. 3,079,602, 2–26–63, Cl. 343—908.

Duinker, Simon: *See*—
Peck, Johannes J. A., Rinia, and Duinker. 3,100,852.

Duinker, Simon, to North American Philips Co. Inc. Method of producing magnetic heads with accurately predetermined gap heights. 3,094,772, 6–25–63, Cl. 29—155.59.

Duinker, Simon, and J. G. van Santen, to North American Philips Co., Inc. Device having an electro-luminescent element. 3,082,343, 3–19–63, Cl. 313—108.

Duinker, Simon, and J. Box, to North American Philips Co., Inc. Method of manufacturing a multiple magnetic recording. 3,105,286, 10–1–63, Cl. 29—155.56.

Dujardin, Albert J. A. J., to Ecremeuses Melotte, Societe Anonyme. Apparatus for clarifying liquids containing suspended solids. 3,087,710, 4–30–63, Cl. 261—18.

Dujols, Pierre A.: *See*—
Bansard, Pierre M. P., Dujols, and Perilhou. 3,091,683.

Dukane Corp.: *See*—
Schroeder, Robert E., and Smithberg. 3,097,907.
Torn, William R. 3,105,124.

Duke, Edward D., and R. Y. Hermis, to International Harvester Co. Push bumper for vehicles. 3,079,176, 2–26–63, Cl. 280—481.

Duke, Jacob A. Mechanical jack. 3,096,967, 7–9–63, Cl. 254—126.

Duke, James B.: *See*—
Greene, Erneat W., Duke, and Hunter. 3,072,255.

Duke, James B., to Minerals & Chemicals Philipp Corp. Method for comminuting kaolin clay. 3,097,801, 7–16–63, Cl. 241—16.

Duke, James B., to Minerals & Chemicals Philipp Corp. Froth flotation method. 3,107,214 10–16–53, Cl. 209—166.

Duke, James B., and E. W. Green; by Minerals and Chemicals Philipp Corp. Attapulgite clay filter aid product and method of making same. Re. 25,464, 10–15–63, Cl. 23—110.

Duke, James B., and E. W. Greene, to Minerals & Chemicals Philipp Corp. Attapulgite clay filter aid product and method of making same. 3,080,214, 3–5–63, Cl. 23—110.

Duke, John A., to Minneapolis-Honeywell Regulator Co. Coated radiant energy sight guide for temperature measurement. 3,105,150, 9–24–63, Cl. 250—83.

Duke, June T.: *See*—
Clark, Sheldon L., Duke, Larchar, and Taft. 3,093,687.

Duke University: *See*—
Barber, Billy R. 3,108,705.

Dukes, Clifford O. Cleaning tool for meat tenderizers. 3,106,740, 10–15–63, Cl. 15—512.

Dukes, John R., and D. K. Allemang, to Industrial Nucleonics Corp. Composiiton insensitive beta ray gauging system. 3,087,061, 4–23–63, Cl. 250—83.3.

Dulebohn, David H., and R. M. Gold, to Dayton Rogers Mfg Co. Apparatus for trimming drawn sheet metal shells and the like. 3,084,576, 4–9–63, Cl. 82—46.

Dülfer, Ewald: *See*—
Reichle, Alfred, and Dülfer. 3,102,278.

Dulis, Edward J., and M. J. Day, to Crucible Steel Co. of America. Nickel-free austenitic corrosion resistant steels. 3,075,839, 1–29–63, Cl. 75—125.

Dulk, George A., and E. J. Pybus, to United States of America, Army. Peltier dew point hygrometer. 3,112,648, 12–3–63, Cl. 73—336.5.

Dull, Thomas J.: *See*—
Greeno, John R., and Dull. 3,090,407.

Dullabaun, Paul W., and R. E. Hanslip, to Mather Spring Co. Vehicle levelizing mechanism. 3,092,397, 6–4–63, Cl. 280—124.

Dullas, William. Molded beehive. 3,110,044, 11–12–63, Cl. 6—1.

Dullmeyer, John F.: *See*—
Stiner, James E., and Dullmeyer. 3,098,685.

Dulmage, Florence: *See*—
Dulmage, Fred E. 3,109,201.

Dulmage, Fred E., also known as Frederick E. Dulmage, deceased, by F. Dulmage, administratrix, to The Dow Chemical Co. Apparatus for manufacture of bowling pin. 3,109,201, 11–5–63, Cl. 18—36.

Dulmage, Frederick E.: *See*—
Dulmage, Fred E. 3,109,201.

Duluk, Stanley, and W. H. West, to General Motors Corp. Closure latch. 3,082,030, 3–19–63, Cl. 292—113.

Duluth Filter Co.: *See*—
Sather, Olaf P. 3,092,577.

Dumaire, Marc J., to Societe d'Electronique et d'Automatisme. Digital control system for positioning shafts. 3,078,404, 2–19–63, Cl. 318—162.

Dumas, Albert. Boiler. 3,104,654, 9–24–63, Cl. 122—225.

Dumas, Henry J., Jr., to The New York Air Brake Co. Electrical inverter. 3,112,456, 11–26–63, Cl. 331—113.

Dumas, Roger E., and A. C. Hughes, to Statham Instruments, Inc. Electromagnetic transducers. 3,076,343, 2–5–63, Cl. 73—517.

Dumas, Roger E., and A. C. Hughes, to Statham Instruments, Inc. Electrical bridge circuits. 3,076,927, 2–5–63, Cl. 323—75.

Dumbauld, George K.: *See*—
Gidley, John L., Monaghan, and Dumbauld. 3,076,758.

Dunbeck, Joseph T., to Corning Glass Works. Stopcock assembly. 3,089,506, 5–14–63, Cl. 137—315.

Dumbovich, Boris: *See*—
Borsy, Joseph, Dumbovich, Vargha, Farkas, Kuszmann, and Kastreiner. 3,086,976.

Dumire, Leo G., and G. Edlen, to Phelps Dodge Electronic Products Corp. Connector for coaxial cables. 3,109,052, 10–29–63, Cl. 174—88.

Dumm, Robert P., to Pacific Valves, Inc. Seal seat construction for a ball valve. 3,077,201, 2–12–63, Cl. 137—315.

Dumm, Robert P., to Pacific Valves, Inc. Balance pressurized seal globe valve. 3,081,062, 3–12–63, Cl. 251—175.

Dumm, Robert P., to Pacific Valves, Inc. Soft seat with metal insert for gate valves. 3,085,784, 4–16–63, Cl. 251—176.

Dumm, Robert P., to Pacific Valves, Inc. Mounting means for a gate pack-off. 3,110,470, 11–12–63, Cl. 251—159.

Dumm, Robert P., to Pacific Valves, Inc. Manual latch to retract a packing assembly. 3,114,386, 12–17–63, Cl. 137—316.

Dummel, Paul. Grinding machine. 3,079,733, 3–5–63, Cl. 51—94.

Dummer, Wilhelm: *See*—
Meswarb, Gunther, Schotte, and Dummer. 3,108,017.

Dummett, George A., and D. T. Shore, to The A.P.V. Co. Ltd. Production of brewers' wort. 3,082,090, 3–19–63, Cl. 99—52.

Dumont, Walter: *See*—
Brouwers, Georges E. J., Dumont, and Scoville. 3,116,108.

Dumpis, Janis: *See*—
Scheublein, William A., Jr., and Dumpis. 3,103,377.

Dunatic Industries, Inc.: *See*—
Biben, Edward. 3,079,825.

Dunaway, Ralph H. Apparatus for dispensing dry powdered material. 3,114,482, 12–17–63, Cl. 222—328.

Dunay, John, to Ideal Mechanisms, Inc. Oscillatory motor. 3,075,102, 1–22–63, Cl. 310—39.

Dunbar, Allen S., to United States of America, Army. Rapid scan antenna with lens for correction of aberration. 3,071,768, 1–1–63, Cl. 343—754.

Dunbar, James A., and S. G. Von Stocker, to Aluminum Co. of America. Splicing aluminum foil. 3,100,337, 8–13–63, Cl. 29—470.9.

Dunbar, Joseph E., to The Dow Chemical Co. S-(10-phenoxarsinyl) sulfonates and thiosulfonates. 3,082,231, 3–19–63, Cl. 260—440.

Dunbar, Joseph E., to The Dow Chemical Co. Aryl dialkylsulfamates. 3,082,238, 3–19–63, Cl. 260—456.

Dunbar, Joseph E., to The Dow Chemical Co. Dialkyl tin chloride dialkylphosphite. 3,100,785, 8–13–63, Cl. 260—429.7.

Dunbar, Lowell W.: *See*—
Tenniswood, Howard J., and Dunbar. 3,103,693.

Dunbar, Robert H.: *See*—
Walsh, Francis J., and Dunbar. 3,071,253.

Dunbar, William R.: *See*—
Dillon, Richard C., and Dunbar. 3,114,261.

Duncan, Andrew W. Free piston engine. 3,092,958, 6–11–63, Cl. 60—14.

Duncan, Bobby J., to Sperry Rand Corp. Non-reciprocal TM mode transducer. 3,078,425, 2–19–63, Cl. 333—24.1.

Duncan, Bobby J., to Sperry Rand Corp. Mixer employing gyromagnetic elements. 3,098,974, 7–23–63, Cl. 325—448.

Duncan Coffee Co.: *See*—
Turken, Harry H., and Daly. 3,108,876.

Duncan Electric Co., Inc.: *See*—
Milligan, James W. 3,114,582.

Duncan, Elmer J.: *See*—
Casto, Alvin G., and Duncan. 3,078,486.
Zoll, Maurice B., and Duncan. 3,076,499.
Zoll, Maurice B., and Duncan. 3,076,500.

Duncan, Ian G., to Ever-Ready Razor Products Ltd. Dry shaver with flexible shear plate and means supporting the shear plate. 3,092,905, 6–11–63, Cl. 30—43.

Duncan, James A., to Grinnell Corp. Automatic rate rise-responsive fire protection circuit. 3,071,713, 1–1–63, Cl. 317—153.

Duncan, James E., and G. L. Thomas, to Pittsburgh Plate Glass Co. Glass composition. Re. 25,312, 1–1–63, Cl. 106—52.

Duncan, James K., to Cummins-Chicago Corp. Documentary delivery apparatus. 3,087,725, 4–30–63, Cl. 271—71.

Duncan, James K., to Duncan Research. Ring binder. 3,105,494, 10–1–63, Cl. 129—24.

Duncan, James K., and J. L. Quinn, to Cummins-Chicago Corp. Document sorting apparatus. 3,087,612, 4–30–63, Cl. 209—74.

Duncan, James K., and E. W. O'Shaughnessy. Rigid-prong self-closing binder. 3,111,949, 11–26–63, Cl. 129—24.

Duncan, John D.: *See*—
DeLong, Vincent R., and Duncan. 3,106,680.

Duncan, John R. Method and apparatus for severing section of fluid pipeline therefrom. 3,108,499, 10–29–63, Cl. 77—41.

Duncan, John W. Fishing bob. 3,082,562, 3–26–63, Cl. 43—42.15.

Duncan, Joseph G., III. Weapon of self-defense. 3,084,466, 4–9–63, Cl. 42—1.

Duncan, Joseph G., III. Solar heat absorbing structure. 3,089,480, 5–14–63, Cl. 126—270.

Duncan, Leon L., to Zero Mfg. Co. Portable washer for bulk milk tanks. 3,111,954, 11–26–63, Cl. 134—169.

Duncan, Paul K. Multiple pitch removable blade propeller. 3,078,395, 1–15–63, Cl. 170—160.6.

Duncan Research: *See*—
Duncan, James K. 3,105,494.

Duncan, Richard A., E. R. Bolles, T. Adachi, and L. H. Anderson to Hawaiian Development Co., Ltd. Sugar cane harvester. 3,103,091, 9–10–63, Cl. 56—16.

Duncan, Robert H., to International Telephone and Telegraph Corp. Quality control sorting device. 3,082,871, 3–26–63, Cl. 209—81.

Duncan, Ronald E.: *See*—
Rolland, Calvin C., and Duncan. 3,109,856.
Duncan, William A.: *See*—
Wyman, Whitford S., and Duncan. 3,114,717.
Duncan, William J., to Acme Homes Metal Works, Inc. Table extension slide mechanism. 3,097,614, 7–16–63, Cl. 108—83.
Duncan, William L., to Montgomery Elevator Co. Circuit for providing a delayed overriding control on one of a plurality of elevator safety devices. 3,082,845, 3–26–63, Cl. 187—52.
Duncan, William R.: *See*—
Cullen, Charles C., and Duncan. 3,075,522.
Duncombe, Edward, and H. Pugh, to United Kingdom Atomic Energy Authority. Centrifugal pumps. 3,074,348, 1–22–63, Cl. 103—87.
Dundam, John. Egg grading apparatus. 3,087,561, 4–30–63, Cl. 177—225.
Dundee Cement Co.: *See*—
Ostberg, Werner. 3,089,653.
Ostberg, Werner. 3,089,688.
Dundee Laboratories, Inc.: *See*—
Ryan, Wayne L. 3,083,145.
Dundore, Marvin W., and R. C. Schneider, to Twin Disc Clutch Co. Hydraulic torque converter. 3,071,928, 1–8–63, Cl. 60—54.
Dundore, Marvin W., and R. C. Schneider, to Twin Disc Clutch Co. Hydraulic torque converter. 3,105,396, 10–1–63, Cl 74—789.
Dundovic, Joseph F.: *See*—
Wales, Donald A., Dundovic, and Grindheim. 3,075,653
Dunegan, Harold L., to United States of America, Atomic Energy Commission. Radiation shielding composition 3,075,925, 1–29–63, Cl. 252—478.
Dungler, Julien. Thermal treatments at high pressure 3,084,448, 4–9–63, Cl. 34—155.
Dunham, Evelyn L., to J. M. Huber Corp. Oil well tub'ng cleaner. 3,106,962, 10–15–63, Cl. 166—176.
Dunham, James V., and R. Flanagan, to United States of America, Army. Rocket trainer. 3,112,671, 12–3–63, Cl. 89—1.7.
Dunham, John C., to Aurora Equipment Co. Perforated non skid panel. 3,093,216, 6–11–63, Cl. 189—34.
Dunham, Lewis R.: *See*—
Jones, Eynon, Tracy, and Deffenbaugh. 3,093,487.
Dunham, Russell H., to The Dunham Tool Co., Inc. Expanding collet for turret lathes and screw machines. 3,104,885, 9–24–63, Cl. 279—2.
Dunham, Stuart B., to General Electric Co. Particle detector having improved unipolar charging structure. 3,117,877, 12–17–63, Cl. 324—70.
Dunham Tool Co., Inc., The: *See*—
Dunham, Russell H. 3,104,885.
Dunham, William H., to John J. McMullen Associates, Inc Aerodynamically designed amphibious vehicle. 3,077,321, 2–12–63, Cl. 244—12.
Dunipace, Donald W., and C. H. Cowley, to Libbey-Owens-Ford Glass Co. Method and apparatus for fabricating all glass multiple sheet glazing units. 3,078,627, 2–26–63 Cl. 53—7.
Dunkel, Walter L.: *See*—
Phelan, Richard R., Hammel, Meyer, and Dunkel 3,112,285.
Dunkerley, Arthur A. Tool for inserting bearing inserts 3,108,365, 10–29–63, Cl. 29—280.
Dunkin, James M., to Industrial Containers Ltd. Stacking and interlocking carton. 3,114,493, 12–17–63, Cl. 229—34.
Dunkle, Clarence C. Hydrotherapy pad. 3,086,517, 4–23–63, Cl. 128—66.
Dunkle, Gladys E.: *See*—
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Dupuy, Harold P., L. A. Goldblatt, and F. C. Magne, to United States of America, Agriculture. 4-(ricinoleoyl) derivatives of morpholine. 3,079,388, 2–26–63, Cl. 260—247.7.

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Dutro, Orville V., S. H. Hewson, and D. A. Glaser. Modular apparatus for processing web material. 3,111,250, 11–19–63, Cl. 226—101.
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Dye, Clyde V. Trailer axle spring suspension. 3,071,392, 1–1–63, Cl. 280—104.5.
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Dyer, John R., Jr., to The Indium Corp. of America. Method for purifying metallic indium. 3,093,475, 6–11–63, Cl. 75—63.
Dyer, Leroy F. Phototyping machines. 3,108,521, 10–29–63, Cl. 95—4.5.
Dyer, Lloyd, to Westinghouse Electric Corp. Circuit interrupter. 3,077,525, 2–12–63, Cl. 200—114.
Dyer, Norman D., and R. L. Franks, to Dresser Industries, Inc. Traveling block assembly. 3,101,928, 8–27–63, Cl. 254—194.
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Dyer, Richard F., and P. Gallagher, to Eastman Kodak Co. Method and apparatus for producing tobacco smoke filters. 3,079,663, 3–5–63, Cl. 28—1.
Dyer, Richard F., and P. Gallagher, to Eastman Kodak Co. Slot venturi fluffing jet. 3,081,951, 3–19–63, Cl. 239—455.
Dyer, Robert H., to Cosden Petroleum Corp. Hydrogenation of saturated isobutylene polymer. 3,100,808, 8–13–63, Cl. 260—683.9.
Dyes, Alvin B., to The Atlantic Refining Co. Method for increasing recovery of oil. 3,096,821, 7–9–63, Cl. 166—9.
Dyke, Martin T., 3rd, and E. W. Raslag, to Thermway Industries, Inc. Manufacture of electric radiant heating panels. 3,100,228, 11–5–63, Cl. 29—155.70.
Dyke, Walter P., J. E. Henderson, and F. M. Charbonnier, to Field Emission Corp. Microwave transducer. 3,091,719, 5–28–63, Cl. 315—5.41.
Dykeman, Edgar G. M., and J. N. Kelley, to FMC Corp. Apparatus for molding concrete T-beams. 3,092,886, 6–11–63, Cl. 25—121.
Dykeman, George, and J. A. Milnes, to United States Steel Corp. Apparatus for visually inspecting strip travelling at high speed. 3,111,555, 11–19–63, Cl. 178—6.8.
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Dykes, Roy L. and J. O., to Power-Trim Co. Specific wheel support means for a combination mower and trimmer. 3,090,186, 5–21–63, Cl. 56—25.4.
Dykinga, Donald L. Therapeutic exercise chair. 3,072,400, 1–8–63, Cl. 272—58.
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Gallagher, William P., and Dykinga. 3,098,131.
Dykman, Milton: *See*—
Boutros, Richard D., and Dykman. 3,091,474.
Dyksterhouse, Robert M., to Model Engineering and Mfg. Co. Switch for turn indicating circuits. 3,079,476, 2–26–63, Cl. 200—61.3.
Dykstra, Fred J., to Ethyl Corp. Lubricants. 3,092,586, 6–4–63, Cl. 252—49.6.
Dykstra, Fred J., to Ethyl Corp. Boron products. 3,103,532, 9–10–63, Cl. 260—462.
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Dylla, Roy R. Refuse receptacle. 3,099,390, 7–30–63, Cl. 232—43.2.
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Dymott, Edwin R., and R. G. Chalmers, to National Research Corp. Apparatus for photographically forming circular scales from linear strips. 3,101,646, 8–27–63, Cl. 88—24.
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Dyna Magnetic Devices, Inc.: *See*—
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Dynacolor Corp.: *See*—
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Smith, Peter. 3,103,214.
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Dynapower Systems Corp.: *See*—
Somhegyi, Kristof C. 3,090,638.
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Dyson, Ernest F., to The Bristol Co. Measuring and control apparatus. 3,095,003, 6–25–63, Cl. 137—86.
Dzenis, Visvaldis N. Apparatus for preparing cheese and the like. 3,101,540, 8–27–63, Cl. 31—42.
Dziallas, Richard, K. Kaufmann, and C. Biedendieck, to J. M. Voith G.m.b.H. Drilling turbine. 3,101,925, 8–27–63, Cl. 253—3.
Dzienis, Jerome J., G. R. Gillespie, F. D. Trevillian, and L. J. Weber, to General Motors Corp. Unitary vehicle body structure. 3,078,118, 2–19–63, Cl. 296—28.
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Dzierzanowski, Frank J., and W. L. Haden, Jr., to Minerals & Chemicals Phillipp Corp. Method for making synthetic zeolitic material. 3,094,383, 6–18–63, Cl. 23—112.
Dziki, Mieczyslaw, to Industrial Shoe Machinery Corp. Bottom ironer. 3,089,165, 5–14–63, Cl. 12—53.5.
Dzugan, George, to Western Electric Co., Inc. Apparatus for distributing strands. 3,093,345, 6–11–63, Cl. 242—158.4.
Dzuris, William H. Game apparatus with electrically operated play selecting means. 3,101,947, 8–27–63, Cl. 273—134.
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Prestige, Harry T., Eade, Hale, Lee, Lovelock, Smith, and Teacher. 3,093,887.
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Eads, Charles L., to Adams Rite Mfg. Co. Lock hold-back latch. 3,073,143, 1–15–63, Cl. 70—151.
Eads, David K., and H. W. Haines, Jr., to Texas Gulf Sulphur Co. Recovery of sulfur from native ores. 3,102,792, 9–3–63, Cl. 23—294.
Eads, Harold O., to McDonough Co., d.b.a. O. Ames Co. Folding chair. 3,086,812, 4–23–63, Cl. 297—30.
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McFall, Charles R., and Eads. 3,093,873.

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Fitz, Edward J. 3,079,633.
Henley, John W. 3,084,004.
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Winchester, John H. 3,087,752.
Zander, Jason M., and Delott. 3,078,180.
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Gent, Alfred W., Eaglesfield, Lawrence, and Crampton. 3,106,768.
Eagon, Norton D., and K. O. McRee, to United States of America, Navy. Attach and release mechanism. 3,115,812, 12–31–63, Cl. 89—1.7.
Eaker, Alston B., to Textile Machine Works. Means for and method of attaching yarn ends in tubular fabrics. 3,080,739, 3–12–63, Cl. 66—42.
Eaker, Charles M., and G. A. Saul, to Monsanto Chemical Co. Chlorination of propynes. 3,094,567, 6–18–63, Cl. 260—654.
Eakins, W. R. & J. S., Inc.: *See*—
Eakins, William S. 3,110,444.
Eakins, William S., ½ to W. R. & J. S. Eakins, Inc., and ½ to The Proctor-Silex Corp. Spray drying process and apparatus. 3,110,444, 11–12–63, Cl. 239—427.
Eames, Arvid L., to Poultry Service and Research Corp. Antibiotic method for promoting poultry growth. 3,076,745, 2–5–63, Cl. 167—53.1.
Eames, Charles, to Herman Miller, Inc. Dual purpose furniture construction. 3,088,127, 5–7–63, Cl. 5—2.
Eames, Charles, to Herman Miller, Inc. Pad for seating. 3,109,679, 11–5–63, Cl. 297—458.
Eames, Charles, D. Aiblinson, and P. J. Pearce, to Herman Miller Inc. Folding chair. 3,093,414, 6–11–63, Cl. 297—323.
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Eannarino, George, to International Rectifier Corp. Process for the passivation of semiconductors. 3,115,424, 12–24–63. Cl. 117—213.
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Earhart, Robert W., P. C. Alchenegg, and J. Hensel, to Chemagro Corp. Method of rendering soil nematocidal with halogenated sulfides. 3,095,350, 6–25–63, Cl. 167—22.
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Guntert, Ronald M., and Earley. 3,098,414.
Early, Curtis L., and I. Rozalsky, to Shell Oil Co. Quenching composition. 3,112,232, 11–26–63, Cl. 148—143.
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Earp-Thomas, George L. Baceteriological digester for conversion of organic waste. 3,082,542, 3–26–63, Cl. 34—173.
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Decker, Raymond F., Goldman, and Eash. 3,093,519.
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Smith, John O., and Easley. 3,113,426.
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Eason, Ira. Folding bed device. 3,108,291, 10–29–63, Cl. 5—111.
Eason, Robert F. Handle covering for clothes hangers. 3,112,050, 11–26–63, Cl. 225—98.
Eastep, Calvin W., to Morse Chain Co. Power transmission chain. 3,074,290, 1–22–63, Cl. 74—250.
Easter, Elmer W. Fluid pump or motor. 3,101,059, 8–20–63, Cl. 103—142.
Easterbrook, John N., to Westinghouse Electric Corp. Electrical control apparatus for generators. 3,089,996, 5–14–63, Cl. 322—25.
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Lydard, Martin L. 3,085,666.
Lydard, Martin L. 3,102,614.
Rosenbaum, Charles H. 3,099,916.
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Easterwood, Vesta M., and A. M. Dowell, Jr., to The Buckeye Cellulose Corp. Manufacture of regenerated cellulose structures from viscose in the presence of modifiers. 3,108,848, 10–29–63, Cl. 18—54.
Eastham, Frederick C. Clamp for plow attachment for hand-steered tractor. 3,088,525, 5–7–63, Cl. 172—259.
Eastland, John B., Jr. Cable sealing device. 3,110,165, 11–12–63, Cl. 04—3.
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Eastman, Donald R., and R. F. Reithel, to Eastman Kodak Co. Electrolytic recording with organic polymers. 3,106,155, 10–8–63, Cl. 101—149.1.
Eastman, Donald R., and R. F. Reithel, to Eastman Kodak Co. Photoconductography employing electrolytic images to harden or soften films. 3,106,516, 10–8–63, Cl. 204—18.
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Eastman, Du Bois, and W. G. Schlinger, to Texaco Inc. Hydroconversion of solid carbonaceous materials. 3,075,912, 1–29–63, Cl. 208—8.
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Anderson, Lawrence A. 3,099,602.
Akin, George A. 3,071,912.
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Bornemann, William, Bechtold, Philips, Freeman, Loretz, and Neuman. 3,099,199.

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Brown, Winton, and Meng. 3,108,120.
Brunson, Marion O., and Huffaker. 3,110,608.
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Burness, Donald M. 3,091,537.
Burness, Donald M. 3,106,468.
Caines, James F., Dyer, and Pannill. 3,099,594.
Caldwell, John R. 3,072,712.
Caldwell, John R. 3,075,949.
Caldwell, John R. 3,082,056.
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Caldwell, John R., Gilkey, and Jackson. 3,077,466.
Caldwell, John R., and Jackson. 3,096,359.
Caldwell, John R., and Jackson. 3,113,963.
Caldwell, John R., and Martin. 3,099,641.
Callear, Thomas E., and Killick. 3,091,531.
Champlin, David L., and Pollock. 3,113,709.
Chu, Franklin Y. 3,082,123.
Clark, Raymond D. 3,089,896.
Cobb, Phara L., Jr., and Hargrave. 3,079,930.
Cobb, Phara L., Jr., and Hargrave. 3,079,978
Cobb, Phara L., Jr., and Hargrave. 3,106,501.
Conrose, Charles W. 3,079,619.
Conrose, Charles W. 3,080,263.
Converse, George F., Kennedy, and Clegg. 3,106,438.
Coover, Harry W., Jr. 3,076,771.
Coover, Harry W., Jr. 3,082,178.
Coover, Harry W., Jr. 3,085,942.
Coover, Harry W., Jr., and Cash. 3,072,628.
Coover, Harry W., Jr., and Joyner. 3,090,769.
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Coover, Harry W., Jr., Joyner, and Shearer. 3,075,952.
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Coover, Harry W., Jr., and Shearer. 3,081,287.
Cunningham, Robert G., and Whitmore. 3,071,791.
Czarnecki, Ronald F. 3,089,823.
Czerkas, Alfred E. 3,112,528.
Damschroder, Rudolph E., and Yackel. 3,099,209.
Davis, Herman E., and Hoyle. 3,082,243.
Devaney, Richard G., and Tamblyn. 3,082,109.
Donaldson, Raymond E., and White. 3,082,121.
Dyer, Richard F. 3,103,098.
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Eagle, John H., Bushnell, and Nerwin. 3,086,862.
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Eastman, Donald R. 3,095,808.
Eastman, Donald R., and Reithel. 3,106,155.
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Eastman, Donald R., and Reithel. 3,106,517.
Elam, Edward U., and Hasek. 3,072,724.
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Estes, Cameron B. 3,091,167.
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Finch, Gaylord K., and Stringer. 3,076,021.
Flanagan, William C. 3,110,824.
Fox, Arthur B., and Tepper. 3,072,734.
Gates, John W., Jr., and Rees. 3,110,597.
Gearhart, William M., and Ball. 3,076,718.
Goins, Rex H., and Davis. 9,096,324.
Griggs, William H., Gray, and Zaffrann. 3,103,462.
Griggs, William H., and Zaffrann. 3,096,231.
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Guillet, James E., and Coover. 3,106,485.
Hagemeyer, Hugh J., Jr., and Edwards. 3,072,632.
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Harrington, Robert C., Jr., and Smith. 3,082,110.
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Harvey, Douglass C., and Nerwin. 3,096,699.
Haynes, Carl J. 3,099,064.
Henn, Richard W., and Burness. 3,103,437.
Hepher, Martin. 3,113,910.
Hermanet, Marvin J. 3,089,369.
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Hiatt, Gordon D., and Rowley. 3,075,962.
Hiatt, Gordon D., and Rowley. 3,075,963.
Hill, Martha A., and Ballard. 3,110,712.
Hodges, Howard T., Hughey, and Ernisse. 3,099,208.
Hoffmann, Edwin C. 3,072,036.
Horton, William H. 3,071,832.
Horton, William H., Sturm, and Michatek. 3,081,683.
Howe, Donald J. 3,081,960.
Howe, Donald J., and Maurer. 3,110,594.
Hull, David C., Hagemeyer, and Edwards. 3,091,605.
Hull, David C., Hagemeyer, and Wilder. 3,096,317.
Hull, David C., and Vaughn. 3,085,988.
Hunt, Robert W. G. 3,080,386.
Hutchison, Miller R., Jr., and Kindig. 3,094,051.
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Jarrett, Charles A., and Langstaff. 3,080,611.
Jeffreys, Roy A. 3,114,637.
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Jenkins, Gerald L., and Finser. 3,110,215.
Johnson, Dee L., and Fields. 3,072,676.
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Joyner, Frederick B. 3,072,631.
Joyner, Frederick B., and Shearer. 3,086,964.
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Kerney, Myron L. 3,097,810.
Kibler, Charles J., Knowles, and Tamblyn. 3,075,850.
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Kiefer, John E., and Touey. 3,082,107.
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Knox, William J., Jr., and Wilson. 3,091,623.
Kron, Martin W. 3,081,961.
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Laakso, Thomas M., and Buckley. 3,106,546.
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Laakso, Thomas M., and Petropoulos. 3,106,544.
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Lappin, Gerald R., Tamblyn, and Van Allan. 3,097,100.
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Lee, Louis J. 3,113,869.
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Edens, William L., to E. I. du Pont de Nemours and Co. Process for the preparation of fluosulfonates. 3,083,220, 3–26–63, Cl. 260—456.

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Eder, Heinz, and S. Bloeck, to Wacker-Chemie G.m.b.H. Method of rendering metallic surfaces corrosion resistant. 3,101,277, 8–20–63, Cl. 117—132.

Eder, Virgil K., to General Motors Corp. Abradable protective coating for compressor casings. 3,092,306, 6–4–63, Cl. 230—133.

Eder, Virgil K., to General Motors Corp. Vectoring nozzle. 3,106,061, 10–8–63, Cl. 60—35.55.

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Edgar, Eric C., to Imperial Chemical Industries Ltd. Treatment of potatoes with S-triazine compound. 3,099,106, 7–30–63, Cl. 47—1.

Edgar, Lenville C., to Tube-Kote Co. Apparatus for electrically detecting discontinuities in electrically non-conductive coatings on electrically conductive materials. 3,106,677, 10–8–63, Cl. 324—54.

Edge, Thomas B. Adapters for milking systems. 3,100,475, 8–13–63, Cl. 119—14.11.

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Medlar, Lewis A. 3,114,879.
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Edlen, George. Puzzle. 3,107,918, 10–22–63, Cl. 273—157.

Edler, Henry G. Switch control. 3,086,146, 4–16–63, Cl. 317—124.

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Andre, Robert T., and Edley. 3,071,265.
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Edman, James L., to The Bendix Corp. Jet propelled vehicle. 3,096,616, 7–9–63, Cl. 60—35.6.

Edminster, Lester R., and H. Czyzewski, to West Coast Alloys Co. Hard cast alloy. 3,086,858, 4–23–63, Cl. 75—128.

Edmark, Karl W., Jr., to Physio-Control Co., Inc. Artificial heart valve. 3,113,586, 12–10–63, Cl. 137—512.1.

Edmonds, Byron P., J. B. Dahms, and E. P. Helvenston, to Pittsburgh Plate Glass Co. Recovery of potassium chloride. 3,096,969, 7–9–63, Cl. 262—3.

Edmonds, James T., Jr., to Phillips Petroleum Co. Olefin polymers and their method of preparation. 3,081,288, 3–12–63, Cl. 260—93.7.

Edmonds, James T., Jr., to Phillips Petroleum Co. Polymerization of olefins and catalysts therefor. 3,101,328, 8–20–63, Cl. 260—93.7.

Edmonds, Lee O., to Phillips Petroleum Co. Decorative thermoplastic resin coatings. 3,097,105, 7–9–63, Cl. 117—41.

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Edson, William A., to General Electric Co. Waveguide system having mode converter for changing rectangular TE_{10} mode into circular TE_{01} at locus of waveguide window. 3,100,881, 8–13–63, Cl. 333—21.

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Edwards, Aubrey T., J. A. Foster, and E. F. Bradshaw; said Foster and said Bradshaw assors. to Burndy Corp. Conductor spacer-damper. 3,083,258, 3–26–63, Cl. 174—42.

Edwards, Benjamin F. Magnetic quiz game. 3,107,436, 10–22–63, Cl. 35—9.

Edwards, Bryant, to Illinois Tool Works, Inc. Double-walled nestable plastic container. 3,079,027, 2–26–63, Cl. 220—9.

Edwards, Bryant, to Illinois Tool Works Inc. Nestable cup. 3,091,360, 5–28–63, Cl. 220—97.

Edwards, Bryant, to Illinois Tool Works Inc. Machine and method for curling lips of container articles. 3,096,546, 7–9–63, Cl. 18—19.

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Edwards, Charles N., to Fairchild Camera and Instrument Corp. Self-threading automatic film processing apparatus. 3,096,701, 7–9–63, Cl. 95—94.

Edwards, Charles N., and G. H. McCutcheon. Handle for selectively usable fishing rods. 3,073,055, 1–15–63, Cl. 43—23.

Edwards, Clarence K. and L. D. Magnet-actuated coupler for model railroad cars. 3,111,229, 11–19–63, Cl. 213—212.

Edwards, Clarence K. and L. D. Model railroad car coupler with pivot pin pole piece. 3,115,255, 12–24–63, Cl. 213—211.

Edwards, David J. Airborne proximity infrared firing error indicator. 3,075,726, 1–29–63, Cl. 244—14.

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Edwards, Douglas A., and J. R. Summers, to Birfield Engineering Ltd. Snap-on shaft guard. 3,111,821, 11–26–63, Cl. 64—4.

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Edwards, George E., and N. J. Le Page, to Imperial Chemical Industries Ltd. Treatment of brine solutions. 3,102,085, 8–27–63, Cl. 204—128.

Edwards, George E., and A. W. Ravenscroft, to Imperial Chemical Industries Ltd. Process for the production of electrolytic products by the electrolysis of brine and apparatus therefor. 3,114,686, 12–17–63, Cl. 204—99.

Edwards, George S., and F. E. Hoffer, to E. H. Edwards Co. Composite building material. 3,073,066, 1–15–63, Cl. 50—83.

Edwards, George Z., and G. A. Langford. Mechanism for mounting a welding shield on headgear. 3,074,072, 1–22–63, Cl. 2—8.

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Edwards, Harrison F., to Simmonds Precision Products, Inc. Capacitor sensing and rebalancing servo system. 3,080,513, 3–5–63, Cl. 318—28.

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Bowers, Albert, Edwards, and Orr. 3,077,485.
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Bowers, Albert, Edwards, and Orr. 3,080,398.
Bowers, Albert, Edwards, and Orr. 3,080,400.
Bowers, Albert, Edwards, and Orr. 3,080,401.
Bowers, Albert, Edwards, and Orr. 3,082,223.
Bowers, Albert, Edwards, and Zderic. 3,076,827.
Orr, James C., Bowers, and Edwards. 3,086,015.
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Edwards, John, and H. J. Ringold, to Syntex Corp. 2-fluoro-Δ^1 and $\Delta^{1,4}$-androstenes. 3,080,392, 3–5–63, Cl. 260—397.4.

Edwards, John A., H. J. Ringold, and F. A. Kincl, to Syntex Corp. 4-halo-6-dehydro and 4-halo-1,6-bis dehydro derivatives of 17α-hydroxy progesterone. 3,093,664, 6–11–63, Cl. 260—397.4.

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Edwards, Robert N., and L. C. Reese, Sr., to Policy-Matic Corp. of America. Vending machine for insurance contracts. 3,092,234, 6–4–63, Cl. 194—7.

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Edwards, Theodoric B. Inflatable wheel pontoons. 3,107,643, 10–22–63, Cl. 115—1.

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Edwards, Thomas C. Portable electronic musical instruments. 3,085,460, 4–16–63, Cl. 84—1.

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Edwards, William R. Wave measuring apparatus. 3,113,285, 12–3–63, Cl. 340—2.

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Eggenberger, Markus A., and P. H. Troutman, to General Electric Co. Full arc-partial arc transfer mechanism for an electro-hydraulic turbine control system. 3,097,489, 7–16–63, Cl. 60—73.

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Ehrat, Kurt, to Gretag Aktiengesellschaft. Apparatus for the digital coding of analogue quantities as multi-place figures in the decimal system. 3,111,579, 11–19–63, Cl. 235—154.

Ehrat, Kurt, to Gretag Aktiengesellschaft. Shaft mounted electro-magnetic decade stepping mechanism having two ratchet motors with interacting stepping pawl control reverse shaft rotation. 3,111,658, 11–19–63, Cl. 340—325.

Ehreg, Robert J., to Ampex Corp. Inverter. 3,075,135, 1–22–63, Cl. 321—18.

Ehrenhaft, Franz F., to Uniscan Electronics Corp. Anamorphotic television system. 3,097,262, 7–9–63, Cl. 178—6.8.

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Ehrens, Henry, to Sealed Unit Parts Co., Inc. Method of and apparatus for testing refrigerant systems. 3,086,392, 4–23–63, Cl. 73—168.

Ehrens, Henry, and S. Weiner. Apparatus for storing and dispensing refrigerant gas. 3,093,979, 6–18–63, Cl. 62—292.

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Ehrhardt, Charles H., W. H. Moeller, and H. M. Grubb, to Standard Oil Co. Sample handling capsule. 3,103,277, 9–10–63, Cl. 206—46.

Ehrhart, Dale L., to Burrougha Corp. Method and apparatus for electrolytic treatment. 3,071,521, 1–1–63, Cl. 204—16.

Ehrhart, Gustav, I. Hennig, E. Lindner, and H. Ott, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning. Substituted butyric acid amide and analgesia. 3,096,244, 7–2–63, Cl. 167—065.

Ehrhart, Gustav, I. Hennig, E. Lindner, and H. Ott, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning. New carboxylic acid amides substituted at the nitrogen atom and β-carbon atom and process for their manufacture. 3,096,374, 7–2–63, Cl. 260—562.

Ehrhart, Gustav, I. Hennig, K. Schmitt, E. Lindner, and H. Ott, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. α-amino-β-hydroxy carboxylic acid amides. 3,101,367, 8–20–63, Cl. 260—501.

Ehrich, Felix F., to E. I. du Pont de Nemours and Co. Pigment. 3,085,023, 4–9–63, Cl. 106—288.

Ehrich, Hans, and M. Lässig, to Anschutz & Co. G.m.b.H. Measuring instrument and method and means for dampening the oscillation of a measuring member thereof. 3,099,094, 7–30–63, Cl. 33—226.

Ehrismann, Kurt H., to C. P. Clare & Co. Relay. 3,076,880, 2–5–63, Cl. 200—104.

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Ehrlich, Josef, to The De Havilland Engine Co. Ltd. Internal combustion engines. 3,083,702, 4–2–63, Cl. 123—73.

Ehrlich, Joseph R. Manufacture of artificial icicles. 3,077,416, 2–12–63, Cl. 106—189.

Ehrlich, Joseph R. Polyester printing screen. 3,085,904, 4–16–63, Cl. 117—98.

Ehrlich, Joseph R. Coating composition comprising a vinyl acetate unsaturated carboxylic acid copolymer and an organic base dissolved in an organic solvent and article therewith. 3,100,755, 8–13–63, Cl. 260—29.6.

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Ehrmann, Kurt, and W. F. Soffel, to Westinghouse Electric Corp. Valve for steam iron. 3,077,900, 2–19–63, Cl. 137—604.

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Eichenberger, Edward, Jr. Water softener salt level indicator switch. 3,102,175, 8–27–63, Cl. 200—61.05.

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Eichman, Ellis V. Railing construction. 3,104,865, 9–24–63, Cl. 256—21.

Eichmann, Garry G., and W. Kimel, to Hoffmann-La Roche Inc. 3-hexen-1-yl-3-hexenoate. 3,093,681, 6–11–63, Cl. 260—486.

Eichmann, Karl. Vanes for rotary vane machine supported in balance and in stability and in less friction. 3,099,964, 8–6–63, Cl. 103—136.

Eichorn, Robert H., R. W. Morrill, K. A. Northrup, and R. F. Osborne, to Xerox Corp. Xerographic reproducing apparatus. 3,099,943, 8–6–63, Cl. 95—1.7.

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Elbrecht, Donald W., to The Baldwin Piano Co. Electronic organ construction. 3,110,211, 11–12–63, Cl. 84—423.
Elchyshyn, Stephen, to North American Aviation, Inc. Floating-type chill block. 3,089,950, 5–14–63, Cl. 219—160.
Elci Products Corp.: *See*—
Burson, Bob O. 3,105,932.
Elco Tool and Screw Corp.: *See*—
Broberg, Elmer E. 3,094,894.
Broberg, Elmer E. 3,094,895.
Lindstrom, Bert A. 3,094,893.
Elconin, Richard C.: *See*—
Mehkl, Alvin L., and Rodenbeck. 3,078,937.
Elcor Inc.: *See*—
Reaves, John H. 3,075,155.
Reaves, John H., and Walton. 3,076,900.
Elder, Alton P., and T. P. Le Grand, to United States of America, Navy. High pressure gas connection and seal wherein said seal has collapse preventing means. 3,095,218, 6–25–63, Cl. 285—8.
Elder, Boyd B.: *See*—
Hopper, Robert J., and Elder. 3,086,202.
Elder, Boyd B., to Del Mar Engineering Laboratories. Cable winding device. 3,113,739, 12–10–63, Cl. 242—54.
Elder, Eugene V., Jr., to Hooker Chemical Corp. New phosphate composition for curing meat and process for producing same. 3,104,978, 9–24–63, Cl. 99—222.
Elder, Ralph C., Jr.: *See*—
Elder, Ralph C., Sr. 3,077,719.
Elder, Ralph C., Sr., ½ to R. C. Elder, Jr. Chain and slat type reel for combines. 3,077,719, 2–19–63, Cl. 56—219.
Eldib, Ibrahim A., G. E. Charles, and D. L. Baeder, to Esso Research and Engineering Co. Fractionation mixtures by zone precipitation. 3,088,907, 5–7–63, Cl. 208—24.
Eldred Co., The: *See*—
Eldred John W., and Legg. 3,096,709.
Eldred, Dewitt, to Rand Development Corp. Reinforced wall structure. 3,103,018, 9–10–63, Cl. 9—6.
Eldred, Edwin C., and T. Temple, to Sylvania Electric Products Inc. Zeroing mechanism. 3,093,183, 6–11–63, Cl. 153—2.
Eldred, John W., and J. B. Legg, to The Eldred Co. Decorating machine. 3,096,709, 7–9–63, Cl. 101—115.
Eldridge, John W., and C. R. Outterson, to Albemarle Paper Mfg. Co. Vapor phase polymerization with solid solvent coated catalyst. 3,098,846, 7–23–63, Cl. 260—94.9.
Eldridge, Paul R., Jr., to Ra Jo Sales Co., Inc. Bricklayer's mortar joint tool. 3,109,189, 11–5–63, Cl. 15—105.5.
Electric Auto-Lite Co., The: *See*—
Bennett, Edward L., Laich, and Young. 3,075,731.
Caldwell, Washington J. 3,084,879.
Matteson, Frederick H., and Stuart. 3,107,882.
Mattson, Richard W. 3,084,561.
Moyer, Elmo E. 3,112,440.
Rathbun, Sherrill S., Jr. 3,102,829.
Stuart, Joseph, III. 3,107,881.
Electric Eye Equipment Co.: *See*—
Frommer, Joseph C., and Furst. 3,090,534.
Electric Fittings Corp.: *See*—
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Electric Lighting, Inc.: *See*—
Nelson, Glenn A. 3,111,353.
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Jernberg, Evert H. 3,098,683.
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Rohner, Thomas G. 3,100,279.
Electric & Musical Industries Ltd.: *See*—
Dain, Charles S. R., and Harrison. 3,071,332.
David, Gordon P. 3,096,211.
Gargini, Eric J. 3,096,395.
Hurst, Derek, and Havard. 3,090,535.
Ingham, William E., and Rowley. 3,110,802.
James, Ivanhoe J. P. 3,097,260.
Kreuchen, Karl H. R. C., and Smith. 3,114,123.
Lowther, Robert R., and Sell. 3,086,154.
Lubaszynski, Hans G. 3,106,488.
Mayo, Bernard J. 3,106,605.
McGee, James D., Muff, and Saunders. 3,109,957.

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Phillips, James H., and Booth. 3,111,614.
Spencer, Rolf E., and Stephenson. 3,100,864.
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Electric Spoon, Inc.: *See*—
Grise, Frederick G. 3,076,638.
Electric Storage Battery Co., The: *See*—
Boyer, Charles J. 3,112,745.
Collier, Donald W. 3,100,862.
Consolloy, James W. 3,090,620.
Duddy, Joseph C. 3,099,586.
Gongoll, Vernon F., and Klinger. 3,100,425.
Gongoll, Vernon F., Simpson, and Boyer. 3,073,410.
Gurtowski, Francis J. 3,081,461.
Hatterschide, Thomas E. 3,110,451.
Hoffmaster, George R. 3,079,609.
Kerns, Fred R., and Mease. 3,095,628.
McGivern, James F., Jr. 3,109,756.
Raney, Robert M., and Zednik. 3,105,566.
Richmond, Earl B. 3,100,926.
Richmond, Earl B. 3,106,507.
Ruetschi, Paul. 3,085,186.
Ruetschi, Paul, and Cahan. 3,080,440.
Salkind, Alvin J. 3,075,033.
Torgerson, Arnold T. 3,087,052.
Electric Terminal Corp.: *See*—
Straubel, Walter E. 3,076,585.
Straubel, Walter E. 3,115,922.
Electrical Fittings Corp.: *See*—
Goha, Howard C., and Budnick. 3,080,140.
Electrical Musical Industries Ltd.: *See*—
Vaughan, James R. M., and Bright. Re. 25,420.
Electricam Corp.: *See*—
Olsen, Vernon R. 3,114,186.
Electricite de France (Service National): *See*—
Allieret, Pierre, and Braudeau. 3,080,655.
Kaplan, Claude. 3,081,124.
Leo, Bertrand. 3,100,029.
Leo, Bertrand, Delpla, and Pounhet. 3,109,516.
Mettetal, Jean-Claude, and Fritz. 3,095,095.
Vinet, Raymond. 3,092,434.
Electricite de France (Service National), and Gaz de France (Service National): *See*—
Delaruelle, Jacques, and Banal. 3,114,920.
Electro-Acid Corp.: *See*—
Broussard, Robert. 3,077,509.
Electroacustic Gesellschaft mit beschrankter Haftung: *See*—
Jess, Harring. 3,102,991.
Richter, Friedrich. 3,076,173.
Thieme, Siegfried. 3,079,523.
Tiedtke, Karl-Heinz. 3,081,093.
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Aitkenhead, Paul W. 3,102,014.
Electro Chemical Laboratories Corp.: *See*—
Fearon, Robert E., and Ownby. 3,091,733.
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Basilevsky, Alexis G. 3,091,579.
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Smith, Robert W. 3,110,830.
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Crump, Ralph E. 3,088,019.
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Hancock, Kenneth G. 3,073,340.
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Scholten, Carel S., and Loopstra. 3,079,082.
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Andersson-Sason, Carl E. S. 3,089,177.
Helicka, Michael E., Kenny, and Rodney. 3,101,505.
Brimberg, Torsten. 3,082,587.
Carlberg, Erik R., and Wahlborg. 3,080,599.
Descarries, Raymond. 3,092,868.
Deutgen, Ragnar E. 3,077,748.
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Grubb, Gunnar A. 3,080,729.
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Lindgren, Nils K. 3,080,458.
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Mard, Roland I. E., and Grunwald. 3,074,110.
Ohlson, Kurt L. 3,082,616.
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Electrolux Corp.: *See*—
Allen, Oliver L. 3,082,289.
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Anderson Emil, and Kowalewski. 3,108,786.
House, David C. 3,108,311.
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Morgan, Merle L. 3,113,261.
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Spiteri, Joseph. 3,113,174.
Spiteri, Joseph. 3,114,928.
Electro-Mechanical Instrument Co.: *See*—
Pfeffer, William E. 3,094,659.
Electro-Mechanical Research, Inc.: *See*—
Eby, James A. 3,106,704.
Sullivan, Warren W. 3,113,300.
Westneat, Arthur S., Jr., and Durbin. 3,094,692.
Electronautics Corp.: *See*—
Nickerson, Richard G., and Crandell. 3,098,230.
Electro-Optical Systems, Inc.: *See*—
Gong, Howard, Sanchez, and Talmo. 3,089,108.
Hetherington, Robert D. 3,091,578.
Electro Products Laboratories, Inc.: *See*—
Novic, Raymond H. 3,090,017.
Electro Radiation, Inc.: *See*—
Hanlet, Jacques M. N. 3,083,262.
Electro Rust-Proofing Corp.: *See*—
Sudrabin, Leon P. 3,074,862.
Electrosolids Corp.: *See*—
Ingman, Thomas M. 3,078,380.
Electro Sonic Industries, Inc.: *See*—
Alleman, Ray S., Baker, Daniel, and Struthers. 3,108,-211.
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Childress, Clyde O., and Kabell. 3,081,698.
Electrotechnische Industrie Voorheen Willem Smit & Co.: *See*—
Loesberg, Paulus P. 3,099,788.
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Sullivan, Edward M., and Boucher. 3,105,137.
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Finn, John J. 3,105,893.
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Electro-Voice, Inc.: *See*—
Beaverson, Wayne A., and Ramsey. 3,095,484.
Tomcik, Daniel J. 3,098,888.
Wiggins, Alpha M. 3,115,207.
Wirth, John L. 3,075,053.
Electro-Way Corp.: *See*—
Chambers, William M. 3,106,275.
Electronic Aids, Inc.: *See*—
Tischler, Morris. 3,109,430.
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Edwards, Robert. 3,114,091.
Hosking, Michael B. 3,103,424.
Electronic Associates Inc.: *See*—
Massell, Edward M., May, and Meyer. 3,111,653.
Miller, Monroe A. 3,081,435.
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Sanders, James W. 3,074,642.
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Electronic Communications, Inc.: *See*—
Clay, Richard. 3,084,329.
Electronic Devices Corp.: *See*—
Graves, Henry B. 3,091,734.
Electronic Instrument Co., Inc.: *See*—
Proc, Wiatsheslaw. 3,105,933.
Electronic Measurement Systems, Inc.: *See*—
Karplus, Walter J. 3,093,706.
Electronic Molded Lamp Corp.: *See*—
McIlvaine, Hubert A. 3,107,316.
Electronic Oil Well Heater, Inc.: *See*—
Spitz, Samuel. 3,101,116.
Electronic Products Corp.: *See*—
Pieczynski, Joseph W. 3,099,758.
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Zimmermann, Joseph J. 3,072,746.
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Gindroz, Frank H. 3,104,337.
Rowland, Howard J. 3,089,102.
Electronic Traffic Control Inc.: *See*—
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Electronics Corp. of America: *See*—
Giuffrida, Philip, and Pratt. 3,091,724.
Lewis, Robert E., and Cade. 3,115,561.
Electronics, Inc.: *See*—
Burnett, James H. 3,102,223.
Electronics Research Corp. of America: *See*—
Waddill, Alfred W., Jr. 3,085,428.
Electronics Specialties Co.: *See*—
Beguin, Richard F. 3,115,610.
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Paramelle, Bernard. 3,106,204.
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Burnett, James H. 3,105,180.
Eleftherion, Michael P., G. A. Frank, and R. K. Miller, to Western Electric Co., Inc. Feeding and orienting apparatus. 3,115,234, 12–24–63, Cl. 198—33.
Elektriska Svetsningsaktiebolaget: *See*—
Collin, Fredrik C. 3,093,474.
Helin, Elis E. V. 3,096,174.
Sandberg, Ove H. 3,102,041.
Ydstie, Birger L. 3,102,091.
Elektrokemisk A/S: *See*—
Sem, Mathias O. 3,080,216.
Sem, Mathias O., Haavik, and Lorck. 3,108,150.
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Vogt, Adolf, and Wiebke. 3,104,939.
Elemag-Anstalt: *See*—
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Elemelt Ltd.: *See*—
Gell, Philip A. M. 3,097,251.
Gell, Philip A. M., and Hann. 3,080,737.
Hann, Douglas G., and Ramsay. 3,098,111.

Elenbaas, Herman. Sanitary centrifugal pump. 3,095,821, 7–2–63, Cl. 103—103.

Elenbogen, Gilbert, to Baxter Laboratories, Inc. Method of purifying phosphatides. 3,081,320, 3–12–63, Cl. 260—403.

Elesta Ltd., Electronic Control Apparatus: *See*—
Apel, Konstantin. 3,114,075.

Elenterio, Herbert S., to E. I. du Pont de Nemours and Co. Polymerization of cyclic olefins. 3,074,918, 1–22–63, Cl. 260—93.1.

Eleuterio, Herbert S., to E. I. du Pont de Nemours and Co. Chromium complexes of perfluoroether acids, articles coated therewith and a process for their preparation. 3,088,958, 5–7–63, Cl. 260—438.

Eley, Douglas W.: *See*—
Williams, Ralph T., and Eley. 3,070,878.
Williams, Ralph T., and Eley. 3,090,262.

Elfarr, Johnnie A.: *See*—
Gray, John R. 3,106,167.

Elfes, Donald B., to General Motors Corp. Fuel pump drive. 3,095,824, 7–2–63, Cl. 103—152.

Elfes, Lee E., to Massey-Ferguson Inc. Brake assembly. 3,086,620, 4–23–63, Cl. 188—75.

Elford, Harold F., to Elford Plywood Machinery, Inc. Grinding machine with stationary work support and traversing carriage. 3,114,222, 12–17–63, Cl. 51—34.

Elford, Lionel H., to D. Napier & Son Ltd. Turbo blowers. 3,099,385, 7–30–63, Cl. 230—116.

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Elford, Harold F. 3,114,222.

Elfving, Thore M. Thermoelectric refrigeration system. 3,088,288, 5–7–63, Cl. 62—3.

Elfving, Thore M. Thermoelectrically refrigerated apparatus. 3,100,790, 8–20–63, Cl. 62—3.

Elfving, Thore M. Thermoelectric refrigeration. 3,100,969, 8–20–63, Cl. 62—3.

Elfving, Thore M., and R. D. Baker; said Baker assor. to said Elfving. Thermoelectric heat pump assembly. 3,075,360, 1–29–63, Cl. 62—3.

Elger, Gerald W., and R. W. Boubel, to United States of America, Atomic Energy Commission. Production of hafnium metal. 3,071,459, 1–1–63, Cl. 75—84.5.

El Ghandour, Mohamed F. M.: *See*—
Machu, Willibald, and El Ghandour. 3,093,556.

Elgin, Bert K. Fire resistant pack. 3,082,713, 3–26–63, Cl. 109—82.

Elgin National Watch Co.: *See*—
Ensign, George G., Soper, and Lundahl. 3,075,345.
Favret, Maxime. 3,087,300.
Rieckman, Roger A., and Challacombe. 3,076,153.

Elgin Softener Corp.: *See*—
Yaeger, Edward T. 3,075,555.

Elias, Arthur J.: *See*—
Knowles, William S., and Elias. 3,083,303.

Elias, Nathaniel M. Anti-fogging article. 3,075,228, 1–29–63, Cl. 15—506.

Elion, Gertrude B.: *See*—
Hitchings, George H., Elion, and Mackay. 3,098,074.

Elion Instruments, Inc.: *See*—
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Eliot, Sigdon A., to Olin Mathieson Chemical Corp. Apparatus and process for continuous casting. 3,099,053, 7–30–63, Cl. 22—200.1.

Eliamac Inc.: *See*—
MacChesney, Chester M. 3,095,150.
MacChesney, Chester M. 3,095,151.

Elldin, Anders H.: *See*—
Bergmann, Anders K., Elldin, Jacobaeus, Svala, and Welander. 3,088,998.

Elledge, Martin D. Lathe tool holding and operating attachment. 3,102,445, 9–3–63, Cl. 82—5.

Elleman, Earle W., to Anchor Hocking Glass Corp. Screw cap applicator. 3,071,909, 1–8–63, Cl. 53—315.

Ellenbogen, Leon, to American Cyanamid Co. Oral iron-glucosamine hematinic composition and therapy. 3,102,844, 9–3–63, Cl. 167—68.

Ellenburg, George W., and H. H. Specht, to General Electric Co. Composite propulsion nozzle. 3,112,614, 12–3–63, Cl. 60—35.6.

Ellerbeck, Grant C., to Friden, Inc. Calculating machine. 3,079,076, 2–26–63, Cl. 235—63.

Ellerbeck, Grant C., to Friden, Inc. Calculating machine. 3,110,441, 11–12–63, Cl. 235—63.

Ellerin, Erwin H. Solution for reconditioning typewriter ribbons and the like and methods of reconditioning such ribbons. 3,105,769, 10–1–63, Cl. 117—2.

Ellerman, Charles E., and V. C. Monahan, to Cascade Pole Co. Pole incising mechanism. 3,092,158, 6–4–63, Cl. 144—2.

Ellert, Henry G., and E. M. Gladrow, to Esso Research and Engineering Co. Preparation of catalyst supports and catalysts. 3,074,893, 1–22–63, Cl. 252—465.

Ellert, Henry G., and C. N. Kimberlin, Jr., to Esso Research and Engineering Co. Gas conversion process. 3,113,162, 12–3–63, Cl. 260—676.

Ellert, Henry G., and C. N. Kimberlin, Jr., to Esso Research and Engineering Co. Novel alkylation catalyst. 3,113,981, 12–10–63, Cl. 260—671.

Ellett, Alexander, to Zenith Radio Corp. Subscriber television system. 3,103,550, 9–10–63, Cl. 178—5.1.

Ellett, James R., to Barber Machinery Ltd. Pressure responsive device. 3,097,276, 7–9–63, Cl. 200—83.

Ellicott Machine Corp.: *See*—
Schmidt, Fred J. 3,094,795.

Ellis, Karl L. Device in a screen filter fitted with a sloping screen. 3,112,263, 11–26–63, Cl. 210—411.

Ellingson, Walter R., to E. I. du Pont de Nemours and Co. Textile filament. 3,109,768, 11–5–63, Cl. 161—177.

Elliot, William H., and G. L. Yager, to Cutler-Hammer, Inc. Condition responsive fluid flow monitoring and control system. 3,073,244, 1–15–63, Cl. 103—25.

Elliot, William S. Vehicle seat. 3,106,424, 10–8–63, Cl. 297—308.

Elliott, B., & Co. Ltd.: *See*—
Selby, James. 3,073,072.

Elliott, Bernard J., to Olin Mathieson Chemical Corp. Explosive tools for driving studs. 3,115,636, 12–31–63, Cl. 1—44.5.

Elliott, Bernard J., to Olin Mathieson Chemical Corp. Explosive actuated fastener driving tools. 3,115,637, 12–31–63, Cl. 1—44.5.

Elliott Bros. (London) Ltd.: *See*—
Bishop, Geoffrey S. 3,110,458.
Bunt, John P. 3,074,052.
Capewell, William K., and Price. 3,105,207.
Harris, Howard G., and Phillips. 3,075,816.
Millership, Ronald. 3,103,622.
Priestley, Eric. 3,096,955.
Tindale, John. 3,107,109.

Elliott, Ernest F. Continuous process of hot-forming metal. 3,080,649, 3–12–63, Cl. 29—529.

Elliott, Eugene W.: *See*—
Maurer, John A., and Elliott. 3,087,401.

Elliott, Fairfield H. Method of forming drilled cast-in-place piles. 3,074,240, 1–22–63, Cl. 61—53.58.

Elliott, Gary C.: *See*—
Gurrola, Charles A., and Elliott. 3,097,562.

Elliott, George, C. S. Weaver, and S.P. Scholl. Live poultry conveyor and counter. 3,110,388, 11–12–63, Cl. 198—43.

Elliott, George A.: *See*—
Moore, William P., Jr., and Elliott. 3,105,741.

Elliott, Harold A.: *See*—
Hulett, Henry R., Snyder, and Elliott. 3,110,812.

Elliott, Harold E., and S. F. Lintott, to United Shoe Machinery Corp. Machines for attaching loose outsoles to the breasts of loose Louis heels. 3,075,209, 1–29–63, Cl. 12—16.4.

Elliott, Hobert H., to Fairmont Railway Motors, Inc. Machine for driving tie plugs. 3,114,331, 12–17–63, Cl. 104—17.

Elliott, James H., to Pittsburgh Plate Glass Co. Treating glass sheets. 3,088,300, 5–7–63, Cl. 65—288.

Elliott, Lloyd E., Jr.: *See*—
Savage, Kerry D., and Elliott. 3,071,203.

Elliott, Louis J., and T. C. Ward, to Kinetics Corp. Static inverter circuit. 3,096,472, 7–2–63, Cl. 321—45.

Elliott, Martin A., to Institute of Gas Technology. Odorization of pipeline gas. 3,112,189, 11–26–63, Cl. 48—95.

Elliott, Norman: *See*—
Jenks, Glenn H., Shapiro, Elliott, and Cannon. 3,079,317.

Elliott, Robert A.: *See*—
Frye, Charles F. 3,084,707.
Frye, Charles F. 3,086,749.

Elliott, Walter L., to Taylor, Smith & Taylor Co. Ware turning and handling machine. 3,074,138, 1–22–63, Cl. 25—22.

Elliott William S., to Collins Radio Co. Temperature-stabilized and distortionless semiconductor detector. 3,079,562, 2–26–63 Cl. 329—101.

Elliott, William S., to Collins Radio Co. Proportional noise limiter. 3,102,237, 8–27–63, Cl. 325—482.

Elliott, William S., to Collins Radio Co. Temperature-stabilized and distortionless diode detector. 3,109,992, 11–5–63, Cl. 329—178.

Elliott, William S., and D. P. Viterisi, to Collins Radio Co. Filter utilizing variable capacitance junction diode. 3,079,571, 2–26–63, Cl. 333—76.

Elliott, William Y., Jr., to International Business Machines Corp. Magnetic drum system. 3,105,228, 9–24–63, Cl. 340—174.1.

Elliott Bay Lumber Co.: *See*—
Downing, Verlan L. 3,110,643.

Elliotte, Marlon A.: *See*—
Fingeroot, Ben, and Elliotte. 3,089,204.

Ellis, Albert E.: *See*—
Ballard, Donald H., and Ellis. 3,091,257.
Ballard, Donald H., and Ellis. 3,074,709.

Ellis, Albert E., Jr., to Bell Telephone Laboratories, Inc. Transistor memory circuit. 3,102,207, 8–27–63, Cl. 307—88.5.

Ellis, Belvin B.: *See*—
Olsen, Willy, and Ellis. 3,081,962.

Ellis, Belvin B., Westinghouse Electric Corp. Method of making a magnetic core. 3,107,415, 10–22–63, Cl. 29—155.58.

Ellis, Charles L.: *See*—
McAdams, Paul F., Ellis, and Christensen. 3,085,484.

Ellis, Charles L., to Clark Equipment Co. Weighing device. 3,082,834, 3–26–63, Cl. 177—134.

Ellis, Charles L., and C. E. Kramer, to Clark Equipment Co. Weighing device. 3,103,984, 9–17–63, Cl. 177—211.

Ellis, Charles W., III, and W. E. Blackburn, to Kaman Aircraft Corp. Velocity sensitive stabilizer. 3,075,727, 1–29–63, Cl. 244—17.13.

Ellis, Charles W., III, R. B. Bossler, Jr., and N. J. Bosco, to Kaman Aircraft Corp. Rotor and pitch control mechanism for a helicopter. 3,109,496, 11–5–63, Cl. 170—160.25.

Ellis, Clifford J. Vest. 3,105,359, 10–1–63, Cl. 61—70.

Ellis, David A.: *See*—
Long, Ray S., and Ellis. 3,072,461.

Ellis, David A., to The Dow Chemical Co. Process for the separation of iron and titanium values by extraction and the subsequent preparation of anhydrous titanium dioxide. 3,104,950, 9–24–63, Cl. 23—202.

Ellis, David H., and E. H. Guse, to The Oscar C. Rixson Co. Door closer assembly. 3,106,743, 10–15–63, Cl. 16—55.

Ellis Donald E.: *See*—
Munro, William D., Barker, Ellis, and Gibola. 3,083,289.

Ellis, George O.: *See*—
Smith, Delbert P., Ellis, and Worley. 3,104,958.

Ellis, George S.: *See*—
Jones, Addis T., and Ellis. 3,088,562.

Ellis, Henry A., to The Dow Chemical Co. Structure for detachably mounting panels. 3,095,661, 7–2–63, Cl. 40—156.

Ellis, Jack J. Ore reduction furnace and method. 3,108,869, 10–29–63, Cl. 75—41.

Ellis, Jerome J. Construction members and methods of forming same. 3,108,406, 10–29–63, Cl. 50—439.

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Ellis, Ray E. Fire retardant composition and method. 3,102,821, 9–3–63, Cl. 106—15.

Ellis, Ray G., and F. T. Vaccaro, to National Rejectors, Inc. Currency detectors. 3,108,680, 10–29–63, Cl. 198—31.

Ellis, Robert. Dry shaver with hair pulling means to aid in cutting the hair. 3,088,205, 5–7–63, Cl. 30—34.

Ellis, Robert. Animated figurine and means for operating same. 3,098,319, 7–23–63, Cl. 46—240.

Ellis, Robert. Flexible permanent magnet. 3,111,735, 11–26–63, Cl. 24—201.

Ellis, Rollo G., ⅛ to Peter H. Wayne. Variable shading device. 3,074,127, 1–22–63, Cl. 20—62.

Ellis, Rollo G., to Micromatic Hone Corp. Article conveying mechanism. 3,083,816, 4–2–63, Cl. 198—213.

Ellis, Ronald, to Sterling Drug Inc. Mechanically operated fluid dispensing device. 3,090,528, 5–21–63, Cl. 222—179.

Ellis, Roy T., and S. A. Denman; said Denman assor. to said Ellis. Safety deposit box lock. 3,103,806, 9–17–63, Cl. 70—339.

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Ellis, William L. Automatic door. 3,092,170, 6–4–63, Cl. 160—26.

Ellison, James O., 24/100 to T. B. Griffith, and 24/100 to E. Younglove. Laminated wheel. 3,099,490, 7–30–63, Cl. 301—9.

Ellison, Lynn E., and S. E. Nuber, said Ellison assor. to The Pure Oil Co., and said Nuber assor. to Warner Electric Brake & Clutch Co. Apparatus for measuring the apparent bulk modulus of a transient-electric-potential-responsive fluid. 3,105,379, 10–1–63, Cl. 73—55.

Ellman, Irving A. Device for cleaning a dentist's mirror. 3,075,220, 1–29–63, Cl. 15—145.

Ellman, Irving A. Dental cleaning tool, apparatus, and method. 3,091,033, 5–28–63, Cl. 32—58.

Ellman, Julius, and G. Lerner. Bubble pipe. 3,108,394, 10–29–63, Cl. 46—7.

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Elsworth, James P., and R. H. Flick, to Westinghouse Electric Corp. Circuit breaker. 3,073,926, 1–15–63, Cl. 200—88.

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Elmer, Thomas H., to Corning Glass Works. Method of increasing annealing point of high silica glass. 3,113,008, 12–3–63, Cl. 65—31.

Elmer, Thomas H., to Corning Glass Works. Method of increasing annealing point of high silica glass. 3,113,855, 12–10–63, Cl. 65—31.

Elmer, William B., and C. W. Smith, to United States of America, Navy. Depth regulation device. 3,109,370, 11–5–63, Cl. 102—14.

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Eloranta, Vaito K., to Polaroid Corp. Photographic apparatus. 3,113,497, 12–10–63, Cl. 95—13.

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Elpern, Bill, to Sterling Drug Inc. Lower alkyl 1-(phenylaminoalkyl)-4-phenyl-4-piperidyl ketones. 3,096,335, 7–2–63, Cl. 260—293.4.

Elpern, Bill, to Sterling Drug Inc. Lower alkyl 4-phenyl-1-[(aromatic N-heteryl)-aliphatic] piperidine-4-carboxylates and their synthesis. 3,097,208, 7–9–63, Cl. 260—294.3.

Elpern, Bill, to Sterling Drug Inc. Preparation of lower alkyl-4-phenyl-N-phenylethylisonipecates under catalytic hydrogenation conditions. 3,109,004, 10–29–63, Cl. 260—294.3.

Elrick, Charles W., and S. J. Rybarczyk, to United States Steel Corp. Coil support for annealing furnaces. 3,082,996, 3–26–63, Cl. 263—49.

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Elster, Curt C., and W. Hummitzsch, to Westphälia Union Aktiengesellschaft für Eisenunde Drahtindustrie. Rods for welding cast iron, especially high grade cast iron. 3,114,033, 12–10–63, Cl. 219—146.

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Elsworth, Robert M., to General Electric Co. Process for binding coil end turns of a dynamo-electric machine. 3,103,-737, 9–17–63, Cl. 29—155.5.

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Elzinga, Eugene R., to Jersey Production Research Co. In situ combustion process. 3,087,541, 4–30–63, Cl. 166—11.

Embiricos, Nicole J. Apparatus for curling hair. 3,107,675, 10–22–63, Cl. 132—33.

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Emblem, Harold G., and E. W. Fothergill, to Philadelphia Quartz Co. Molds utilizing acid hydrolysed isopropyl silicates as binders. 3,070,861, 1–1–63, Cl. 22—193.

Emblem, Harold G., and A. K. Harrison, to Philadelphia Quartz Co. Aminoalkyl polysilicates. 3,079,656, 3–5–63, Cl. 22—193.

Emblem, Harold G., and N. A. Hurt, to Philadelphia Quartz Co. Organic silicate materials. 3,110,601, 11–12–63, Cl. 106—55.

Emblem, Harold G., and R. C. Le Fleming, to Philadelphia Quartz Co. Preparation of organo-halogeno-silanes. 3,110,-721, 11–12–63, Cl. 260—448.2.

Embree, Milton L., and L. J. Montone; said Embree assor. to Bell Telephone Laboratories Inc., said Montone assor. to Western Electric Co., Inc. Direct reading time-interval measuring set. 3,080,522, 3–5–63, Cl. 324—158.

Emch, Paul J. Fold-away device for bed unit. 3,097,369, 7–16–63, Cl. 5—136.

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Emerson, Paul D., to Monsanto Chemical Co. Pneumatic traverse device. 3,113,737, 12–10–63, Cl. 242—43.

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Bradley, Chester D. 3,089,519.

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Emert, Walter R. Crusher for automobile engines. 3,079,-097, 2–26–63, Cl. 241—268.

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Emmel, Henry J., to Bausch & Lomb Inc. Slide changing mechanism for slide projectors. 3,106,031, 10–8–63, Cl. 40—879.

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Emond, Joseph S. Plant support. 3,113,400, 12–10–63, Cl. 47—45.

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Emrick, Donald D., and D. L. Beals, to The Standard Oil Co. Telomerization of unsaturated hydrocarbons with aliphatic-substituted aromatic hydrocarbons and telomeric products obtained thereby. 3,091,650, 5–28–63, Cl. 260—668.

Emrick, Donald D., and S. M. Darling, to The Standard Oil Co. Telomerization of ethylene with alkylene glycol diformates. 3,099,665, 7–30–63, Cl. 260—410.6.

Emrick, Donald D., and S. M. Darling, to The Standard Oil Co. Telomerization of unsaturated hydrocarbons with alkylene glycol borates and telomeric products obtained thereby. 3,104,255, 9–17–63, Cl. 260—462.

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En Dean, Howard J., to Gulf Research & Development Co. Pipeline batching pig. 3,068,401, 5–7–63, Cl. 137—802.

Ender, Hans H., to Union Carbide Corp. Diallatrioxanes, process for preparing same, process for coating metal, and coated metal. 3,078,184, 2–19–63, Cl. 117—132.

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Ender, Hans H., to Union Carbide Corp. Silyl-oxymethylene compounds. 3,109,854, 11–5–63, Cl. 260—448.8.

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Enders, Edgar, and G. Unterstenhofer, to Farbenfabriken Bayer Aktiengesellschaft. Thiophosphoric acid esters and processes for their production. 3,071,594, 1–1–63, Cl. 260—327.

Enders, Heinz W., H. Delner, and E. W. Kurz, to Chemische Fabrik Pfersee G.m.b.H. Textile finishing composition. 3,116,263, 12–31–63, Cl. 260—21.

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Endter, Friedrich, to Deutsche Gold- und Silver Scheideanstalt. Method and apparatus for testing structure of materials by means or roentgen, gamma or corpuscular rays. 3,089,031, 5–7–63, Cl. 250—65.

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Energy Conversion, Inc.: *See*—
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Enge, Harald A., to High Voltage Engineering Corp. High-voltage generator with solid insulation. 3,071,702, 1–1–63, Cl. 310—6.

Enge, Harald A., to High Voltage Engineering Corp. Magnetic spectrometer with a focusing lens system prior to the energy separation means. 3,084,249, 4–2–63, Cl. 250—41.9.

Engel, Charles F., to Engel Equipment, Inc. Ventilated wall construction for roll-former machines and the like. 3,102,-574, 9–3–63, Cl. 153—10.

Engel, Charles F., to Engel Equipment, Inc. Press brake having means to offset ram deflection. 3,102,575, 9–3–63, Cl. 153—21.

Engel, Charles F. Air duct installations. 3,109,670, 11–5–63, Cl. 285—114.

Engel, Charles R., to Canadian Patents and Development Ltd. 17-a-bromo-6-methyl-pregnane derivatives. 3,087,941, 4–30–63, Cl. 260—397.4.

Engel Equipment, Inc.: *See*—
Engel, Charles F. 3,102,574.
Engel, Charles F. 3,102,575.

Engel, Eric: *See*—
Ishler, Norman H., MacAllister, Szczesniak, and Engel. 3,093,483.

Engel, Joel S.: *See*—
Davey, James R., Engel, and Flavin. 3,080,524.

Engel, John H.: *See*—
Schellenberg, Walter O., and Engel. 3,109,292.

Engel, John H., to Phillips Petroleum Co. Combined desulfurization, hydrocracking and reforming operation. 3,105,-811, 10–1–63, Cl. 208—60.

Engel, Karl, to Unipak Overseas Ltd. Cartons. 3,105,608, 10–1–63, Cl. 220—105.

Engel, Karl, to Unipak Overseas Ltd. Cartons. 3,111,241, 11–19–63, Cl. 220—105.

Engel, Manfred O.: *See*—
Ritz, Hugo H. L., Engel, and Forster. 3,085,964.

Engel, Paul R.: *See*—
Golub, Leo, and Zalger. 3,095,583.

Engel, Walter, to Siemens-Schuckertwerke Aktiengesellschaft. Transistor amplifier with tunnel diode in emitter circuit. 3,090,926, 5–21–63, Cl. 330—24.

Engel, Walter S.: *See*—
Finor, Walter J., and Engel. 3,089,379.
Kuhrt, Friedrich, Engel, and Wolf. 3,071,654.
Wolf, Christian-Friedrich, and Engel. 3,114,010.

Engel, William H., to Continental Can Co., Inc. Endless chain tool carrier associated with product removal means. 3,111,052, 11–19–63, Cl. 83—100.

Engel, William N.: *See*—
Cochran, Richard L., and Engel. 3,093,965.

Engel, Wolfgang, to Anker-Phoenix Nahmaschinen Aktiengeselschaft. Zig-zag sewing machines. 3,075,483, 1–29–63, Cl. 112—158.

Engel, Wolfgang, to Anker-Phoenix Naemaschinen Aktiengesellschaft. Zig-zag sewing machine. 3,104,638, 9–24–63, Cl. 112—158.

Engel, Wolfgang, to Anker-Phoenix Nohmaschinen AG. Device for controlling the needle-bar motion and the material feed in sewing machines. 3,108,555, 10–29–63, Cl. 112—158.

Engelage, Gunther, to Agfa Aktiengesellschaft. Filter-operating arrangement for a photographic printing apparatus. 3,107,578, 10–22–63, Cl. 88—24.

Engelbart, Douglas C., to Stanford Research Institute. Magnetic logic device. 3,083,355, 3–26–63, Cl. 340—174.

Engelbart, Douglas C., to Stanford Research Institute. Combined synthetic and multiaperture magnetic-core system. 3,111,588, 11–19–63, Cl. 307—88.

Engelbart, Douglas C., to Stamford Research Institute. Combined synthetic and multiaperture magnetic-core system. 3,112,409, 11–26–63, Cl. 307—88.

Engelbrecht, Robert M. Door and drawer pull. 3,107,389, 10–22–63, Cl. 16—124.

Engelbrecht, Rudolf S., and W. W. Mumford, to Bell Telephone Laboratories, Inc. Noise figure improvement in radio receivers. 3,090,009, 5–14–63, Cl. 325—479.

Engelder, Arthur E. Apparatus for determining metabolic rates. 3,082,761, 3–26–63, Cl. 128—2.07.

Engelhard Hanovia, Inc.: *See*—
Heine-Geldern, Robert. 3,086,696.
Klausner, Melvin W. 3,105,107.
Mutschler, Edward C. 3,087,065.
Rubens, Harry S. 3,087,050.
Scott, James H. 3,086,516.

Engelhard Industries, Inc.: *See*—
Andersen, Holger C., and Haley. 3,079,232.
Andersen, Holger C., Romeo, and Green. 3,098,712.
Andersen, Holger C., Romeo, and Steele. 3,084,023.
Anderson, Edward P. 3,075,911.
Anderson, Edward P. 3,085,402.
Anderson, Edward P. 3,098,026.
Anderson, Edward P. 3,099,813.
Barney, Greenlief H., and Burman. 3,098,024.
Bobrowsky, Alfred R. 3,105,048.
Brown, Marion L., Jr., and Green. 3,088,919.
Cohn, Johann G. E. 3,086,945.
Cohn, Johann G. E., and Haley. 3,092,444.
Cohn, Johann G. E., and Hauel. 3,080,444.
Dowson, Arthur G., and Buckland. 3,113,092.
Hettinger, William P., Jr., Keith, and Lorenc. 3,092,676.
Hill, James S. 3,083,445.
Hill, James S. 3,090,575.
Hill, James S. 3,110,089.
Hill, James S., and Sivil. 3,091,026.
Hoberman, Max J. 3,113,093.

Engelhard Industries, Inc.: *See*—Continued
Hofer, Max. 3,087,043.
Keitel, William. 3,075,557.
Keitel, William. 3,086,285.
Langley, Robert C., and Kellam. 3,092,504.
Pfefferle, William C. 3,087,112.
Potter, Charles. 3,075,609.
Spooner, Howard E. 3,075,281.
Spooner, Howard E., and Bergmann. 3,113,196.

Engelhard Industries of Canada Ltd.: *See*—
Williams, Ralph T., and Eley. 3,070,878.
Williams, Ralph T., and Eley. 3,090,262.

Engelhart, Ludwig. Fertilizer and method of producing the same. 3,102,804, 9–3–63, Cl. 71—10.

Engelhorn, Robert: *See*—
Scheffler, Heinz, and Engelhorn. 3,084,100.

Engelking, Gustaf C. Floor hinge setter. 3,084,424, 4–9–63, Cl. 29—271.

Engelman, Joseph H., to Burroughs Corp. Magnetron tube. Re. 25,440, 9–10–63, Cl. 313—157.

Engelmann, Fred W.: *See*—
Forshall, Frank E., and Engelmann. 3,102,656.

Engelmann, Jacques, to Commissariat a l'Energie Atomique. Well-type ionisation chamber. 3,091,716, 5–28–63, Cl. 313—146.

Engelmann, Rudolph H., to United States of America, Atomic Energy Commission. Electronic integrating circuit. 3,101,406, 8–20–63, Cl. 235—183.

Engelmann, Walter, Druckknopf- und Metallwarenfabrik A. Raymond. Securing device. 3,102,745, 9–3–63, Cl. 287—93.

Engelmann, Walter. Spring retainer clip for grooved pin. 3,115,805, 12–31–63, Cl. 85—8.8.

Engels, Eugene O., and E. V. Waack, to Baker Perkins, Inc. Dough handling machines. 3,085,519, 4–16–63, Cl. 107—8.

Engelsmann, Dieter: *See*—
Winkler, Alfred, Engelsmann, and Hackenberg. 3,094,912.

Engelsmann, Dieter, to Agfa Aktiengesellschaft. Exposure control for cameras. 3,075,438, 1–29–63, Cl. 95—10.

Engelsmann, Dieter, and H. Hackenberg, to Agfa Aktiengesellschaft in Leverkusen-Bayerwerk. Automatic exposure controlling structure for cameras. 3,086,437, 4–23–63, Cl. 95—10.

Engelsted, John N., to O. S. Walker Co., Inc. Demagnetizing apparatus. 3,078,396, 2–19–63, Cl. 317—157.5.

Engelsted, John N., and E. Bauer, to O. S. Walker Co., Inc. Permanent magnet lifting device. 3,079,191, 2–26–63, Cl. 294—65.5

Engelstein, Harold and S. Flip file cards. 3,091,046, 5–28–63, Cl. 40—102.

Engelstein, Stanley: *See*—
Engelstein, Harold and S. 3,091,046.

Engemann, Gunter: *See*—
Spielberger, Georg, and Engemann. 3,080,371.

Engi, Walter, to A. Ditting. Mill for coffee, spices, nuts and the like. 3,094,290, 6–18–63, Cl. 241—100.

Engineered Equipment, Inc.: *See*—
Heath, Donald F. 3,076,580.

Engineering Developments Co., Inc.: *See*—
McRae, John L. 3,075,436.

Engineering Metal Products Corp.: *See*—
Gillespie, Russell A. 3,077,962.

Engineering Products & Specialties, Inc.: *See*—
Abedon, Byron H., and Pogorilich. 3,114,942.

Engineering Research and Application Ltd.: *See*—
Lyon, Gerard A. 3,105,478.

Engineers & Fabricators, Inc.: *See*—
Dillman, Edward E., Ringo, and Boston. 3,085,380.
Dillman, Edward E., Ringo, and Boston. 3,086,065.

England, David C: *See*—
Armstrong, Robert K., England, Parshall, and Thatcher. 3,107,613

England, Richard J., and J. E. Spellman, to E. I. du Pont de Nemours and Co. Textile filament guide. 3,080,134, 3–5–63, Cl. 242—157.

Englander Co., Inc., The: *See*—
Kamp, Ewald A. 3,106,724.
Kamp, Ewald A. 3,113,325.
Kamp, Ewald A., and Pink. 3,113,324.
Waugh, Robert E. 3,098,664.
Wetzler, Justin J. 3,099,021.
Wetzler, Justin J. 3,099,518.
Wilson, Forest. 3,093,410.

Englander, Robert A., and C. P. Cato, to Dacam Corp. Article carrier, method and apparatus for erecting same. 3,111,797, 11–26–63, Cl. 53—48.

Engle, Allen W., to Dresser Industries, Inc. Single strength member for multi-transducer mounting in acoustic well logging tools. 3,102,604, 9–3–63, Cl. 181—5.

Engle, Allen W., J. L. Casey, and A. P. Brokaw, to Dresser Industries, Inc. Acoustic well logging system. 3,112,466, 11–26–63, Cl. 340—18.

Engle, John H. Roller tappet constraining device. 3,101,077, 8–20–63, Cl. 123—90.

Engle, Lloyd F., Jr.: *See*—
Beck, Quentin S. 3,099,900.

Engle, Loy S.: *See*—
Britt, Norman G., Engle, Carroll, and Blumberg. 3,085,896.

Engle, Loy S., H. J. Dunn, and K. A. Bownes, to Interchemical Corp. Method and apparatus for evalnating the relative abrasiveness of inks. 3,100,981, 8–20–63, Cl. 73—7.

Engle, Paul. Container cover with a roller applicator. 3,100,908, 8–20–63, Cl. 15—574.

Engle, Robert C., to Micromatic Hone Corp. Spring clip to retain a honing stone in the tool body. 3,084,487, 4–9–63, Cl. 51—184.3.

Engle, Robert C., to Micromatic Hone Corp. Honing tool body abrasive slot insert. 3,109,266, 11–5–63, Cl. 51—184.3.

Engle, Robert W., to Combination Pump Valve Co. Valve having heat dissipating head structure. 3,078,067, 2–19–63, Cl. 251—121.

Englehart, Theodore M., and R. L. Cochran, to The Buehler Corp. Gate assembly. 3,093,966, 6–18–63, Cl. 60—35.54.

Engler, John F. Mowing device. 3,115,738, 12–31–63, Cl. 56—6.

Englert, Joseph A.: *See*—
Bredtschneider, Kurt B., and Englert. 3,115,787.
Bredtschneider, Kurt B., Englert, and Doelger. 3,115,786.

Englert, Ralph A.: *See*—
Calehuff, James M., Englert, and Metzger. 3,074,441.

Engleson, Harry E., and E. D. Sramek, to Crompton & Knowles Packaging Corp. Apparatus for expanding a carton and inserting same into a conveyor bucket. 3,074,326, 1–22–63, Cl. 93—53.

Engleson, Harry E., and E. D. Sramek, to Crompton & Knowles Packaging Corp. Device for stacking articles. 3,074,567, 1–22–63, Cl. 214—6.

Engleson, Harry E., and E. D. Sramek, to Crompton & Knowles Corp. Tray forming frame for tray filling and forming apparatus. 3,086,337, 4–23–63, Cl. 53—194.

Engleson, Harry E., and E. D. Sramek, to Crompton & Knowles Corp. Apparatus for removing malpositioned articles from a conveyer. 3,097,732, 7–16–63, Cl. 198—33.

Englis, Clifton L. Underwater missile and activating means therefor. 3,102,525, 9–3–63, Cl. 124—11.

English, Albert J.: *See*—
Maurizi, Guido J., and English. 3,080,639.

English, Charles L. Pressure fluctuation recorder. 3,102,426, 9–3–63, Cl. 73—419.

English, Charles L. Subsurface pump. 3,109,379, 11–5–63, Cl. 103—46.

English, Charles L. Variable orifice flow indicator. 3,112,646, 12–3–63, Cl. 73—208.

English, Charles L., and J. B. Woods. Seating cup. 3,104,883, 9–24–63, Cl. 277—205.

English, Christopher J., and S. Van Dam, to Aluminum Laboratories, Ltd. Metal ingots. 3,100,142, 8–6–63, Cl. 29—187.

English, Douglas: *See*—
Barrett, Terence, English, and Williams. 3,109,658.

English Electric Aviation Ltd., The: *See*—
Harper, Raymond, and Snell. 3,106,070.

English Electric Co. Ltd., The: *See*—
Brierley, Albert E. 3,098,113.
Caldwell, John, and Watson. 3,074,236.
Campbell, Thomas C., and Sharples. 3,079,112.
Chamberlain, John J., and Ward. 3,094,365.
Creasey, Raymond F., and Froud. 3,110,456.
Cushing, Cyril A., and Speaight. 3,101,702.
Derlaz, Paul. 3,098,184.
Glass, Jerzy G. 3,083,279.
Green, Philip R. 3,074,116.
McMillan, Peter W., and Hodgson. 3,093,598.
Pennington, Wilfrid A., Harris, and Sharples. 3,104,322.
Peters, Walter E., and Mills. 3,101,595.
Shaw, Norman H. 3,090,901.
Simmons, Anthony T. F. 3,071,185.
Ward, Joseph L. 3,104,389.
Wilkins, John T. 3,077,946.

English Electric Co., The: *See*—
Bainbridge, William N., Campbell, and Heath. 3,083,937.

English Electric Valve Co. Ltd.: *See*—
Buckley, Charles R., and Tompsett. 3,098,169.
Callick, Eric B. B., and Flmuin. 3,110,841.
Hendry, Eric D. 3,086,138.
Mitchell, Arthur G., and Bagnall. 3,083,444.
Slark, Norman A. 3,095,251.

English, James F., Jr., and R. J. Stevens, to Bailey Meter Co. Radiation bolometer. 3,073,163, 1–15–63, Cl. 73—355.

English, John A., 15% each to H. G. and P. G. Johansing; 25% each to A. B. and M. C. Slack; 5% to J. H. Lowe, and 5% to H. D. Meyer. Grip training device. 3,111,322, 11–19–63, Cl. 273—183.

English, Lawrence P.: *See*—
Kelemen, Frank K., and English. 3,108,178.
Ritter, Ralph K., and English. 3,100,833.

English, William J.: *See*—
Abernathy, Quincy W., English, and Morris. 3,081,934.

Englund, Gosta R., to Svenska Dataregister AB. Accounting machine. 3,093,305, 6–11–63, Cl. 235—60.

Englund, Gosta R., to Svenska Dataregister AB. Data handling apparatus. 3,103,309, 9–10–63, Cl. 235—60.31.

Englund, Lawrence P., to The American Baler Co. Apparatus for baling. 3,086,456, 4–23–63, Cl. 100—192.

Englund, Robert A., to The Garrett Corp. Self sealing disc for spoon type valves. 3,075,738, 1–29–63, Cl. 251—86.

Engman, Eugene G. Apparatus for making large hollow articles. 3,110,928, 11–19–63, Cl. 18—5.

Engman, Gustaf O.: *See*—
Andersson, Gustav T., and Engman. 3,109,344.

Engqvist, Erik L., and J. H. W. Adenstedt, to L. M. Ericsson, Telephonaktiebolaget. Cordless switchboard. 3,101,395, 8–20–63, Cl. 179—99.

Engstrand, Gunnar C. Screw propellers. 3,078,925, 2–26–63, Cl. 170—159.

Engstrom, Carl-Gunnar D. Apparatus for measuring quantities of gases. 3,075,384, 1–29–63, Cl. 73—234.

Engstrom, Henry O. Expansion insert. 3,089,377, 5–14–63, Cl. 85—2.4.

Engström, Urban, to Vasterbottens Tryckerl Aktiebolag. Expandable document box. 3,114,492, 12–17–63, Cl. 229—16.

Engwall, Richard E.: *See*—
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Enk, Eduard, II. Jacob, and J. Nickl, to Wacker-Chemie G.m.b.H. Process for manufacturing indium phosphide and gallium arsenide of high purity. 3,077,384, 2–12–63, Cl. 23—204.

Enk, Eduard, and J. Nickl, to Wacker-Chemie G.m.b.H. Process for effecting crucibleless melting of materials and production of shaped bodies therefrom. 3,098,741, 7–23–63, Cl. 75—65.

Enk, Eduard, W. Leicher, and W. Schlndelin, to Wacker-Chemie G.m.b.H. Process for making calcium oxide suitable for manufacturing calcium carbide. 3,104,158, 9–17–63, Cl. 23—186.

Enk, George W. Positioning apparatus. 3,076,889, 2–5–63, Cl. 219—125.

Enicks, James H., and A. A. Di Rocco, said Di Rocco assor. to said Enicks. Protective mouthpiece. 3,089,487, 5–14–63, Cl. 128—136.

Enloe, Winfred P., Jr. Warp let-off mechanism for looms. 3,105,524, 10–1–63, Cl. 139—110.

Ennis, Joseph F., and B. A. Peters. Cultivator. 3,095,045, 6–25–63, Cl. 172—38.

Eno, Wilber S., and N. R. Hall, to Bell Telephone Laboratories, Inc. Telephone coin return assembly. 3,116,013, 12–31–63, Cl. 232—57.5.

Enoch, Duard W., J. F. Bogner, and E. A. Jewell, Jr., to Interstate Bakeries Corp. Turnover cake and method of making the same. 3,115,104, 12–24–63, Cl. 107—54.

Enochs, John R., H. M. Dimond, and H. Springer, to General Electric Co. Time switch. 3,078,368, 2–19–63, Cl. 200—38.

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Enomoto, Hajime, and S. Shiral, to Kokusai Denshin Denwa Kabushiki Kaisha. Logical element. 3,098,157, 7–16–63, Cl. 307—88.

Enos, John P., to The Singer Mfg. Co. Feeding mechanism for sewing machine work jogging attachments. 3,074,365, 1–22–63, Cl. 112—160.

Enrick, Norbert L., and G. G. Fornes, to Institute of Textile Technology. Counting device. 3,079,713, 3–5–63, Cl. 40—68.

Enright, James H., and V. L. Thompson, to In-Sink-Erator Mfg. Co. Shredder rotors for garbage disposers. 3,083,922, 4–2–63, Cl. 241—260.

Ensch, Thomas B. Dispensing cap for squeeze-type containers. 3,094,256, 6–18–63, Cl. 222—536.

Ensign, George G., G. T. Soper, and O. Lundahl, to Elgin National Watch Co. Electrically-powered time devices. 3,075,345, 1–29–63, Cl. 58—28.

Ensign, Robert H.: *See*—
Hopp, Philip, Ensign, and Cardozo. 3,112,142.

Ensign, Robert H., and A. G. Jackson, to Montag, Inc. Roller clip board. 3,085,579, 4–16–63, Cl. 129—23.

Ensign, Roy F., to American Bosch Arma Corp. Carbureter and combined carbureter and regulator. 3,081,160, 3–12–63, Cl. 48—184.

Ensing, Lukas: *See*—
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Ensinger, Raymond L.: *See*—
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Enslnk, Johannes, to North American Philips Co., Inc. Variable input impedance circuit arrangement. 3,102,215, 8–27–63, Cl. 317—148.5.

Enslein, Arthur W., deceased; G. W. Rapp, administrator. High ratio double action stepper unit. 3,095,751, 7–2–63, Cl. 74—142.

Ensley, Irvin L., and H. M. Buckner, to E. V. Prentice Co. Veneer sheet handling and loading apparatus. 3,080,958, 3–12–63, Cl. 198—105.

Enterprise Machine Parts Corp.: *See*—
Birdsall, Robert E. 3,073,612.

Enterprise Mfg. Co., The: *See*—
Sarah, Thomas F. 3,075,721.
Sarah, Thomas F. 3,083,929.
Sarah, Thomas F. 3,097,814.

Enterprise Railway Equipment Co.: *See*—
Dorey, George B. 3,079,032.
Dorey, George B. 3,082,700.
Dorey, George B. 3,082,701.
Dorey, George B. 3,082,703.
Dorey, George B. 3,082,704.
Dorey, George B. 3,082,705.
Dorey, George B. 3,082,706.
Dorey, George B. 3,097,612.
Dorey, George B. 3,100,455.
Dorey, George B. 3,100,456.
Dorey, George B. 3,100,457.

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Dorey, George B. 3,104,623.
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Dorey, George B. 3,109,388.
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Enters, Robert F.: *See*—
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Solomon, Frank, and Enters. 3,104,990.

Entoleter, Inc.: *See*—
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Entwistle, Clive. Demountable furniture. 3,104,132, 9–17–63, Cl. 297—440.

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Sheldahl, David B., and Entwistle. 3,086,870.
Sheldahl, David B., and Entwistle. 3,086,871.

Entzminger, Auguste, to Les Ateliers de Construction Mecaniques C. & A. Holweg, S.a.r.l. Machine for the continuous production of flat bags. 3,114,299, 12–17–63, Cl. 93—18.

Entzminger, Lindell B. Combined contact lens carrier and guard unit. 3,083,819, 4–2–63, Cl. 206—5.

Enyeart, Raymond J.: *See*—
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Enz, Walter F., and T. E. King, to The Upjohn Co. Enteric-coated pllules. 3,081,233, 3–12–63, Cl. 167—82.

Eolkin, Dave, to Gerber Products Co. Drum drying of food products. 3,116,124, 12–31–63, Cl. 34—122.

Eolkin, Dave, and E. R. Allard, to Gerber Products Co. Accessory for drum drier. 3,115,433, 12–24–63, Cl. 159—11.

Epel, Joseph N.: *See*—
Hansen, Andre M., and Epel. 3,112,283.

Epes, William M.: *See*—
Adey, Wilfred M., and Epes. 3,085,348.

Epperberger, Paul, to G. Buehler. Guide box. 3,083,805, 4–2–63, Cl. 193—27.

Epperlein, Helmut, to Hamilton Watch Co. Contact and index system for an electric watch. 3,095,690, 7–2–63, Cl. 58—28.

Epperly, William R., to Esso Research and Engineering Co. Two-stage adsorption process. 3,098,814, 7–23–63, Cl. 208—91.

Eppert, Franklin P., to General Electric Co. Ballast apparatus. 3,080,505, 3–5–63, Cl. 315—277.

Eppink, Reno P. Stadium seating structure. 3,077,364, 2–12–63, Cl. 297—248.

Eppler, Walter T., to Western Electric Co., Inc. Automatic centering mechanism. 3,071,302, 1–1–63, Cl. 226—191.

Eppler, Walter T., to Western Electric Co., Inc. Diameter gages. 3,104,472, 9–24–63, Cl. 33—178.

Epps, Aubrey W., Jr., and F. C. Winn, Jr. Television set with boom supported picture unit. 3,072,738, 1–8–63, Cl. 178—5.6.

Eppstein, Elmer S., to In-A-Wall Corp. Window and hardware therefor. 3,074,126, 1–22–63, Cl. 20—52.2.

Eprad, Inc.: *See*—
Moore, Charles A. 3,097,265.

Eprova Ltd.: *See*—
Felder, Ernst, Suter, and Zutter. 3,105,072.

Epsco, Inc.: *See*—
Carter, Howard J. 3,097,353.
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Gordon, Bernard M., and Talambiras. 3,105,231.
Gordon, Bernard M., and Talambiras. 3,108,266.

Epstein, Arnold, and S. M. Kullfay, to Monsanto Chemical Co. Thermoelectricity. 3,095,330, 6–25–63, Cl. 136—5.

Epstein, Arnold S.: *See*—
Hill, Dale E., and Epstein. 3,077,506.

Epstein, David W., P. E. Kaus, and D. D. Van Ormer, to Radio Corp. of America. Color-kinescope of the shadow mask variety. 3,109,116, 10–29–63, Cl. 313—85.

Epstein, Henry D.: *See*—
Moksu, Walter H., and Epstein. 3,104,296.

Epstein, Henry D., to Texas Instruments Inc. Thermostatic switch. 3,103,566, 9–10–63, Cl. 200—122.

Epstein, Herman: *See*—
Campbell, Robert V. D., and Epstein. 3,076,393.

Epstein, Irving A., and A. J. Girardy, to Independent Lock Co. Reinforced key. 3,093,920, 6–18–63, Cl. 40—330.

Epstein, Lawrence, to Paramount Paper Products Co. Plastic core for roll labels. 3,106,363, 10–8–63, Cl. 242—68.5.

Epstein, Martin: *See*—
Buckler, Sheldon A., and Epstein. 3,116,334.
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Epstein, Maurice J.: *See*—
Benjamin, Sidney K., Epstein, and Pincus. 3,105,235.

Epstein, Samuel, 50% to E. J. Ryan. Film drier. 3,103,420, 9–10–63, Cl. 34—58.

Epstein, Samuel, J. W. Frame, and G. F. Melloy, to Bethlehem Steel Co. Rolling steel in ferritic state. 3,076,361, 2–5–63, Cl. 80—60.

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Tatel, Howard E. 3,091,764.
Tatel, Howard E. 3,091,765.

Epsylon Research and Development Co. Ltd.: *See*—
Namenyi-Katz, Laszlo. 3,080,455.
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Davis, John S. 3,109,578.
Equity Financial Corp.: *See*—
Sharp, Allen W. 3,091,099.
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Vonk, Bastiaan. 3,087,041.
Erard, Raoul H. Self-winding mechanism for timepieces. 3,086,402, 4–23–63, Cl. 74—126.
Erb, Ernst, to Superba S.A.r.l. Etablissements. Two-bed hand-knitting apparatus. 3,103,110, 9–10–63, Cl. 66—64.
Erba, Carlo S.p.A.: *See*—
Giraldi, Piernicola, Artini, Logemann, and Erba. 3,074,943.
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Erbach, Georg, to Behringwerke Aktiengesellschaft. Apparatus for the ultrafiltration of solutions. 3,085,687, 4–16–63, Cl. 210—195.
Erbe, Otto, to C. Zeiss. Photographic objectives with distance adjustment and diaphragm adjustment. 3,106,883, 10–15–63, Cl. 95—64.
Erbe, Otto, and O. Weiss, to C. Zeiss. Adjustable lens mount. 3,088,370, 5–7–63, Cl. 88—57.
Erbland, Loreen H. Guide bed for sewing machines. 3,071,091, 1–1–63, Cl. 112—260.
Erchak, Andrew, and J. C. Van Dyk, to International Business Machines Corp. Xerographic process toner and method of producing same. 3,090,755, 5–21–63, Cl. 252—62.1.
Erck, Richard K., to Master Metal Strip Service, Inc. Sash balance. 3,077,631, 2–19–63, Cl. 16—107.
Ercoli, Alberto. 3-enalethers of free and esterified 17α-ethylaryl-19-nortestosterone. 3,115,440, 12–24–63, Cl. 167—74.
Erdely, Ladislas, to Pechiney Cie de Produits Chimiques et Electrometallurgiques. Self-closing and self-opening hollow objects. 3,092,419, 6–4–63, Cl. 301—1.
Erdelyi, Ferenc. Method and device for rolling bevel gears. 3,078,745, 2–26–63, Cl. 80—16.
Erdman, John G., to Gulf Research & Development Co. Process for removing metals from petroleum with an aromatic sulfonic acid. 3,082,167, 3–19–63, Cl. 208—252.
Erdman, John G., and J. H. Wright, to Gulf Research & Development Co. Irradiation destruction of complexes. 3,100,182, 8–6–63, Cl. 204—154.
Erdmann, Hans, to Waldes Kohinoor, Inc. Retaining ring assembly tools. 3,073,014, 1–15–63, Cl. 29—229.
Erdmann, Hans, to Waldes Kohinoor, Inc. Combination retaining-ring dispensing and assembling tools. 3,085,322, 4–16–63, Cl. 29—212.
Erdmann, Hans, to Waldes Kohinoor, Inc. Dispensing apparatus for spring retaining rings. 3,092,287, 6–4–63, Cl. 221—189.
Erdmann, Hans, to Waldes Kohinoor, Inc. Dispenser for retaining rings. 3,101,528, 8–27–63, Cl. 29—211.
Erdmann, Hans, and H. Wurzel, to Waldes Kohinoor, Inc. Retaining ring application and a retaining ring and an assembling and disassembling fixture for use therewith. 3,104,905, 9–24–63, Cl. 292—256.6.
Erdmann, John F., and C. R. Welter, to Union Carbide Corp. Ethylene polymerization process. 3,092,614, 6–4–63, Cl. 260—94.9.
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Erhard, Hermann. Handle constructions. 3,115,229, 12–24–63, Cl. 190—57.
Erhardt, Edward T., and E. I. Oakes. Solenoid operator for toilet flush valves. 3,090,967, 5–28–63, Cl. 4—57.
Erhart, Francis J., and M. W. Davis, Jr., to Consolidated Vacuum Corp. Vacuum pump. 3,075,688, 1–29–63, Cl. 230—101.
Ericsson, L-M, Telefonaktiebolaget: *See*—
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Erich, John: *See*—
Zink, Heinrich J., Erich, and Buttner. 3,090,258.
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Ericks, Walter P., to The Upson Co. Dimensional stabilization of cellulose. 3,098,760, 7–23–63, Cl. 117—143.
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Erickson, Bruce G., and A. J. Henriksen, to Nordberg Mfg. Co. Engine control. 3,091,077, 5–28–63, Cl. 60—13.
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Erickson, Theodore F. 3,093,247.
Erickson, Carl, Jr. Roof-nail spud. 3,074,694, 1–22–63, Cl. 254—104.
Erickson, Carl W. Hydraulic shock absorber wheel suspension adjustable for levelling and changing ground clearance of a vehicle. 3,103,368, 9–10–63, Cl. 280—6.
Erickson, Clifford E., to General Electric Co. Laundry machine. 3,102,796, 9–3–63, Cl. 34—75.
Erickson, Edward R., to United States Rubber Co. Automatic carcass loader for tire presses. 3,091,801, 6–4–63, Cl. 18—2.
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Pike, Frederick P., and Erickson. 3,092,515.
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Keith, Carl D., and Erickson. 3,079,327.
Erickson, John R., and D. F. Smith, to Ladish Co. Seals. 3,095,203, 6–25–63, Cl. 277—82.
Erickson, John W., to Westinghouse Electric Corp. Ventilating system for dynamoelectric machines. 3,075,105, 1–22–63, Cl. 310—57.
Erickson, John W., to Westinghouse Electric Corp. No-wear unlubricated variable U-belt pulley. 3,085,446, 4–16–63, Cl. 74—230.17.
Erickson, Leonard A.: *See*—
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Erickson, Leonard A., to Big Drum, Inc. Lid-dispenser. 3,100,583, 8–13–63, Cl. 221—36.
Erickson, Lewis C., to National Iron Co. Loading structure for skip cars and the like. 3,080,986, 3–12–63, Cl. 214—38.
Erickson, Lewis C., to National Iron Co. Reciprocating plate feeder. 3,097,734, 7–16–63, Cl. 198—53.
Erickson, Lewis C., to National Iron Co. Heavy burden plate feeder suspension. 3,097,738, 7–16–63, Cl. 198—220.
Erickson, Milton E., to Horton Mfg. Co., Inc. Air actuated clutch. 3,104,000, 9–17–63, Cl. 192—85.
Erickson, Norman R. Dental appliance. 3,090,122, 5–21–63, Cl. 32—33.
Erickson, Paul W. Tool for use in constructing masonry walls. 3,109,193, 11–5–63, Cl. 15—235.3.
Erickson, Robert L. Game board construction. 3,088,740, 5–7–63, Cl. 273—126.
Erickson, Rudolph A. File for office or phonograph records. 3,106,294, 10–8–63, Cl. 211—40.
Erickson, Theodore F., to C. E. Erickson Co., Inc. Collapsible rack. 3,093,247, 6–11–63, Cl. 211—149.
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Benjamin, Milton L. and S. S. Re. 25,318.
Benjamin, Milton L., and Syrene. 3,076,357.
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Rylander, Rolf E., Gelfand, and Ebert. 3,116,142.
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Ericson, John W., to Westinghouse Air Brake Co. Analog computers. 3,104,319, 9–17–63, Cl. 235—193.
Ericson, Swen H., to American Flange & Mfg. Co., Inc. Closures and methods for forming the same. 3,084,826, 4–9–63, Cl. 220—24.
Ericsson, Arvid L., and I. J. Vilcins, to Signode Steel Strapping Co. Strapping machine. 3,103,955, 9–17–63, Cl. 140—93.4.
Ericsson, Carl G. F., to Tabougnar, Aktiebolaget. Driving roller in a roller conveyor for use at high temperatures. 3,116,053, 12–31–63, Cl. 263—6.
Ericsson, L. M., Telefonaktiebolaget: *See*—
Berglund, Gustav R. 3,105,118.
Engqvist, Erik L., and Adenstedt. 3,101,395
Ericsson Telephones Ltd.: *See*—
Burnett, Lionel C. 3,096,463.
Dawson, John. 3,116,457.
Douglas, William S. 3,108,226.
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Gieseking, Paul F. 3,080,075.
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Albertson, William C., Jr. 3,090,059.
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Crooks, Marcius L. 3,084,313.
Heibel, Jerome D., and Shoot. 3,073,881.
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Eriksen, Monrad E., ¼ to said Eriksen, and ½ to C. O. Helton. Fish skinning machine. 3,094,739, 6–25–63, Cl. 17—2.
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Swanson, Fred R., and Eriksen. 3,073,174.
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Eriksen, Evans W., to Sundstrand Corp. Generator control system. 3,078,374, 2–19–63, Cl. 307—57.
Eriksen, Herman E., and H. J. Frede, to Polaroid Corp. Photographic film holder. 3,103,864, 9–17–63, Cl. 95—66.
Eriksson, Birger, to Nordiska Maskinfilt Aktiebolaget. Paper maker's drying felt. 3,110,078, 11–12–63, Cl. 28—74.
Eriksson, George J., to Superior Concrete Accessories, Inc. Rod supporting chair for continuously reinforced concrete paving. 3,114,221, 12–17–63, Cl. 50—514.
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Erlandsen, Oscar, to Grumman Aircraft Engineering Corp. Equalized tandem axle for vehicles. 3,080,176, 3–5–63, Cl. 280—104.5.
Erlandsen, Oscar, to Grumman Aircraft Engineering Corp. Vehicle body construction. 3,097,877, 7–16–63, Cl. 296—28.
Erlbacher, Robert W. Tubular rudder with relief means. 3,115,112, 12–24–63, Cl. 114—166.
Erlemann, Gustav, W. Guex, R. Ruegg, and S. Schaeren, to Hoffmann-La Roche Inc. Triols. 3,098,879, 7–23–63, Cl. 260—635.
Erlen Products Co.: *See*—
Fredericks, Robert W. 3,107,156.
Ermel, Thomas M. Fountain pen filler construction. 3,100,477, 8–13–63, Cl. 120—42.4.
Ernault-Batignolles, H., S.A.: *See*—
Le Lan, Armand M. 3,101,019.
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Le Brusque, Rene. 3,103,148.
Erner, William E., to Air Products and Chemicals, Inc. Method for preparing quaternary alkyl nitrates of diazabicyclo-octane. 3,073,827, 1–15–63, Cl. 260—268.
Ernest, Charles R., Jr.: *See*—
Rubio, Abdon, and Ernest. 3,084,343.
Ernest, Ralph D. W. F. Nibbelink, and F. A. Komatar, to The Gamewell Co. Electric differential counter. 3,112,067, 11–26–63, Cl. 235—132.
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Booth, Harvey J., Ernest, and Fostey. 3,100,028.
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Hodges, Howard T., Hughey, and Ernisse. 3,099,208.
Erns, Elmar F., to Pope Products Ltd. Irrigation sprinkler. 3,080,123, 3–5–63, Cl. 239—230.
Ernsberger, Fred M., and M. H. Kaufman, to United States of America, Navy. Nitrocellulose propellants containing a denitrile plasticizer. 3,104,190, 9–17–63, Cl. 149—98.
Ernst, Alfred. Hardness measuring apparatus. 3,077,771, 2–19–63, Cl. 73—81.
Ernst, Alvin O. Angle iron brick laying guide. 3,091,865, 6–4–63, Cl. 33—65.
Ernst, Edward W.: *See*—
Kolanowski, Stanley C., Plasa, and Ernst. 3,106,706.
Ernst Industries, Inc.: *See*—
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Ernst, John J. Paint roller gauge. 3,100,313, 8–13–63, Cl. 15—257.06.
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Ernst, John L., and W. F. Fischer, to Esso Research and Engineering Co. Adhesion of dissimilar rubbers. 3,106,950, 10–15–63, Cl. 152—330.
Ernst, John M., to American Machine & Foundry Co. Bowling ball storage rack. 3,071,376, 1–1–63, Cl. 273—47.
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Greene, Benjamin F., Jr., Knight, Ernst, Slack, Ostroff, Cawley, and McManus. 3,100,170.
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Batzer, Hans, Ernst, and Fatzer. 3,072,679.
Porret, Daniel, Fisch, Batzer, and Ernst. 3,072,678.
Ernst, Paul, and W. Fischer, to Celanese Corp. of America. Process for manufacturing fibers and threads from cellulose triacetate. 3,081,145, 3–12–63, Cl. 18—54.
Ernst, Richard, and R. Albrecht, to Sud-Atlas Werke. Device for the operation of dictating machines. 3,066,066, 4–16–63, Cl. 179—100.1.
Ernst, Runyon G., and L. V. Muro, to American Metal Climax, Inc. Purification of germanium tetrachloride. 3,102,786, 9–3–63, Cl. 23—87.
Ernst, W Arthur. Method of manufacture of a sealed reservoir bearing. 3,111,743, 11–26–63, Cl. 29—149.5.
Ernst, Walter: *See*—
Krafft, Frederick G., and Ernst. 3,083,535.
Ernst, Walter, to The Commonwealth Engineering Co. of Ohio. Air flow precision weighing device. 3,115,203, 12–24–63, Cl. 177—208.
Ernstberger, Alfred F.: *See*—
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Jepson, Ivar, Ernstberger, and Wolter. 3,071,799.
Jepson, Ivar, Ernstberger, and Wolter. 3,107,378.
Ernstrom, Carl A., to Wisconsin Alumni Research Foundation. Process for preparing cheese making curd. 3,089,776, 5–14–63, Cl. 99—116.
Ernyei, Herbert H., to Lignes Telegraphiques et Telephoniques. Plural signal frequency detector able to continuously distinguish whether frequency difference is positive or negative. 3,092,736, 6–4–63, Cl. 307—88.5.
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Errede, Louis A.: *See*—
Landrum, Billy F., Davis, and Errede. 3,087,916.
Errede, Louis A., to Minnesota Mining and Mfg. Co. Aromatically unsaturated compounds and preparation thereof. 3,084,146, 4–2–63, Cl. 260—88.3.
Erris, Arthur F., to FMC Corp. Novel synthesis of amino acids. 3,104,258, 9–17–63, Cl. 260—518.
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Erskine, Robert J., to The Wean Engineering Co., Inc. Methods for processing strip material. 3,084,425, 4–9–63, Cl. 29—403.
Erskine, Robert J., to The Wean Engineering Co., Inc. Strip handling apparatus. 3,097,807, 7–16–63, Cl. 242—67.1.
Erson, Erik G., and R. J. Worbois, to Westinghouse Air Brake Co. Fluid pressure brake apparatus with temporary and permanent suppression control. 3,076,681, 2–5–63, Cl. 303—18.
Erst, Stephen J., to International Telephone & Telegraph Corp. Continuous wave narrow recognition zone radar system. 3,108,273, 10–22–63, Cl. 343—14.
Ertaud, André, and J. Panossian, to Commissariat a l'Energie Atomique. Devices for cooling the control rods of nuclear reactors. 3,087,885, 4–30–63, Cl. 204—193.2.
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Ertsgaard, Byron L., and V. J. Worrel, to Toro Mfg. Corp. Rotary snow plow. 3,078,603, 2–26–63, Cl. 37—43.
Erts, Helmut, to Gea-Luftkuhler Gesellschaft m.b.H. Air-cooled surface condenser. 3,074,478, 1–22–63, Cl. 165—101.
Ervin, Guy, Jr., and H. F. G. Ueltz, to Norton Co. Process for the extraction of relatively pure titanium and of relatively pure zirconium and hafnium. 3,098,805, 7–23–63, Cl. 204—64.
Ervin, William W.: *See*—
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Taylor, Milford J. 3,071,290.
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Sutherland, Leslie H. 3,082,228.
Esch, Clemence H.: *See*—
Wiltse, Charles F., and Esch. 3,106,350.
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Clement, Claude, Eschard, and Viguier. 3,094,410.
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Skinner, George M., Eschenbach, and Wickham. 3,106,633.
Eschenbach, Richard C., to Union Carbide Corp. Arc torch device. 3,106,631, 10–8–63, Cl. 219—75.
Eschenbach, Richard C., and R. J. Wickham, to Union Carbide Corp. Toroidal arc apparatus. 3,073,984, 1–15–63, Cl. 313—231.
Eschenbach, Richard C., G. M. Skinner, and R. M. Gage, to Union Carbide Corp. Arc torch device. 3,106,632, 10–8–63, Cl. 219—75.
Eschenbach, Richard C., R. J. Wickham, and G. M. Skinner, to Union Carbide Corp. Nozzle for arc heating devices. 3,106,634, 10–8–63, Cl. 219—75.
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Eschenfelder, Andrew H., to International Business Machines Corp. Magnetic memory technique. 3,077,584, 2–12–63, Cl. 340—174.
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Oechslin, Konrad. 3,110,437.
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Esco Corp.: *See*—
Hill, George W. 3,082,555.
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Larsen, Paul V., Eyolfson, Hill, and Dils. 3,079,710.
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Loughridge, Robert F. 3,088,123.
Escola, Edmund R. Fluid pressure cylinders. 3,080,201, 3–5–63, Cl. 309—2.
Escursell-Prat, Roberto. Automatic doffing and donning apparatus. 3,103,096, 9–10–63, Cl. 57—53.

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Young, Harland H., Majka, and Eshbaugh. 3,116,200.
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Nelson, Christian K., Melton, and Jernigan. 3,088,638.
Eskin, Samuel G., and R. W. Couffer, Jr., to The Dole Valve Co. Washington machine having means for selecting water temperature wash speed and spin speed. 3,105,373, 10–1–63, Cl. 68—128.
Eskridge, Harold E., and W. O. Johnson, to Weather-Seal, Inc. Elongate hinge having centering means. 3,087,193, 4–30–63, Cl. 16—136.
Esleleanu Gesellschaft m.b.H.: *See*—
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Esler, David H., and R. L. Timmer, to Sackner Products, Inc. Plastic trim strip. 3,105,323, 10–1–63, Cl. 45—138.
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Espenschied, Friedrich, to Motoren-Werke Manheim A.G. Vorm, Benz Abt. Stat. Motorenbau. Cylinder heads for internal combustion engines. 3,089,471, 5–14–63, Cl. 123—32.
Esquire, Inc.: *See*—
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Essam, Roy, to The General Electric Co. Ltd. Radio duplexing apparatus for use in a continuous wave radio system. 3,113,269, 12–3–63, Cl. 325—24.
Essam, Roy, A. S. Walsh, and K. B. Whiting, to The General Electric Co. Ltd. Non-reciprocal coupling arrangements for radio frequency signals. 3,099,794, 7–30–63, Cl. 325—24.
Essenberg, Alfred R., to Western Electric Co., Inc. Article-assembling apparatus. 3,077,660, 2–19–63, Cl. 29—208.
Essenmacher, Ernest R., to General Motors Corp. Thread torque tension indicator. 3,096,643, 7–9–63, Cl. 73—133.
Esser, Harold H., to Ideal Industries, Inc. Electrical connectors. 3,110,755, 11–12–63, Cl. 174—87.
Esser, Heinrich, and W. Strotmann, to Eumuco Aktiengesellschaft fur Maschinenbau. Forging and upsetting machines with improved clamping jaws. 3,100,409, 8–13–63, Cl. 78—17.
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McKegney, Edgar L., and Ilnyckyj. 3,087,894.
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Merrill, Howard E. 3,072,731.
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Smalling, Jack W. 3,071,520.
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Evans, Thomas, and J. O. Utterback, to J. I. Case Co. Crop feeding means for a baler. 3,103,775, 9–17–63, Cl. 56—341.

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Evans, Tyndall D. Automatic electric mop. Re. 25,419, 7–23–63, Cl. 15—99.

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Evelyn, George B., G. C. Newell, and M. D. Peterson, to The Boeing Co. Emergency ram air cabin pressurization system. 3,101,918, 8–27–63, Cl. 244—76.

Everard, Joseph J., and R. D. Rulseh, to American Machine & Foundry Co. Electric switches and systems controlled thereby. 3,089,926, 5–14–63, Cl. 200—38.

Everdure, Inc.: *See*—
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Everest, David A.: *See*—
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Everett, Guy M., and A. A. Wykes, to Abbott Laboratories. Process for increasing the effects of monoamine oxidase inhibitors by means of catechol-o-methyl transferase. 3,098,010, 7–16–63, Cl. 167—65.

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Everett, Hazen F., to The Foregger Co., Inc. Stroke rate indicator for an extracorporeal blood circulation system. 3,086,514, 4–23–63, Cl. 128—2.05.

Everett, Henry C. Body cooler. 3,074,250, 1–22–63, Cl. 62—259.

Everett Piano Co.: *See*—
Anderson, Marvin E. 3,084,583.

Everett, S. & R. J., & Co. Ltd.: *See*—
Everett, Samuel J. 3,093,133.

Everett, Samuel J., to S. & R. J. Everett & Co. Ltd. Hypodermic apparatus. 3,093,133, 6–11–63, Cl. 128—216.

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Evering, Bernard L.: *See*—
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Roebuck, Alan K., and Evering. 3,075,028.

Everington, William T., to J. Lyons & Co., Ltd. Citrus fruit comminutor. 3,085,604, 4–16–63, Cl. 146—3.

Evernden, Harold I. F., to General Motors Corp. Transmission. 3,097,544, 7–16–63, Cl. 74—688.

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Davis, Jack. 3,095,331.

Ever-Ready Razor Products Ltd.: *See*—
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Evers, Arthur J. Web feeding apparatus. 3,073,495, 1–15–63, Cl. 226—23.

Evers, Arthur J. Web feeding apparatus. 3,085,761, 4–16–63, Cl. 242—57.1.

Eversharp, Inc.: *See*—
Kuhnl, Leopold K. 3,093,266.
Preis, Carl G., and Kuhnl. 3,071,857.

Eversman Mfg. Co., The: *See*—
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Eversole, Russell A., and D. M. Roholt, to Cargill, Inc. Protected seed. 3,113,399, 12–10–63, Cl. 47—1.

Everton, Earl J. Safety razor blade holder. 3,078,572, 2–26–63, Cl. 30—333.

Everyday Mfg. Co.: *See*—
Mitchell, George F. 3,077,972.

Evich, Vincent J. Automatic dressing apparatus. 3,076,997, 2–12–63, Cl. 17—2.

Evjen, John M., to General Electric Co. Damping assembly. 3,077,244, 2–12–63, Cl. 188—1.

Ewald, Lux H. Stripping machines. 3,103,572, 9–10–63, Cl. 219—19.

Ewanus, Walter: *See*—
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Dawe, Garfield A., Ewen, and Sherrick. 3,087,115.

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Anderson, Roy N. 3,096,718.
Anderson, Roy N. 3,108,440.

Ewig, John F., Jr.: *See*—
Priest, Dwight E. and E. L., and Ewig. 3,111,970.

Ewing, Hunter H., to Union Oil Co. of California. Device for perforating pipe strings. 3,104,718, 9–24–63, Cl. 166—241.

Ewing, James H.: *See*—
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Ewing, Keith E., to Mutual Mfg. Co., Inc. Steering drive axle and mounting therefor. 3,115,205, 12–24–63, Cl. 180—49.

Ewing, Lloyd and R., and W. D. Kyle, Jr., to Kyova Fiber Pipe Co. Method and apparatus for making fiber conduit. 3,111,452, 11–19–63, Cl. 162—121.

Ewing, Paul E., to Rich Mfg. Co. of California. Centrifugal casting apparatus for manufacture of pipe. 3,072,980, 1–15–63, Cl. 22—65.

Ewing, Reid: *See*—
Ewing, Lloyd and R., and Kyle. 3,111,452.

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Excel, Inc.: *See*—
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Brady, Samuel G., and Dralle. 3,089,296.
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Francois, Alex C. 3,086,163.
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Smith, Joseph E., Jr. 3,114,296.

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Exley, Donald, to National Research Development Corp. Flame spectrophotometry. 3,074,309, 1–22–63, Cl. 88—14.

Exline, William C., C. O. Caywood, and E. J. Gardner. Hydraulic valve push rod assembly. 3,109,418, 11–5–63, Cl. 123—90.

Exner, Lawrence J., to Rohm & Haas Co. Substituted pyrrolidinones and methods of preparation. 3,079,399, 2–26–63, Cl. 260—325.

Exomet Inc.: *See*—
Bishop, Harold F., Wiley, and Bock. 3,103,719.
Bishop, Harold F., Wiley, and Bock. 3,103,721.

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Extruded Louver Corp.: *See*—
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Eyberger, Harry, to Magnetics, Inc. Pressure forming apparatus. Re. 25,441, 9–10–63, Cl. 18—42.

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Eynon, James U., to Leeds and Northrup Co. Systems for measuring electrolytic conductivity. 3,086,169, 4–16–63, Cl. 324—30.

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Eyre, Francis M., to Eyrco, Inc. Pinspotting apparatus. 3,073,596, 1–15–63, Cl. 273—44.

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Ezopov, Igor V. Slide rule of the circular type. 3,071,321. 1–1–63, Cl. 235—84.

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Allen, James F., and Latourette. 3,094,455.
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Ausburn, George P. 3,099,292.
Atcheson, John W. 3,102,511.
Bailey, Edward A. 3,102,456.
Bauer, William C., McCue, and Rule. 3,072,466.
Bays, Carl A. 3,086,760.
Belk, Wilber C. 3,072,207.
Belk, Wilber C. 3,086,455.
Belk, Wilber C. 3,105,531.
Benning, Bennie L., and Cunco. 3,082,066.
Bily, Peter J. 3,096,797.
Black, Frank S. 3,094,456.
Braunlich, Richard H., and Matter. 3,112,158.
Breazeale, Hershel T., and F. and G. May. 3,086,578.
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Brown, Ernest. 3,113,792.
Buchner, Marvin K., and Thompson. 3,078,889.
Cahill, Robert F. 3,093,252.
Carmichael, Mead S., Jr. 3,084,696.
Carmichael, Mead S., Jr. and Stark. 3,087,499.
Chamberlin, Donald W. 3,088,577.
Crathern, Charles F. H., III, Bradicich, and Reen. 3,096,692.
Creed, Sherman H. 3,072,162.
Creed, Sherman H., and Csimma. 3,088,508.
Creed, Sherman H., and Csimma. 3,088,509.
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Creed, Sherman H., and Reimers. 3,096,800.
Cruz, Mauerto M., Jr., and McDowell. 3,116,199.
Cummins, Richard W. 3,116,109.
Darrow, Wendell L., and Kass. 3,076,248.
Davidson, William L., Levesque, and Latourette. 3,075,931.
De Back, William. 3,102,630.
Derrickson, Michael O. 3,112,543.
Dykeman, Edgar G. M., and Kelley. 3,092,886.
Edgemond, John W., Jr. 3,080,953.
Erris, Arthur F. 3,104,258.
Fleck, Edwin G., Jr., and Battista. 3,109,743.
Fowler, William J. 3,086,604.
Franko-Filipasic, Borivoj R., Kolyer, and Burks. 3,113,138.
Frint, William R., and Smith. 3,084,026.
Frost, Elmer F., Jr. 3,093,203.
Galloway, Robert K. Re. 25,450.
Gancy, Alan B., and McCarthy. 3,111,379.
Gardiner, Ralph G. 3,113,603.
Gartner, Wilhelm. 3,085,039.
George, Donald K., and Tuemmler. 3,108,101.
Greedy, Edwin F., and Schaaf. 3,113,574.
Greenspan, Frank P. 3,073,792.
Greenspan, Frank P., and Light. 3,073,793.
Grotewold, Hans W. 3,072,160.
Grotewold, Hans W. 3,088,582.
Grubitsch, Heribert. 3,084,995.
Halt, James M. 3,093,173.
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Halt, James M. 3,105,311.
Hamer, Leland S. 3,072,379.
Hamilton, Gerald P. 3,102,567.
Hanley, William M. 3,074,557.
Helberger, Charles A. 3,096,810.
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Heinze, Marvin C. 3,099,494.
Hickey, Frank D. 3,105,385.
Hirahara, Katsuji. 3,105,504.
Horvitz, David. 3,102,144.
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Hurtig, Roy E. 3,085,502.
Hurtig, Roy E. 3,105,526.
Iwata, Harry M., Pollard, and Israel. 3,087,854.
Jenney, Theodore M., and Porter. 3,073,680.
Jenney, Theodore M., Porter, and Zdrojewski. 3,112,278.
Käbisch, Gerhard, and Herzog. 3,098,714.
Käbisch, Gerhard, and Laufer. 3,098,715.
Kerr, Charles E. 3,096,914.
Knight, Houston W. 3,099,297.
Lebeaux, Jacob M., and Ballard. 3,072,420.
Liao, Hsiang P. 3,080,377.
Liao, Hsiang P., and Tuemmler. 3,092,638.
Liberty, Norman H. 3,080,968.
Love, Robert F., and Bernatis. 3,097,830.
Love, Robert F., and Wenneborg. 3,111,306.
Lund, Martin A., and Alsenz. 3,092,138.
May, Fred and G. 3,100,520.
Meissner, William E. 3,111,796.
Miller, Andrew H. 3,096,870.
Moore, Donald D. 3,094,161.
Mueller, George F. 3,106,444.
Mulford, Charles T. 3,088,507.
Mumma, Harold J. 3,075,672.
Mumma, Harold J. 3,088,576.
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Nechine, Leonard M. 3,097,609.
Nottingham, Lewis E. 3,088,676.
Nowlin, Gene, Heiberger, and Reich. 3,084,137.
Pech, Allison E. 3,112,205.
Polk, Ralph, Jr., Belk, and Cox. 3,073,365.
Porter, David J. 3,087,788.
Ragsdale, Beverly P. 3,086,552.
Reich, Murray H., and Nowlin. 3,073,796.
Reich, Murray H., Nowlin, and Heiberger. 3,092,608.
Roberts, Thomas E., Jr., and Fowler. 3,072,254.
Robertson, James A. 3,107,244.
Saller, Erik, Timmerman, Bennetts, and Armstrong. 3,109,866.
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Seglin, Leonard, Sklar, and White. 3,077,491.
Sheetz, Charles E. 3,092,196.
Shoemaker, Clyde A., and Lill. 3,105,387.
Simpson, Frank E., and Hoffman. 3,093,280.
Simpson, Frank E., and Hoffman. 3,105,422.
Slemmons, Arthur J. 3,085,386.
Slemmons, Arthur J. 3,102,521.
Stange, Hugo, and Allen. 3,086,985.
Stillwell, Robert E. 3,086,798.
Stillwell, Robert E. 3,088,350.
Stillwell, Robert E., and Fitzmaurice. 3,080,881.
Taylor, Bert S. 3,108,030.
Taylor, Bert S., Thomas, and Helberger. 3,093,619.
Taylor, Elmore C. 3,112,113.
Tazuma, James J., and Miller. 3,075,979.
Thompson, Howard H. 3,086,790.
Tidridge, William A., and Cohen. 3,072,578.
Todd, William L. 3,099,317.
Tumey, Lawrence F. 3,071,833.
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Tumey, Lawrence F. 3,071,835.
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Twitchell, Sherman W., and Bailey. 3,080,796.
Vadas, Leslie. 3,080,901.
Vadas, Leslie. 3,080,903.
Verrinder, Ernest A. 3,086,640.
Verrinder, Ernest A., and McGrath. 3,088,574.
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Watt, William R. 3,111,507.
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Wenzke, Carroll J. 3,079,233.
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FXR., a Division of Amphenol-Borg Electronic Corp.: *See*—
Zavales, Charles T. 3,090,010.

Faasch, Werner, and K. Kuckelhahn, to Franke & Heidecke, Fabrik Photographischer Präzisions-Apparate. Photographic camera. 3,110,238, 11–12–63, Cl. 95—45.

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Alfieri, Giuseppe. 3,079,170.
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Alfieri, Giuseppe. 3,095,246.
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Alfieri, Giuseppe. 3,105,517.
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Pelagatti, Vincenzo. 3,088,727.

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Faber, Francis E., to Chrysler Corp. Window guide roller assembly. 3,078,120, 2–19–63, Cl. 296—44.5.

Faber, Harry, to A/S Chr. Fabers Fabriker. Mechanism for automatically blocking a lifting roller in Venetian blinds. 3,089,664, 5–14–63, Cl. 242—99.

Faberge, Inc.: *See*—
Soloway, Saul. 3,086,914.

Fabian, Francis G., and L. Ouderkirk, to Dresser Industries, Inc. Explosive-actuated service T. 3,072,138, 1–8–63, Cl. 137—318.

Fabian, Louis. Shoe heel. 3,099,096, 7–30–63, Cl. 36—24.5.

Fabian, Robert W.: *See*—
Peterson, Willard D., and Fabian. 3,093,478.

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Kelnhofer, John J. 3,072,951.

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Fabrique de boites de montres S. Graber S.A.: *See*—
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Fabrique de Machines Mikron S.A.: *See*—
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Walstrom, Leslie R. 3,095,768.

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Crain, Norman R., Levinthal, Facenda, and Vea. 3,108,694.

Facer, Helen M.: *See*—
Facer, Leroy H. 3,098,737.

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Fackrell, Ivan: *See*—
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Faecher, Arthur W. Vehicle operated garage door opening means. 3,097,689, 7–16–63, Cl. 160—189.

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Howe, Ralph S., Jr., and Bechert. 3,085,810.
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Fagan, Brian E., and C. Cuthbert, to Nash Plastics Ltd. Shuttlecocks. 3,100,116, 8–6–63, Cl. 273—106.

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Fagan, Joseph S., to Mutual Liquid Gas & Equipment Co., Inc. Work heating apparatus. 3,088,515, 5–7–63, Cl. 158—107.

Fagel, Roger, to Ateliers de Constructions Electriques de Charleroi. Plural motor drive with motor field control for a vehicle. 3,107,304, 10–15–63, Cl. 290—17.

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Faget, Maxime A., A. J. Meyer, Jr., R. G. Chilton, W. S. Blanchard, Jr., A. B. Kehlet, J. B. Hammack, and C. C. Johnson, Jr., to United States of America, National Aeronautics and Space Administration. Space capsule. 3,093,346, 6–11–63, Cl. 244—1

Fagg, Leo W.: *See*—
Sharp, Chester L. 3,084,946.

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Fago, Alfred V. Color separation method and composition for use therein. 3,103,436, 9–10–63, Cl. 96—30.

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Fahey, Denis: *See*—
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Close, Patrick B., Coulter, Ditmer, Fahrenbruck, Goldammer, Goodrick, Gulden, Holloran, Jenkins, Kilheffer, Kinker, Lyons, Manor, Marvin, Miller, O'Brian, Randall, Garner, Sather, Yost, and Braden. 3,112,894.

Fahrenwald, Francis M. Remote control hooking and unhooking device. 3,072,430, 1–8–63, Cl. 294—83.

Fahrig, Richard H., and W. E. Medcalf, to The Eagle-Picher Co. Process for preparation of cadmium sulfide crystals. 3,087,799, 4–30–63, Cl. 23—295.

Fahrner, Ted: *See*—
Ruby, Stanley L., Sun, and Fahrner. 3,101,410.

Fahrney, Maxwell E.: *See*—
Powell, George W., and Fahrney. 3,081,580.

Fahrni, Fred: *See*—
Hostettler, Werner. 3,070,838.

Faigen, Harry L.: *See*—
Gardner, George S., and Faigen. 3,071,590.

Faigen, Mark R., and T. L. Myron, to United States Steel Corp. Method of cleaning rotary kilns. 3,102,055, 8–27–63, Cl. 134—5.

Fain, Arthur B.: *See*—
King, Andrew J., Jr., and Fain. 3,084,406.

Fain, Arthur B. Fruit sectionizing apparatus. 3,099,302, 7–30–63, Cl. 146—3.

Fain, Lytton S.: *See*—
Phillips, Harry L., and Fain. 3,105,420.
Phillips, Harry L., and Fain. 3,108,327.
Phillips, Harry L., and Fain. 3,112,164.

Fainberg, Arnold H.: *See*—
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Fainman, Morton Z., to Standard Oil Co. Method of lubricating machinery exposed to high intensity ionizing radiation. 3,077,452, 2–12–63, Cl. 252—59.

Fairbairn, Bruce A., and G. J. Deschambault, to Canadian Celanese Ltd. Coating dispenser which applies a sheet-like jet of coating material. 3,100,161, 8–6–63, Cl. 118—325.

Fairbairn, George A. Endless chain cutter for harvesters, mowers and other agricultural implements. 3,106,053, 10–8–63, Cl. 56—291.

Fairbank, Murry N., to Polaroid Corp. Photographic apparatus. 3,087,399, 4–30–63, Cl. 95—31.

Fairbanks, Avard F., to North American Aviation Inc. Interlocked radar and infrared detector system. 3,108,270, 10–22–63, Cl. 343—6.

Fairbanks, Avard F., to Space Technology Laboratories, Inc. Multiphase electrical system. 3,112,433, 11–26–63, Cl. 318—231.

Fairbanks, Avard F., to North American Aviation, Inc. Infrared searching and tracking apparatus utilizing a spiral scan. 3,116,418, 12–31–63, Cl. 250—83.3.

Fairbanks, Gordon J., to Stewart-Warner Corp. Heat exchanger. 3,071,187, 1–1–63, Cl. 165—170.

Fairbanks, Gordon J., to Stewart-Warner Corp. Limited volume safety valve. 3,094,142, 6–18–63, Cl. 137—564.5.

Fairbanks, Morse & Co.: *See*—
Farmer, Edward B., Whitehouse, and Lindsay. 3,097,709.
Green, Joseph G., Settles, and Thorsson. 3,077,236.
Hale, John D. 3,103,390.
Thorsson, Matthew T. 3,081,831.

Fairchild Camera and Instrument Corp.: *See*—
Brunt, John B. 3,112,696.
Di Paolo, John. 3,094,645.
Edwards, Charles N. 3,096,701.
Green, Albert W. 3,113,262.
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Moore, Gordon E., and Noyce. 3,108,359.
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Valenti, Joseph F. 3,110,866.
Willcox, Frederick P. 3,072,889.
Willcox, Frederick P., and Welanetz. 3,096,700.

Fairchild, Edwin B. Container closure. 3,106,311, 10–8–63, Cl. 220—38.5.

Fairchild Engine and Airplane Corp.: *See*—
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Stoner, Eugene M. 3,087,270.
Stoner, Eugene M. 3,090,150.

Fairchild, John D., to Earl A. Thompson Mfg. Co. Lash adjusting device. 3,087,476, 4–30–63, Cl. 123—90.

Fairchild, John D., to Earl A. Thompson Mfg. Co. Lash adjusting device. 3,087,477, 4–30–63, Cl. 123—90.

Fairchild, John D., to Earl A. Thompson Mfg. Co. Lash adjusting device. 3,087,478, 4–30–63, Cl. 123—90.

Fairchild Recording Equipment Corp.: *See*—
Alexandrovich, George. 3,088,742.
Skor, Erling P., and Narma. 3,111,635.

Fairchild Stratos Corp.: *See*—
Blenkle, Herbert A. 3,090,456.
Carroll, Laurence B., Jr. 3,106,782.
Diesing, Fred W. 3,075,542.
Flanagan, Robert M. 3,071,314.
Gardner, Horace L., Jr. 3,071,014.
Knowles, Gregory W. 3,111,290.
Laubin, Clarence W. 3,075,741.

Fairchild, Willis A. Life saving device. 3,070,818, 1–1–63, Cl. 9—316.

Fairchilds, Bertram S. Seal means for slide fasteners. 3,102,570, 9–3–63, Cl. 150—3.

Fairclough, John H., and H. J. Atkins, to Tootal Broadhurst Lee Co. Ltd. Manufacture of artificial leather-like material. 3,083,134, 3–26–63, Cl. 156—247.

Fairfax Mfg. Co., Inc.: *See*—
Kern, George R., Jr. 3,083,946.

Fairfield Engineering Co., The: *See*—
Hardy, Woodrow. 3,114,622.

Fairgrieve, Donald F., to Fairgrieve & Son, Ltd. Die set. 3,089,715, 5–14–63, Cl. 287—20.1.

Fairgrieve & Son, Ltd.: *See*—
Fairgrieve, Donald F. 3,089,715.

Fairmont Railway Motors, Inc.: *See*—
Elliott, Hobert H. 3,114,331.

Fairs, Geoffrey L.: *See*—
Plaut, Walter, and Fairs. 3,107,986.

Fairstein, Edward, and R. A. Dandl, to United States of America, Atomic Energy Commission. Pulse amplifier for altering the shape of undershoots. 3,072,851, 1–8–63, Cl. 328—53.

Faisandier, Jacques. Unloading valve for a hydraulic pressure circuit. 3,073,331, 1–15–63, Cl. 137—108.

Faisandier, Jacques. Hydraulic circuits. 3,087,307, 4–30–63, Cl. 60—97.

Faison, Charles B.: *See*—
Cralle, James M., and Faison. 3,072,062.

Faison, Herbert M., Jr.: *See*—
McClenny, Robert W., and Faison. 3,086,597.

Fakan, John C. Sensing probe actuator. 3,113,454, 12–10–63, Cl. 73—147.

Fake, Harry B., to United Shoe Machinery Corp. Machines for sewing imitation moccasin seams. 3,081,719, 3–19–63, Cl. 112—37.

Fala, Fernando. Pot for brewing coffee and method of effecting the brewing. 3,098,425, 7–23–63, Cl. 99—317.

Falbel, Gerald: *See*—
Ziolkowski, Adrian J., Falbel, Antheimer, and Leftwich. 3,083,611.

Falciglia, Guy E. Hoop impeller. 3,077,699, 2–19–63, Cl. 46—114.

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Falco Products Co.: *See*—
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Leshner, Ervin. 3,112,042.

Falcon Alarm Co. Inc.: *See*—
Wright, Ebrick H. 3,092,070.

Falcon Plastic Products: *See*—
Aldrich, Adelbert, Schwarz, and Gottschalk. 3,097,070.

Falconbridge Nickel Mines Ltd.: *See*—
Thornhill, Philip G. 3,085,054.
Thornhill, Philip G. 3,103,414.

Falcone, James F., and A. Hammer, to United States of America, Army. Cartridge belt link with removable loop closing cover. 3,078,765, 2–26–63, Cl. 89—35.

Faler, John A., and H. G. McIlnay, to Kolene Corp. Sonic nozzles. 3,084,868, 4–9–63, Cl. 239—102.

Fales, Douglas I., to General Motors Corp. Fluorescent lamp circuit. 3,092,754, 6–4–63, Cl. 315—97.

Falgiatore, Dominic R., and A. M. Levantin, to Rohm & Haas Co. Coating composition comprising an alcohol-modified aminoplast resin and a copolymer of a B-hydroxypropyl acrylic ester and an acid, and metal coated therewith. 3,082,184, 3–19–63, Cl. 260—30.4.

Falk Corp., The: *See*—
Bade, Alfred G. 3,079,804.
Richardson, William S. 3,073,175.
Richardson, William S. 3,088,334.
Schmitter, Walter P. 3,079,778.
Seireg, Ali, and Wellauer. 3,096,631.
Wellauer, Edward J., and Bade. 3,096,632.
Wiken, Ralph. 3,091,389.

Falk, Edward J.: *See*—
Schwartz, Robert E., Stahl, and Falk. 3,091,086.

Falk, Frank J., to General Motors Corp. Control linkage. 3,112,820, 12–3–63, Cl. 192—99.

Falk, Richard B., to General Electric Co. Magnetic materials. 3,073,728, 1–15–63, Cl. 148—31.55.

Falk, Richard B., and G. D. Hooper, to General Electric Co. Magnetic material. 3,100,167, 8–6–63, Cl. 148—31.57.

Falkenberg, Douglass R. Adjusting means for holddowns for pulleys of drapery operating cords. 3,112,103, 11–26–63, Cl. 267—71.

Falkenblad, Nils T., and B. H. Hallstrom, to Separator Aktiebolaget. Method and apparatus for sterilizing heat exchangers. 3,099,519, 7–30–63, Cl. 21—2.

Falkenburg, Fritz, to P. Gossen & Co. G.m.b.H. Photoelectric exposure control. 3,107,594, 10–22–63, Cl. 95—64.

Falkner, Dallas J. Ski rope retriever. 3,085,543, 4–16–63, Cl. 114—235.

Falkner, Victor L., R. C. Hendrick, and R. C. K. Lee, to Minneapolis-Honeywell Regulator Co. Control apparatus. 3,079,108, 2–26–63, Cl. 244—77.

Fall, Charles W.: *See*—
Martin, William C., Jr., and Fall. 3,111,076.

Fall, Harry H.: *See*—
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Falla, Fernando. Frying kitchen utensil. 3,085,498, 4–16–63, Cl. 99—347.

Falla, Fernando. Cooking utensil. 3,109,359, 11–5–63, Cl. 99—339.

Falla, Fernando. Apparatus for roasting seeds. 3,109,718, 11–5–63, Cl. 34—77.

Faller, Rudolph A. Fruit knife. 3,086,286, 4–23–63, Cl. 30—24.

Fallert, Clifford D., to Crown Zellerbach Corp. Container. 3,089,589, 5–14–63, Cl. 206—65.

Fallingborg, Ernst G., and W. J. Andersen. Apparatus for use in teaching and in carrying out psychotechnical examinations. 3,099,095, 7–30–63, Cl. 35—48.

Fallis, Charles E.: *See*—
Rodgers, Arthur, and Fallis. 3,093,357.
Rodgers, Arthur, Fallis, and Huthsing. 3,086,547.

Fallon, Albin F. Arbor securing device. 3,096,989, 7–9–63, Cl. 279—48.

Fallon, Herbert J., to The Besly-Welles Corp. Method of positioning grinding disks. 3,079,740, 3–5–63, Cl. 51—281.

Falls Engineering and Machine Co., The: *See*—
Wright, David C. 3,077,807.

Falls, John J., to Aurand Mfg. & Equip. Co. Cutter bundle. 3,101,524, 8–27–63, Cl. 29—81.

Falls Paper & Power Co.: *See*—
Joa, Curt G. 3,086,253.

Fallwell, Ernest L., to E. I. du Pont de Nemours and Co. Production of thermoplastic polymeric film. 3,092,874, 6–11–63, Cl. 18—14.

Falstrom, William: *See*—
McCann, Joe G., Stegen, and Falstrom. 3,092,834.

Faltin, William G. Tissue and litter container. 3,072,245, 1–8–63, Cl. 206—19.5.

Famatex G.m.b.H.: *See*—
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Famely, Max. Fittings for retaining cylindrical members in place. 3,076,668, 2–5–63, Cl. 285—159.

Fan-Air Systems, Inc.: *See*—
Smith, Samuel C. 3,090,130.

Fancher, Llewellyn W., A. M. Imel, and R. C. Maxwell, to Stauffer Chemical Co. Triazine dithiocarbamate phosphates. 3,076,807, 2–5–63, Cl. 260—248.

Fancher, Otis E., to Miles Laboratories, Inc. Anti-epileptic tertiary alicyclic urea derivative. 3,098,791, 7–23–63, Cl. 167—65.

Fancher, Otis E., and D. A. Stauffer, to Miles Laboratories, Inc. Diagnostic composition for detecting glucose. 3,072,539, 1–8–63, Cl. 195—103.5.

Fancher, Otis E., and S. Hayao, to Miles Laboratories, Inc. Phenylpiperazinone derivatives. 3,072,658, 1–8–63, Cl. 260—268.

Fancher, Ray C., J. G. Kay, and J. C. Lacoursiere, to F. Jos. Lamb Co. Storage units. 3,078,978, 2–26–63, Cl. 193—38.

Fand, Theodore I., and H. B. Zimmerman, to Warner-Lambert Pharmaceutical Co. Stabilization of orally administrable methenamine mandelate sesame oil suspensions containing 12-hydroxy stearic acid triglyceride. 3,077,438, 2–12–63, Cl. 167—82.

Fandrey, George H. Changeable exhibitor. 3,083,293, 3–26–63, Cl. 240—10.1.

Faneros, John: *See*—
Sweeney, Harold L., and Faneros. 3,085,372.

Fang, Fabian T., to Rohm & Haas Co. Modified textile and industrial fibers and fabrics and process for making them. 3,111,359, 11–19–63, Cl. 8—115.5.

Fang, Fabian T., to Rohm & Haas Co. Fibers formed from blend of polymer of monovinyl aromatic compound and polymer of alkenyl halide. 3,111,360, 11–19–63, Cl. 8—115.5.

Fang, Fabian T., to Rohm & Haas Co. Synthetic fibers and fabrics thereof, polymers therefor, and methods of producing them. 3,111,361, 11–19–63, Cl. 8—115.5.

Fang, Fabian T., and G. C. Murdoch, to Rohm & Haas Co. Novel cross-linked polymers, fibrous products, and methods of making them. 3,111,362, 11–19–63, Cl. 8—115.5.

Fankhauser, James E.: *See*—
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Fann, James D., to Great Lakes Carbon Corp. Viscometer. 3,073,150, 1–15–63, Cl. 73—54.

Fann, James D., to Great Lakes Carbon Corp. Viscometer. 3,073,151, 1–15–63, Cl. 73—54.

Fanner Mfg. Co., The: *See*—
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Fannin, Irene: *See*—
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Fannin, John D. Dent repair method for automobile bodies. 3,100,336, 8–13–63, Cl. 29—401.

Fannin, Ray B., to Gas Engineering & Equipment Co. Vaporizing burner with temperature regulated mixer to control flame heating of retort. 3,097,687, 7–16–63, Cl. 158—79.

Fanning, Howard J. Gas sterilizer. 3,114,599, 12–17–63, Cl. 21—98.

Fanning, Samuel P., Jr., to Custom Plastics, Inc. Resilient clothespin. 3,087,218, 4–30–63, Cl. 24—137.

Fanshier, Chester. Slip tube gauge. 3,113,457, 12–10–63, Cl. 73—298

Fanson, Robert E.: *See*—
Rees, Glyn T., and Fanson. 3,110,538.

Fansteel Metallurgical Corp.: *See*—
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Fante, Harry H.: *See*—
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Fantes, Karl H., to Glaxo Group Ltd. Process for the purification and concentration of poliomyelitis vaccine. 3,078,215, 2–19–63, Cl. 167—78.

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Bosch, Lester L., and Fanthrop. 3,071,262.

Fanwick, Ernest, to Burndy Corp. Welding tool comprising mold blocks and detachable handles. 3,070,860, 1–1–63, Cl. 22—153.

Faraday Electronic Instruments Ltd.: *See*—
Howell, Derek. 3,110,770.

Farago, John, to E. I. du Pont de Nemours and Co. Process for preparing filaments from acrylonitrile polymer-containing compositions. 3,094,502, 6–18–63, Cl. 260—30.8.

Farago, John, to E. I. du Pont de Nemours and Co. Polyphosphonamide polymers and copolymers. 3,116,268, 12–31–63, Cl. 260—77.5.

Farbenfabriken Bayer Aktiengesellschaft: *See*—
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Zygan, Hieronymus, Koch, Schnell, Prietzschk, and Rämling. 3,114,029.

Farber, Arnold S., to International Business Machines Corp. Series combination of matched tunnel diode pair, pulse delay means and push-pull power supply. 3,108,199, 10–22–63, Cl. 307—88.5.

Farber, Hobart A. Combination table lectern and carrying case. 3,073,057, 1–15–63, Cl. 45—85.

Farber, Richard J., to Hazeltine Research, Inc. Position-sensing apparatus. 3,108,727, 10–29–63, Cl. 226—20.

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Foster, Hoyt K. 3,095,498.

Farbish, Alfred B., to Allied Chemical Corp. Paving joint construction. 3,111,069, 11–19–63, Cl. 94—18.

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Aumuller, Walter, Korger, Ruschig, and Wagner. 3,097,240.
Bartl, Hugo, and Feess. 3,094,369.
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Bohlmann, Ferdinand, Dexheimer, Fuchs, and Kramer. 3,083,125.
Dietz, Karl, Lorentz, and Stroh. 3,080,258.
Dorfelt, Christoph, and Gelbert. 3,082,230.
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Frensch, Heinz, Czech, and Emmel. 3,091,564.
Frey, Hans H. 3,076,781.
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Gross, Richard, Hertel, Kirst, Mohr, and Staab. 3,084,151.
Gross, Richard, Hertel, Kirst, Mohr, and Staab. 3,116,277.
Gross, Richard, Hertel, and Mohr. 3,116,278.
Gross, Richard, Hertel, Mohr, and Schilling. 3,073,813.
Gross, Richard, Hertel, Mohr, and Staab. 3,071,571.
Gross, Richard, Hertel, Mohr, and Staab. 3,086,004.
Gross, Richard, Hertel, Mohr, and Staab. 3,116,276.
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Heuck, Claus, Stark, and Doppler. 3,111,499.
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Heyna, Johannes, Schinzel, and Noll. 3,097,216.
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Hirschberg, Rudolf. 3,101,253.
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Hörnig, Lothar, Paszthory, Probst, Riemenschneider, and Steinmetz. 3,087,968.
Jellinek, Karl, Hegedüs, Ulmer, and Bartl. 3,097,908.
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Krolls, Walter, Schmitt, Ther, and Lindner. 3,116,330.
Kurzke, Herbert, Sattler, and Stix. 3,107,140.
Lohaus, Gerhard. 3,103,496.
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Lohe, Konrad, and Ribka. 3,086,006.
Messwarb, Gunther, Schottle, and Dummer. 3,108,017.
Mohr, Reinhard, and Hertel. 3,076,782.
Nakaten, Herbert, and Ribka. 3,113,937.
Nakaten, Herbert, and Ribka. 3,113,938.
Oelze, Heinz, and Hartlelb. 3,102,162.
Orthner, Ludwig, Horst, Scharf, Kirst, Oxé, and Gross. 3,101,235.
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Otten, Gerhard, Scherer, and Schild. 3,097,235.
Popp, Bernard, Scherer, Wolfram, Steinmetz, and Turk. 3,105,091.
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Ribka, Joachim. 3,096,321.
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Schilling, Karl, and Dietz. 3,109,842.
Schimmelschmidt, Kurt, and Denk. 3,098,865.
Schimmelschmidt, Kurt, and Denk. 3,101,362.
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Farina, Rene G., and M. J. Weishaar. Vaginal douche apparatus. 3,107,671, 10–22–63, Cl. 128—229.

Farkas, Adalbert, to Air Products and Chemicals, Inc. Stabilized triethylene diamine. 3,112,320, 11–26–63, Cl. 260—268.

Farkas, Adalbert, and G. Szonyi, to Allied Chemical Corp. Preparation of phthalic acids and derivatives thereof. 3,113,964, 12–10–63, Cl. 260—515.

Farkas, Alexander. Topical medicament including polyuronide derived from aloe. 3,103,466, 9–10–63, Cl. 167—58.

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Farkas, Francis S., to Bell Telephone Laboratories, Inc. Automatic system for selectively substituting spare channels for failed working channels in a multichannel multilink communication system. 3,111,624, 11–19–63, Cl. 325—2.

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Farkas, Thomas P., to United Aircraft Corp. Dual input divider controller with limiter utilizing servo actuated pressure ratio sensor. 3,100,380, 8–13–63, Cl. 60—97.

Farkas, Thomas P., to United Aircraft Corp. Time delay device. 3,110,229, 11–12–63, Cl. 91—443.

Farkas, Thomas P., to United Aircraft Corp. Afterburner fuel control. 3,115,006, 12–24–63, Cl. 60—35.6.

Farley, Arthur C. Structural connection. 3,096,107, 7–2–63, Cl. 287—54.

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Farnham, Merle G., and J. H. Nelson, to Dairyland Food Laboratories, Inc. Enzyme treatment for "scours" in animals. 3,081,225, 3–12–63, Cl. 167—53.
Farnsworth, Daniel W., and J. C. Steinberg, to Bell Telephone Laboratories, Inc. High speed telegraphy. 3,105,111, 9–24–63, Cl. 178—22.
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Farnsworth, Philo T., to International Telephone and Telegraph Corp. Electron image-discharge device. 3,108,202, 10–22–63, Cl. 313—65.
Farnsworth, Philo T., III. Transducing apparatus. 3,073,-899, 1–15–63, Cl. 179—1.
Farnsworth, Robert P., and L. Azar, to Hughes Aircraft Co. Power supply circuit. 3,076,135, 1–29–63, Cl. 323—22.
Farnsworth, Vaun E. Mirror-mounting attachment means for a motor vehicle. 3,081,057, 3–12–63, Cl. 248—226.
Faroni, Charles G., and M. F. Mihal, to Elastic Stop Nut Corp. of America. Light weight lock nut having internal wrenching surface. 3,079,830, 3–5–63, Cl. 85—32.
Farquhar, John P., and F. F. Crandell. Corrector for image-forming optical assemblies. 3,097,255, 7–9–63, Cl. 88—57.
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Woodford, Ernest M., and Hultgren. 3,070,925.
Farrell, Eugene F., to Borg-Warner Corp. Hydraulic torque converter. 3,079,756, 3–5–63, Cl. 60—54.
Farrell, James E. Plate and cup holder. 3,115,251, 12–24–63, Cl. 211—41.
Farrell, John M.: *See*—
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Farrell, Thomas C., and H. E. Rittenhouse, to Rockwell Mfg. Co. Rotary fluid meter. 3,109,382, 11–5–63, Cl. 103—148.
Farrell, Valdemar C. Anti-pendulation rigging for cranes. 3,095,977, 7–2–63, Cl. 212—58.
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Farris, Ralph J., and J. M. Taylor, to Whipstock Inc. Directional drilling tool. 3,092,188, 6–4–63, Cl. 175—76.
Farris, Richard W. Engine disabling overheat protector. 3,105,480, 10–1–63, Cl. 123—148.
Farris, William A., to American Mfg. Co., Inc. Thrust linkage supported tables. 3,110,476, 11–12–63, Cl. 254—122.
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Silver, Dennis S. 3,093,721.
Silver, Dennis S. 3,101,829.
Silver, Dennis S. 3,101,867.
Farrow, Ronald L., and W. F. Krasinski, to Chrysler Corp. Vehicle folding seat structure. 3,114,570, 12–17–63, Cl. 296—66.
Farrow, William H., to Hersey-Sparling Meter Co. Pivoted check valve. 3,074,429, 1–22–63, Cl. 137—527.8.
Farry, Otis T., to Wagner Electric Corp. Voltage regulator. 3,094,657, 6–18–63, Cl. 323—61.
Farthing, Alan C., to Imperial Chemical Industries Ltd. New polymeric substances. 3,112,280, 11–26–63, Cl. 260—2.
Farwell, Claude C. Loud speaker. 3,076,520, 2–5–63, Cl. 181—31.
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Fasold, George A., and W. V. Leibrook, to The Philip Carey Mfg. Co. Methods of preparing asphalt shingles for adhesive attachment in roofs. 3,082,577, 3–26–63, Cl. 50—243.
Fasold, George A, and W. V. Leibrook to The Philip Carey Mfg. Co. Grooved roofing. 3,091,898, 6–4–63, Cl. 50—261.
Fassbender, Frederick A., to S. M. Frank & Co., Inc. Pipe construction with a detachable bowl and stem. 3,079,927, 3–5–63, Cl. 131—194.
Fassbender, Frederick A., to S. M. Frank & Co., Inc. Sealing and alignment device for smokers' pipe stems. 3,079,931, 3–5–63, Cl. 131—225.
Fassbender, Frederick A., to S. M. Frank & Co. Reamer for smokers' pipes. 3,079,932, 3–5–63, Cl. 131—246.
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Wandel, Oscar A. 3,099,012.
Wandel, Oscar A. 3,101,476.
Wandel, Oscar A. 3,115,941.
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Wandel, Oscar A., and Doyle. 3,094,901.
Fata, Bernard. Tapered dove-tail joints. 3,090,086, 5–21–63, Cl. 20—92.
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De Witt, Raymond H. 3,096,776.
Fath, Douglas W., T. Kraschinsky, Jr., and G. C. Lutsch, to Cutler-Hammer, Inc. Graphic signaling and indicating system. 3,103,347, 9–10–63, Cl. 263—19.
Fath, Douglas W., and C. E. Smith, to Cutler-Hammer, Inc. Protective system. 3,110,019, 11–5–63, Cl. 340—213.
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Fath, Joseph, to Thompson Chemical Co. Ester of a dicarboxylic acid and vinyl chloride resin plasticized therewith. 3,085,078, 4–9–63, Cl. 260—31.4.
Fathauer, George H., and D. A. Williams, to Harvey-Wells Corp. Tracking error measuring device. 3,114,859, 12–17–63, Cl. 315—24.
Fattor, Arthur P. Automatic reagent regulator. 3,073,330, 1–15–63, Cl. 137—93.
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Nitsche, Rudolf, and Fatuzzo. 3,085,184.
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Faught, Harold F., to Westinghouse Electric Corp. Propulsion apparatus. 3,073,113, 1–15–63, Cl. 60—35.6.
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Faulds, Malcolm, H., to Minneapolis-Honeywell Regulator Co. Switching device for varying output of lamp load. 3,075,-123, 1–22–63, Cl. 315—240.
Faulkner, Alfred H., to Automatic Electric Laboratories, Inc. Terminal per station identification circuit. 3,087,019, 4–23–63, Cl. 179—17.
Faulkner, Alfred H., to Automatic Electric Laboratories, Inc. Transistor ring counting circuit. 3,087,075, 4–23–63, Cl. 307—88.5.
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Faulkner, Alfred H., and T. H. Jeffrey, to Automatic Electric Laboratories, Inc. Transistorized regular power supply. 3,109,979, 11–5–63, Cl. 323—22.
Faulkner, Dorris C., and H. R. Swann, Jr. Knock-down sofa. 3,104,913, 9–24–63, Cl. 297—218.
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Rieppel, Perry J., Faulkner, Nelson, and Cook. 3,084,-246.
Faulkner, Willard J., and R. B. Rhoades, to V-M Corp. Self-loading reel. 3,072,355, 1–8–63, Cl. 242—74.2.
Faulkner, William H., to Union Carbide Corp. Cold-formable predominantly cobalt alloys. 3,091,022, 5–28–63, Cl. 29—191.2.
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Faust, Francis S., and E. R. Edmunds, to R. G. Wright Co., Inc. Washing machine for animal cages and the like. 3,110,317, 11–12–63, Cl. 134—174.
Faust, Jacob, and I. Kukin, to Sonneborn Chemical and Refining Corp. Cutting oil preparation. 3,098,821, 7–23–63, Cl. 252—33.3.
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Faust, John W., Jr.: *See*—
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Fauth, Frederick E., and R. H. Breeback, to Crown Cork & Seal Co., Inc. Air free packaging. 3,088,831, 5–7–63, Cl. 99—182.
Favalier, Jean, and C. E. G. Romiguiere, to Compagnie Francaise Thomson-Houston. Electronic tuning devices for klystron valves. 3,076,917, 2–5–63, Cl. 315—5.21.
Faverty, Clyde B., and W. R. Shaver, to Pullman Inc. Vehicle floor construction. 3,088,420, 5–7–63, Cl. 105—422.
Favill, William A., and D. G. Taylor, to Integral Ltd. Flowmeter. 3,075,383, 1–29–63, Cl. 73—231.
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Favro, Lawrence D., to Clevite Corp. Method of soldering to aluminum. 3,081,536, 3–19–63, Cl. 29—495.
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Fawcett, Sydney, to United Kingdom Atomic Energy Authority. Manipulating machines for nuclear reactors. 3,090,741, 5–21–63, Cl. 204—193.2.
Fawcett, Sydney, to United Kingdom Atomic Energy Authority. Temperature control means for nuclear reactors. 3,090,742, 5–21–63, Cl. 204—193.2.
Fawcett, Sydney, and F. G. Greenhalgh, to United Kingdom Atomic Energy Authority. Fuel elements for nuclear reactors. 3,088,897, 5–7–63, Cl. 204—193.2.
Fawcett, Sydney, and W. Rodwell, to United Kingdom Atomic Energy Authority. Joints between tubes of dissimilar materials. 3,093,398, 6–11–63, Cl. 285—173.
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Fay, James P., to The Teletrak Corp. Commutator. 3,103,-060, 9–10–63, Cl. 29—155.54.
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Fearnside, Thomas E., to Mueller Brass Co. Method of making bearing pins. 3,109,224, 11-5-63, Cl. 29—149.5.

Fearon, Robert E., and J. M. Thayer, to Well Surveys, Inc. Well logging radiation sources. 3,071,690, 1-1-63, Cl. 250—84.5.

Fearon, Robert E., and W. G. Ownby, to Electro Chemical Laboratories Corp. Apparatus for detecting flaws in elongated magnetic structures. 3,091,733, 5-28-63, Cl. 324—37

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Federighi, George J., to Stero Chemical Mfg. Co. Pressurized device for uncorking bottles. 3,085,454, 4-16-63, Cl. 81—3.2.

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Fee, Graham M., to True Temper Corp. Rail anchors. 3,102,690, 9-3-63, Cl. 238—327.

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Feeley, James F., to American Welding and Engineering Co., Inc. Automatically operable ramp unit. 3,081,470, 3-19-63, Cl. 14—71.

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Bartl, Hugo, and Feess. 3,097,045.

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Fegley, Donald R., A. J. Brassaw, and C. E. Weller, to Weller Tool Corp. Vibratory sanding tool. 3,083,508, 4-2-63, Cl. 51—170.

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Bortnick, Newman M., and Fegley. 3,077,478.
Bortnick, Newman M., and Fegley. 3,109,848.
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Fehling, Hans R., and E. H. Harvey, to I.R.C. Ltd. Reservoir for writing or dispensing instruments. 3,106,190, 10-8-63, Cl. 120—43.4.

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Fehn, Frank P., to E. W. Bliss Co. Press drive control. 3,088,063, 4-30-63, Cl. 318—161.

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Fehr, Henry. Grain bin conveyor supporting channel. 3,098,571, 7-23-63, Cl. 214—17.

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Feibelman, Hans J., to Coro, Inc. Magnetic earring with slidably pivoted clamp members. 3,071,939, 1-8-63, Cl. 63—14.

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Feichtinger, Hans, H. Tummes, and S. Puschhof, to Ruhrchemie Aktiengesellschaft. Chlorinated 4,5,6,7,8,8-hexachloro-4,7-methylene-3a,4,7,7a-tetrahydroindane. 3,110,648, 11-12-63, Cl. 167—30.

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Carden, Robert L., Feighner, and Marshall. 3,076,856.
Carden, Robert L., Feighner, and Marshall. 3,076,857.

Feigin, Franklin L., and E. Rasmanis, to Sylvania Electric Products Inc. Circuit packaging module. 3,105,868. 10-1-63, Cl. 174—68.5.

Feigley, David A., Jr., and L. N. Ray, Jr., to Armstrong Cork Co. Binder dispersion for beater saturation processes. 3,093,609, 6-11-63, Cl. 260—23.7.

Feik, Walter G. Water circulating device. 3,084,472, 4-9-63, Cl. 43—55.

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Feinberg, Albert E., to Advance Transformer Co. Apparatus for igniting and operating gaseous discharge devices. 3,099,773, 7-30-63, Cl. 315—257.

Feinberg, Albert E., and P. J. Zerwes, to Advance Transformer Co. Electromagnetic core construction. 3,071,744, 1–1–63, Cl. 336—212.

Feinberg, Seymour J., to United States of America, Navy. Compressor blade locking device. 3,088,708, 5–7–63, Cl. 253—77.

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Feinstein, Joseph, to S-F-D Laboratories, Inc. High power electron discharge device. 3,096,462, 7–2–63, Cl. 315—39.53.

Feinstein, Lester. Flap closer and stop for slide fasteners. 3,110,904, 11–19–63, Cl. 2—234.

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Feland, Duane E., to Stelan Mfg. Rock picker. 3,104,722, 9–24–63, Cl. 171—63.

Felber, Fritz, and T. Bratoljic, to Brown, Boveri & Cie, Aktiengesellschaft. Alternating current amplifier machine. 3,105,943, 10–1–63, Cl. 330—58.

Felburn, John P. Running gear for vehicles. 3,080,161, 3–5–63, Cl. 267—19.

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Feld, Ignatz L., and B. H. Clemmons, to United States of America, Interior. Process for wet grinding solids to extreme fineness. 3,075,710, 1–29–63, Cl. 241—16.

Felder, Ernst, H. Suter, and H. Zutter, to Eprova Ltd. New derivatives of nicotinic acid and preparation thereof. 3,105,072, 9–24–63, Cl. 260—247.2.

Felder, Ernst, and U. Tiepolo, to Bracco Industria Chimica S.p.A. Tertiary amino-methyl amides of pyrazine-carboxylic acid. 3,108,099, 10–22–63, Cl. 260—247.2.

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Feldman, Charles, to United States of America, Navy. Electrical article comprising a thin film of barium titanate. 3,114,868, 12–17–63, Cl. 317—258.

Feldman, Charles L., A. C. Fields, and J. A. Bergin, to Joseph Kaye & Co., Inc. Thermocouple reference junction. 3,091,940, 6–4–63, Cl. 62—3.

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Feldman, Louis I., C. E. Holmlund, and N. L. Barbacci, to American Cyanamid Co. Process for the 1,2-hydrogenation of steroids by the use of dried thalli. 3,087,864, 4–30–63, Cl. 195—51.

Feldman, Louis I., C. E. Holmlund, and N. L. Barbacci, to American Cyanamid Co. Method of preparing Δ′ steroids. 3,091,575, 5–28–63, Cl. 195—51.

Feldman, Louis I., N. E. Rigler, C. E. Holmlund, and B. E. Nielsen, to American Cyanamid Co. Method of 2-hydroxylating pregnenes and pregnadienes with streptomyces griseus. 3,091,576, 5–28–63, Cl. 195—51.

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Feldman, Milton H., and H. E. Hosticka, to Westinghouse Electric Corp. Apparatus and process for forming high density compacts. 3,089,189, 5–14–63, Cl. 18—16.

Feldman, Nathan W., to United States of America, Army. Keysender frequency selector. 3,100,245, 8–6–63, Cl. 179—90.

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Feldman, Milton D., Schwartz, and Feldman. 3,080,047.

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Feldmann, Floyd M., to National Tuberculosis Association. Pellet injector. 3,072,121, 1–8–63, Cl. 128—217.

Feldmann, Harry, to Sogespar S.A. New hypotensive pharmaceutical preparation containing α-tocopheryl-quinone. 3,071,512, 1–1–63, Cl. 167—65.

Feldmuehle, Papier -und Zellstoffwerke Aktiengesellschaft: *See*—
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Feldt, Charles A., and G. T. Kekish, to Nalco Chemical Co. Weakly basic anion exchange resins. 3,092,617. 6–4–63, Cl. 260—2.1.

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Felhofer, Robert W., and C. M. Fink. Foldable pet house and carrying case. 3,084,667, 4–9–63, Cl. 119—19.

Feliks, Joseph, to Woven Arts Corp. Machine for weaving web having relatively stiff weft. 3,100,003, 8–6–63, Cl. 139—128.

Felix, Emil, to Mueller A.G. Depositing and stacking device for sheet material, especially veneer boards. 3,108,509, 10–29–63, Cl. 83—81.

Felix, Joseph, and H. Davis, to Woven Arts Corp. Woven article of manufacture having relatively stiff weft and method of making same. 3,100,004, 8–6–63. Cl. 139—420.

Felkel, Hubert: *See*—
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Felkner, Alphie O. Sectional boom for cranes. 3,080,068, 3–5–63, Cl. 212—144.

Fell, Robert A., to Felmada S.A. Process of manufacture of spinnerets, particularly for spinning and extruding synthetic textiles, and a spinneret obtained by this process. 3,114,966, 12–24–63, Cl. 29—401.

Felldin, Karl F., to Lund S.A. Transportable containers for the handling of light-weight bulk materials. 3,105,617, 10–1–63, Cl. 222—185.

Feller, Albert, and H. Ditkofsky, to Radio Corp. of America. Logic circuit with inductive self-resetting of negative resistance diode operating state. 3,115,585, 12–24–63, Cl. 307—88.5.

Fellerman, Jerrold J.: *See*—
Roxburgh, Albert, Leigh, and Fellerman. 3,079,534.

Fellman, Morton R., to Redi Truss International, Inc. Structural truss and joint for use therewith. 3,070,923, 1–1–63, Cl. 50—55.

Fellman, Robert P., W. E. Goode, and F. H. Owens, to Rohm & Haas Co. Polymerization process with a catalyst system of metal halide and organo-magnesium compound. 3,100,761, 8–13–63, Cl. 260—88.7.

Fellmann, Robert P.: *See*—
Bibolet, Aubert, Holmes, Brown, Richter, and Fellmann. 3,078,243.
Bibolet, Aubert H., Brown, Richter, and Fellmann. 3,078,244.

Fellows Gear Shaper Co., The: *See*—
Pickener, Walter H. 3,071,897.

Felmada S.A.: *See*—
Fell, Robert A. 3,114,966.

Felmley, Charles R., Jr., to Air Reduction Co., Inc. Welding wire for low alloy steels and resulting weld. 3,079,677, 3–5–63, Cl. 29—196.1.

Felsenthal Instruments, Inc.: *See*—
Van Caro, Ben, and Fredriksen. 3,112,875.

Felson, Ronald. Magnetic locks. 3,111,834, 11–26–63, Cl. 70—276.

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Furstenburg, Alvin J. 3,108,818.
Levinson, Herbert H. 3,093,443.

Felten & Guilleaume Fernmeldeanlagen G.m.b.H.: *See*—
Friedrich, Siegfried. 3,106,679.

Felten, Major. Animal exerciser. 3,097,626, 7–16–63, Cl. 119—29.

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Stevens, Raymond R. 3,080,600.

Feltham, Robert D., J. F. Anzenberger, and J. T. Carriel, to The International Nickel Co., Inc. Process of making cyclopentadienyl nickel nitrosyl compounds. 3,088,959, 5–7–63, Cl. 260—439.

Felts, Gordon P., to Microdot Inc. Cable cutter. 3,071,033, 1–1–63, Cl. 82—76.

Felts, Gordon P., 47½% to Microdot Inc. and 10% to L. A. Sidwell. Pigment measuring and dispensing device. 3,074,597, 1–22–63, Cl. 222—43.

Felts, Gordon P., to Microdot Inc. Coaxial cable connector. 3,077,513, 2–12–63, Cl. 174—75.

Felts, Gordon P., to Microdot Inc. Connector device. 3,091,749, 5–28–63, Cl. 339—75.

Felts, Gordon P., to Microdot Inc. Universal electric connector. 3,097,033, 7-9-63, Cl. 339—75.
Felts, James A. Anesthetic vaporizer. 3,106,917, 10-15-63, Cl. 128—188.
Feltus, Henry J., to Goulds Pumps Inc. Submersible pump. 3,115,840, 12-31-63, Cl. 103—87.
Fender, Clarence L. Electric piano. 3,090,274, 5-21-63, Cl. 84—209.
Fender, Norman N., and C. S. Davidson, to Universal American Corp. Mechanism control. 3,079,809, 3-5-63, Cl. 74—542.
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Dobbins, Mark. 3,103,410.
Feng, I-Ming, J. E. Kleninger, and J. B. Hinkamp, to Ethyl Corp. New lubricants and lubricant additives. 3,109,816, 11-5-63, Cl. 252—46.7.
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Fenity, Robert D., and J. E. Janssen, to Minneapolis-Honeywell Regulator Co. Freeze-thaw indicator. Re. 25,499, 12-24-63, Cl. 99—192.
Fenix, Frank H., 50% to G. Cook. Composition of matter in the nature of an explosive. 3,090,713, 5-21-63, Cl. 149—39.
Fenix, Frank H., 50% to G. Cook. Explosive. 3,090,714, 5-21-63, Cl. 149—43.
Fenlon, Joseph A., Jr., to McDonnell Aircraft Corp. Parabolic reflector with rim of absorbing material to attenuate side lobes. 3,101,473, 8-20-63, Cl. 343—760.
Fenn, Raymond T., to The New Britain Machine Co. Ignition system for the afterburner of an aircraft engine. 3,078,657, 2-26-63, Cl. 60—35.6.
Fenn, William W., to United Aircraft Corp. Radar altitude control. 3,071,766, 1-1-63, Cl. 343—13.
Fennell, Alfred H., to Sunkist Growers, Inc. Article positioning conveyor. 3,080,955, 3-12-63, Cl. 198—33.
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Fennick, John H., and R. A. Kaenel, to Bell Telephone Laboratories, Inc. High speed stepping switch circuit. 3,109,108, 10-29-63, Cl. 307—88.5.
Fenske, Merrell R., and J. H. Jones, to Esso Research and Engineering Co. Partial oxidation of organic compounds. 3,085,106, 4-9-63, Cl. 260—451.
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Fentiman, Arthur E., to C. F., A. E., and H.G. Fentiman, trading as Triodetic Structures. Demountable dock. 3,081,601, 3-19-63, Cl. 61—48.
Fentiman, Clarence F.: *See*—
Fentiman, Arthur E. 3,081,601.
Fentiman, F., & Sons, Ltd.: *See*—
Fentiman, Arthur E. 3,079,681.
Fentiman, Arthur E. 3,079,989.
Fentiman, Harold G.: *See*—
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Fentiman, William P., P. H. Morton, S. L. Ames, and T. B. Marsden to Imperial Chemical Industries Ltd. Titanium-base alloys. 3,105,759, 10-1-63, Cl. 75—175.5.
Fenton, Elton L. Feed mill. 3,083,746, 4-2-63, Cl. 146—123.
Fenton, George D., to United States Steel Corp. Hammer device. 3,095,786, 7-2-63, Cl. 121—13.
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Ferdig, Earl W., to G. F. McMurray. Anti-friction bearing. 3,097,898, 7-16-63, Cl. 308—190.
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Ferguson, James L., T. P. Vogl, and M. Garbuny, to Westinghouse Electric Corp. Thermal imaging devices utilizing a cholesteric liquid crystalline phase material. 3,114,836, 12-17-63, Cl. 250—83.
Fergason, Rector C., to Allis-Chalmers Mfg. Co. Spindle drive track assembly for cotton pickers. 3,108,419, 10-29-63, Cl. 56—42.
Ferguson, Charles W.: *See*—
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Hill, Claude. 3,107,763.
Hill, Claude, and Rolt. 3,073,405.
Ferguson, Henry A., to Deere & Co. High-low reverse drive. 3,094,012, 6-18-63, Cl. 74—740.
Ferguson, Henry A., to Deere & Co. Dual-range forward drive with range reverse. 3,094,013, 6-18-63, Cl. 74—740.
Ferguson, Howard W., to United States Steel Corp. Rotary screen and grinder. 3,104,069, 9-17-63, Cl. 241—83.
Ferguson, John E., and D. Richards, to Guy F. Atkinson Co. Unit handling single load hoisting system. 3,095,988, 7-2-63, Cl. 214—38.
Ferguson, John F., to Geigy Chemical Corp. Process for the preparation of phosphoric acid esters. 3,107,246, 10-15-63, Cl. 260—251.
Ferguson, John L., Jr., R. C. Talbot, and J. P. Stirniman, to Textile Machine Works. Case sealing apparatus. 3,085,376, 4-16-63, Cl. 53—75.
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Ferguson, Joseph M. Limb shaker. 3,101,583, 8-27-63, Cl. 56—328.
Ferguson, Leroy C., A. W. Mathews, and H. Hardinge, to Hardinge Co., Inc. Method and means for segregating and recombining feed for grinding mill. 3,078,076, 2-19-63, Cl. 259—180.
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Ferm, Glenn O., and G. W. Davison, to General Railway Signal Co. Absolute block signaling system for railroads. 3,079,495, 2-26-63, Cl. 246—33.
Ferm, Richard L., to California Research Corp. Zinc salts of P2S5-olefin-chloral reaction products as extreme pressure agents. 3,093,584, 6-11-63, Cl. 252—32.7.
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Fernald, Herbert B., to Goodrich-Gulf Chemicals, Inc. Preparation of aluminum hydrocarbyls. 3,077,490, 2-12-63, Cl. 260—448.
Fernald, Herbert B., to Goodrich-Gulf Chemicals, Inc. Activation of aluminum and preparation of aluminum hydrocarbyls therewith. 3,100,786, 8-13-63, Cl. 260—448.
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Fernicola, Anthony J. Means and method for steroscopic television viewing. 3,089,917, 5-14-63, Cl. 178—6.5.
Fernicola, John D. Combination container, practice golf ball and tee. 3,099,452, 7-30-63, Cl. 273—190.
Fernquist, Cyril L., to Transistor Electronics Corp. Miniature replaceable lamp indicator. 3,116,480, 12-31-63. Cl. 340—381.
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Ferrand, Marcel, to Societe Parisienne d'Expansion Chimique S.P.E.C.I.A. Silica-gel powder tablet compositions. 3,101,-299, 8-20-63, Cl. 167—82.
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Butterworth, Arnold W., and Roberts. 3,095,640.
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Coady-Farley, James T., Hampshire, and Walker. 3,084,-315.
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Turner, George C. 3,087,086.
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Ferrari, Andres, to Technicon Instruments Corp. Apparatus for treating liquids. 3,072,442, 1-8-63, Cl. 302—14.
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Ferrari, Andres, to Technicon Instruments Corp. Sample-supply apparatus with sample mixer. 3,107,536, 10-22-63, Cl. 73—423.
Ferrari, Andres, and J. Isreell, to Technicon Instruments Corp. Liquid analysis apparatus with closed flow cell. 3,109,713, 11-5-63, Cl. 23—253.
Ferrari, Andrés, Jr., to Technicon Chromatography Corp. Continuous chromatographic analysis apparatus. 3,074,784, 1-22-63, Cl. 23—253.
Ferrari, Andres, Jr., to Technicon Instruments Corp. Fluid treatment method and apparatus with double-flow colorimeter. 3,098,717, 7-23-63, Cl. 23—230.
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Ferreruela, Miguel R. Method and machine for cold manufacturing of pipes. 3,085,147, 4-9-63, Cl. 219—60.
Ferri, Antonio, to General Applied Science Laboratories, Inc. Device for cooling and enhancing jet engine performance of supersonic aircraft. 3,105,661, 10-1-63, Cl. 244—117.
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Ferriot, Joseph V., to Ferriot Brothers, Inc. Process for producing plastic articles. 3,095,260, 6-25-63, Cl. 18—58.3.
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Ferris, De Lacy F., and R. Youngquist, to United States of America, Army. Valve unit for booster and sustainer thrust devices. 3,111,956, 11-26-63, Cl. 137—69.
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Ferris, Edwin W. Electric paint removing device. 3,094,606, 6-18-63, Cl. 219—39.
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Ferris, Ernest A., to Borg-Warner Corp. Non-phased one-way roller clutch. 3,095,954, 7-2-63, Cl. 192—45.
Ferris, John T., and G. A. Ulrich, to Bausch & Lomb Inc. Illuminated endoscope. 3,090,379, 5-21-63, Cl. 128—6.
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Ferris, Maxime, to Linguadisc Corp. Recording techniques. 3,104,881, 9-24-63, Cl. 274—46.
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Ferris, Robert C., to Purex Corp., Ltd. Trichlorocyanuric acid bleach with spray-dried base. 3,093,590, 6-11-63, Cl. 252—99.
Ferris, Robert G., to Starline, Inc. System for handling track suspended objects. 3,071,825, 1-8-63, Cl. 20—19.
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Bush, Donald R., Howarth, and Lawrence. 3,089,782.
Fuchsman, Charles H., and Nicholson. 3,082,187.
Gerster, Charles W., and Pearch. 3,097,411.
Hanson, Leroy C. 3,073,942.
Hanson, Leroy C. 3,087,042.
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Santhany, Leland W. 3,099,063.
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Festo, Thomas. Apparatus for spraying lawns, golf fairways and the like. 3,097,796, 7-16-63, Cl. 239—167.
Fetkovich, Michael J., and N. L. Sargent, to Phillips Petroleum Co. Use of quarternary ammonium salts for paraffin removal. 3,077,929, 2-19-63, Cl. 166—41.
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Fetscher, Charles A., to Nopco Chemical Co. Extraction of a metal from solutions containing same. 3,088,798, 5-7-63, Cl. 23—14.5.

Fernicola, Anthony J. Means and method for ateroscopic television viewing. 3,089,917, 5-14-63, Cl. 178—6.5.
Fernicola, John D. Combination container, practice golf ball and tee. 3,099,452, 7-30-63, Cl. 273—199.
Fernquist, Cyril L., to Transistor Electronics Corp. Miniature replaceable lamp indicator. 3,116,480, 12-31-63, Cl. 340—381.
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Legler, Ernst. 3,102,924.
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Moller, Rolf. 3,104,283.
Moller, Rolf, and Tretner. 3,099,710.
Sennhenn, Emil. 3,102,163.
Siepmann, Karl, and von Feigel-Farnholz. 3,114,002.
Tretner, Werner. 3,107,295.
Fernstrom, Lester G.: *See*—
Dreyfus, Philip S., and Fernstrom. 3,080,056.
Ferodo, Societe Anonyme Francaise du: *See*—
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Maurice, Jean, and Rist. 3,072,234.
Ferrah, Frederick H., to Baker Perkins Ltd. Rotary drum apparatus for the processing of articles. 3,094,860, 6-25-63, Cl. 68—210.
Ferrand, Marcel, to Societe Parisienne d'Expansion Chimique S.P.E.C.I.A. Silica-gel powder tablet compositions. 3,101,299, 8-20-63, Cl. 167—82.
Ferrand, Marcel. Cultivation tray having moisture control. 3,108,043, 10-8-63, Cl. 47—38.
Ferrand, Marcelle H.: *See*—
Mingasson, Georges R. H., and Ferrand. 3,092,615.
Ferrante, Louis. Cooling package for beverages and food. 3,091,091, 5-28-63, Cl. 62—4.
Ferranti, Albino. Drive assembly for the mobile equipment of hydraulic presses, and suited for exerting pressures of various intensities. 3,103,876, 9-17-63, Cl. 100—214.
Ferranti, Ltd.: *See*—
Angus, Ernest T., and Walker. 3,096,467.
Butterworth, Arnold W., and Roberts. 3,095,640.
Coady-Farley, James T., and Hampshire. 3,080,511.
Coady-Farley, James T., Hampshire, and Walker. 3,084,315.
Lyth, Cyril. 3,114,058.
Spurway, Maurice A. 3,083,331.
Turner, George C. 3,087,085.
Turner, George C. 3,087,086.
Williamson, David T. N., Walker, Shepherd, and Hampshire. 3,098,186.
Ferrara, Thomas J. Bowler's posture corrective apparatus. 3,101,196, 8-20-63, Cl. 273—54.
Ferrari, Andres, to Technicon Instruments Corp. Apparatus for treating liquids. 3,072,442, 1-8-63, Cl. 302—14.
Ferrari, Andres, to Technicon Instruments Corp. Concentration apparatus for quantitative analysis of a substance in a liquid. 3,098,718, 7-23-63, Cl. 23—253.
Ferrari, Andrés, to Technicon Instruments Corp. Sample-supply apparatus with sample mixer. 3,107,536, 10-22-63, Cl. 73—423.
Ferrari, Andres, and J. Isreell, to Technicon Instruments Corp. Liquid analysis apparatus with closed flow cell. 3,109,713, 11-5-63, Cl. 23—253.
Ferrari, Andrés, Jr., to Technicon Chromatography Corp. Continuous chromatographic analysis apparatus. 3,074,784, 1-22-63, Cl. 23—253.
Ferrari, Andres, Jr., to Technicon Instruments Corp. Fluid treatment method and apparatus with double-flow colorimeter. 3,098,717, 7-23-63, Cl. 23—230.
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Ferrari, Rodolfo D., to Spectrol Electronics Corp. Potentiometer wiper contact assembly. 3,076,162, 1-29-63, Cl. 338—167.
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Di Cerrione, Lodovico A., and Ferraris. 3,099,678.
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Ferraris, John T.: *See*—
Allen, Oliver L., Ferraris, Ritzau, and Vermeulen. 3,108,310.
Ferrel, Robert E.: *See*—
Wasserman, Theodore, and Ferrel. 3,089,527.
Ferrell, Lawrence H., Jr., and A. Kelly. Cement slab finishing device. 3,090,066, 5-21-63, Cl. 15—235.8.
Ferrell, Robert L., and W. T. Hardison, to Bourns, Inc. Potentiometers. 3,105,217, 9-24-63, Cl. 338—174.
Ferrell, William C. Combination outboard runabout and

Ferrigno, Thomas H., to Minerals & Chemicals Philipp Corp. Kaolin clay coated with salt of polymerizable acid and polyester resins conatining the same. 3,085,080, 4-9-63, Cl. 260—40.
Ferrin, Kenneth S., to General Electric Co. Circuit protection means. 3,094,647, 6-18-63, Cl. 317—31.
Ferriot Brothers, Inc.: *See*—
Ferriot, Joseph V. 3,095,260.
Ferriot, Joseph V., to Ferriot Brothers, Inc. Process for producing plastic articles. 3,095,260, 6-25-63, Cl. 18—58.3.
Ferriot, Joseph V., to Auburn Rubber Co., Inc. Electric robot toy. 3,102,363, 9-3-63, Cl. 46—244.
Ferris, Cyrus Y., Jr., to Rock of Ages Corp. Granite bowling alley. Re. 25,496, 12-17-63, Cl. 273—51.
Ferris, David R.: *See*—
Weigel, Raymond A., and Ferris. 3,099,326.
Ferris, De Lacy F.: *See*—
Sherman, Arthur, Ferris, and Youngquist. 3,094,837.
Ferris, De Lacy F., to United States of America, Navy. Deformable shock absorber. 3,098,544. 7-23-63, Cl. 188—1.
Ferris, De Lacy F., and R. Youngquist, to United States of America, Army. Valve unit for booster and sustainer thrust devices. 3,111,956, 11-26-63, Cl. 137—69.
Ferris, Edward E. Land clearing apparatus. 3,084,747, 4-9-63, Cl. 172—39.
Ferris, Edwin W. Electric paint removing device. 3,094,606, 6-18-63, Cl. 219—39.
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Ferris, Ernest A., to Borg-Warner Corp. Non-phased one-way roller clutch. 3,093,954, 7-2-63, Cl. 192—45.
Ferris, John T., and G. A. Ulrich, to Bausch & Lomb Inc. Illuminated endoscope. 3,090,379, 5-21-63, Cl. 128—6.
Ferris, Lester. Coffee table. 3,088,421, 5-7-63, Cl. 108—13.
Ferris, Maxime, to Linguadisc Corp. Recording techniques. 3,104,881, 9-24-63, Cl. 274—46.
Ferris, Ordine C., to Schering Corp. Nozzle perforating cap for collapsible tubes. 3,109,562, 11-5-63, Cl. 222—81.
Ferris, Robert C., to Purex Corp., Ltd. Trichlorocyanuric acid bleach with spray-dried base. 3,093,590, 6-11-63, Cl. 252—99.
Ferris, Robert G., to Starline, Inc. System for handling track suspended objects. 3,071,825, 1-8-63, Cl. 20—19.
Ferris, Robert G., to Starline, Inc. Material unloading and spreading apparatus. 3,105,693, 10-1-63, Cl. 275—3.
Ferro, Anthony J., to Baker Perkins, Inc. Article transfer means. 3,088,575, 5-7-63, Cl. 198—24.
Ferro Corp.: *See*—
Boyd, Alton R. 3,082,183.
Bush, Donald R., Howarth, and Lawrence. 3,089,782.
Fuchsman, Charles H., and Nicholson. 3,082,187.
Gerster, Charles W., and Pearch. 3,097,411.
Hanson, Leroy C. 3,073,942.
Hanson, Leroy C. 3,087,042.
Kelly, William D. 3,089,016.
Santhany, Leland W. 3,099,063.
Ullrich, Clarence. 3,088,092.
Ferro-Fab, Inc.: *See*—
Schouw, Arthur C., and Mosher. 3,094,999.
Ferro Stamping Co.: *See*—
Hansen, Oscar C. 3,091,211.
Iding, Orville R. 3,072,231.
Iding, Orville R. 3,105,577.
Pickles, Joseph. 3,072,395.
Pickles, Joseph. 3,079,118.
Pickles, Joseph. 3,089,676.
Pickles, Joseph. 3,105,669.
Pickles, Joseph. 3,105,670.
Pickles, Joseph, and Iding. 3,105,668.
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Voihs, Kurt, Schnitzler, and Burdelski. 3,071,941.
Ferry-Morse Seed Co.: *See*—
Robinson, Charles K. 3,078,985.
Ferstandig, Louis L., and California Research Corp. Non-drying alkyd resins, and amine-formaldehyde resin coating compositions plasticized therewith. 3,108,089, 10-22-63, Cl. 260—45.3.
Fertig, Raymond B.: *See*—
Fulkner, Raymond P., Mitchell, and Fertig. 3,079,372.
Fesco, John J., to Studley Paper Company, Inc. Disposable filter bag. 3,107,989, 10-22-63, Cl. 55—381.
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Foster, Ezra M. 3,077,994.
Fesser, Erich, to Hobbs Transmission Ltd. Variable ratio power transmission apparatus. 3,084,565, 4-9-63, Cl. 74—472.
Fessler, William A., C. A. Hutter, H. L. Buckmaster, and G. O. Stricker, to Daubert Chemical Co. Transparent heat-sealable sheets carrying vapor phase corrosion inhibitors.

Fetscher, Charles A., to Nopco Chemical Co. Metal extraction process. 3,088,799, 5–7–63, Cl. 23—14.5.

Fetscher, Charles A., and S. Lipowski, to Nopco Chemical Co. Stable vinyl resin containing a reaction product of epichlorhydrin and a sulfone. 3,071,560, 1–1–63, Cl. 260—45.5.

Fetterly, Lloyd C., D. O. Collamer, and C. W. Smith, to Shell Oil Co. Polymeric reaction product of polyalkyl substituted dilsocyano compounds and polyhydroxy compound. 3,089,862, 5–14–63, Cl. 260—75.

Fetterly, Lloyd C., D. O. Collamer, and C. W. Smith, to Shell Oil Co. Dilsocyanato aromatic compounds. 3,105,845. 10–1–63, Cl. 260—453.

Fetterman, Jay V., to Air Products and Chemicals, Inc. Low temperature process. 3,102,801, 9–3–63, Cl. 62—31.

Fetterman, Roy A., Jr., to Vara-Trol Inc. Mechanism for spinning. 3,097,476, 7–16–63, Cl. 57—110.

Fettig, Arthur J., D. M. Jenks, C. Lasdine, E. P. Maidment, and B. A. Runde, to Burroughs Corp. Combined document sorter, printer and accounting machine system. 3,089,641, 5–14–63, Cl. 235—60.13.

Fetz, Alfred. Welding organization. 3,071,679, 1–1–63, Cl. 219—120.

Fetzer, Maurice C., P. R. Sperry, and J. F. Murphy, to Kaiser Aluminum & Chemical Corp. Colored anodized aluminum article and alloys therefor. 3,107,159, 10–15–63, Cl. 29—195.

Fetzner, Frank J.: *See*—
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Feucht, Robert E., J. Jarvis, and J. C. Ziegler, to The Bendix Corp. Manual control system for modifying or overcoming the auto pilot control. Re. 25,356, 3–19–63, Cl. 244—83.

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Feuer, Irving, to Canrad Precision Industries. Device for rupturing glass seals. 3,084,705, 4–9–63, Cl. 137—68.

Feuerbach, Dilver D., and D. C. Luze. Clip board with supporting and attaching means. 3,104,895, 9–24–63, Cl. 281—44.

Feuerbacher, Gerard J., to Trine Mfg. Corp. Fastener means. 3,084,962, 4–9–63, Cl. 287—20.

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Feustel, George H., and A. R. Burton, to The Pyle-National Co. Preindexed connector construction. 3,096,135, 7–2–63, Cl. 339—186.

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Christy, Roland, and Fewel. 3,075,795.

Fey, Wilhelm: *See*—
Thiele, Berthold, Fey, and Hendel. 3,091,928.

Fiala, Ernst J. H.: *See*—
Muller, Josef, Wilfert, and Fiala. 3,087,742.
Wilfert, Karl, and Fiala. 3,078,779.
Wilfert, Karl, and Fiala. 3,116,071.

Fiala, Ernst J. H., to Daimler-Benz Aktiengesellschaft. Equalization spring system. 3,079,169, 2–26–63, Cl. 280—104.

Fiala, Ernst J. H., to Daimler-Benz Aktiengesellschaft. Equalization spring system for vehicles. 3,083,033, 3–26–63, Cl. 280—104.

Fiala, Ernst J. H., to Daimler-Benz Aktiengesellschaft. Mechanism for controlling outward inclination of a vehicle body in curves. 3,089,710, 5–14–63, Cl. 280—112.

Fiala, Ernst J. H., and R. Andres, to Daimler-Benz Aktiengesellschaft. Fluid-operable actuating system in a motor vehicle. 3,075,356, 1–29–63, Cl. 60—97.

Fiala, Ernst J. H., and E. Kafka, to Daimler-Benz Aktiengesellschaft. Door lock. 3,090,644, 5–21–63, Cl. 292—229.

Fiala, Richard J., to A. E. Staley Mfg. Co. Refining soybean oil. 3,093,667, 6–11–63, Cl. 260—424.

Fiat Societa per Azioni: *See*—
Candellero, Giovanni. 3,077,794.
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Fiber Controls Corp.: *See*—
Lytton, Kenneth G. 3,080,617.
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Fiber-Foam Marine Products, Inc.: *See*—
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Fibikar, Robert J., and W. I. Senger, to Gisholt Machine Co. Apparatus for balancing engines. 3,079,802, 3–5–63, Cl. 73—466.

Fibish, Arthur, to Illinois Tool Works Inc. Plastic containers. 3,085,730, 4–16–63, Cl. 229—1.5.

Fibish, Arthur, to Illinois Tool Works Inc. Cup stacking machine. 3,086,822, 4–23–63, Cl. 302—2.

Fibish, Arthur, to Illinois Tool Works, Inc. Forming machine.. 3,105,270, 10–1–63, Cl. 18—19.

Fibreboard Paper Products Corp.: *See*—
Kane, Daniel E. 3,103,459.
Wuerthner, Ted W. 3,090,520.

Fibre-Metal Products Co., The: *See*—
Bowers, Charles E., Sr. 3,090,046.

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Axthammer, Ludwig. 3,110,485.
Binder, Richard. 3,084,772.
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Schwerdhofer, Hans J. 3,113,652.
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Steinlein, Gustav, and Helm. 3,107,659.
Wossner, Felix. 3,113,644.

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Sprague, Robert H., Fichter, and Fidelman. 3,102,027.
Sprague, Robert H., Fichter, and Hamilton. 3,095,303.
Sprague, Robert H., Fichter, and Hamilton. 3,100,703.
Sprague, Robert H., Fichter, and Hamilton. 3,102,810.
Sprague, Robert H., Fichter, and Hamilton. 3,104,973.

Fichter, Harry L., Jr., and W. P. Hamilton, to Horizons Inc. Print-out process with aryl amine and polyphenylmethane carbinols. 3,102,029, 8–27–63, Cl. 96—90.

Fichtl, Karl: *See*—
Schaffler, Georg, and Fichtl. 3,104,022.

Fick, Lawrence H., to Western Electric Co., Inc. Lead combing apparatus. 3,083,743, 4–2–63, Cl. 140—147.

Fickel, Lawrence K. Ventilated pneumatic tire structure and method of fabricating the tire. 3,110,339, 11–12–63, Cl. 152—339.

Fickler, Hans, to Industriewerk Schaeffler. Joint head for movably connecting two machine elements. 3,097,005, 7–9–63, Cl. 287—90.

Fiddler, Theodore E. Retainer for securing a threaded member in a body aperture. 3,114,404, 12–17–63, Cl. 151—41.75.

Fidel, Hyman, to Modecraft Co., Inc. Chair. 3,087,757, 4–30–63, Cl. 297—434.

Fidelitone, Inc.: *See*—
Weigand, Charles G. 3,089,193.

Fidelity Instrument Corp.: *See*—
Wolf, Alfred A. 3,090,902.

Fidelity Union Trust Co.: *See*—
Wiedemann, Erwin. 3,075,404.

Fidelman, J. George: *See*—
Sprague, Robert H., Fichter, and Fidelman. 3,102,027.

Fidelman, J. George, to Horizons Inc. Method of photography including physical contact of two layers capable of reacting with each other in the presence of light. 3,114,635, 12–17–63, Cl. 96—27.

Fidler, Robert K.: *See*—
Cook, Lucien H., and Fidler. 3,091,637.

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Fiecchi, Alberto, to Collins Chemical Co. Inc. Method of manufacturing 6-ethoxy-m-anol. 3,104,265, 9–17–63, Cl. 260—613.

Fiechter, Rene A. to American Railroad Curvelining Corp. Railway rail joint. 3,100,080, 8–6–63, Cl. 238—151.

Fiedler, Bruce H., to Allis-Chalmers Mfg. Co. Device for slicing cylindrical bales. 3,072,165, 1–8–63, Cl. 146—98.

Fiedler, Dean R. Machine for production of frozen confections. 3,085,520, 4–16–63, Cl. 107—8.

Fiedler, Howard C., to General Electric Co. Grain oriented sheet metal. 3,096,222, 7–2–63, Cl. 148—31.55.

Fiedler, Willy A., and J. E. Madden, to United States of America, Navy. Launch and underwater trajectory test vehicle. 3,075,301, 1–29–63, Cl. 35—25.

Fiedler, Willy A., and J. E. Madden, to United States of America, Navy. Underwater pitch-over launch test vehicle. 3,075,302, 1–29–63, Cl. 35—25.

Fiedor, Adolph J., and R. G. Rockwell, to Varian Associates. Electron discharge device. 3,104,341, 9–17–63, Cl. 315—5.48.

Fiegel, Charles E., and E. H. Bostetter, to Walker Mfg. Co. Trolley. 3,086,482 4–23–63, Cl. 105—155.

Fiehl, Michael, to International Business Machines Corp. Stacking device. 3,107,912, 10–22–63, Cl. 271—88.

Fiekers, Edmund J., A. A. Klose, and E. H. Schramm, to Duratile of Ohio, Inc. Connector for structural members. 3,091,822, 6–4–63, Cl. 20—94.

Fiel, Peter J.: *See*—
Burns, Erwin, and Fiel. 3,076,509.

Field, Clarence: *See*—
Custer, Rolla B., and Field. 3,073,983.
Custer, Rolla B., and Field. 3,095,514.

Field, Donald E.: *See*—
Omohundro, Robert J., and Field. 3,087,060.

Field, Dwight L. Apparatus for indicating an abnormal condition in a vehicle wheel. 3,092,806, 6–4–63, Cl. 340—58.

Field Emission Corp.: *See*—
Dyke, Walter P., Henderson, and Charbonnier. 3,091,719.

Field-Ernst Envelope Co.: *See*—
Lillibridge, Harold R. 3,086,695.

Field, Everett J., to I-T-E Circuit Breaker Co. By-pass disconnect switch for circuit interrupters. 3,071,662, 1–1–63, Cl. 200—48.

Field, Frank H., to Magna American Corp. Stabilizer stake for garden tillers. 3,074,491, 1–22–63, Cl. 172—395.

Field, Frank H., to Magna American Corp. Radial arm saw. 3,104,687, 9–24–63, Cl. 143—6.

Field, Frederick C., Jr., to E. I. du Pont de Nemours and Co. Fasciated yarn, process and apparatus for producing the same. 3,079,746, 3–5–63, Cl. 57—51.

Field, Frederick C., Jr., to E. I. du Pont de Nemours and Co. Variable denier composite yarn. 3,091,913, 6–4–63, Cl. 57—140.

Field, Frederick C., Jr., to E. I. du Pont de Nemours and Co. Process for preparing a variable denier composite multifilament yarn. 3,104,516, 9–24–63, Cl. 57—157.

Field, Harold, and M. Daria, to Sonotone Corp. Electrode assembly for sealed rechargeable alkaline battery cells. 3,081,367, 3–12–63, Cl. 136—6.

Field, Harry and J. Hanger support bar for garment packing case. 3,112,027, 11–26–63, Cl. 206—7.

Field, James M., to Bell Telephone Laboratories, Inc. Repertory dialer. 3,105,121, 9–24–63, Cl. 179—90.

Field, Joe: *See*—
Field, Harry and J. 3,112,027.

Field, Joseph, to Bethlehem Steel Co. Chromium-nitrogen die steel. 3,105,758, 10–1–63, Cl. 75—128.

Field, Nathan D., to E. I. du Pont de Nemours and Co. Homopolymer of P-dioxene and preparation thereof. 3,072,623, 1–8–63, Cl. 260—88.3.

Field, Thomas R.: *See*—
Jenn, Louis J., and Field. 3,102,533.

Field, Thomas R., to Jenn-Air Products Co., Inc. Combined skylight and ventilator. 3,085,490, 4–16–63, Cl. 98—43.

Field, Walter P. Shoe last inserts. 3,088,147, 5–7–63, Cl. 12—140.

Field, Wesley W. Customer loading conveyor. 3,088,544, 5–7–63, Cl. 186—1.

Field, William H., Co., Inc.: *See*—
Prench, Warren F. 3,073,076.

Fieldcrest Mills, Inc.: *See*—
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Chambley, William B. 3,099,410.
Law, Marvin A. 3,072,153.
Moberg, Ivar O. 3,079,955.
Moberg, Ivar O. 3,099,295.
Troy, James E. 3,091,263.

Fielden Electronics: *See*—
Butterfield, Charles G. 3,081,080.
Fielden, John E. 3,087,331.
Fielden, John E., and Tremlett. 3,082,362.

Fielden, John E., to Fielden Electronics Ltd. Means for converting a mechanical force into an electrical current. 3,087,331, 4–30–63, Cl. 73—141.

Fielden, John E., and L. Tremlett, to Fielden Electronics Ltd. Measuring and control servosystem. 3,082,362, 3–19–63, Cl. 318—28.

Fielden, Richard J., to Imperial Chemical Industries Ltd. Natural rubber stabilized with alkyl substituted heterocyclic compounds. 3,103,542, 9–10–63, Cl. 260—800.

Fielder, Arthur F. Portable rabbeting and recessing tool. 3,087,520, 4–30–63, Cl. 144—136.

Fieldgate, Ivan O., and E. S. Gwathmey, to Specialties Inc. Instrument indication system. 3,096,504, 7–2–63, Cl. 340—27.

Fielding, Francis W., to Lengsfield Brothers, Inc. Display package. 3,072,247, 1–8–63, Cl. 206—45.31.

Fielding, Francis W., to B. H. Lengsfield, Jr. Package of bottles and the like. 3,080,050, 3–5–63, Cl. 206—65.

Fielding, Harold C.: *See*—
Chatt, Joseph, Hart, and Fielding. 3,086,054.

Fielding, Harold C., and J. M. Pollock, to Imperial Chemical Industries Ltd. Isocyanates containing silicon. 3,113,146, 12–3–63, Cl. 260—448.8.

Fielding, Max J., and D. L. Stoddard, to E. I. du Pont de Nemours and Co. Anilide nematocides. 3,108,038, 10–22–63, Cl. 167—30.

Fieldman, Arnold, to C. Nuissl. Air jet for producing bulked stub yarn. 3,093,878, 6–18–63, Cl. 28—1.

Fields, Arnold C.: *See*—
Feldman, Charles L., Fields, and Bergin. 3,091,940.

Fields, Charles V.: *See*—
Kimbell, Marion J., and Fields. 3,113,458.

Fields, Donald L.: *See*—
Johnson, Dee L., and Fields. 3,072,676.

Fields, Ellis K.: *See*—
Drews, Harald J., and Fields. 3,071,631.
Fotis, Peter, and Fields. 3,112,322.
Jason, Emil F., and Fields. 3,076,842.
Serres, Carl, Jr., and Fields. 3,083,214.
Serres, Carl, Jr., and Fields. 3,089,879.
Serres, Carl, Jr., and Fields. 3,102,907.

Fields, Ellis K., to Standard Oil Co. Copolymer compositions of benzalalkylimine. 3,072,617, 1–8–63, Cl. 260—78.5.

Fields, Ellis K., to Standard Oil Co. Lubricant addition agent. 3,074,916, 1–22–63, Cl. 260—78.5.

Fields, Ellis K., to Standard Oil Co. Alkyl phosphonate esters and process for preparing same. 3,102,900, 9–3–63, Cl. 260—461.

Fields, Ellis K., to Standard Oil Co. Preparation of esters of carboxy-substituted diarylhydroxymethanephosphonic acid. 3,102,901, 9–3–63, Cl. 260—461.

Fields, Ellis K., to Standard Oil Co. Lubricant addition agents. 3,110,672, 11–12–63, Cl. 252—51.5.

Fields, Ellis K., to Standard Oil Co. Lubricant addition agents. 3,113,108, 12–3–63, Cl. 252—51.5.

Fields, Ellis K., to Standard Oil Co. Lubricant composition. 3,116,251, 12–31–63, Cl. 252—51.5.

Fields, Ellis K., and C. Serres, Jr., to Standard Oil Co. Coupling of aromatic rings. 3,109,868, 11–5–63, Cl. 260—668.

Fields, George C., to Philco Corp. Drive mechanism. 3,085,445, 4–16–63, Cl. 74—230.17.

Fields, Jolly W. Coin actuated dispenser. 3,080,037, 3–5–63, Cl. 194—85.

Fields, Reuben T.: *See*—
Blakey, Angus R., Jr., and Fields. 3,114,170.
Bohres, William C., Fields, and Jordan. 3,103,409.

Fields, Thomas L.: *See*—
Wilkinson, Raymond G., and Fields. 3,092,653.

Fiene, Marylyn L.: *See*—
Leto, Joseph R., and Fiene. 3,076,016.

Fierce, William L.: *See*—
Sandner, Walter J., and Fierce. 3,071,586.

Fierce, William L., and W. J. Sandner, to The Pure Oil Co. Preparation of phthalonitriles by catalyzed reaction of benzonitrile and cyanogen. 3,091,629, 5–28–63, Cl. 260—465.

Fierce, William L., and R. L. Welchman, to The Pure Oil Co. Preparation of elemental sulfur from hydrogen sulfide. 3,095,275, 6–25–63, Cl. 23—225.

Fierce, William L., and W. J. Sandner, to The Pure Oil Co. Preparation of aromatic nitriles by catalyzed reaction of aryl halide with hydrogen cyanide or cyanogen. 3,116,313, 12–31–63, Cl. 260—465.

Fierce, William L., and W. J. Sandner, to The Pure Oil Co. Preparation of aliphatic nitriles by catalyzed reaction of cyanogen or hydrogen cyanide with halogenated aliphatic hydrocarbon. 3,116,318, 12–31–63, Cl. 260—465.1.

Fierman, Robert H. Disposable spreading package for distributing dry materials at pre-determined rates. 3,080,098, 3–5–63, Cl. 222—325.

Fierstine, Burton A., to General Motors Corp. Ball joint construction and method of assembly therefor. 3,108,830, 10–29–63, Cl. 287—87.

Fierston, Stanley A.: *See*—
Bennett, John E., and Fierston. 3,095,539.

Fieser, Garland E.: *See*—
Hendricks, George D., and Fieser. 3,072,883.

Fieser, Garland E., and F. W. Hill, to The Gamewell Co. Traffic actuated cycle lengths selector apparatus. 3,110,880, 11–12–63, Cl. 340—35.

Fiesselmann, Hans: *See*—
Schorr, Manfred, and Fiesselmann. 3,093,657.

Fiesselmann, Hans, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning. New 3-amino-thiophene-2-carboxylic acids and the esters thereof and a process of preparing said acids and esters. 3,076,817, 2–5–63, Cl. 260—332.2.

Fiezell, Joseph F., to R. Hoe & Co., Inc. Saw bit. 3,091,267, 5–28–63, Cl. 143—141.

Fife, Harold E.: *See*—
Colgan, Joseph D., and Fife. 3,090,767.

Fife, Irwin L. Apparatus for maintaining the alignment of a moving web. 3,104,789, 9–24–63, Cl. 226—22.

Fife Mfg. Co.: *See*—
Shelton, John J. 3,098,595.

Fifth Wheel Ltd.: *See*—
Georgi, Theodor. 3,106,382.

Figdor, Sanford K.: *See*—
Hess, Hans-Jurgen E., Figdor, Hughes, and Moreland. 3,081,319.

Figge, Carroll C. Roofing apparatus. 3,093,936, 6–18–63, Cl. 50—538.

Figge, Carroll C. Method and apparatus for lifting. 3,103,344, 9–10–63, Cl. 254—142.

Figge, Carroll C. Renewable reservoir safety mop. 3,104,414, 9–24–63, Cl. 15—537.

Figge, Carroll C. Rope end splicer and connector. 3,111,733, 11–26–63, Cl. 24—125.

Figlewicz, Raymond C.: *See*—
Chandler, James F., Figlewicz, and Rennick. 3,106,658.

Figley, Charles D. Grain drier. 3,092,472. 6–4–63, Cl. 34—56.

Figna, Giovanna, to A. Triulyi, S.A.S. Manufacture of plastic articles. 3,084,383, 4–9–63, Cl. 18—5.

Figueroa, Gustavo M., 50% to R. M. Figueroa. Garbage can stand. 3,108,775, 10–29–63, Cl. 248—149.

Figueroa, R. M.: *See*—
Figueroa, Gustavo M. 3,108,775.

Fike, Lester L., and R. L. Solter, to Fike Metal Products Corp. Rupture disc unit. 3,109,553, 11–5–63, Cl. 220—47.

Fike Metal Products Corp.: *See*—
Fike, Lester L., and Solter. 3,109,553.
Porter, Louis M., and Speck. 3,109,554.

Fikenscher, Friedrich, to L. & C. Steinmuller G.m.b.H. Air preheater. 3,077,926, 2–19–63, Cl. 257—267.

Fikenscher, Friedrich, to L. & C. Steinmiller, G.m.b.H. Rotating regenerative air preheater for excessive air heating. 3,105,469, 10–1–63, Cl. 122—480.

Filachione, Edward M.: *See*—
Windus, Wallace, Filachione, and Happich. 3,104,151.

Field-Ernst Envelope Co.: *See*—
Lillibridge, Harold R. 3,086,695.
Field, Everett J., to I-T-E Circuit Breaker Co. By-pass disconnect switch for circuit interrupters. 3,071,662, 1-1-63, Cl. 200—48.
Field, Frank H., to Magna American Corp. Stabilizer stake for garden tillers. 3,074,491, 1-22-63, Cl. 172—395.
Field, Frank H., to Magna American Corp. Radial arm saw. 3,104,687, 9-24-63, Cl. 143—6.
Field, Frederick C., Jr., to E. I. du Pont de Nemours and Co. Fasciated yarn, process and apparatus for producing the same. 3,079,746, 3-5-63, Cl. 57—51.
Field, Frederick C., Jr., to E. I. du Pont de Nemours and Co. Variable denier composite yarn. 3,091,913, 6-4-63, Cl. 57—140.
Field, Frederick C., Jr., to E. I. du Pont de Nemours and Co. Process for preparing a variable denier composite multifilament yarn. 3,104,516, 9-24-63, Cl. 57—157.
Field, Harold, and M. Daria, to Sonotone Corp. Electrode assembly for sealed rechargeable alkaline battery cells. 3,081,367, 3-12-63, Cl. 136—6.
Field, Harry and J. Hanger support bar for garment packing case. 3,112,027, 11-26-63, Cl. 206—7.
Field, James M., to Bell Telephone Laboratories, Inc. Repertory dialer. 3,105,121, 9-24-63, Cl. 179—90.
Field, Joe: *See*—
Field, Harry and J. 3,112,027.
Field, Joseph, to Bethlehem Steel Co. Chromium-nitrogen die steel. 3,105,758, 10-1-63, Cl. 75—128.
Field, Nathan D., to E. I. du Pont de Nemours and Co. Homopolymer of P-dioxene and preparation thereof. 3,072,623, 1-8-63, Cl. 260—88.3.
Field, Thomas R.: *See*—
Jenn, Louis J., and Field. 3,102,533.
Field, Thomas R., to Jenn-Air Products Co., Inc. Combined skylight and ventilator. 3,085,490, 4-16-63, Cl. 98—43.
Field, Walter P. Shoe last inserts. 3,088,147, 5-7-63, Cl. 12—140.
Field, Wesley W. Customer loading conveyor. 3,088,544, 5-7-63, Cl. 186—1.
Field, William H., Co., Inc.: *See*—
French, Warren F. 3,073,076.
Fieldcrest Mills, Inc.: *See*—
Banaslewicz, Henryk. 3,109,149.
Chambley, William B. 3,099,410.
Law, Marvin A. 3,072,153.
Moberg, Ivar O. 3,079,955.
Moberg, Ivar O. 3,099,295.
Troy, James E. 3,091,263.
Fielden Electronics: *See*—
Butterfield, Charles G. 3,081,086.
Fielden, John E. 3,087,331.
Fielden, John E., and Tremlett. 3,082,362.
Fielden, John E., to Fielden Electronics Ltd. Means for converting a mechanical force into an electrical current. 3,087,331, 4-30-63, Cl. 73—141.
Fielden, John E., and L. Tremlett, to Fielden Electronics Ltd. Measuring and control servosystem. 3,082,362, 3-19-63, Cl. 318—28.
Fielden, Richard J., to Imperial Chemical Industries Ltd. Natural rubber stabilized with alkyl substituted heterocyclic compounds. 3,103,542, 9-10-63, Cl. 260—800.
Fielder, Arthur F. Portable rabbeting and recessing tool. 3,087,520, 4-30-63, Cl. 144—136.
Fieldgate, Ivan O., and E. S. Gwathmey, to Specialties Inc. Instrument indication system. 3,096,504, 7-2-63, Cl. 340—27.
Fielding, Francis W., to Lengsfield Brothers, Inc. Display package. 3,072,247, 1-8-63, Cl. 206—45.31.
Fielding, Francis W., to B. H. Lengsfield, Jr. Package of bottles and the like. 3,080,050, 3-5-63, Cl. 206—65.
Fielding, Harold C.: *See*—
Chatt, Joseph, Hart, and Fielding. 3,086,054.
Fielding, Harold C., and J. M. Pollock, to Imperial Chemical Industries Ltd. Isocyanates containing silicon. 3,113,146, 12-3-63, Cl. 260—448.8.
Fielding, Max J., and D. L. Stoddard, to E. I. du Pont de Nemours and Co. Anilide nematocides. 3,108,038, 10-22-63, Cl. 167—30.
Fieldman, Arnold, to C. Nuissl. Air jet for producing bulked

Fields, Ellis K., to Standard Oil Co. Preparation of esters of carboxy-substituted diarylhydroxymethanephosphonic acid. 3,102,901, 9-3-63, Cl. 260—461.
Fields, Ellis K., to Standard Oil Co. Lubricant addition agents. 3,110,672, 11-12-63, Cl. 252—51.5.
Fields, Ellis K., to Standard Oil Co. Lubricant addition agents. 3,113,108, 12-3-63, Cl. 252—51.5.
Fields, Ellis K., to Standard Oil Co. Lubricant composition. 3,116,251, 12-31-63, Cl. 252—51.5.
Fields, Ellis K., and C. Serres, Jr., to Standard Oil Co. Coupling of aromatic rings. 3,109,868, 11-5-63, Cl. 260—668.
Fields, George C., to Philco Corp. Drive mechanism. 3,085,445, 4-16-63, Cl. 74—230.17.
Fields, Jolly W. Coin actuated dispenser. 3,080,037, 3-5-63, Cl. 194—85.
Fields, Reuben T.: *See*—
Blakey, Angus R., Jr., and Fields. 3,114,170.
Bohres, William C., Fields, and Jordan. 3,103,409.
Fields, Thomas L.: *See*—
Wilkinson, Raymond G., and Fields. 3,092,653.
Fiene, Marylyn L.: *See*—
Leto, Joseph R., and Fiene. 3,076,016.
Fierce, William L.: *See*—
Sandner, Walter J., and Fierce. 3,071,586.
Fierce, William L., and W. J. Sandner, to The Pure Oil Co. Preparation of phthalonitriles by catalyzed reaction of benzonitrile and cyanogen. 3,091,629, 5-28-63, Cl. 260—465.
Fierce, William L., and R. L. Weichman, to The Pure Oil Co. Preparation of elemental sulfur from hydrogen sulfide. 3,095,275, 6-25-63, Cl. 23—225.
Fierce, William L., and W. J. Sandner, to The Pure Oil Co. Preparation of aromatic nitriles by catalyzed reaction of aryl halide with hydrogen cyanide or cyanogen. 3,116,313, 12-31-63, Cl. 260—465.
Fierce, William L., and W. J. Sandner, to The Pure Oil Co. Preparation of aliphatic nitriles by catalyzed reaction of cyanogen or hydrogen cyanide with halogenated aliphatic hydrocarbon. 3,116,318, 12-31-63, Cl. 260—465.1.
Fierman, Robert H. Disposable spreading package for distributing dry materials at pre-determined rates. 3,080,098, 3-5-63, Cl. 222—325.
Fierstine, Burton A., to General Motors Corp. Ball joint construction and method of assembly therefor. 3,108,830, 10-29-63, Cl. 287—87.
Fierston, Stanley A.: *See*—
Bennett, John E., and Fierston. 3,095,539.
Fieser, Garland E.: *See*—
Hendricks, George D., and Fieser. 3,072,883.
Fieser, Garland E., and F. W. Hill, to The Gamewell Co. Traffic actuated cycle lengths selector apparatus. 3,110,880, 11-12-63, Cl. 340—35.
Fiesselmann, Hans: *See*—
Schorr, Manfred, and Fiesselmann. 3,093,657.
Fiesselmann, Hans, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning. New 3-amino-thiophene-2-carboxylic acids and the esters thereof and a process of preparing said acids and esters. 3,076,817, 2-5-63, Cl. 260—332.2.
Fiezell, Joseph F., to R. Hoe & Co., Inc. Saw bit. 3,091,267, 5-28-63, Cl. 143—141.
Fife, Harold E.: *See*—
Colgan, Joseph D., and Fife. 3,090,767.
Fife, Irwin L. Apparatus for maintaining the alignment of a moving web. 3,104,789, 9-24-63, Cl. 226—22.
Fife Mfg. Co.: *See*—
Shelton, John J. 3,098,595.
Fifth Wheel Ltd.: *See*—
Georgi, Theodor. 3,106,382.
Figdor, Sanford K.: *See*—
Hess, Hans-Jurgen E., Figdor, Hughes, and Moreland. 3,081,319.
Figge, Carroll C. Roofing apparatus. 3,093,936, 6-18-63, Cl. 50—538.
Figge, Carroll C. Method and apparatus for lifting. 3,103,344, 9-10-63, Cl. 254—142.
Figge, Carroll C. Renewable reservoir safety mop. 3,104,414, 9-24-63, Cl. 15—537.
Figge, Carroll C. Rope end splicer and connector. 3,111,733, 11-26-63, Cl. 24—125.
Figlewicz, Raymond C.: *See*—
Chandler, James F., Figlewicz, and Rennick. 3,106,658.

Filbey, Allen H.: *See*—
Coffield, Thomas H., and Filbey. 3,095,287.

Fileger, Eugene W., to Louis Marx & Co., Inc. Toy locomotive. 3,074,201, 1-22-63, Cl. 46—9.

Fillatreau, Francis R., Sr. Bolster. 3,083,372, 4-2-63, Cl. 2—64.

Fillmoshina, Olga A.: *See*—
Sapilevsky, Plotr F., Fillmoshina, Klimkova, Zilpert, and Garkavi. 3,087,224.
Sapilevsky, Plotr F., Garkavi, Mikhallov, Fillmoshina, Vlasova, and Czerbin. 3,087,225.

Filipowsky, Richard F. J., to Westinghouse Electric Corp. Combination generator and detector for a wave of predetermined shape. 3,082,377, 3-19-63, Cl. 328—59.

Filipozzi, Urbain. Releasable load-suspension device. 3,094,-313, 6-18-63, Cl. 254—196.

Filippi, Dino. Equipment for concrete building construction. 3,089,217, 5-14-63, Cl. 25—131.

Filippi, Frank J.: *See*—
Cremer, George D., Long, Filippi, and Price. 3,072,225.
Price, Edmund T., Cremer, Filippi, and Long. 3,071,853.

Filippi, Frank J., to Rohr Corp. Protective atmosphere purity tester. 3,111,391, 11-19-63, Cl. 23—254.

Filler, Abraham. Lamp adapted for mounting on music sheet support. 3,116,024, 12-31-63, Cl. 240—4.

Filling, James H., to Courtaulds, Ltd. Papermaking process and product. 3,093,534, 6-11-63, Cl. 162—146.

Fillingim, Josephine R. Orthopedic device. 3,086,225, 4-23-63, Cl. 5—327.

Filliung, Jacques J., to Sloan Valve Co. Flush valves. 3,102,711, 9-3-63, Cl. 251—54.

Fillius, Milton F., and J. S. Bruce, to United States of America, Navy. Water soluble film. 3,086,900, 4-23-63, Cl. 156—155.

Fillmore, Robert L., and R. R. Hawkins, to Minneapolis-Honeywell Regulator Co. Linear positioning servosystems. 3,079,540, 2-26-63, Cl. 318—30.

Fillmore, William E.: *See*—
Stenger, Hans G., and Fillmore. Re. 25,316.

Filon Plastics Corp.: *See*—
Hulsman, George R., and Shorts. 3,077,000.

Filotecnica Salmoiraghi S.p.A.: *See*—
Bruscaglioni, Raffaello. 3,077,169.
Bruscaglioni, Raffaello. 3,088,427.

Filper Corp.: *See*—
Anderson, Earl R. 3,075,566.
Anderson, Earl R. 3,113,601.
Kilner, George. 3,108,624.
Perrelli, John. 3,113,602.
Rodrigues, Anthony F., and Anderson. 3,101,833.

Filsinger, Erich: *See*—
Kaden, Willy, and Filsinger. 3,084,593.

Filsinger, John F.: *See*—
Braun, Philip N., and Filsinger. 3,086,429.
Braun, Philip N., and Filsinger. 3,114,667.

Filsinger, John F., to Tag-O-Matic Machine Co., Inc. Tag printing machine. 3,096,712, 7-9-63, Cl. 101—288.

Filstead, Charles G., Jr., to Couch International Methane Ltd. Gas liquefaction process. 3,116,135, 12-31-63, Cl. 62—11.

Filstrup, Edward C., to Olin Mathieson Chemical Corp. Gas liberating devices. 3,094,931, 6-25-63, Cl. 102—25.

Filton Ltd.: *See*—
Walker, Gordon R., and Deacon. 3,081,099.

Filtration & Water Softening Proprietary Ltd.: *See*—
Martin, Michael J. 3,111,487.

Filz, Charles J., to Ivan Sorvall Inc. Explosion-proof enclosure for centrifuges and the like. 3,111,863, 11-26-63, Cl. 74—609.

Filz, Charles J., to Ivan Sorvall Inc. Micro-homogenizing apparatus. 3,112,081, 11-26-63, Cl. 241—285.

Finch, Dan M., to The Regents of the University of California. Light fixture for lineal guidance system. 3,114,506, 12-17-63, Cl. 240—1.2.

Finch, Dan M., to The Regents of the University of California. Runway guidance system. 3,114,892, 12-17-63, Cl. 340—26.

Finch, Gaylord K., and C. D. Stringer, to Eastman Kodak Co. Preparation of esters of aconitic acid. 3,076,021, 1-29-63, Cl. 260—485.

Finch, Harry de V., G. W. Hearne, and J. A. Whitcombe, to Shell Oil Co. Sultone manufacture. 3,115,501, 12-24-63, Cl. 260—327.

Finch, Robert E. Angle setting indicator. 3,087,139, 4-23-63, Cl. 340—26.

Finch, Robert E. Remote indicator for aircraft landing system. 3,104,366, 9-17-63, Cl. 340—26.

Finch, Stanley R., and V. Kelly. Pouring spout for milk bottles and the like. 3,096,911, 7-9-63, Cl. 222—183.

Finch, Thomas E., to General Electric Co. Pencil soldering iron. 3,105,135, 9-24-63, Cl. 219—26.

Finch, Walter G.: *See*—
Boenning, Robert A., and Otis. 3,111,608.
Kuck, John H. 3,098,982.
Meissner, Hans W. 3,096,421.
Meissner, Hans W. 3,115,612.

Fincke, John K., L. M. Higashi, and R. A. Jarvi, to Monsanto Chemical Co. Laminates. 3,074,903, 1-22-63, Cl. 260—43.

Findlay, Robert A., to Phillips Petroleum Co. Method for improving the extrudability of crystalline polyolefins with aliphatic alcohols. 3,076,776, 2-5-63, Cl. 260—33.4.

Findlay, Thomas M., to Johns-Manville Corp. Suspension system for ceiling panels. 3,084,401, 4-9-63, Cl. 20—4.

Findley, Howard J. Gear finishing. 3,085,369, 4-16-63, Cl. 51—52.

Findley, Thomas W.: *See*—
Moulton, Karl J., Findley, Komarewsky. 3,079,413.

Fine, Bernard M. Multicolor radiography. 3,114,833, 12-17-63, Cl. 250—65.

Fine Organics, Inc.: *See*—
Molnar, Nicholas M. 3,108,036.

Fine, Samuel: *See*—
Hendee, Charles F., and Fine. 3,102,952.

Fine, Samuel, and C. F. Hendee, to North American Philips Co., Inc. Proportional counter. 3,092,747, 6-4-63, Cl. 313—93.

Finelli, Anthony F., to The Goodyear Tire & Rubber Co. Stabilization of polyurethanes. 3,085,991, 4-16-63, Cl. 260—45.95.

Finelt, Aron. Vulcanizer press wax injectors for molds. 3,095,605, 7-2-63, Cl. 18—6.

Finelt, Aron. Multi-rotational casting machine. 3,095,621, 7-2-63, Cl. 22—65.1.

Finger, Joseph S., to Johns-Manville Fiber Glass Inc. Method and apparatus for forming a fiber reinforced resin panel. 3,109,768, 11-5-63, Cl. 156—276.

Finger, Joseph S., and F. H. Hutchison, to Johns-Manville Fiber Glass Inc. Apparatus for continuously producing reinforced plastic structural articles. 3,071,180, 1-1-63, Cl. 156—519.

Fingerhut, Solomon, to Minnesota Mining and Mfg. Co. Pressure vessel and method of making the same. 3,073,476, 1-15-63, Cl. 220—3.

Fingeroot, Ben, and M. A. Elliotte, deceased (by T. J. Leon, administrator); said Leon, assor. to said Fingeroot. Windshield washer apparatus for vehicles. 3,089,204, 5-14-63, Cl. 20—40.5.

Fingeroot, Max. Pressurized dispensing assembly for a windshield washer system. 3,113,704, 12-10-63, Cl. 222—373.

Fingerut, Boris M., to Portland Wire & Iron Works. Device for collecting and stacking masonry reinforcements and the like. 3,109,543, 11-5-63, Cl. 214—6.

Fingland, Jack A. Distribution box. 3,108,517, 10-29-63, Cl. 94—44.

Fink, Aaron, to Essex Paper Box Mfg. Co., Inc. Display box. 3,073,434, 1-15-63, Cl. 206—45.34.

Fink, Aaron, to Essex Paper Box Mfg. Co., Inc. Container. 3,107,841, 10-22-63, Cl. 229—52.

Fink, Anton. Precision gear tester. 3,110,969, 11-19-63, Cl. 33—179.5.

Fink, Carl J., and C. E. Heintz, to Creo-Dipt Co., Inc. Multiple shingle structure. 3,005,671, 7-2-63, Cl. 50—251.

Fink, Carl M.: *See*—
Felhofer, Robert W., and Fink. 3,084,667.

Fink, Charles, to Litton Systems, Inc. Antenna system. 3,093,826, 6-11-63, Cl. 343—100.

Fink, Frederick M. Awning type windows. 3,116,057, 12-31-63, Cl. 268—111.

Fink, Robert D., to Eli Lilly and Co. Coagulometer. 3,077,-108, 2-12-63, Cl. 73—53.

Fink, William C., and M. Nordstrom, to Sylvania Electric Products Inc. Photoflash lamp and ignition means therefor. 3,111,016, 11-19-63, Cl. 67—31.

Finkbiner, Donald B. Apparatus for forming and delivering chemicaled solutions to toilet bowls. 3,105,245, 10-1-63, Cl. 4—228.

Finke, Arno, to Windmöller & Hölscher. Apparatus for making bags of paper or like on a bottom making cylinder. 3,077,147, 2-12-63, Cl. 93—23.

Finkel, Leonard: *See*—
Magsainy, Irving P., and Finkel. 3,111,654.

Finkel, Miriam P., to United States of America, Atomic Energy Commission. Experimental animal maintenance. 3,074,375, 1-22-63, Cl. 119—18.

Finkel Outdoor Products, Inc.: *See*—
Fleischer, Henry. 3,091,495.

Finkenzeller, Howard B., to Virjune Mfg. Co., Inc. Decorative ring and flexible insert for spray container. 3,112,-048, 11-26-63, Cl. 222—183.

Finkl, A., & Sons Co.: *See*—
Finkl, Charles W. 3,071,458.
Finkl, Charles W. 3,083,422.
Finkl, Charles W. 3,084,038.

Finkl, Charles W., to A. Finkl & Sons Co. Method of adding charge material to molten metal under vacuum. 3,071,-458, 1-1-63, Cl. 75—49.

Finkl, Charles W., to A. Finkl & Sons Co. Porous stopper rod. 3,083,422, 4-2-63, Cl. 22—85.

Finkl, Charles W., to A. Finkl & Sons Co. Method and apparatus for combined stream and ladle degassing. 3,084,038, 4-2-63, Cl. 75—49.

Finkl, Charles W., and A. Carlson, to Attwood Corp. Pitot tube. 3,084,543, 4-9-63, Cl. 73—182.

Finklea, Robert D. Folding kite structure. 3,098,634, 7-23-63, Cl. 244—153.

Finkler, Ronald A.: *See*—
Gray, John W., Heath, and Finkler. 3,108,182.

Finlay, Donald W. Article of wearing apparel with detachable back extension. 3,085,250, 4-16-63, Cl. 2—102.

Finlayson, Frank S., to Rice Barton Corp. Controlled differential drive. 3,085,448, 4-16-63, Cl. 74—687.

Finley, Charles M., to Consolidated Electrodynamics Corp. Differential pump. 3,075,473, 1-29-63, Cl. 103—171.

Finn, Alfred C. Airplane-like kite. 3,107,888, 10-22-63, Cl. 244—154.

Finn, Charles O., to The Finn Equipment Co. Method for producing a sprayable fibre mulch. 3,091,436, 5-28-63, Cl. 259—95.

Finn Equipment Co., The: *See*—
Finn, Charles O. 3,091,436.

Finn, George B., Jr., to Sarkes Tarzian, Inc. Semiconductor devices and method of manufacturing them. 3,082,136, 3-19-63, Cl. 156—17.

Finn, John J., to Electro-Therm, Inc. Electric heating element mounting assembly. 3,105,893, 10-1-63, Cl. 219—38.

Finn, John J., to Electro-Therm, Inc. Compensating thermostatic control system for compressors. 3,107,843, 10-22-63, Cl. 230—6.

Finn, John S.: *See*—
Finn, Thomas and J. S. 3,079,158.

Finn, Thomas and J. S. Golf tee. 3,079,158, 2-26-63, Cl. 273—212.

Finnegan, Walter D., to Kaiser Aluminum & Chemical Corp. Flux composition and method of using same to solder aluminum. 3,074,158, 1-22-63, Cl. 29—495.

Finnegan, William G.: *See*—
Besser, Eli D., Mather, and Finnegan. 3,103,458.
Cohen, Joseph, Finnegan, and Henry. 3,073,731.

Finnern, Leroy H.: *See*—
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Finney, James A., Jr., and H. G. Shattuck, to Aerotec Industries, Inc. Multi-tube centrifugal separators. 3,085,382, 4-16-63, Cl. 55—449.

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Fischman, Martin, and W. Geller, to General Telephone and Electronics Laboratories, Inc. Amplitude comparator. 3,098,162, 7–16–63, Cl. 307—88.5.
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Fish, Percy C., to The Dow Chemical Co. Insulated wall structure. 3,106,751, 10–15–63, Cl. 20—4.
Fish, Richard H. ½ to Evalyn Preston. Orchard spray mechanism. 3,092,327, 6–4–63, Cl. 239—77.

Fish, Walter Y., and W. H. Conlee, Jr. Emergency sign and auxiliary power system. 3,083,317, 3–26–63, Cl. 315—87.
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Fisher, Don E., to Monsanto Chemical Co. Balloon retaining device. 3,076,304, 2–5–63, Cl. 57—106.
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Fisher, Earl E., and J. L. Harper, to A. E. Staley Mfg. Co. Process for preparing an ester of an α,β-unsaturated acid and a sugar. 3,103,508, 9–10–63, Cl. 260—234.
Fisher, Earl E., and M. T. Tetenbaum, to A. E. Staley Mfg. Co. Tyrosine diketopiperazine derivatives. 3,112,319, 11–26–63, Cl. 260—268.
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Vickery, Edgar H. 3,077,902.
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Fisher, Hiram H., Jr., and W. W. Henslee, Jr., to Baker Oil Tools, Inc. Apparatus for cementing tubing strings in well bores. 3,102,595, 9–3–63, Cl. 166—156.
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Fisher, James C. Stop motion for a loom having a bobbin filling-changing mechanism. 3,102,558, 9–3–63, Cl. 139—336.4.
Fisher, James C., J. F. Clark, and F. H. Lee, to Aluminum Co. of America. Interlocking elongate articles and bundles thereof. 3,081,871, 3–19–63, Cl. 206—65.
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Fisher, John C., to Am Dyne Trust. Liquid pump. 3,080,822, 3–12–63, Cl. 103—53.
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Fisher, John R., Jr., to Industrial Metal Protectives, Inc. Protective coating. 3,102,038, 8–27–63, Cl. 106—84.
Fisher, John R., Jr., to Industrial Metal Protectives, Inc. Metallically pigmented liquid coating. 3,110,691, 11–12–63, Cl. 260—22.
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Fite, Luther S., to Petroleum Anchor Equipment, Inc. Multiple stage jet squeeze anchor. 3,104,719, 9-24-63, Cl. 166—243.
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Fleckenstein, Andrew J. and L. W. 3,104,677.
Fleenor, Charles M. Bathroom hand rail fixture. 3,098,240, 7-23-63, Cl. 4—185.
Fleer, Otto: *See*—
Patzold, Johannes, Behne and Fleer. 3,085,338.
Fleer, Thomas P., to White-Rodgers Co. Stepped-opening diaphragm gas valve. 3,090,592, 5-21-63, Cl. 251—30.
Fleer, Thomas P., and J. V. Woodley, Jr., to White-Rodgers Co. Gas burner control device. 3,084,865, 4-9-63, Cl. 236—99.
Fleing, Erich, to Frölich & Klupfel. Tamping machine for packing ballast under railroad ties. 3,093,089, 6-11-63, Cl. 104—14
Fleischer, Fred E., and E. Topanelian, Jr., to Gulf Research & Development Co. Hammer drill. 3,095,047, 6-25-63, Cl. 173—137.
Fleischer, Henry, to Finkel Outdoor Products, Inc. Chair arm constructions. 3,091,495, 5-28-63, Cl. 297—116.
Fleischer, Svend S. C. Method to draw one or several threads of a loom through each interstice in a reed, and an apparatus thereto. 3,083,438, 4-2-63, Cl. 28—45.
Fleischer, Svend S. C. Method to draw the threads of a warp through the eye of heddles. 3,104,449, 9-24-63, Cl. 28—72.
Fleischer, Thomas B.: *See*—
Leech, John G., and Fleischer. 3,099,570.
Fleischhacker, Joseph F., to Tescom Corp. Check valve. 3,072,143, 1-8-63, Cl. 137—514.
Fleischman, Alan I.: *See*—
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Fleischmann, Ernst, and L. C. Whitney, to Copperweld Steel Co. Die drawing of clad rod or wire. 3,080,962, 3-12-63, Cl. 205—16.
Fleischmann, Lester K., to Standard Manifold Co. Carbon holder. 3,107,106, 10-15-63, Cl. 282—1.
Fleissner G.m.b.H.: *See*—
Fleissner, Gerold. 3,098,371.
Fleissner, Hans, and G. 3,081,556.
Fleissner, Heinz. 3,088,223.
Fleissner, Johann. 3,112,054.
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Fleissner & Co., G.m.b.H.: *See*—
Fleissner, Gerold. 3,084,447.
Fleissner, Heinz. 3,087,320.
Fleissner, Gerold: *See*—
Fleissner, Hans, and G. 3,081,556.
Fleissner, Heinz and G. 3,077,037.
Ludwig, Anton, and Fleissner. 3,092,989.
Fleissner, Gerold, to Fleissner & Co. G.m.b.H. Treatment plant for two-faced cellulosic material. 3,084,447, 4-9-63, Cl. 34—115.
Fleissner, Gerold, to Fleissner G.m.b.H. Perforated drum material treatment device having a plurality of treatment zones. 3,098,371, 7-23-63, Cl. 68—5.
Fleissner, Hans, and G., to Fleissner G.m.b.H. Sieve drum driers. 3,081,556, 3-19-63, Cl. 34—115.
Fleissner, Heinz, to Fleissner & Co., G.m.b.H. Apparatus for treating and processing of elongated flexible elements. 3,087,320, 4-30-63, Cl. 68—19.
Fleissner, Heinz, to Fleissner, G.m.b.H., Firma. Equipment for drying of textile goods. 3,088,223, 5-7-63, Cl. 34—115.
Fleissner, Heinz and G., to Fleissner & Sohn, G.m.b.H. & Co. Willow driers for a bat of fibrous material. 3,077,037, 2-12-63, Cl. 34—115.
Fleissner, Johann, to Firma Fleissner, G.m.b.H. Apparatus for orienting textile bands. 3,112,054, 11-26-63, Cl. 226—95.
Fleissner & Sohn, G.m.b.H. & Co.: *See*—
Fleissner, Heinz and G. 3,077,037.
Fleming, Bernard. Microwave power determining apparatus using a resistive vane with electrical connections thereon for resistive measurement of the vane. 3,114,104, 12-10-63, Cl. 324—95.
Fleming, H. B., Inc.: *See*—
Fleming, Howard B. 3,077,645.
Fleming, Howard B., to H. B. Fleming, Inc. Concrete form and bracket therefor. 3,077,645, 2-19-63, Cl. 20—95.
Fleming, Jack A., to General Motors Corp. Accessory drive mechanism. 3,088,566, 5-7-63, Cl. 192—58.
Fleming, Jack F., and O. Lehre, to Sterling Plastics Co. Pencil sharpener for cosmetic pencils. 3,097,629, 7-16-63, Cl. 120—93.
Fleming, James A. Rotary back scrubber. 3,115,322, 12-24-63, Cl. 248—1.
Fleming, James E.: *See*—
Greer, John H., and Fleming. 3,073,466.
Fleming, James E., ½ to T. Boyce. Truck trailer decking mounting means. 3,101,969, 8-27-63, Cl. 296—24.
Fleming, John B.: *See*—
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Fleming, John D.: *See*—
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Fleming, Lawrence T., and R. K. Willardson, to Consolidated Electrodynamics Corp. Magnetic pickup heads. 3,077,520, 2-12-63, Cl. 179—100.2.
Fleming, Le Roy K. Instrument for determining sidereal and solar time. 3,073,032, 1-15-63, Cl. 33—64.
Fleming, Maurice C. Fuel injection system. 3,088,448, 5-7-63, Cl. 123—140.
Fleming, Paul L.: *See*—
Havens, Byron L., Fleming, and Schreiner. 3,076,180.
Fleming, Philip G., to United States of America, Atomic Energy Commission. Molding apparatus. 3,105,995, 10-8-63, Cl. 18—30.
Fleming, Robert S., to Amerace Corp. Combination toilet and chemical treating facility. 3,094,707, 6-25-63, Cl. 4—77.
Fleming, Robert W.: *See*—
Stevens, Calvin L., and Fleming. 3,082,255.
Fleming, Robert W., and Y. J. L'Italien, to Parke, Davis & Co. 1-(2-phenoxy-2-phenylethyl) pyrrolidine. 3,106,564, 10-8-63, Cl. 260—326.5.
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Fleming, William T., to Specialties Development Corp. Mechanical power transmission unit. 3,086,405, 4-23-63, Cl. 74—388.
Flemmert, Gosta L. Process for the production of hydrogen fluoride. 3,087,787, 4-30-63, Cl. 23—153.
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Kesel, Thomas A., Hodgson, and Flemming. 3,081,532.
Flesch, Norman F., to Amsted Industries Inc. Teeter-Totter. 3,089,699, 5-14-63, Cl. 272—54.
Flesch, Peter, and J. Hader, to Rhenus Rheinische Getranke-Industrie Bienz & Bienz G.m.b.H. Process for pickling meat and pickling preparation therefor. 3,099,566, 7-30-63, Cl. 99—159.
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Fawell, Stanley N. 3,115,704.
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Salyer, Howard C., and Fletcher. 3,103,731.

Fletcher, Charles F., to Flinco, Inc. Particulate material dispenser. 3,101,159, 8–20–63, Cl. 222—70.

Fletcher, Eldon L., to Du Pont of Canada Ltd. Melt spinning apparatus. 3,090,074, 5–21–63, Cl. 18—8.

Fletcher, Ewan W., to H. C. Lee. Costing and timing device. 3,075,698, 1–29–63, Cl. 235—92.

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Pyle, Oden F., and Nichols. 3,101,706.

Fletcher, John M., and F. P. Fowler, to E. I. du Pont de Nemours and Co. Process for producing colored regenerated cellulose film. 3,110,551, 11–12–63, Cl. 18—57.

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Davies, Trevor, Fletcher, and McIntyre. 3,074,913.

Fletcher, Peter S., to A. Lorenz. Reclining chair of the multiple movement type. 3,086,814, 4–23–63, Cl. 297—84.

Fletcher, Peter S., to A. Lorenz. Reclining chair of the multiple movement type. 3,086,815, 4–23–63, Cl. 297—85.

Fletcher, Peter S., to A. Lorenz. Reclining chair of the multiple position type. 3,087,754, 4–30–63, Cl. 297—89.

Fletcher, Peter S., to Anton Lorenz. Leg-rest control linkage for multiple position chair. 3,092,416, 6–4–63, Cl. 297—89.

Fletcher, Peter S., to A. Lorenz. Reclining chair of the multiple movement type. 3,093,408, 6–11–63, Cl. 297—85.

Fletcher, Peter S., to A. Lorenz. Rocker chair. 3,093,409, 6–11–63, Cl. 297—89.

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Fletcher, Robert F. Missiles. 3,108,540, 10–29–63, Cl. 102—49.

Fletcher, Taylor C., to Beckman Instruments, Inc. Shielding amplifier circuit. 3,100,282, 8–6–63, Cl. 330—68.

Fletcher-Terry Co., The: *See*—
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Fletcher, William G. Device for securing small boats together. 3,090,053, 5–21–63, Cl. 9—2.

Fletcher, William G. Animated toy. 3,106,800, 10–15–63, Cl. 46—236.

Fletcher, William G. Invertible sailing toy for use on water or on land. 3,113,397, 12–10–63, Cl. 46—96.

Fleury, Jack E., to American Radiator & Standard Sanitary Corp. Thermostat construction. 3,087,032, 4–23–63, Cl. 200—122.

Flexible Plumbertools Inc.: *See*—
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Flexible Sewertool Corp.: *See*—
Prange, Charles J. 3,071,794.
Prange, Charles J. 3,083,391.

Flexible Steel Lacing Co.: *See*—
Beach, Milton B. 3,074,132.

Flexible Tubing Corp.: *See*—
Daggett, Frederick K., Hall, and Roush. 3,107,697.
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Flexibox Ltd.: *See*—
Porges, Frederick B. 3,072,414.

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Flexigrip, Inc.: *See*—
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Flexman, Ralph E., to Bell Aerospace Corp. Pack carrier. 3,114,486, 12–17–63, Cl. 224—5.

Flexman, Ralph E., and M. F. De Boy, to Bell Aerospace Corp. Cargo conveyance means. 3,081,886, 3–19–63, Cl. 214—1.

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Platt, John G. 3,073,587.
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Flexonics Corp.: *See*—
Parlasca, Edwin W. 3,077,170.
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Schindler, Frank S., and Titus. 3,103,244.

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Lowensohn, Ralph S. 3,100,384.

Fleysher, Maurice H., to Allied Chemical Corp. Process for producing direct black vat dyestuffs. 3,073,849, 1–15–63, Cl. 260—354.

Fleysher, Maurice H., and W. B. Richards, to Allied Chemical Corp. Process for preparing metal phthalocyanines. 3,074,958, 1–22–63, Cl. 260—314.5.

Fleysher, Maurice H., and W. B. Richards, to Allied Chemical Corp. Process of preparing metal-containing phthalocyanine sulfonic acids. 3,091,618, 5–28–63, Cl. 260—314.5.

Flick, Francis S., to Flick-Reedy Corp. Multiple tie rod piston and cylinder device. 3,101,860, 8–27–63, Cl. 220—3.

Flick, Francis S., to Flick-Reedy Corp. Actuator valve construction. 3,106,939, 10–15–63, Cl. 137—625.69.

Flick, Francis S., to Flick-Reedy Corp. Shock absorber. 3,108,661, 10–29–63, Cl. 188—94.

Flick, Francis S., and W. J. Kudlaty, to Flick-Reedy Corp. Removable check unit. 3,084,709, 4–9–63, Cl. 137—454.5.

Flick-Reedy Corp.: *See*—
Flick, Francis S. 3,101,860.
Flick, Francis S. 3,106,939.
Flick, Francis S. 3,108,661.
Flick, Francis S., and Kudlaty. 3,084,709.

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Thomas, Glenn R., and Flick. 3,073,925.

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Flieg, Werner. Spring type clutch or brake. 3,087,587, 4–30–63, Cl. 192—26.

Flieg, Werner, to Invac Corp. Data recorder. 3,096,016, 7–2–63, Cl. 234—108.

Flieg, Werner, and S. F. Plaisance, to Invac Corp. Data processing apparatus. 3,092,310, 6–4–63, Cl. 234—52.

Fliegler, Michel J., H. C. Pasini, H. A. Spitzner, and R. P. Zupa, to Analogue Controls, Inc. Temperature compensated pendulum potentiometer. 3,113,283, 12–3–63, Cl. 338—46.

Flinco, Inc.: *See*—
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Flindt, Charles B., to Short Brothers & Harland Ltd. Fault detection means. 3,095,783, 7–2–63, Cl. 121—41.

Flinn, George E., to Borg-Warner Corp. Self adjusting brake mechanism. 3,103,991, 9–17–63, Cl. 188—77.

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Beuther, Harold, Flinn, Henke, and McKinley. 3,078,221.
Beuther, Harold, Flinn, Henke, and McKinley. 3,078,238.
Domash, Lionel, and Flinn. 3,074,880.

Flinn, Richard A., B. A. Kerns, and O. A. Larson, to Gulf Research & Development Co. Process of removing nitrogen compounds by oxidation. 3,105,812, 10–1–63, Cl. 208—254.

Flinn, Willard R.: *See*—
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McKinnis, Art C., and Flint. 3,114,679.

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Flint, Hyland C. Vehicle seat. 3,087,756, 4–30–63, Cl. 297—340.

Flint, Hyland C., and R. K. McLean, to American Metal Products Co. Seat construction. 3,071,413, 1–1–63, Cl. 297—456.

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Flint, Thomas, and J. M. Fluke, to American Machine & Foundry Co. Bowling pin spotting mechanism. 3,077,348, 2–12–63, Cl. 273—43.

Flint, Thomas, and J. M. Fluke, to American Machine & Foundry Co. Bowling pin respotting mechanism. 3,084,937, 4–9–63, Cl. 273—43.

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Cacossa, Frank G. 3,083,506.
Palement, Georges E. 3,089,521.
Ring, Jack A. 3,101,886.
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Spiselman, Joseph W. 3,100,624.

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Flodberg, Gerhard A., to Raytheon Co. Assembly apparatus. 3,114,199, 12–17–63, Cl. 29—203.

Flodberg, Gerhard A., and R. D. Corwin, to Raytheon Co. Assembly apparatus. 3,104,451, 9–24–63, Cl. 29—25.19.

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Flohr, William P., Jr., to Landis Tool Co. Wheel approach control with feed safety device. 3,097,455, 7–16–63, Cl. 51—165.

Flomen, Edward, S. V. Brich, and H. A. Osberg, to Hygrade Food Products Corp. Sausage casing packaging. 3,115,240, 12–24–63, Cl. 206—46.

Flood, Carl A., to Dennison Mfg. Co. Apparatus for labeling articles. 3,079,979, 3–5–63, Cl. 156—542.

Flood, Carl A., to Dennison Mfg. Co. Label applying machines. 3,111,446, 11–19–63, Cl. 156—475.

Flood, Eugene W., deceased, by R. T. Flood, administratrix, to R. Flood. Bowling ball return. 3,099,445, 7–30–63, Cl. 273—47.

Flood, John E.: *See*—
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Flora, John W., to North American Aviation, Inc. Liquid homogeneous fuel element and reactor therefor. 3,085,966, 4–16–63, Cl. 204—193.2.

Florence, Nilo K. Aquatic tow rope with shock absorber. 3,094,096, 6–18–63, Cl. 114—235.

Florence, Robert T., to A. B. Dick Co. Duplicating method and element for use therein. 3,076,406, 2–5–63, Cl. 101—149.5.

Florens, Karl H.: *See*—
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Flores, Minerva C., and B. Loev, to Smith Kline & French Laboratories. Process for the preparation of carbamates. 3,072,710, 1–8–63, Cl. 260—482.

Florey, Howard W., E. P. Abraham, G. G. F. Newton, H. S. Burton, B. K. Kelly, C. W. Hale, and G. A. Miller. Process for the extraction of cephalosporin from an impure solution thereof. 3,094,527, 6–18–63, Cl. 260—248.

Florida Brace Corp.: *See*—
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Jewett, Eugene L. 3,094,984.

Florida Tile Industries, Inc.: *See*—
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Phillips, Harry L., and Fain. 3,108,327.
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Flournoy, John H., to South Laboratories, Inc. Method of charging carbon dioxide cylinders. 3,078,685, 2–26–63, Cl. 62—47.

Flower, Archibald T. Anode connector. 3,098,027, 7–16–63, Cl. 204—196.

Flower, Joseph A. Bridge score device. 3,114,552, 12–17–63, Cl. 273—148.

Flower, Robert A., to General Precision, Inc. Low altitude doppler system. 3,090,950, 5–21–63, Cl. 343—8.

Flower, Robert A., to General Precision, Inc. Hybrid pulse-continuous wave doppler radio navigation system. 3,102,264, 8–27–63, Cl. 343—9.

Flower, Walter T., and D. C. Green, to Wesel Mfg. Co. Proof press for curved printing plates. 3,098,435, 7–23–63, Cl. 101—212.

Flowers, Ab, to Crucible Steel Co. of America. Heat treating apparatus. 3,109,044, 10–29–63, Cl. 266—3.

Flowers, Ab, and D. S. Foote, to Crucible Steel Co. of America. Sheet handling apparatus. 3,114,991, 12–24–63, Cl. 51—277.

Flowers, John W., J. S. Luce, and W. L. Stirling, to United States of America, Atomic Energy Commission. Ion source with space charge neutralization. 3,075,116, 1–22–63, Cl. 313—63.

Flowers, Ralph G., and P. W. Juneau, Jr., to General Electric Co. Thermally stable layer insulation. 3,083,119, 3–26–63, Cl. 117—155.

Flowers, Thomas H., to Her Majesty's Postmaster General. Binary digital number storing and accumulating apparatus. 3,098,218, 7–16–63, Cl. 340—174.

Flowers, Thomas H., to Her Majesty's Postmaster General. Demodulators for amplitude modulated current pulses. 3,110,867, 11–12–63, Cl. 329—102.

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Cassell, Robert D. 3,072,144.

Floyd, Charles C., Jr., to United States Steel Corp. Expanding mandrel. 3,085,763, 4–16–63, Cl. 242—72.1.

Floyd, Earl C., to Admiral Corp. Noise cancellation circuit. 3,090,832, 5–21–63, Cl. 178—7.3.

Floyd, Edwin, Jr., to AMP Inc. Crimping apparatus. 3,101,766, 8–27–63, Cl. 153—1.

Floyd, Edwin, Jr., and R. J. Perme, to AMP Inc. Crimping machine. 3,076,490, 2–5–63, Cl. 153—1.

Floyd, Frederick K. Mechanical drive mechanism. 3,071,018, 1–1–63, Cl. 74—198.

Floyd, George W., to Rheem Electronics Corp. Tape handling apparatus. 3,097,777, 7–16–63, Cl. 226—39.

Floyd, Peter G. Vibration responsive system for stopping motor driven machines. 3,095,532, 6–25–63, Cl. 318—460.

Floyd, J. F. Rabardy, and R. H. Lapp, to United States of America, Navy. Fire extinguisher for a rocket motor. 3,084,506, 4–9–63, Cl. 60—35.6.

Floyd, James F. Wellhead equipment. 3,084,745, 4–9–63, Cl. 166—89.

Floyd, John D., to Hercules Powder Co. Aqueous dispersion comprising a maleic anhydride divinyl ether copolymer. 3,085,077, 4–9–63, Cl. 260—29.7.

Floyd, Sherman H., and A. J. Smith, Jr., to J. P. Stevens & Co. Machine for slitting a fabric into narrow widths. 3,103,319, 9–10–63, Cl. 242—56.2.

Floyd, Terence J., to Audley Engineering Co. Ltd. Valves having sealed means restrained against axial expansion. 3,090,594, 5–21–63, Cl. 251—183.

Fluck, Linton A., to American Cyanamid Co. Durable fluorochemical-melamine resin textile finish. 3,087,905, 4–30–63, Cl. 260—29.4.

Fluck, Ronald O. Door seal. 3,114,946, 12–24–63, Cl. 20—69

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Tolin, Ernest D., and Fluegel. 3,105,896.

Fluegel, Dale A., to Phillips Petroleum Co. Low level voltage to frequency converter. 3,094,875, 6–25–63, Cl. 73—359.

Fluegel, Dale A., to Phillips Petroleum Co. Capacitance measuring bridge utilizing voltage sensitive capacitors for rebalancing the bridge. 3,115,603, 12–24–63, Cl. 324—60.

Flugge, Sylvester L., and E. Glaser, to Continental Can Co., Inc. Method of and apparatus for curing internal coatings on can bodies. 3,094,396, 6–18–63, Cl. 34—13.

Fluhr, Frederick R., to United States of America, Navy. Differential mode of detection of a voltage source. 3,076,119, 1–29–63, Cl. 315—26.

Fluhr, Frederick R. Analog-to-digital instantaneous converter. 3,100,298, 8–6–63, Cl. 340—347.

Fluhr, Frederick R., and D. J. McLaughlin. Digitalized pick-off display converter. 3,102,926, 9–3–63, Cl. 178—18.

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Fluke, Jefferson M., 2d, to R. D. Bennett. Image transfer apparatus. 3,112,685, 12–3–63, Cl. 95—89.

Fluke, John M.: *See*—
Flint, Thomas, and Fluke. 3,077,348.
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Fluor Corp., Ltd., The: *See*—
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Kohl, Arthur L., and Fuller. 3,084,918.
Orbach, Harry K., and Oliver. 3,081,156.
Porter, Joe A., and Kohl. 3,112,261.

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Flurschutz, Glenn E., to Combustion Engineering, Inc. Resilient sector plate for rotary regenerative heat exchanger. 3,100,014, 8–6–63, Cl. 165—9.

Flury, Karl, to Defensor Aktiengesellschaft. Spray-producer. 3,107,857, 10–22–63, Cl. 239—216.

Flury, Karl. Apparatus for humidifying air. 3,108,147, 10–22–63, Cl. 261—29.

Fluskey, Edward E.: *See*—
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Flymo, Aktiebolaget: *See*—
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Flynn, Frank M., to Seary Mfg. Co. Apparatus for folding transparency mounts. 3,109,642, 11–5–63, Cl. 270—61.

Flynn, Gregory, Jr., and W. H. Percival, to General Motors Corp. Heat storage operated stirling cycle engine. 3,080,706, 3–12–63, Cl. 60—24.

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Flynn, Robert W. Pressure lacquer dispenser. 3,079,044, 2–26–63, Cl. 222—2.

Flynn, Thomas M., to The Bendix Corp. Hydrogen liquefaction. 3,109,725, 11–5–63, Cl. 62—9.

Flynn, William, and W. W. Wilson, to Metal Edge Industries. Box assembly apparatus. 3,078,769, 2–26–63, Cl. 93—41.1.

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Focht, John R., to Precision Valve Corp. Dispensing head connectable to the valve stem of an aerosol dispenser. 3,096,002, 7–2–63, Cl. 222—394.

Focht, John R., to Precision Valve Corp. Method of and apparatus for pressure charging aerosol dispensers with push buttons attached. 3,103,956, 9–17–63, Cl. 141—3.

Focht, John R., to Precision Valve Corp. Protector for dispenser caps. 3,107,823, 10–22–63, Cl. 222—182.

Focht, Louis R., to Philco Corp. Electron beam-intercepting structure for color image-producing cathode ray tubes. 3,102,967, 9–3–63, Cl. 313—92.

Focht, Robert M., to E. J. Lavino and Co. Apparatus for joining refractory brick channels and hangers. 3,111,868, 11–26–63, Cl. 78—46.

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Fodor, Ferenz H. Non-vibrational dental tool. 3,101,542, 8–27–63, Cl. 32—27.

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Foerster, George S., to The Dow Chemical Co. Magnesium-base alloy. 3,092,492, 6-4-63, Cl. 75—168.
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Foerster, Hans-Joachim M., to Daimler-Benz Aktiengesellschaft. Planetary gear, change-speed transmission. 3,103,832, 9-17-63, Cl. 74—759.
Foerster, Hans-Joachim M., to Daimler-Benz Aktiengesellschaft. Change speed transmission. 3,107,555, 10-22-63, Cl. 74—732.
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Sher, Fred D., and Strueck. 3,080,936.
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Foley, Daniel E., and A. Skrobisch, to Data Presentations, Inc. Printing device. 3,099,711, 7-30-63, Cl. 178—30.
Foley, Francis. Apparatus for cleaning automatic transmission converter. 3,103,937, 9-17-63, Cl. 134—111.
Foley, Jessie E. Device for handling and squeezing sections of fruit. 3,111,083, 11-19-63, Cl. 100—235.
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Folkins, Hillis O., to The Pure Oil Co. Process for hydrocarbon conversion. 3,083,152, 3-26-63, Cl. 204—162.
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Fomenko, Sergei M., to Thompson Ramo Wooldridge Inc. Electro-optical devices. 3,086,120, 4-16-63, Cl. 250—213.
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Testa, Emilio, Fontanella, and Maffi. 3,094,518.

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Nilson, Robert E. 3,082,638.
Oster, Thomas H. 3,103,716.
Palajac, Peter, Jr. 3,103,349.
Pascoe, George, and Di Gregorio. 3,114,029.
Perzyk, Conrad J. 3,089,047.
Phinney, Frederick G. 3,110,513.
Plante, Raymond E. 3,107,323.
Popiel, Edmund J. 3,112,965.
Price, Stuart N. 3,106,389.
Raviolo, Victor G. 3,111,092.
Richey, Clarence B. 3,074,455.
Richey, Clarence B., and O'Donnell. 3,098,528.
Rieck, Russel W. 3,089,559.
Roach, Anthony. 3,090,823.
Rosky, Frederick, and Wenzel. 3,099,458.
Runyon, David M. 3,086,800.
Schultz, Julius B. 3,073,617.
Schultz, Julius B. 3,086,792.
Schwiering, Willi, and Wolf. 3,086,606.
Slautterback, Robert C. 3,078,330.
Slautterback, Robert C. 3,083,254.
Slautterback, Robert C. 3,083,255.
Slautterback, Robert C. 3,083,256.
Stratton, Desmond G. 3,105,431.
Ulrich, Glenn A. 3,074,735.
Velte, John D. M. 3,084,773.
Wallis, George C., Jr. 3,111,037.
Wanlass, Cravens L. 3,088,039.
Wanlass, Cravens L. 3,097,305.
Wells, John D. 3,097,731.
Wenzel, Carl P., and Rosky. 3,111,308.
Westerdale, Maurice M. 3,113,797.
White, Charles E. 3,106,422.
White, Theodore Z., and Ashbrook. 3,077,927.
Wilson, Raymond W. 3,094,230.
Wilson, Raymond W., and Brilts. 3,100,974.
Young, Frank E., Jr. 3,078,946.

Ford Motor Co. Ltd.: *See*—
Creighton, John P. 3,092,036.
Hair, Benjamin F. 3,092,399.
McDowell, Thomas E., and Whiteford. 3,092,368.

Ford, Norman C., Jr., to International Business Machines Corp. Magnetic storage device. 3,077,586, 2–12–63, Cl. 340—174.

Ford, Norman C., Jr., to International Business Machines Corp. High speed thin magnetic film memory array. 3,111,652, 11–19–63, Cl. 340—174.

Ford, Paul V., and R. F. Lash; said Lash assor. to Box-O-Matic Machine Inc. Method and apparatus for scoring and slotting carton blanks. 3,079,846, 3–5–63, Cl. 93—58.3.

Ford, Perry: *See*—
Johnson, Leslie W., and Ford. 3,091,298.

Ford, Ralph E., to Fords (Finsbury) Ltd. Crown caps. 3,092,280, 6–4–63, Cl. 215—40.

Ford, Ralph E., to W. A. Ternes. Door. 3,095,952, 7–2–63, Cl. 189—46.

Ford, Thomas E.: *See*—
Kirkpatrick, Wylie C., Baird, and Ford. 3,093,448.

Ford, Thomas E., and N. S. Thomas, Jr., to W. R. Grace & Co. Apparatus for cutting sheet material. 3,082,923, 3–26–63, Cl. 225—104.

Forde, Casimir S.: *See*—
Hall, James I., and Forde. 3,112,153.

Fordeck, William, and W. J. Rysick. Devices for ascertaining the weight or pressure of a phonograph pick-up stylus upon the groove of a phonograph record. 3,078,935, 2–26–63, Cl. 177—126.

Fordeck, William A.: *See*—
Freimann, Frank M., and Fordeck. 3,102,509.

Fordees Corp.: *See*—
Jackson, William R. 3,091,139.
Pickard, Edgar C., Jackson, and Grappo. 3,091,305.

Fordham, James W. L., and G. H. McCain, to Diamond Alkali Co. Preparation of polyacetals from halogenated unsaturated carboxylic acid esters. 3,100,199, 8–6–63, Cl. 260—73.

Fordham, Walter H., Jr.: *See*—
Berman, Robert, and Fordham. 3,110,105.

Fords (Finsbury) Ltd.: *See*—
Ford, Ralph E. 3,092,280.

Foregger Co., Inc., The: *See*—
Everett, Hazen F. 3,086,514.

Foreman, Donald F., to International Business Machines Corp. Selective data shift register. 3,103,580, 9–10–63, Cl. 235—159.

Foreman, Robert W.: *See*—
Callahan, James L., and Foreman. 3,095,452.

Foreman, Robert W., to The Standard Oil Co. Manufacture of allyl alcohol. 3,109,865, 11–5–63, Cl. 260—638.

Foreman, Robert W., and F. Veatch, to The Standard Oil Co. Electrochemical manufacture of cyanogen halides. 3,105,023, 9–24–63, Cl. 204—101.

Foremost Dairies, Inc.: *See*—
Kempf, Clayton A. 3,103,311.
McCabe, John B., and Schmid. 3,099,906.
McLarnon, Thomas J., Stark, and Sutton. 3,101,232.
Monk, John C. 3,072,303.
Monk, John C. 3,087,209.
Peebles, David D. 3,095,149.
Peebles, David D., and Clary. 3,074,796.
Peebles, David D., Clary, and Kempf. 3,074,797.
Schmid, Ulrich J. 3,082,584.
Schmid, Ulrich J. 3,086,665.
Turner, Donald B. 3,077,939.

Foresi, Mario, and S. Ungaro, to "Cornigliano" Societa per Azioni. Method and equipment for the intensive use of oxygen in open hearth furnaces for the production of steel. 3,078,084, 2–19–63, Cl. 266—33.

Foresman, Harry B. Ice creeper. 3,082,550, 3–26–63, Cl. 36—7.7.

Forest, Lester W. Base and lock assembly for pipe. 3,114,528, 12–17–63, Cl. 248—158.

Forey, Henri: *See*—
Cherel, Guy, and Forey. 3,090,500.

Forge, Charles O.: *See*—
Van Duzer, Victor E., and Forge. 3,076,902.

Forges de Strasbourg: *See*—
Chapleur, Andre, and Schoeps. 3,102,190.

Forgo, László: *See*—
Heller, Lásaló, Forgo, and Horváth. 3,091,250.

Forgrave Machinery Co. Ltd., The: *See*—
Brook, Leonard, and Walker. 3,110,142.

Foris, Peter L., to The National Cash Register Co. Process including a light filter. 3,105,761, 10–1–63, Cl. 96—27.

Fork, Frank W., to H. H. Robertson Co. Grommet element for oblong openings. 3,082,470, 3–26–63, Cl. 16—2.

Fork, Frank W., to H. H. Robertson Co. Electrical trench. 3,084,480, 4–9–63, Cl. 50—126.

Fork, Frank W., to H. H. Robertson Co. Hanger assembly. 3,104,737, 9–24–63, Cl. 189—36.

Forkardt, Paul, KG: *See*—
Renoux, Pierre E., Hanrath, and Blättry. 3,081,103.

Forkin, Matthew. Construction of wall, ceiling and like surfaces. 3,077,057, 2–12–63, Cl. 50—313.

Forland, Albert J., to Chas. Pfizer & Co., Inc. Vitamin A ester. 3,092,657, 6–4–63, Cl. 260—488.

Forland, Katrine S.: *See*—
Buessem, Wilhelm R., Forland, and Marshall. 3,111,414.

Forma, Floyd F.: *See*—
Gollwitzer, George E., Forma, and Bierwirth. 3,079,011.

Forma, James L., to Superior Shoe Co., Inc. Machine for operating on shoes. 3,088,146, 5–7–63, Cl. 12—87.

Forma, James L., to Lowell Molding Corp. Apparatus for shaping and lasting the heel end of shoes. 3,090,980, 5–28–63, Cl. 12—12.5.

Formacel, Inc.: *See*—
Christman, Charles W. 3,108,367.

Formaini, Robert L., to Allied Chemical Corp. Production of cyanuric acid. 3,093,641, 6–11–63, Cl. 260—248.

Formaini, Robert L., and E. K. Brakebill, to Allied Chemical Corp. Process of hydrolyzing caprolactams. 3,113,966, 12–10–63, Cl. 260—534.

Forman, Benjamin G.: *See*—
Cohen, Bernard, and Forman. 3,086,186.

Forman, Benjamin G., to Formar Industries, Inc. Insert molded plastic self tapping fastener. 3,078,334, 2–19–63, Cl. 174—138.

Forman, Benjamin G., to Formar Industries, Inc. Molded plastic fastener having a sheet metal core element. 3,085,461, 4–16–63, Cl. 85—1.

Forman, Benjamin G., to National Resistance Corp. Means and method for forming electrical components. 3,085,899, 4–16–63, Cl. 117—38.

Forman, Benjamin G., to Formar Industries, Inc. Non-conductive fasteners. 3,086,072, 4–16–63, Cl. 174—138.

Forman, George W.: *See*—
Stevens, Don J., and Forman. 3,113,755.

Forman, Harold M., to Formatron, Inc. Wrapping machine. 3,078,632, 2–26–63, Cl. 53—222.

Forman, Hugh M., to General Electric Co. Tiltable cooking utensil. 3,086,448, 4–23–63, Cl. 99—425.

Forman, Willey G. Tire snow cleat. 3,079,972, 3–5–63, Cl. 152—213.

Formar Industries, Inc.: *See*—
Forman, Benjamin G. 3,078,334.
Forman, Benjamin G. 3,085,461.
Forman, Benjamin G. 3,086,072.

Formatron, Inc.: *See*—
Forman, Harold M. 3,078,632.

Formax Mfg. Corp.: *See*—
Jeske, Bernard G. 3,082,582.
Jeske, Bernard G. 3,099,113.

Formica Corp.: *See*—
Giesler, Harold C. 3,105,256.
Phelps, Horace N. 3,089,522.
Spencer, Frank R., and Malashevitz. 3,093,600.

Formold Plastics, Inc.: *See*—
Miller, Christian F. 3,074,579.

Formsprag Co.: *See*—
Lund, Johan. 3,076,623.
Lund, Johan. 3,094,195.
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Fornasieri, Eraldo: *See*—
Marullo, Gerlando, Rinaudo, Dakli, Donati, Fornasieri, and Garlanda. 3,116,294.
Fornataro, Augustine A., to Blaw-Knox Co. Belt type wrapping aparatus. 3,112,087, 11-26-63, Cl. 42—78.5.
Fornell, Bertil S.: *See*—
Lowe, Richard G., and Fornell. 3,076,647.
Fornes, Gaston G.: *See*—
Enrick, Norbert L., and Fornes. 3,079,713.
Fornet, Arthur W. Dryer for removing moisture from analytical sampler. 3,084,452, 4-9-63, Cl. 34—187.
Forney, Harry B., to Thompson Ramo Wooldridge Inc. Propelling device and method. 3,079,755, 3-5-63, Cl. 60—39.82.
Forni, Aldo, to Montecatini Societe Generale per l'Industria Mineraria e Chimica. Process for the production of methyl mercaptan. 3,081,353, 3-12-63, Cl. 260—609.
Forniti, Philip M., to Hupp Corp. Control system for gas burners. 3,108,630, 10-29-63, Cl. 158—123.
Forniti, Philip M., and F. E. Smith, to Hupp Corp. Picnic grill. 3,103,160, 9-10-63, Cl. 99—339.
Forquignon, Werner, and C. Tiedemann, to Wefo Pyrotechnische Fabrik Wistedt W. Forquignon. Smoke candle and cup discharger for firing the smoke candle. 3,081,701, 3-19-63, Cl. 102—37.6.
Forrer, Edward E. A tree lighting fixture. 3,096,943, 7-9-63, Cl. 240—10.
Forrer, Homer W., to The Mead Corp. Article carrier. 3,083,865, 4-2-63, Cl. 220—113.
Forrer, Homer W., to The Mead Corp. Article carrier. 3,083,891, 4-2-63, Cl. 229—40.
Forrer, Max P., to General Electric Co. Binary logic circuits utilizing diverse frequency representation for bits. 3,077,564, 2-12-63, Cl. 328—92.
Forrest, Andrew G.: *See*—
Zouraeff, Peter, and Forrest. 3,115,249.
Forrest, Charles D.: *See*—
De Maris, Elbert E., Forrest, and Noddin. 3,089,796.
Forrest, David C. Medical applicator. 3,086,527, 4-23-63, Cl. 128—263.
Forrest, John W., to Acton Laboratories, Inc. Adjustable slip clutch. 3,105,371, 10-1-63, Cl. 64—30.
Forrest, Michael L. N.: *See*—
Holmes, Brian J., Lloyd, Krajewski, Parker, and Forrest. 3,103,602.
Forrester, Charles W. Machines for making crumpets and the like. 3,093,062, 6-11-63, Cl. 99—423.
Forrester, Christie R.: *See*—
Swindells, Harry, and Forrester. 3,108,700.
Forrester, Clyde: *See*—
Guise, Arthur B., and Forrester. 3,092,183.
Forrester, Gilbert, to S. D. Warren Co. Pneumatic void detector. 3,115,037, 12-24-63, Cl. 73—159.
Forrester, Gilbert, and C. P. Grant. Web caliper measuring apparatus. 3,110,110, 11-12-63, Cl. 33—149.
Forrester, Joseph J., 3rd, to Olin Mathieson Chemical Corp. Liquid high energy fuels. 3,114,614, 12-17-63, Cl. 44—76.
Forrester, Robert A., to Ashland Oil & Refining Co. Preparation of black masterbatch. 3,113,119, 12-3-63, Cl. 260—41.5.
Fors, Dolores M.: *See*—
Fors, James A. and D. M. 3,078,614.
Fors, James A. and D. M. String toy. 3,078,614, 2-26-63, Cl. 46—1.
Forsberg, Arthur R. Screener. 3,087,617, 4-30-63, Cl. 209—319.
Forsberg, Arthur R. Seed hulling and separating machine. 3,098,515, 7-23-63, Cl. 146—253.
Forsberg, Arthur R. Apparatus for hulling seeds. 3,102,569, 9-3-63, Cl. 146—253.
Forsberg, Axel A., to Electrolux, Aktiebolaget. Centrifuge. 3,080,061, 3-5-63, Cl. 210—249.
Forsberg, Ernest S., to Hodgman Rubber Co. Pump for air mattresses. 3,112,502, 12-3-63, Cl. 5—348.
Forsberg, Karl S. O., to Morgardshammars Mekaniska Verkstads Aktiebolag. Hot rolled material steering device. 3,112,021, 11-26-63, Cl. 198—24.
Forsberg, Karl V., to Antonsson Avery AB. Computing means for weighing scales. 3,093,201, 4-11-63, Cl. 177—25.
Forschungszentrum der Luftfahrtindustrie: *See*—
Schmidt, Wilhelm. 3,111,928.
Forsen, Harold K.: *See*—
Schupp, Arthur A., Jr., and Forsen. 3,075,162.
Forsha, Herbert E., and S. M. Kapell, to Westinghouse Electric Corp. Frequency multiplier. 3,099,784, 7-30-63, Cl. 321—7.
Forshall, Frank E., and F. W. Engelmann. Combined receptacle cover and server. 3,102,656, 9-3-63, Cl. 220—24.
Forshee, Shelia M. Collapsible shaft for disposable paint spray curtain. 3,071,060, 1-1-63, Cl. 98—115.
Forslund, Herbert B.: *See*—
Hoehn, Walter G., Forslund, and Fulton. 3,073,722.
Forsman, Arnold H. Water ski binding. 3,097,376, 7-16-63, Cl. 9—310.
Forsman, James P., to Jersey Production Research Co. Resinuos seal for a borehole. 3,087,544, 4-30-63, Cl. 166—38.
Forspads Inc.: *See*—
Bruce, John A. 3,101,847.
Forst, Frank W. Method of and means for controlling earth moving equipment. 3,092,921, 6-11-63, Cl. 37—129.
Forster, Barrington: *See*—
Ritz, Hugo H., Engel, and Forster. 3,085,964.
Forster, Franz: *See*—
Kaup, Otmar, and Forster. 3,107,491.
Forster, George A., to United States of America, Atomic Energy Commission. Positional data system. 3,105,189, 9-24-63, Cl. 323—52.
Forster, Gerhard, to North American Philips Co. Inc. Television receiver with contrast control and AGC-controlled video amplifier. 3,095,474, 6-25-63, Cl. 178—7.5.
Forster, Hans-Joachim M., and K. Heinrich, to Daimler-Benz Aktiengesellschaft. Reversible transmission, particularly for maritime purposes. 3,093,013, 6-11-63, Cl. 74—788.
Forster, Jakob, and E. Grünke. Zig-zag sewing machines. 3,089,444, 5-14-63, Cl. 112—159.
Forster, John H., and J. F. Grandner, to Bell Telephone Laboratories, Inc. Semiconductor device. 3,116,443, 12-31-63, Cl. 317—234.
Forster, Milton: *See*—
Davenport, William A. 3,074,722.
Forster, Milton P., S. J. Peck, and H. W. Tanner, to Pen Dee, Inc. Folding stroller with telescopic handle. 3,084,949, 4-9-63, Cl. 280—36.
Forster, Robert, to Sarco International Corp. Slide type mixing valve with interchangeable inlet and outlet connections. 3,089,505, 5-14-63, Cl. 137—270.
Forster, Wolfgang C., and A. Salgado, to Reichhold Chemicals, Inc. 2-mercapto thiazoline accelerator in filled polyester resins. 3,077,463, 2-12-63, Cl. 260—40.
Forstner, Inc.: *See*—
Gaupp, Kurt. 3,075,266.
Hanlein, Wilfred F. 3,073,133.
Forsyth, Albert J. C., to Courtesy Products Corp. Liquid measuring and dispensing machine. 3,089,618, 5-14-63, Cl. 222—60.
Forsyth, Emil J., and W. J. Weigle, Jr., to Mathews Conveyor Co. Article handling apparatus. 3,089,611, 5-14-63, Cl. 221—7.
Forsyth, James M. Barring jack. 3,096,077, 7-2-63, Cl. 254—93.
Forsyth, John I. M.: *See*—
Brooks, Harold, Forsyth, and Lewis. 3,070,881.
Forsythe, Alan K.: *See*—
Webb, James E. 3,112,672.
Forsythe, Edwin C., and R. N. Vandekieft, to Safway Steel Products, Inc. Self-supporting structure. 3,077,642, 2-19-63, Cl. 20—1.126.
Fort, Kenneth W.: *See*—
Young, Donald C., Backlund, and Fort. 3,072,460.
Fort, Russell M.: *See*—
Reddick, Leonard L., Fort, Baldi, Harmon, and Ziegelbein. 3,113,046.
Fort Wayne Tool and Die, Inc.: *See*—
Eminger, Robert J. 3,090,641.
Eminger, Robert J. 3,098,616.
Forte-Fairbairn Inc.: *See*—
Breen, Stanley, and Mason. 3,090,004.
Forte, Francis J. Overhead exercising apparatus. 3,115,339, 12-24-63, Cl. 272—81.
Forte, Frank M., to Automatic Switch Co. Pilot operated valve. 3,103,337, 9-10-63, Cl. 251—30.
Forte, Manuel F. Method of making paper bag. 3,082,717, 3-26-63, Cl. 112—10.
Forte, Robert R. Necktie holder. 3,070,806, 1-1-63, Cl. 2—153.
Fortescue, Peter, to General Dynamics Corp. Compressor blade structure. 3,112,866, 12-3-63, Cl. 230—122.
Fortescue, Peter, C. Rickard, and D. Rose, to United States of America, Atomic Energy Commission. Reactor system and control valve. 3,072,550, 1-8-63, Cl. 204—193.2.
Fortescue, Peter, and D. Nicoll, to United States of America, Atomic Energy Commission. Fuel element interlocking arrangement. 3,072,552, 1-8-63, Cl. 204—193.2.
Fortescue, Peter, and D. Nicoll, to United States of America, Atomic Energy Commission. Heat transfer device. 3,115,449, 12-24-63, Cl. 204—193.2.
Fortess, Fred: *See*—
Salvin, Victor S., Sprague, and Fortess. 3,101,236.
Schoeneberg, Werner A. P., and Fortess. 3,077,371.
Fortess, Fred, and N. Van Gorder, to Celanese Corp. of America. Composition comprising an organopolysiloxane and colloidal silica, and textile treated therewith. 3,077,460, 2-12-63, Cl. 260—29.2.
Forth, Frank F.: *See*—
Merritt, Willie M., and Forth. 3,090,354.
Forthmann, Frederick F., Jr. Web material severing, folding and packing device. 3,106,809, 10-15-63, Cl. 53—116.
Fortier, Andre. Heat exchanger. 3,109,485, 11-5-63, Cl. 165—1.
Fortier, Paul: *See*—
Archambault, Maurice, Olivier, Panneton, and Fortier. 3,112,172.
Fortin, Antoine: *See*—
Leroy, Rene, A. Fortin, Vertut, and M. Fortin. 3,082,045.
Fortin, Bernard. Sectional folding camp bed. 3,110,041, 11-12-63, Cl. 5—112.
Fortin, Guy: *See*—
Kelrstead, Karl F., Giguere, and Fortin. 3,094,515.
Fortin, Henry C. Valve grinding device. 3,092,938, 6-11-63, Cl. 51—241.
Fortin, Marcel: *See*—
Leroy, Rene, M. Fortin, Vertut, and A. Fortin. 3,082,045.
Fortin, Louis P., and E. Lemieux, 66⅔ to E. Beaupre, and 33⅓ to said Fortin. Telescopic tube. 3,098,669, 7-23-63, Cl. 287—58.

Fortline, Inc.: *See*—
Franzene, Robert D. 3,080,202.

Fortna, Henry F.: *See*—
Coates, Harold E., Folkenroth, Fortna, Fuller, and Ullman. 3,086,282.

Fortriede, Charles J.: *See*—
Gentry, Hermond G., Radzins, and Fortriede. 3,983,-035.

Fortson, Richard M., and J. J. Creskoff, to Vacuum Concrete Corp. of America. Portable handling implement. 3,089,-723, 5–14–63, Cl. 294—65.

Fortuna-Werke Spezialmaschinenfabrik A.G.: *See*—
Braun, Dieter, Focke, and Hacker. 3,109,339.
Koppenwallner, Georg. 3,112,583.
Voller, Rolf. 3,095,676.

Fortune, William S. Solder removing tool. 3,114,026, 12–10–63, Cl. 219—26.

"42" Products Ltd., Inc.: *See*—
Klein, Paul S. 3,094,219.
Klein, Paul S. 3,107,067.

Forwald, Haakon, to Allmänna Svenska Elektriska Aktiebolaget. Fluid operated circuit breaker. 3,087,035, 4–23–63, Cl. 200—148.

Forwald, Haakon, to Allmanna Svenska Elektriska Aktiebolaget. Air blast circuit breaker having a series connected breaking gap in a bushing. 3,093,717, 6–11–63, Cl. 200—145.

Forwald, Haakon, to Allmanna Svenska Elektriska Aktiebolaget. Operating device for the movable contact of the main breaking gap in an air blast circuit breaker. 3,094,-601, 6–18–63, Cl. 200—148.

Forwald, Haakon, to Allmanna Svenska Elektriska Aktiebolaget. Pneumatically operated air blast valve. 3,100,001, 8–6–63, Cl. 137—596.1.

Forwald, Haakon, to Allmanna Svenska Elektriska Aktiebolaget. Oil circuit breaker. 3,100,248, 8–6–63, Cl. 200—150.

Forwald, Haakon, to Allmanna Svenska Elektriska Aktiebolaget. Air blast valve particularly for electric circuit breakers. 3,107,692, 10–22–63, Cl. 137—625.27.

Forwald, Haakon, to Allmanna Svenska Elektriska Aktiebolaget. Device for air blast circuit breaker. 3,108,168, 10–22–63, Cl. 200—148.

Forward Industries, Inc.: *See*—
Hurley, Frederick A. 3,114,554.
Hurley, Frederick A. 3,114,555.

Forward, Robert W.: *See*—
Mathues, Thomas O., Beck, Davis, and Forward. 3,088,539.

Forward Slant Sole Co., The: *See*—
Russell, Lawrence E. 3,087,261.
Russell, Lawrence E. 3,087,262.

Fosdick Machine Tool Co., The: *See*—
Knosp, Robert N., and Gecks. 3,100,406.
Knosp, Robert N., and Gecks. 3,109,329.

Foseco International Ltd.: *See*—
Bauer, Ferdinand. 3,092,879.
Boddey, Ronald F. 3,104,996.

Foseid, Torodd. Convertible sofa beds. 3,088,129, 5–7–63, Cl. 5—24.

Fosnacht, Fred: *See*—
Goldberg, Harry, Siwek, and Fosnacht. 3,110,998.

Foss, Clifton T., and J. J. Giba, to American Bosch Arma Corp. Remote control switching system. 3,080,514, 3–5–63, Cl. 318—29.

Foss, David W., to Varian Associates. Tunable microwave cavity resonator with calibrated dial. 3,085,199, 4–9–63, Cl. 324—81.

Foss, David W., to Varian Associates. Reference cavity resonator. 3,090,018, 5–14–63, Cl. 333—83.

Foss, George J.: *See*—
Roberts, Cecil P., and Foss. 3,107,468.

Foss, George J., and D. D. Acton, to Anchor Hocking Glass Corp. Closure cap and method of making same. 3,071,-275, 1–1–63, Cl. 215—40.

Foss, George J., and D. D. Acton, to Anchor Hocking Glass Corp. Closure cap, container and sealed package therefor. 3,077,280, 2–12–63, Cl. 215—44.

Foss, Harry A.: *See*—
Bireley, Frank W., and Foss. 3,094,919.

Foss, Orlando W., to General Box Co. Method for making a cardboard box. 3,113,492, 12–10–63, Cl. 93—36.

Fossa, Joseph, to United Shoe Machinery Corp. Apparatus for preparing baseball cover pieces for sewing. 3,099,147, 7–30–63, Cl. 69—8.

Fossil Fuels, Inc.: *See*—
Levene, Harold D., Stephenson, and Montes. 3,093,420.

Foster Alice E.: *See*—
Foster, Ezra M. 3,077,994.

Foster, Allan D., to Almor Corp. Cart having a removable load carrier. 3,083,978, 4–2–63, Cl. 280—47.34.

Foster, Arthur A., to Gorman-Rupp Industries, Inc. Temperature control for therapeutic apparatus. 3,074,410, 1–22–63, Cl. 128—400.

Foster, Arthur E. Chalk line holder. 3,078,581, 2–26–63, Cl. 33—87.

Foster, Benjamin, Co.: *See*—
Ellis, Wayne P., and Steltz. 3,090,764.

Foster, Boutwell H., to United States Rubber Co. Wire fabrics and methods of producing the same. 3,087,699, 4–30–63, Cl. 245—2.

Foster, Boutwell H. Method and apparatus for covering thread. 3,097,471, 7–16–63, Cl. 57—12.

Foster, Charles H., and J. D. Lewis, to Western Electric Co., Inc. Apparatus for sensing the flow of a substance through a liquid medium. 3,114,257, 12–17–63, Cl. 73—45.5.

Foster, Charles V., and J. A. Acciarri, to Continental Oil Co. Purification of organo-aluminum compounds by spray stripping. 3,104,251, 9–17–63, Cl. 260—448.

Foster, Christopher J. Gates for graving docks. 3,083,539, 4–2–63, Cl. 61—64.

Foster, Christopher J. Offshore mooring platforms. 3,086,-367, 4–23–63, Cl. 61—46.

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Murray, James V., Jr., and Foster. 3,072,662.

Foster, Donald J., to Union Carbide Corp. Preparation of polycyclic arylsodium compounds. 3,085,118, 4–9–63, Cl. 260—665.

Foster, Donald J., and E. Tobler, to Union Carbide Corp. Divinylzinc and method of making. 3,087,947, 4–30–63, Cl. 260—429.

Foster, Donald J., and E. Tobler, to Union Carbide Corp. Process of making vinylthioethers. 3,087,952, 4–30–63, Cl. 260—433.

Foster, Donald J., and E. Tobler, to Union Carbide Corp. Process of making vinyl aryl ethers. 3,090,814, 5–21–63, Cl. 260—612.

Foster, Donald J., and E. Tobler, to Union Carbide Corp. Production of high-purity vinyl alkali metal compounds. 3,113,160, 12–3–63, Cl. 260—665.

Foster, Edwin E. Sash balance. 3,084,377, 4–9–63, Cl. 16—197.

Foster, Edwin E. Toy gun. 3,087,481, 4–30–63, Cl. 124—11.

Foster, Edwin E. Film magazine and drive means therefor. 3,095,779, 7–2–63, Cl. 88—17.

Foster, Ezra M., 3% to R. O. Lane, 9% to R. A. Byrd, 9% to E. W. Wilson, 6% to E. A. Fewer, 3% to M. T. Brown, 70% to E. M. Foster, and A. E. Foster, as joint tenants. Vehicle parking apparatus. 3,077,994, 2–19–63, Cl. 214—16.1.

Foster, Francis J. Pumps. 3,074,351, 1–22–63, Cl. 103—152.

Foster, Frank M., to Sens, Ltd. Ignition system for internal combustion engines. 3,110,379, 12–31–63, Cl. 200—30.

Foster, George B., to Industrial Nucleonics Corp. Mass distribution analyzer. 3,092,724, 6–4–63, Cl. 250—83.3.

Foster, George B., to Industrial Nucleonics Corp. Radiation dosage limiter. 3,100,843, 8–13–63, Cl. 250—52.

Foster, George B., and W. H. Canter, Jr., to Industrial Nucleonics Corp. Radioactive thickness gauge. Re. 25,352, 3–19–63, Cl. 250—83.3.

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Monroe, Roger F., Lowes, Foster, and Oakes. 3,079,345.

Foster Grant Co., Inc.: *See*—
Crane, James E., and Richards. 3,104,425.
Goodman, Leonard. 3,082,900.

Foster, Harold E. W.: *See*—
Lamburn, Alan S., and Foster. 3,072,339.

Foster, Harry C.: *See*—
Wakefield, Ralph V., and Foster. 3,098,442.
Wakefield, Ralph V., and Foster. 3,109,371.

Foster, Harry C., to Olin Mathieson Chemical Corp. Blasting cartridges. 3,087,426, 4–30–63, Cl. 102—25.

Foster, Harry C., to Olin Mathieson Chemical Corp. Target throwing apparatus. 3,088,452, 5–7–63, Cl. 124—43.

Foster, Harry C., to Olin Mathieson Chemical Corp. Gas operated devices. 3,100,446, 8–13–63, Cl. 102—25.

Foster, Harry C., to Commercial Solvents Corp. Blasting cartridges. 3,111,898, 11–26–63, Cl. 102—25.

Foster, Harry R., and E. E. Crump, to Ohmega Laboratories. Combined transmission line termination and power feed. 3,089,057, 5–7–63, Cl. 315—39.

Foster, Harry R., and E. E. Crump, to Ohmega Laboratories. Frequency modulated crystal oscillator. 3,098,981, 7–23–63, Cl. 332—26.

Foster, Herbert G., Jr., and E. H. Cornwell, to Swift & Co. Manufacture of cheese curd. 3,079,263, 2–26–63, Cl. 99—116.

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Foster, Hoyt K., to S. W. Farber, Inc. Electric cooking utensil having a detachable thermostatic control means. 3,095,-408, 6–25–63, Cl. 219—44.

Foster, Jack A.: *See*—
Edwards, Aubrey T., Foster, and Bradshaw. 3,083,258.

Foster, James A., Sr., and J. Papa. Tube joints and means and method of making the same. 3,071,993, 1–8–63, Cl. 81—15.

Foster, James A., Sr., and A. D. Butler, to Miles Laboratories, Inc. Unloading device. 3,072,273, 1–8–63, Cl. 214—310.

Foster, James L., and F. L. Laymon, to Diamond Alkali Co. Aqueous emulsion of an organic solvent-siloxane mixture. 3,076,773, 2–5–63, Cl. 260—29.2.

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Foster, John R., to Vonnegut Hardware Co. Coupling. 3,079,-185, 2–26–63, Cl. 287—114.

Foster, John R., to Vonnegut Hardware Co. Mortise-type, reverse-pivoted latch mechanism. 3,087,323, 4–30–63, Cl. 70—92.

Foster, Kenneth, and J. H. Longley, to A. C. Cossor, Ltd. Wavemeter having strip-line resonator capacitively coupled to feed, with movable dielectric effectively varying resonator length. 3,105,947, 10–1–63, Cl. 333—82.

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Foster, Lawrence H., and H. E. Bush, to Foster Refrigerator Corp. Control for refrigerators including alarm means. 3,100,383, 8–13–63, Cl. 62—126.

Foster, Luther M., and G. Long, to Aluminum Co. of America. Aluminum nitride refractory and method of making. 3,113,879, 12–10–63, Cl. 106—65.

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Churchill, John A. 3,096,095.
Churchill, John A. 3,103,363.
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Williams, Garnet M. E. 3,086,780.

Foster, Manus R.: *See*—
Lawrence, Philip L., and Foster. 3,076,177.

Foster, Melville E. Catalog cover binder. 3,083,714, 4–2–63, Cl. 129—23.

Foster, Newton C., to Westinghouse Electric Corp. Resinous glycidyl polyether compositions. 3,099,638, 7–30–63, Cl. 260—45.5.

Foster-Pegg, Richard W., to Her Majesty The Queen in the right of Canada, as represented by the Minister of Mines and Technical Surveys. Combined steam-gas turbine plant. 3,086,362, 4–23–63, Cl. 60—39.18.

Foster, Raymond H.: *See*—
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Foster, Robert D. Pipe tongs. 3,097,011, 7–9–63, Cl. 294—104.

Foster, Robert D., to Crutcher-Rolfs-Cummings, Inc. Bending pipe. 3,105,537, 10–1–63, Cl. 153—39.

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Ceely, Frederick J. 3,115,851.
Gotch, Ronald W. 3,084,243.
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Fotis, Peter, and E. K. Fields, to Standard Oil Co. Separation of heterocyclic amines. 3,112,322, 11–26–63, Cl. 260—283.

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Foulke, Donald G., and E. C. Rinker, to Sel-Rex Corp. Gold plating. 3,092,559, 6–4–63, Cl. 204—43.

Foulke, Donald G., W. B. Stoddard, Jr., O. Kardos, and W. B. Kleiner, to Hanson-Van Winkle-Munning Co. Electrodeposition of nickel. 3,111,466, 11–19–63, Cl. 204—49.

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Foulletier, Louis, and M. Markiewics, to Societe d'Electro-Chimie d'Electro-Metallurgie et des Acrieries Electriques d'Ugine. Process for recovering bromine. 3,084,028, 4–2–63, Cl. 23—216.

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Fountain, Harold, and A. A. Fischer, to United Merchants and Manufacturers, Inc. Puckering and decorating fabrics or the like. 3,079,212, 2–26–63, Cl. 8—114.5.

Fourcade, Robert, to Houilleres du Bassin du Nord & du Pas-de-Calais. Method of preparing polyformaldehyde material having improved characteristics. 3,093,560, 6–11–63, Cl. 204—154.

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Fourie, Robert W., G. D. Lichtenwalter, and G. H. Riesser, to Shell Oil Co. Storage-stable 3,4-dihydro-1,2-pyran-2-carboxaldehyde. 3,084,189, 4–2–63, Cl. 260—345.9.

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Fournet, Andre, and A. Rio, to Chimiques Rhone-Poulenc, Societe des Usines. Blend of an α-methyl styrene/acrylonitrile copolymer with a copolymer of α-methyl styrene and a diolefin having a styrene and acrylonitrile grafted thereon. 3,100,198, 8–6–63, Cl. 260—45.5.

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Fournier, Roger H., to Norton Co. Grinding machine. 3,098,-328, 7–23–63, Cl. 51—165.

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Fouse, Frederick Z., and J. F. Kidwell, to Anchor Hocking Glass Corp. Automatic container inspection machine. 3,098,565, 7–23–63, Cl. 209—111.5.

Foust, Charles E., and R. G. Mathews. Tool for pulling together and spreading spaced flanges. 3,108,783, 10–29–63, Cl. 254—67.

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Foust, Floyd J., O. W. Childress, Jr., and J. L. Snowden, to General Motors Corp. Battery testing device. 3,082,371, 3–19–63, Cl. 324—29.5.

Fouts, H. D., and A. D. McCarver. Heating device for aerosol shaving lather dispensers and the like. 3,098,925, 7–23–63, Cl. 219—39.

Foutz, Clinton R. Condenser. 3,095,923, 7–2–63, Cl. 257—28.

Foutz, Clinton R., deceased; D. F. Foutz, administrator, ½ to E. F. Lundstrom. Salt water converting apparatus. 3,096,257, 7–2–63, Cl. 202—205.

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Foutz, Clinton R., and D. F. 3,096,257.

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Fowler, Aubrey A., Jr., and H. O. McKee. Vacuum sign producing apparatus. 3,107,396, 10–22–63, Cl. 18—19.

Fowler, Bruce V., to Varian Associates. Nuclear induction fluxmeter and magnet control apparatus. 3,081,428, 3–12–63, Cl. 324—.5.

Fowler, F. Robert J., to General Motors Corp. Friction fan drive. 3,077,298, 2–12–63, Cl. 230—271.

Fowler, Frank, and L. Golberg, to Benger Laboratories Ltd. Antimony preparations. 3,085,943, 4–16–63, Cl. 167—68.

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Fowler, Leslie L., to Infilco Inc. Filter for contaminated liquids. 3,083,831, 4–2–63, Cl. 210—111.

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Fraas, Arthur P., and J. J. Tudor, to United States of America, Atomic Energy Commission. Reactor moderator structure. 3,100,188, 8–6–63, Cl. 204—193.2.

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Francis, Alfred W., to Socony Mobil Oil Co., Inc. Removal of aromatic hydrocarbons from jet fuel mixtures. 3,092,570, 6–4–63, Cl. 208—323.

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Francis, Arthur W., and H. Cheung, to Union Carbide Corp. Means for improving thermal insulation space. 3,114,469, 12–17–63, Cl. 220—9.

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Francis, John P. Retractable windshield awning. 3,095,034, 6–25–63, Cl. 160—364.

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Francis, Samuel A., P. J. Gray, and W. H. Ayer, to The Sippican Corp. Electric connector for closely spaced terminals. 3,083,261, 3–26–63, Cl. 174—88.

Francis, Thomas L., C. L. Kettler, and G. P. Sarrafian, to Texas Instruments Inc. Jump drive for computer distributor comprising magnetron beam switching tubes. 3,097,342, 7–9–63, Cl. 328—103.

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Francisco, Charles C., Sr. Animal scratching and oiling device. 3,079,893, 3–5–63, Cl. 119—157.

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Francisco, Herbert H., H. G. Ressler, C. E. Roberts, and R. G. Snyder, to Bethlehem Steel Co. Electrodeposition of tin. 3,082,157, 3–19–63, Cl. 204—54.

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Francois, Alex C., to Ex-Cello-O Corp. Short circuit protection of regulated power supply. 3,086,163, 4–16–63, Cl. 323—22.

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Frank, Berthold, and J. Nitschke, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Gas turbine plant and method of operating the same. 3,110,473, 11–12–63, Cl. 253—39.15.

Frank, Carl A. Packaging machines. 3,086,335, 4–23–63, Cl. 53—180.

Frank, Carl A., to Bartelt Engineering Co., Inc. Machine for handling packages. 3,107,793, 10–22–63, Cl. 214—6.

Frank, Charles. Wheel traction device. 3,073,370, 1–15–63, Cl. 152—218.

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Frank, Egon, to Loewe Opta Aktiengesellschaft. Arrangement for receiving stereophonic transmissions. 3,105,117, 9–24–63, Cl. 179—15.

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Frank, Gerard A., and K. A. Schmuldt, to Western Electric Co., Inc. Thermo-compression bonding apparatus. 3,083,595, 4–2–63, Cl. 78—82.

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Frank, Robert K., to Holley Carburetor Co. Ignition distributor. 3,098,366, 7–23–63, Cl. 64—25.

Frank, Robert L., to Sperry Rand Corp. Pulse burst compression radar. 3,090,953, 5–21–63, Cl. 343—17.1.

Frank, Robert L., to Sperry Rand Corp. Phase coded communication system. 3,099,795, 7–30–63, Cl. 325—30.

Frank, Robert L., and S. Zadoff, to Sperry Rand Corp. Phase coded signal receiver. 3,096,482, 7–2–63, Cl. 325—41.

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Frank, Wallace E., to The Franklin Institute. Method and apparatus for improving images. 3,110,762, 11–12–63, Cl. 178—6.

Frank, Wallace J., to Jersey Production Research Co. Removal of hydrogen sulfide from water. 3,111,983, 11–26–63, Cl. 166—8.

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Frankel, Milton B., to Aerojet-General Corp. Polynitro nitraza-carbamates and method of preparing same. 3,109,020, 10–29–63, Cl. 260—482.

Frankel, Milton B., and K. Klager, to Aerojet-General Corp. Nitramines, nitrosamines and their preparation. 3,098,873, 7–23–63, Cl. 260—583.

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Frankel, Theodor, and W. H. Black, to General Dynamics Corp. Time division multiplex telephone switching system having single and multiple party pre-address and priority check circuitry. 3,105,878, 10–1–63, Cl. 179—18.

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Frantz, Russell K., to Air Reduction Co., Inc. Process for the preparation of acetylenic alcohols. 3,105,098, 9–24–63, Cl. 260—635.

Frantz, Russell K., and J. F. Vitcha, to Air Reduction Co., Inc. Preparation of methyl methacrylate. 3,100,795, 8–13–63, Cl. 260—486.

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Franz, Anselm, to Avco Mfg. Corp., Lycoming Division. Gas turbine engine. 3,088,278, 5–7–63, Cl. 60—39.16.

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Fraser, Grover D., to Ingersoll-Rand Co. Axial flow compressor. 3,093,300, 6–11–63, Cl. 230—158.

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Fraser, James, and E. S. McLean, to Speakman Co. Eye and face wash. 3,090,050, 5–21–63, Cl. 4—166.

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Frederick, Harold M., and I. M. Sheaffer, Jr., to Burroughs Corp. Mounting device for a magnetic transducer head. 3,091,669, 5–28–63, Cl. 179—100.2.

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Freedman, Harold P., to Avel Corp. Geneva. Apparatus for the avoidance of collision. 3,071,767, 1-1-63, Cl. 343—112.

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Freiser, Marvin J., and J. C. Swihart, to International Business Machines Corp. Superconductive transmission line memory utilizing reflectrons. 3,114,895, 12–17–63, Cl. 340—173.1.
Freismuth, John S., to American Radiator & Standard Sanitary Corp. Thermostatic valve. 3,075,703, 1–29–63, Cl. 236—34.
Freitag, Friedbert: *See*—
Baur, Carl, and Freitag. 3,087,384.
Freitas, Anthony P.: *See*—
Stone, Grenville C., and Freitas. 3,103,379.
Freitas, Anthony P., and G. C. Stone. Vehicle pneumatic suspension system. 3,084,052, 4–9–63, Cl. 280—112.
Frejacques, Claude. Method of nitrating cellulose. 3,085,086, 4–9–63, Cl. 260—220.
Frelich, Paul D., to Raytheon Co. Phase measuring devices. 3,078,415, 2–19–63, Cl. 324—88.
Frelich, Paul D., to Raytheon Co. Doppler navigation system. 3,099,832, 7–30–63, Cl. 343—8.
Freller, Helmut: *See*—
Günter, Karl-Georg, Freller, and Titze. 3,105,899.
Fremstad, Viles K., and H. B. Gorton, to Ajax Hardware Mfg. Corp. Drawer slide. 3,094,363, 6–18–63, Cl. 312—343.

Fremuth, Winfried J.: *See*—
Gaul, Richard J., and Fremuth. 3,115,515.
French, Alfred W., to The French Oil Mill Machinery Co. Apparatus for recovery of juice from sucrose bearing materials. 3,086,452, 4–23–63, Cl. 100—75.
French, Alfred W., to The French Oil Mill Machinery Co. Expressing press. 3,093,065, 6–11–63, Cl. 100—127.
French, Alfred W., and E. E. Potts, to The French Oil Mill Machinery Co. Liquid expressing press. 3,092,017, 6–4–63, Cl. 100—93.
French, Alfred W., and F. Starrett, Jr., to The French Oil Mill Machinery Co. Screw press. 3,111,080, 11–19–63, Cl. 100—37.
French, Arthur H. Cubing table. 3,083,844, 4–2–63, Cl. 214—10.5.
French, Barry T., E. M. Nakaji, and S. Schneider, to Beckman Instruments, Inc. Method of making thin layer semiconductor devices. 3,082,124, 3–19–63, Cl. 117—211.
French, Charles: *See*—
Jaffe, David L., and French. 3,095,535.
French, Charlie N., to The Bendix Corp. Anti-roll air suspension. 3,083,984, 4–2–63, Cl. 280—124.
French, Henry C.: *See*—
Althens, Herbert E., French, and Reece. 3,103,905.
Dempster, George R., French, and Wender. 3,112,834.
French, Howard V.: *See*—
Hahn, Richard H., and French. 3,082,394.
French, James A. T., to Her Majesty's Postmaster General. Time division multiplex communication systems. 3,100,243, 8–6–63, Cl. 179—15.
French Oil Mill Machinery Co., The: *See*—
Burner, Andre H., and Symes. 3,093,064.
French, Alfred W. 3,086,452.
French, Alfred W. 3,093,065.
French, Alfred W., and Potts. 3,092,017.
French, Alfred W., and Starrett. 3,111,080.
Upton, Charles B. 3,113,954.
French, Richard W., to General Electric Co. Regulated pedestalled grid bias supply. 3,089,094, 5–7–63, Cl. 328—225.
French, Richard W., to Tinius Olsen Testing Machine Co. Balancing equipment. 3,101,620, 8–27–63, Cl. 73—471.
French State, Minister of Armies (Powder Department): *See*—
Roche, Andre, Grancher, Gajac, and Becanne. 3,096,377.
French, Walter K., and O. W. Johnson, Jr., to International Business Machines Corp. Time duration modification of audio waveforms. 3,104,284, 9–17–63, Cl. 179—15.55.
French, Warren F., to William H. Field Co., Inc. Radius cutter grinding machine. 3,073,076, 1–15–63, Cl. 51—122.
Frenk, Helmuth. Shutter for photographic apparatus. 3,092,002, 6–4–63, Cl. 95—58.
Frenk, Helmuth, and K. Weber, to Ernst Leitz Gesellschaft mit beschrankter Haftung. Arrangement for measuring exposure time. 3,106,129, 10–8–63, Cl. 88—24.
Frenkel C-L Aktiengesellschaft: *See*—
Frenkel, Meyer S. 3,102,694.
Frenkel, Meyer S. 3,102,716.
Frenkel, Meyer S. 3,102,717.
Frenkel, Marvin A. Calculating machine keyboard. 3,096,019, 7–2–63, Cl. 235—145.
Frenkel, Meyer S., to Frenkel C-D Aktiengesellschaft Apparatus for mixing and crushing. 3,102,694, 9–3–63, Cl. 241—251.
Frenkel, Meyer S., to Frenkel C-D Aktiengesellschaft Apparatus for mixing. 3,102,716, 9–3–63, Cl. 259—3.
Frenkel, Meyer S., to Frenkel C-D Aktiengesellschaft. Enforced order mixing apparatus. 3,102,717, 9–3–63, Cl. 259—7.
Frensch, Heinz, M. Czech, and L. F. Emmel, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Insecticidal compositions. 3,091,564, 5–28–63, Cl. 167—30.
Frentzel, Herman C.: *See*—
Morrison, George F., and Frentzel. 3,095,928.
Frenzel, Günter: *See*—
Hoffmann, Hans-Jürgen, and Frenzel. 3,105,574.
Frenzl, Otto, to Societe Nationale d'Etudes et de Construction de Moteurs d'Aviation. Burner for hot fuel. 3,074,668, 1–22–63, Cl. 244—53.
Fresard, Marcel, to Medina S.A. Process for the projection of water for washing dishes and a washing machine for carrying out said process. 3,102,666, 9–3–63, Cl. 222—373.
Fresh, Donald L.: *See*—
Carter, John L., Edwards, Reingold, and Fresh. 3,103,770.
Fresh, Elwyn M. and E. T. Mechanical door mat. 3,115,653, 12–31–63, Cl. 15—37.
Fresh, Elwyn T.: *See*—
Fresh, Elwyn M. and E. T. 3,115,653.
Fresia, Giulio, and A. Valentinotti, to Pirelli, S.p.A. Flexible tank transport vehicle. 3,095,206, 6–25–63, Cl. 280—5.
Freter, Kurt: *See*—
Zelle, Karl, and Freter. 3,101,339.
Freud, Herbert M., and J. Frasch. Removing mill scale from iron. 3,073,726, 1–15–63, Cl. 134—3.
Freudenberg, Carl, Kommanditgesellschaft auf Aktien: *See*—
Nottebohm, Carl-Ludwig, Schabert, and Buchsenstein. 3,116,163.
Freudenschuss, Otto, to K. Vackenhuber. Film camera having combined shutter and photo electric cell. 3,099,193, 7–30–63, Cl. 95—10.
Freudenstein, Erich G.: *See*—
Nash, Monroe, and Freudenstein. 3,108,882.
Freudenthal, Merton L.: *See*—
Hodgeman, Herbert H., and Freudenthal. 3,105,384.
Freudenthal, Merton L., and H. H. Hodgeman, to Daniel Orifice Fitting Co. Orifice plate transfer apparatus. 3,079,796, 3–5–63, Cl. 73—211.
Freudling, Erwin, H. Eisinger, P. Grönert, and W. Rauch, to Knotex Maschinenbau G.m.b.H. Process and device for the automatic tying of parcels. 3,080,811, 3–12–63, Cl. 100—2.
Freund, Dean H., and J. E. Davis, to Whirlpool Corp. Frameless range. 3,096,753, 7–9–63, Cl. 126—39.
Freund, Erich A. Method of printing. 3,098,438, 7–23–63, Cl. 101—426.
Freund, Hans W. M., to Maschinenfabrik Hilma G.m.b.H. Pneumatic hydraulic vise. 3,095,190, 6–25–63, Cl. 269—28.
Freundlich, Albert, to Freundlich-Gomez Machinery Corp. Apparatus for manufacturing tubular binders for looseleaf books. 3,081,656, 3–19–63, Cl. 83—125.
Freundlich-Gomez Machinery Corp.: *See*—
Freundlich, Albert. 3,081,656.
Freure, Benjamin T., to Union Carbide Corp. Process for the production of diisopropyl ketone. 3,098,100, 7–16–63, Cl. 260—596.
Freure, Benjamin T., to Union Carbide Corp. Process for the separation of mixtures of 1-naphthol and 1-tetralone. 3,105,018 9–24–63, Cl. 202—39.5.
Frevel, Ludo K.: *See*—
Soderquist, Frederick J., Frevel, and Boyce. 3,084,125.
Frevel, Ludo K., and L. J. Kressley, to The Dow Chemical Co. Selective hydrogenation of acetylene in ethylene. 3,075,024, 1–22–63, Cl. 260—677.
Frevel, Ludo K., and L. J. Kressley, to The Dow Chemical Co. Selective hydrogenation in the presence of copper catalysts. 3,076,858, 2–5–63, Cl. 260—677.
Frew, Duncan W.: *See*—
Herbert, Stephen A., Jr., and Frew. 3,089,852.
Frew, Duncan W., to Shell Oil Co. Lubricating oil composition. 3,116,248, 12–31–63, Cl. 252—32.5.
Frew, Ronald: *See*—
Aldrich, Barry L., Frew, Miller, and Rayner. 3,107,605.
Frey, Albert, to Sandoz Ltd. (also known as Sandoz A.G.). Lysergic acid halide hydrohalides. 3,084,164, 4–2–63, Cl. 260—285.5.
Frey, Edward, and E. J. Kies, to The Massillon-Cleveland-Akron Sign Co. Banner mounting construction. 3,089,268, 5–14–63, Cl. 40—128.
Frey, Hans H., to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Blends of vinylidene chloride/acrylonitrile copolymers and chlorinated polyolefins. 3,076,781, 2–5–63, Cl. 260—45.5.
Frey, Horst E., to The General Tire & Rubber Co. Flexible laminates of polyvinyl chloride and method of making same. 3,075,863, 1–29–63, Cl. 154—46.
Frey, Jean-Marie: *See*—
Jirou, Marcel, and Frey. 3,096,356.
Frey, Max, R. G. Hamreus, and W. L. Smith, to Guy F. Atkinson Co. Pump discharge head with heated bearing. 3,071,296, 1–1–63, Cl. 222—385.
Frey, Norman V. Pole or stake holder. 3,076,532, 2–5–63, Cl. 189—29.
Frey, Otto: *See*—
Bartholome, Ernst, Nonnenmacher, and Frey. 3,090,682.
Steinhofer, Adolf, Frey, and Knobloch. 3,097,935.
Frey, Stuart M., to Ford Motor Co. Vehicular movable steering column. 3,078,945, 2–26–63, Cl. 180—82.
Frey, Willard F.: *See*—
Austin, Walter H., Jr., and Frey. 3,110,220.
Freyer, Lillian: *See*—
Seligman, Jay W. 3,097,457.
Freyermuth, Harlan B.: *See*—
Hort, Eugene V., Freyermuth, and Graham. 3,093,685.
Randall, David I., Buc, Freyermuth, and Mayhew. 3,094,516.
Wilson, Robert C., and Freyermuth. 3,096,333.
Freyermuth, Harlan B., and H. R. Mautner, to General Aniline & Film Corp. Process for dyeing fibers with reactive dyestuffs. 3,100,131, 8–6–63, Cl. 8—1.
Freyholdt, Helmut A. Heat exchanger core structure. 3,103,971, 9–17–63, Cl. 165—165.
Frezieres, Grant E., to Superweld Corp. Signaling table lamp. 3,071,764, 1–1–63, Cl. 340—366.
Friant, David R., to Ingersoll-Rand Co. Method of removing impurities from a compressed gas. 3,091,097, 5–28–63, Cl. 62—85.
Friberg, Arthur N.: *See*—
Anderson, Edwin V., Mack, and Friberg. 3,087,768.
Friberg, Jean M. E., to Societe Alsacienne de Constructions Mecaniques. Sealing structure for rotary mechanism. 3,071,384, 1–1–63, Cl. 277—3.
Frick, Chester A., to Harvey Aluminum (Inc.). Prefrabricated partitioning. 3,078,968, 2–26–63, Cl. 189—34.
Frick, Chester A., and R. M. Langmack, to Harvey Aluminum (Inc.). Prefabricated partition with interlocked rails and studs. 3,096,861, 7–9–63, Cl. 189—34.
Frick Co.: *See*—
Good, Orland D., and Walls. 3,088,501.
Frick, Edward M., and M. Bjorndal. Waterless toilet. 3,110,037, 11–12–63, Cl. 4—131.
Frick, Harold L.: *See*—
Boeddeker, William T., and Frick. 3,100,404.

Fricke, Roger F., to Westinghouse Electric Corp. Two speed single-phase electric motor. 3,111,093, 12–10–63, Cl. 318—221.

Fricke, Wilhelm, to Hamburger Flugzeugbau GmbH. Jet propulsion system. 3,099,425, 7–30–63, Cl. 244—74.

Fricke, William A. Aero drop for use with kites and other objects. 3,088,701, 5–7–63, Cl. 244—155.

Frickert, Philip J., to Owens-Corning Fiberglas Corp. Method of and apparatus for forming strands of filaments. 3,070,981, 1–1–63, Cl. 65—4.

Frickert, Philip J., to Owens-Corning Fiberglas Corp. Strand package method. 3,107,411, 10–22–63, Cl. 28—72.

Friday, John A., Jr., to Duquesne Brewing Co. of Pittsburgh. Reusable bottle cases. 3,100,056, 8–6–63, Cl. 220—1.

Friden, Inc.: *See*—
Chall, Harold J., and Olson. 3,107,607.
Chall, Harold J., and Wiedeman. 3,108,745.
Ellerbeck, Grant C. 3,079,076.
Ellerbeck, Grant C. 3,110,441.
Lundquist, Ingemar H., Schaerer, and Balaz. 3,107,911.
Malavazos, Arthur J. 3,090,554.
Malavazos, Arthur J., and Sundblom. 3,107,851.
Plunkett, Gilman, and Davis. 3,107,852.

Fridley, Alvin W.: *See*—
Green, Albert P., and Fridley. 3,114,971.

Fridolph, Annette E. Combined header and supporting member. 3,090,072, 5–21–63, Cl. 16—95.

Fridrich, Egon: *See*—
Binder, Hermann, and Fridrich. 3,107,443.

Fridrich, Elmer G.: *See*—
Dell, Paul A., and Fridrich. 3,102,443.

Fridrichsen, Anton F., to E. I. du Pont de Nemours and Co. Process for forming a web of synthetic fibers. 3,101,294, 8–20–63, Cl. 162—146.

Fried, Benjamin. Yarn tensioning device. 3,072,359, 1–8–63, Cl. 242—153.

Fried, Burton D.: *See*—
Clauser, Milton U., Meyer, Huddlestone, and Fried. 3,102,088.

Fried, George, to American Machine & Foundry Co. Bowling ball handling and return mechanism. 3,107,917, 10–22–63, Cl. 273—49.

Fried, Henry B., and J. Sherman. Timing device. 3,077,-300, 2–12–63, Cl. 235—61.

Fried, John, and T. S. Bry, to Merck & Co., Inc. Novel 6-chloro-17α-haloethynyl-19-nor-androstadienes and processes. 3,072,646, 1–8–63, Cl. 260—239.55.

Fried, John, A. N. Nutile, and G. E. Arth, to Merck & Co., Inc. 6-exomethylene steroids and process therefor. 3,074,-935, 1–22–63, Cl. 260—239.55.

Fried, John, A. N. Nutile, and G. E. Arth, to Merck & Co., Inc. 5α-methyl-steroid-3-ones. 3,083,196, 3–26–63, Cl. 260—239.5.

Fried, John, A. N. Nutile, and G. E. Arth, to Merck & Co. Inc. Process for the production of 16α-methyl-6-hydrocarbon 17,20,20,21-bis methylene dioxy steroids. 3,090,-781, 5–21–63, Cl. 260—239.55.

Fried, John, and T. S. Bry, to Merck & Co., Inc. Δ^6-dehydro-21-haloethisterones and the process for the production thereof. 3,096,353, 7–2–63, Cl. 260—397.4.

Fried, Josef: *See*—
Diassi, Patrick A., and Fried. 3,073,817.
Herz, Josef E., and Fried. 3,075,969.
Laskin, Allen I., and Fried. 3,115,443.
Laskin, Allen I., and Fried. 3,115,444.
Thoma, Richard W., and Fried. 3,083,212.
Thoma, Richard W., and Fried. 3,105,842.
Thomas, Gordon H., and Fried. 3,080,388.

Fried, Josef. 9β,11β-oxido-Δ^4-androstene-3,17-dione. 3,072,-643, 1–8–63, Cl. 260—239.55.

Fried, Josef, to Olin Mathieson Chemical Corp. 9α-halo-Δ^4-androstene derivatives. 3,072,684, 1–8–63, Cl. 260—397.3.

Fried, Josef, to Olin Mathieson Chemical Corp. 12-alkyl steroids of the pregnane series. 3,078,285, 2–19–63, Cl. 260—397.45.

Fried, Josef, to Olin Mathieson Chemical Corp. 8,14-oxido Δ^4-pregnenes and process therefor. 3,082,205, 3–19–63, Cl. 260—239.55.

Fried, Josef, to Olin Mathieson Chemical Corp. 9α-halo Δ^1-steroids of the pregnane series. 3,101,332, 8–20–63, Cl. 260—239.55.

Fried, Josef, to Olin Mathieson Chemical Corp. 9-halo-4,6-pregnadienes. 3,105,832, 10–1–63, Cl. 260—239.55.

Fried, Josef, and M. A. Guiducci, to Olin Mathieson Chemical Corp. Steroids of the 19-norpregnane series. 3,077,-471, 2–12–63, Cl. 260—239.55.

Fried, Josef, and R. W. Thoma, to Olin Mathieson Chemical Corp. 6-oxygenated testololactones. 3,083,211, 3–26–63, Cl. 260—343.2.

Fried, Josef, and M. A. Guiducci, to Olin Mathieson Chemical Corp. 19-nor-progesterone. 3,089,880, 5–14–63, Cl. 260—397.3.

Fried, Josef, and G. H. Thomas, to Olin Mathieson Chemical Corp. 9α-halo-11β-hydroxy-11α-alkyl steroids of the pregnane series and intermediates therefor. 3,116,288, 12–31–63, Cl. 260—239.55.

Fried, Louis: *See*—
Walsh, James J., and D'Andrea. 3,089,610.

Fried, Louis: fractional interest to various assignees. Frangible closure for cans. 3,115,985, 12–31–63, Cl. 220—48.

Fried, Morton J. Capacitance voltage divider. 3,101,443, 8–20–63, Cl. 323—74.

Fried, Robert P. Environmental planter. 3,077,053, 2–12–63, Cl. 47—17.

Friedel, Murray, to Visual Graphics Corp. Visible photo composer. 3,080,802, 3–12–63, Cl. 95—4.5.

Friedel, Murray, to Visual Graphics Corp. Photographic composing device and method. 3,115,815, 12–31–63, Cl. 95—4.5.

Friedell, Morley V., to C. A. Norgren Co. Apparatus for generating an aerosol. 3,074,697, 1–22–63, Cl. 261—16.

Friedell, Morley V., M. Dunn, and J. Vander Horst, to C. A. Norgren Co. Fluid pressure controller with relief valve. 3,071,146, 1–1–63, Cl. 137—116.3.

Friedell, Morley V., and A. W. Dewberry, to C. A. Norgren Co. Lubricating apparatus and control valve. 3,071,209, 1–1–63, Cl. 184—55.

Friedell, Morley V., and R. Schaffranke, to C. A. Norgren Co. Lubricator assembly. 3,085,654, 4–16–63, Cl. 184—55.

Frieder, Leonard P.: *See*—
Alleo, Jackson A. 3,110,034.

Frieder, Leonard P., and D. Fedak, to Gentex Corp. Spirally wrapped heat resistant hose. 3,109,460, 11–5–63, Cl. 138—132.

Frieder, Leonard P., and J. V. Weinberger, to Gentex Corp. Coupling cover. 3,111,143, 11–19–63, Cl. 138—124.

Friederich, Herbert: *See*—
Fust, Klaus J., Fischer, Friederich, and Stummeyer. 3,116,139.
Fust, Klaus J., and Friederich. 3,082,261.
Willerstnn, Herbert, Dietrich, Fust, Friederich, and Siebel. 3,110,694.

Friederich, Herbert, and W. Lehnerer, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Production of polymers of olefinically unsaturated hydrocarbons with a catalyst of aluminum, aluminum trichloride and a titanium tetrahalide. 3,093,625, 6–11–63, Cl. 260—88.2.

Friedland, Martin, and F. W. Schneider, to Wiedemann Machine Co. Workholder. 3,076,644, 2–5–63, Cl. 269—152.

Friedland, Morris. Automatic fishing shore boat. 3,108,796, 10–15–63, Cl. 43—26.1.

Friedland, Stephen S.: *See*—
Denney, Joseph M., Friedland, and Keywell. 3,110,806.

Friedlander, Samuel B., to Production Machinery Corp. Strip stitcher. 3,114,151, 12–17–63, Cl. 1—66.

Friedlander, William, to Mono-Cam Ltd. Fuel injection pumps. 3,075,509, 1–29–63, Cl. 123—140.

Friedlander, William S.: *See*—
Wright, Charles D., and Friedlander. 3,072,616.

Friedlander, William S., to Minnesota Mining and Mfg. Co. Fluorocarbon-substituted mercaptans. 3,088,849, 5–7–63, Cl. 117—127.

Friedler, Max H., to Saf-A Products, Inc. Cleaning protective device. 3,098,375, 7–23–63, Cl. 68—235.

Friedman, Abraham. Shopping cart. 3,084,948, 4–9–63, Cl. 280—33.99.

Friedman, Alex. Molding of seat cushions. 3,094,716, 6–25–63, Cl. 5—345.

Friedman, Benjamin. Hypodermic needle. 3,080,866, 3–12–63, Cl. 128—218.

Friedman, Benjamin. Syringes and/or hypodermic needles, and cartridges therefor. 3,092,108, 6–4–63, Cl. 128—218.

Friedman, Bernard S., and R. P. Zmitrovis, to Sinclair Research, Inc. Process for the conversion of paraffin hydrocarbons with isobutane utilizing hydrogen fluoride as a catalyst. 3,097,155, 7–9–63, Cl. 208—66.

Friedman, Daniel, and R. G. Steiner. Apparatus for controlling body temperature. 3,074,401, 1–22–63, Cl. 128—214.

Friedman, Elliott A. Cargo stowing arrangement. 3,087,-453, 4–30–63, Cl. 114—72.

Friedman, Frederica: *See*—
Friedman, Howard, and L. 3,077,688.

Friedman, George J., to I. Friedman. Locking device. 3,102,-411, 9–3–63, Cl. 70—100.

Friedman, George J., and L. A. De Bottari, to Servo Mechanisms, Inc. High altitude transducers. 3,105,382, 10–1–63, Cl. 73—180.

Friedman, Harry J. Combined calendar backing panel and writing implement holder. 3,113,559, 12–10–63, Cl. 120—108.

Friedman, Howard, deceased (F. Friedman, administratrix), and L. Friedman; said F. Friedman assor. to said L. Friedman. Photographic mount. 3,077,688, 2–19–63, Cl. 40—158.

Friedman, Ira J., and E. G. Martin, to Chas. Pfizer & Co., Inc. Production of bacitracin adsorbate and process of administration to animals for promoting growth. 3,071,-795, 1–22–63, Cl. 99—2.

Friedman, Iris: *See*—
Friedman, George J. 3,102,411.

Friedman, Jack N. Aerosol metering valve assembly. 3,073,-489, 1–15–63, Cl. 222—394.

Friedman, Jerome. Heat stamping devices. 3,097,592, 7–16–63, Cl. 101—6.

Friedman, Joseph, to Sperry Rand Corp. Electrical assembly of modules. 3,113,248, 12–3–63, Cl. 317—101.

Friedman, Leonard: *See*—
Friedman, Howard, and L. 3,077,688.

Friedman, Lester, 25% to J. T. Basseches. Synthesis of aldehydes. 3,076,033, 1–29–63, Cl. 260—598.

Friedman, Lester, to Weston Chemical Corp. Poly phosphorus ester condensates and their preparation. 3,081,-331, 3–12–63, Cl. 260—461.

Friedman, Lester, to Weston Chemical Corp. 2-hydroxyalkane phosphonate and polyphosphonate hydroxyalkyl esters. 3,092,651, 6–4–63, Cl. 260—461.

Friedman, Lester, and H. Gould, to Weston Chemical Corp. Mixtures of secondary and tertiary phosphite esters of ether alcohols. 3,088,917, 5–7–63, Cl. 252—182.

Friedman, Louis D., to Texaco Inc. Method for recovering oil from oil-bearing minerals. 3,074,877, 1–22–63, Cl. 208—11.

Friedman, Milton, and I. P. Magasiny, to Schaevitz Engineering. Sampling switch. 3,078,356, 2–19–63, Cl. 200—24.

Friedman, Morris, to Miner Industries, Inc. Toy nursing bottle. 3,105,324, 10–1–63, Cl. 46—1.

Friedman, Raymond: *See*—
Rumble, Keith E., Scurlock, and Friedman. 3,107,187.
Scurlock, Arch C., Rumbel, and Friedman. 3,092,959.
Scurlock, Arch C., Rumbel, and Friedman. 3,092,968.

Friedman, Richard, J. Rudnick, and M. S. Rosenfeld. Random spectrum load sequencer and controller. 3,103,118, 9–10–63, Cl. 73—88.

Friedman, Robert H., L. H. Robinson, Jr., and J. H. Edwards, to Jersey Production Research Co. Rotary drilling of wells using explosives. 3,083,778, 4–2–63, Cl. 175—2.

Friedman, Robert H., L. H. Robinson, Jr., and J. H. Edwards, to Jersey Production Research Co. Drilling fluid containing explosive composition. 3,112,233, 11–26–63, Cl. 149—4.

Friedman, Sol. Magnetic game apparatus. 3,082,004, 3–19–63, Cl. 273—130.

Friedmann, Eric H., and H. Cancrinus, to Harmonic Gears (Proprietary) Ltd. Variable speed transmission mechanism. 3,082,646, 3–26–63, Cl. 74—681.

Friedrich, Egon: *See*—
Binder, Hermann, and Friedrich. 3,070,909.

Friedrich, Eugene W. Composite structure. 3,114,612, 12–17–63, Cl. 29—195.

Friedrich, Frank D.: *See*—
Mitchell, Earland R., and Friedrich. 3,078,839.

Friedrich, Kevin F., and F. D. Kaiser, to Westinghouse Electric Corp. Control for an electric power translation system. 3,099,786, 7–30–63, Cl. 321—20.

Friedrich, Paul H., to V. W. Jones. Process for stripping paints. 3,106,929, 10–15–63, Cl. 134—38.

Friedrich, Ralph E., to The Dow Chemical Co. N-vinyl-3-morpholinone-acrylamide copolymers. 3,072,620, 1–8–63, Cl. 260—80.3.

Friedrich, Robert J.: *See*—
Gorin, Everett, and Friedrich. 3,073,751.

Friedrich, Siegfried, to Felten & Guilleaume Fernmeldeanlagen G.m.b.H. Control arrangement for preventing improper regulation of an intermediate amplifier station. 3,106,679, 10–8–63, Cl. 325—2.

Friedsam, Lawrence W., to The Sherwin-Williams Co. Bivalent metal hydroxide treatment of drying oil modified alkyd resins. 3,110,690, 11–12–63, Cl. 260—22.

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Chalfin, William L., and Friedwald. 3,099,990.

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Kendall, Hugh C., Auer, Bolton, and Frielinghaus. 3,110,-008.

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Friend, Dawson, to Stant Mfg. Co., Inc. Depressed pressure cap. 3,071,285, 1–1–63, Cl. 220—44.

Friend, Dawson, to Stant Mfg. Co., Inc. Safety pressure cap with safety release mechanism. 3,082,905, 3–26–63, Cl. 220—44.

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Mann, Maiden, and Friend. 3,075,236.

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Friend, Lindsay C., to The Bendix Corp. Method of making compound gear. 3,100,333, 8–13–63, Cl. 29—159.2.

Fries, Edward W., and H. B. Kaufman, Jr., to DCA Food Industries Inc. Apparatus for coating comestibles. 3,097,-967, 7–16–63, Cl. 118—19.

Fries, Nikolaus, to International Standard Electric Corp. Selector circuits. 3,115,617, 12–24–63, Cl. 340—166.

Fries, Walter, and H. Sinner, to Henkel & Cie G.m.b.H. Detergent composition including dust inhibiting agent. 3,079,-344, 2–26–63, Cl. 252—113.

Friese, Charles L., to Martin-Marietta Corp. Method of permanently marking Teflon. 3,085,912, 4–16–63, Cl. 117—212.

Friese, Gunter, to Metallgesellschaft A.-G. Process for producing hydraulic limes from oil shale. 3,098,886, 7–23–63, Cl. 263—53.

Friese, Karl-Hermann, E. Justi, and A. Winsel, to Accumulatoren-Fabrik Aktiengesellschaft and Siemens-Schuckert Werke Aktiengesellschaft. Process for producing double-skeleton catalyst electrodes by hot-pressing. 3,073,697, 1–15–63, Cl. 75—208.

Friesen, Aron E., to National Dairy Products Corp. Display device. 3,111,096, 11–19–63, Cl. 108—115.

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Frilette, Vincent J., and G. T. Kerr, to Socony Mobil Oil Co., Inc. Process for making crystalline zeolites. 3,071,-434, 1–1–63, Cl. 23—113.

Frink, Russell E., to Westinghouse Electric Corp. Circuit breaker. 3,072,764, 1–8–63, Cl. 200—106.

Frink, Russell M., to Calumet & Hecla, Inc. Tubing. 3,104,-464, 9–24–63, Cl. 29—566.

Frint, William R., and W. D. Smith, to FMC Corp. Method of producing soda ash from crude trona. 3,084,026, 4–2–63, Cl. 23—38.

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Frisble, Marshall H., to The A. C. Gilbert Co. Spring impulsed engine starter. 3,102,523, 9–3–63, Cl. 123—179.

Frisble, Marshall H., and M. G. Kretzmer, Jr., to A. C. Gilbert Co. Road traffic toy remote controlled. 3,086,319, 4–23–63, Cl. 46—244.

Frisby, Thomas M., to Eastman Oil Well Survey Co. Hydraulically actuated orienting device. 3,095,924, 7–2–63, Cl. 166—4.

Frisch, Eberhard, to Continental Elektroindustrie A.G., Askania-Werke. Method and apparatus for digital indication of shaft position. 3,099,090, 7–30–63, Cl. 33—46.

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Frisch, Erling, to Westinghouse Electric Corp. Control rod coupling for nuclear reactors. 3,107,209, 10–15–63, Cl. 204—193.2.

Frisch, Franz, to Sandoz Ltd. Acid monoazo dyestuffs. 3,104,237, 9–17–63, Cl. 260—196.

Frisch, Franz, and C. Ryffel, to Sandoz Ltd. (also known as Sandoz A.G.). Acid monoazo dyestuffs. 3,116,280, 12–31–63, Cl. 260—199.

Frisch, Kurt C.: *See*—
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Frisch, Paul P.: *See*—
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Frisina, John. Load indicating device. 3,084,298, 4–2–63, Cl. 336—30.

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Frissora, Joseph R., and J. L. King; said King assor. to Acton Laboratories, Inc. Screw controlled relative positioning unit. 3,080,770, 3–12–63, Cl. 74—568.

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Fritsch, Helmut, to International Standard Electric Corp. Electrical condenser. 3,115,596, 12–24–63, Cl. 317—230.

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Fritsch, Werner, W. Haede, H. Scherer, and W. Kempe, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Process for stabilizing anionic and cationic ester salts of 21-hydroxy-20-keto-steroids in an aqueous solution. 3,079,410, 2–26–63, Cl. 260—397.45.

Fritts, Earl W. Self-balancing wheel for automotive vehicle. 3,077,914, 2–19–63, Cl. 152—330.

Fritts, Robert W., and J. D. Richards, to Minnesota Mining and Mfg. Co. Bonding of lead based alloys to silicate based ceramic members. 3,080,261, 3–5–63, Cl. 117—212.

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Fritz, Charles G., E. P. Moore, Jr., and S. Selman, to E. I. du Pont de Nemours and Co. Fluorinated vinyl ethers and their preparation. 3,114,778, 12–17–63, Cl. 260—614.

Fritz, Georges: *See*—
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Fritz, Henry E., to Union Carbide Corp. Synthesis of polycyclic alkanoic acid compounds. 3,114,768, 12–17–63, Cl. 260—515.

Fritz, Rudolph A., to Chase Industries, Inc. Door control apparatus. 3,099,438, 7–30–63, Cl. 268—66.

Fritz, Stewart J., to Rocket Power, Inc. Ballistic actuated device for reeling in an elongated flexible element. 3,109,-615, 11–5–63, Cl. 244—138.

Fritz, Stewart J., to Rocket Power, Inc. Thruster. 3,111,808, 11–26–63, Cl. 60—26.1.

Fritz, William A. No-tip tractor safety. 3,071,663, 1–1–63, Cl. 200—61.52.

Fritz, William E.: *See*—
Koranda, Clarence J., and Fritz. 3,090,519.

Fritz, William E., and D. W. Laviana, to General Motors Corp. Electric speedometer drive. 3,108,216, 10–22–63, Cl. 321—49.

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Fritze, Curtis W., and V. E. Herzfeld, to Sperry Rand Corp. Data processing system with remote input-output device. 3,071,753, 1–1–63, Cl. 340—153.

Fritze, Ulrich, to Farbenfabriken Bayer Aktiengesellschaft. Means for indicating or recording the liquid level in narrow, long measuring vessels. 3,100,347, 8–13–63, Cl. 33—126.6.

Fritzemeier, Harke, and H. J. Leijser, to American Enka Corp. Process for treating viscose rayon yarn. 3,073,003, 1–15–63, Cl. 28—76.

Fritzinger, George H., to McGraw-Edison Co. Sheet-record machine. 3,089,705, 5-14-63, Cl. 274—20.
Fritzinger, George H., Double-coated tape dispenser. 3,106,324, 10-8-63, Cl. 225—26.
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Domina, Delfried. 3,083,994.
Domina, Delfried. 3,102,547.
Fritzmeier, Georg, Jr. 3,101,215.
Fritzmeier, Georg, Jr., to G. Fritzmeier. Resilient supports for vehicle roofs. 3,101,215, 8-20-63, Cl. 296—102.
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Kulka, Kurt. 3,074,892.
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Fritzweiler, Rupprecht: *See*—
Bergmeister, Eduard, Fritzweiler, Schwarz, and Wimmer. 3,086,243.
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Frode, Enar, to AB Urfabriken. Closed face reel. 3,108,761, 10-29-63, Cl. 242—84.2.
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Frodge, Theodore, and R. W., to Bobbi-Lou Shoe Co., Division of Shoo-Zees Mfg. Co. Method of making infant's shoe. 3,114,160, 12-17-63, Cl. 12—142.
Froede, Walter, to NSU Motorenwerke Aktiengesellschaft, and Wankel G.m.b.H. Rotary-piston engine having temperature-corrected sealing arrangement. 3,102,519, 9-3-63, Cl. 123—8.
Froede, Walter, and E. Hoppner, to NSU Motorenwerk Aktiengesellschaft, and Wankel G.m.b.H. Port construction for rotary combustion engine. 3,075,505, 1-29-63, Cl. 123—8.
Froede, Walter, and H. Paschke, to NSU Motorenwerke Aktiengesellschaft, and Wankel G.m.b.H. Rotary internal combustion engine and method of operation thereof. 3,097,632, 7-16-63, Cl. 123—8.
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Paschke, Hanns-Dieter, and Froede. 3,102,683.
Froede, Walter G., to NSU Motorenwerke Aktiengesellschaft and Wenke, G.m.b.H. Multiple arrangement of rotary combustion engines. 3,077,867, 2-19-63, Cl. 123—8.
Froede, Walter G. Rotary mechanism. 3,083,699, 4-2-63, Cl. 121—68.
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Froehlich, Harold E., R. A. Kizzek, D. F. Melton, and R. L. Schwoebel, to United States of America, Navy. Air sampling means. 3,077,779, 2-19-63, Cl. 73—421.5.
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Froelich, Ronald W. and W. F., to Sierra Electric Corp. Valve cap transmitter. 3,111,644, 11-19-63, Cl. 340—58.
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Froelich, Ronald W. and W. F. 3,111,644.
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Frohlich, Adolf H., and E. J. Harris, to The Cleveland Trust Co., as trustee. Tire building machine. 3,093,531, 6-11-63, Cl. 156—400.
Frohmader, Harley R. Orthopedic braces. 3,086,522, 4-23-63, Cl. 128—80.
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Crownfield, William K., Sachs, and Fromm. 3,078,021.
Sachs, Hans W., Fromm, and Horner. 3,087,405.
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Fromm, Marvin M., and R. C. Lauro, to Motor Coils Mfg. Co. Epoxy resin impregnation of electrical members. 3,071,496, 1-1-63, Cl. 117—218.
Frommelt, Cyril P., and S. J., to Dubuque Awning & Tent Co. Weather shield. 3,095,886, 7-2-63, Cl. 135—5.
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Fromson, Howard A. Process for producing colored oxide coatings. 3,077,425, 2-12-63, Cl. 148—6.1.
Fromson, Howard A. Method of making composite seamless tubing. 3,077,661, 2-19-63, Cl. 29—470.9.
Fromson, Howard A. Method of forming thin-walled metal tubing. 3,078,567, 2-26-63, Cl. 29—544.
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Wasson, Burton K., and Parker. 3,099,662.
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Yates, Claire H., and Thompson. 3,076,029.
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Frost, Elmer F., Jr., to FMC Corp. Container filling apparatus. 3,093,203, 6-11-63, Cl. 177—120.
Frost, James, to Pickering & West Ltd. Measuring dispenser. 3,082,916, 3-26-63, Cl. 222—168.5.
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Frost, John W. Disposer for trash. 3,113,665, 12-10-63, Cl. 206—19.5.
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Frost, Raymond B., and H. J. Sexton, to Vietaulic Co. of America. Hinged pipe couplings. 3,113,791, 12-10-63, Cl. 285—112.
Frost, William F., to Sperry Rand Corp. Antenna beam sharpening. 3,077,595, 2-12-63, Cl. 343—11.
Frost, William T., to Clevite Corp. Method of manufacturing magnetic transducer head. 3,104,455, 9-24-63, Cl. 29—155.5.
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Fruh, Arthur W. Burglar alarm system and switch therefor. 3,087,145, 4-23-63, Cl. 340—274.
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Frushour, Russel E., O. A. Costello, S. E. Farekas, and W. B. Irish, to Amsted Industries Inc. Machine tools. 3,095,072, 6-25-63, Cl. 192—82.
Fry, Carroll B. Cartesian diver toy. 3,077,697, 2-19-63, Cl. 46—92.
Fry, Charles L. Endless belt for a conveyor-belt turn. 3,100,565, 8-13-63, Cl. 198—182
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Frye, Charles F., deceased (Continental Illinois National Bank and Trust Co. of Chicago and R. A. Elliott, executors of said C. F. Frye). Needle valve for extreme pressure. 3,086,749, 4-23-63, Cl. 251—205.
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Fuchs, Helmut, to A. Raymond Druckknopf- und Metallwarenfabrik. Process for the production of corrosion-resistant coatings on zinc- and cadmium-surfaces. 3,116,176, 12-31-63, Cl. 148—6.2.
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Fuchs, Julius J., to E. I. du Pont de Nemours and Co. Process for the production of adipomononitrolic acid. 3,112,340, 11-26-63, Cl. 260—531.
Fuchs, Louis, to Airborne Accessories Corp. Energy absorbing devices. 3,106,989, 10-15-63, Cl. 188—1.
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Fujioka, Richard T., and J. W. Harper, to Fruehauf Corp. Automatic locking system for coupling a shipping container to a vehicle frame or the like. 3,111,341, 11-19-63, Cl. 296—35.

Fujisaki, Yoshisato, H. Kobayashi, and I. Tazaki, to Asahi Kasei Kogyo Kabushiki Kaisha. Method for producing shaped articles from polymers and copolymers of acrylonitrile. 3,073,669, 1-15-63, Cl. 18—54.

Fujisaki, Yoshisato, and T. Ohfuka, to Asahi Kasei Kogyo Kubushiki Kaisha. Method for producing acrylonitrile polymer fibers and filaments by wet spinning process. 3,080,209, 3-5-63, Cl. 18—54.

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Fukushima, Osamu, H. Kurashige, and K. Kawai, to Kurashiki Rayon Co., Ltd. Production of polyvinyl formal shaped articles. 3,101,991, 8-27-63, Cl. 18—54.

Fukushima, Osamu, Y. Sakurada, and K. Matsubayashi, to Kurashiki Rayon Co., Ltd. Shaped articles of mixed polymers and method of manufacturing them. 3,110,548, 11-12-63, Cl. 18—54.

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Lincoln, Roland L. 3,097,410.
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Morrow, Joseph H. 3,087,255.
Schneider, George, and Bass. 3,097,939.
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Fuller, Dudley D., A. M. Loeb, and N. E. Sindlinger, to Eastern Rolling Mills, Inc. Bearings. 3,076,523, 2-5-63, Cl. 184—7.

Fuller, Ernest. Combined folding rule and square. 3,109,241, 11-5-63, Cl. 33—98.

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Fürst, Stefan, to W. Reiners. Method and apparatus for the starting of coil winding operations. 3,074,659, 1-22-63, Cl. 242—27.

Fürst, Stefan, to W. Reiners. Method and means for fabricating textile threads. 3,074,660, 1-22-63, Cl. 242—35.6.

Fürst, Stefan, to W. Reiners. Method and device for servicing multi-station coil winding machines. 3,077,311, 2-12-63, Cl. 242—35.5.

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Fust, Klaus J., A. Fischer, H. Friederich, and H. Stummeyer, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Method of controlling undesired vegetation. 3,116,139, 12-31-63, Cl. 71—2.3.

Futch, Robert N., and G. L. Da Sylva. Latching means for receptacles. 3,104,903, 9-24-63, Cl. 292—87.

Futora Mfg. Co.: *See*—
Larson, Earl. 3,114,438.

Futorian-Stratford Furniture Co.: *See*—
Winrow, Thomas. 3,084,975.

Fütterer, Bodo, to Braun Aktiengeschaft. Improvements to the cutting heads of dry shaving apparatuses. 3,093,899, 6-18-63, Cl. 30—43.

Futterer, Bodo, and W. Messinger, to Braun Aktiengeschaft. Hair cutting apparatus preventing wedging of cut hairs between the cutting comb and the cutting knife of the apparatus. 3,111,755, 11-26-63, Cl. 30—43.

Futurama Mfg. Co., Inc.: *See*—
Johnson, Roy J. Re. 25,336.

Fyler, Norman F., to Litton Industries, Inc. High speed direct writing cathode-ray tube. 3,095,517, 6-25-63, Cl. 313—86.

Fysh, Derick, to A. Boake, Roberts & Co. Ltd. New reaction products of epoxidized oils and an antimony halide. 3,109,827, 11-5-63, Cl. 260—22.

Fyvie, Donald J. Fishing rod clamping apparatus. 3,113,363, 12-10-63, Cl. 24—257.

GABA A.G.: *See*—
Schmid, Hans, and Mühlemann. 3,083,143.

GEA Luftkuhlergesellschaft Happel Gesellschaft m.b.H. & Co. K.G.: *See*—
Selen, Günter. 3,095,638.
Selen, Günter. 3,095,639.

G.K.N. Group Services Ltd.: *See*—
Horton, Walter, and Townsend. 3,112,022.
G.K.N. Reinforcements Ltd.: *See*—
Drucker, Rudolph. 3,102,312.
GLD Products Co.: *See*—
Danis, George J. 3,088,308.
G-M Laboratories Inc.: *See*—
McMaster, Archie J. 3,072,941.
McMaster, Archie J., and Malershofer. 3,079,840.
GPE Controls, Inc.: *See*—
Osterstrom, Gordon E. 3,085,437.
G. Q. Parachute Co. Ltd.: *See*—
Cooper, Daniel W. 3,104,858.
G.S. Equipment Co., The: *See*—
Neffenger, Carel H. 3,098,720.
G & W Electric Specialty Co.: *See*—
Lusk, George E., and Nicholas. 3,080,447.
GZR Co., Inc.: *See*—
Zizzo, Thomas J. 3,078,073.
Gassenbeek, Johannus L., to Atomic Energy of Canada Ltd. Variable forge pulse generator for resistance welders. 3,115,571, 12–24–63, Cl. 219—86.
Gabb, John E., to Airmed Ltd. Respiratory masks. 3,092,-105, 6–4–63, Cl. 128—146.
Gabbert, Walter R. Sinker applicator for fishing lines. 3,094,717, 6–25–63, Cl. 7—14.1.
Gabbioneta, Roberto. Means for securing the rotor on to its shaft in a pump for fluids. 3,105,445, 10–1–63, Cl. 103—114.
Gäbelein, Nikolaus, to N. Gäbelein and E. Oettinger. Ozonides in alcohol as disinfecting solutions. 3,072,524, 1–8–63, Cl. 167—22.
Gabelman, Irving J., and S. Thaler, to United States of America, Air Force. Air traffic control system. 3,081,454, 3–12–63, Cl. 343—6.
Gaberson, Howard A. Spring reaction rebounding exercise device. 3,116,061, 12–31–63, Cl. 272—57.
Gabler, Hellmuth: *See*—
Butenuth, Gunther, Meltendorf, Gabler, and Sennewald. 3,079,325.
Gabler, Rudolf, H. R. Meyer, and A. J. Kohlik, to W. R. Grace & Co. Process for the preparation of polyaddition products. 3,088,923, 5–7–63, Cl. 260—2.
Gabler, Rudolf, and T. Lyssy, to W. R. Grace & Co. Process for the production of cis or trans-1,2,3,4-tetrahydronaphthalene dicarboxylic acid-(1,4). 3,094,557, 6–18–63, Cl. 260—515.
Gabler, Rudolf, and H. R. Meyer, to W. R. Grace & Co. 4,5-dihydroxy-piperidazines and their production. 3,105,833, 10–1–63, Cl. 260—250.
Gabor, Andrew, to Potter Instrument Co Inc. Device for detecting defects in magnetic tape. 3,071,723, 1–1–63, Cl. 324—34.
Gabor, Andrew, to Potter Instrument Co., Inc. High density recording and play-back system with preamble and post-lude patterns. 3,114,899, 12–17–63, Cl. 340—174.1.
Gabor, Dennis, to Columbia Broadcasting System, Inc. Optical demodulation apparatus. 3,108,383, 10–29–63, Cl. 35—2.
Gabor, Dennis, to National Research Development Corp. Thermionic electric generators. 3,110,823, 11–12–63, Cl. 310—4.
Gabor, Dennis, and P. C. J. Hill, to National Research Development Corp. Picture communication systems. 3,096,398, 7–2–63, Cl. 178—6.8.
Gabor, John D.: *See*—
Mecham, William J., and Gabor. 3,098,709.
Gabor, Valeria: *See*—
Kollmitsch, Janos, Fuchs, and Gabor. 3,113,832.
Gabore, Arthur J., and M. Teumim, to United States of America, Navy. Self-aligning loading rail. 3,099,936, 8–6–63, Cl. 89—1.7.
Gabriel Co., The: *See*—
Broadwell, Robert J. 3,083,026.
Gabriel, Edwin Z. Computers. 3,083,901, 4–2–63, Cl. 235—61.
Gabriel, John L.: *See*—
Zubaty, Joseph G., Stewart, and Gabriel. 3,103,543.
Gabriel, Richard H., to General Electric Co. Automatic washing machine including dispensing means. 3,084,530, 4–9–63, Cl. 68—12.
Gabrielson, George H.: *See*—
Godcharles, Charles A., Blyth, Jacobson, and Gabrielson. 3,100,942.
Gadd, Francis O., R. H. Sanderson, L. N. Kern, and M. V. Parshall, to General Motors Corp. Transmission clutch control and pump drive mechanism. 3,104,746, 9–24–63, Cl. 192—113.
Gaddes, Edward D. Permanent magnet motor. 3,072,812, 1–8–63, Cl. 310—154.
Gaddini, Louis D.: *See*—
Nett, James P., and Gaddini. 3,092,096.
Gaddy, James L., Jr.: *See*—
Smith, George A., Gaddy, and Russell. 3,079,573.
Gaddy, Leon. Adjustable die. 3,107,717, 10–22–63, Cl. 153—48.
Gadekar, Shreekrishna M., J. R. Vaughan, Jr., and S. B. Davis, to American Cyanamid Co. 2-acylated 2,3-dihydro-1H-pyrrolo[3,4-C]pyridines. 3,092,633, 6–4–63, Cl. 260—295.
Gadget-Of-The Month Club, Inc.: *See*—
Campbell, Robert A. 3,073,317.
Clark, Alexander. 3,071,892.
Gadget-Of-The-Month Club, Inc.: *See*—Continued
De la Sierra, Carlos. 3,103,747.
Gleason, Jay L. 3,107,531.
Husted, Ralph and L. M. 3,076,557.
Macpherson, Donald E. 3,071,121.
Sedlock, Jack. 3,088,131.
Weaver, Clair R. and M. A. 3,075,565.
Gadlini, Norman E., to Atlas Pacific Engineering Co. Pear orienting device. 3,101,831, 8–27–63, Cl. 198—33.
Gaede, Virgil E.: *See*—
Martinez, Jesus S., and Gaede. 3,084,915.
Gaeke, Edward G.: *See*—
Brown, Arthur E., Gaeke, Hiller, and Zelsloft. 3,095,702.
Gaeke, Lee E., to The Sta-Rite Mfg. Co. Portable barbecue device. 3,106,150, 10–8–63, Cl. 99—340.
Gaenssle, Paul W.: *See*—
Dean, Albert G., and Gaenssle. 3,089,005.
Gaenssle, Paul W., to The Budd Co. Railway disk brakes. 3,092,212, 6–4–63, Cl. 188—59.
Gaertner, Van R.: *See*—
Schultz, Robert G., and Gaertner. 3,089,987.
Gaertner, Van R., to Monsanto Chemical Co. Sodium 3-tridecycloxy-2-propanol-1-sulfonate. 3,082,249, 3–19–63, Cl. 260—513.
Gaertner, Van R., to Monsanto Chemical Co. Substituted aminoalkanesulfonic acids. 3,084,187, 4–2–63, Cl. 260—513.
Gaertner, Van R., to Monsanto Chemical Co. Alkenylsuccinic anhydride monoesters of sulfoalkyl derivatives. 3,086,043, 4–16–63, Cl. 260—485.
Gaertner, Van R., to Monsanto Chemical Co. Polyether-substituted glycidyl ethers. 3,102,893, 9–3–63, Cl. 260—348.
Gaertner, Van R., and D. N. Van Eenam, to Monsanto Chemical Co. Method of preparing adducts of ethenoxy-substituted glycidyl ethers and alcohols or mercaptans. 3,081,-354, 3–12–63, Cl. 260—609.
Gaetani, Ermanno, to Azienda Colori Nazionali Affini Acna S.p.A. Disazo dyes. 3,089,868, 5–14–63, Cl. 260—186.
Gaetani, Ermanno, to Azienda Colori Nazionali Affini Acna S.p.A. Dis azo dyes. 3,090,780, 5–21–63, Cl. 260—186.
Gaetani, Edmanno, to Azienda Colori Nazionali Affini Acna S.p.A. Disazo dyes. 3,092,616, 6–4–63, Cl. 260—186.
Gaetani, Edmanno, to Azienda Colori Nazionali Affini Acna S.p.A. Process for dyeing polyolefins. 3,096,140, 7–2–63, Cl. 8—41.
Gaetani, Edmanno, to Azienda Colori Nazionali Affini Acna S.p.A. Disazo dyes. 3,098,847, 7–23–63, Cl. 260—187.
Gaetani, Ermanno, to Azienda Colori Nazionali Affini Acna S.p.A. Disazo dyes. 3,100,769, 8–13–63, Cl. 260—186.
Gaeumann, Ernest, and F. Benz, to Ciba Corp. Lemacidine and process for its manufacture. 3,089,818, 5–14–63, Cl. 167—65.
Gaeumann, Ernst, and W. Voser, to Ciba Ltd. Antibiotic danubomycin and process for its manufacture. 3,092,550, 6–4–63, Cl. 167—65.
Gaeumann, Ernst, E. Vischer, and H. Bickel, to Ciba Corp. Process for the manufacture of ferrimycin. 3,093,550, 6–11–63, Cl. 195—80.
Gaeumann, Ernst, and V. Prelog, to Ciba Corp. Spiramycin D. 3,105,794, 10–1–63, Cl. 167—65.
Gafford, Robert D., and P. Rosenbaum, to Martin-Marietta Corp. Continuous sampling gas analyser. 3,114,610, 12–17–63, Cl. 23—255.
Gage, Jerome M., to M. L. Kollman. Seed cleaner. 3,089,-592, 5–14–63, Cl. 209—34.
Gage, Robert M.: *See*—
Eschenbach, Richard C., Skinner, and Gage. 3,106,632.
Gage, Robert M., T. B. Reed, and R. C. Eschenbach, to Union Carbide Corp. Supersonic hot gas stream generating apparatus and method. 3,077,108, 2–12–63, Cl. 73—147.
Gager, Morgan E.: *See*—
Uber, Jay J., and Gager. 3,116,147.
Gager, Robert M.: *See*—
Kasten, Roy F., Jr., and Gager. 3,113,233.
Gagg, James, to Molins Machine Co. Ltd. Device for detecting adhesive stamps or the like on packets. 3,111,-564, 11–19–63, Cl. 206—61.41.
Gagin, Lawrence V.: *See*—
Labino, Dominick, and Gagin. 3,085,887.
Gagle, Duane W.: *See*—
Levy, Dale F., and Gagle. 3,093,595.
Gagliardi, Domenick D. Treatment and coloring of polyolefins. 3,098,692, 7–23–63, Cl. 8—55.
Gagliardi, Domenick D., F. B. Shippee, and W. J. Jutras, Jr., to Gagliardi Research Corp. Silver containing reaction products, methods for their production and use in forming permanent silver containing deposits on base materials. 3,085,909, 4–16–63, Cl. 117—138.5.
Gagliardi, Domenick D., and M. W. Pollock, to Argus Chemical Corp. Bleaching and detergent composition and process of using same. 3,099,625, 7–30–63, Cl. 252—98.
Gagliardi, Nicholas, to Induction Heating Corp. Hardening coil and method of heat treatment of toothed metal strips. 3,101,400, 8–20–63, Cl. 219—10.43.
Gagliardi Research Corp.: *See*—
Gagliardi, Domenick D., Shippee, and Jutras. 3,085,909.
Gagliardo, John P., to The Gamewell Co. Foam nozzle. 3,094,171, 6–18–63, Cl. 169—15.
Gagnan, Emile: *See*—
Cousteau, Jacques Y., and Gagnan. 3,082,442.
Cousteau, Jacques Y., and Gagnan. 3,095,890.
Cousteau, Jacques Y., Gagnan, Laban, and Mollard. 3,082,731.

Gagnan, Emile: *See*—Continued
Cousteau, Jacques Y., Gagnan, Laban, and Mollard. 3,103,195.
Gagnier Fibre Products Co.: *See*—
Gagnier, George E. 3,112,536.
Gagnier, George E., to Gagnier Fibre Products Co. Weatherstrip fastener. 3,112,536, 12–3–63, Cl. 20—69.
Gagnon, George A.: *See*—
Parke, Melville R., and Gagnon. 3,102,324.
Gagnon, Paul L. Hatch securing device. 3,072,089, 1–8–63, Cl. 114—203.
Gagnon, Paul L. Weighting device. 3,103,199, 9–10–63, Cl. 114—221.
Gagnon, Pierre, and P. Laforest, to Paco Corp. Off bearer. 3,105,596, 10–1–63, Cl. 212—32.
Gahler, Arnold R.: *See*—
Fowler, Robert M., and Gahler. 3,091,526.
Gahlinger, Clarence J., to Reynolds Metals Co. Method of and apparatus for inflating laminated sheets. 3,103,193, 9–10–63, Cl. 113—44.
Gaiennie, Bernerd, to Northrop Corp. Controlled resistance spot heating device. 3,095,492, 6–25–63, Cl. 219—21.
Gail, Stewart E., to Lear Siegler, Inc. Force sensing device. 3,101,824, 8–27–63, Cl. 192—8.
Gaillard, Roland A.: *See*—
Jacob, Robert M., Robert, and Gaillard. 3,082,210.
Gainer, Guy R., and G. A. McLain. Rotatable hot line clamps. 3,097,037, 7–9–63, Cl. 339—245.
Gainer, Harold, and M. Cenker, to Wyandotte Chemicals Corp. Production of pyrazinoic acid. 3,096,330, 7–2–63, Cl. 260—256.
Gaines, Clarence F.: *See*—
Gaines, John R. and C. F., and De Pew. 3,103,369.
Gaines, John R. and C. F., De Pew, and Carry. 3,103,-259.
Gaines, John R. and C. F., De Pew, and Carry. 3,103,-260.
Gaines, John R. and C. F., C. C. De Pew, and W. J. Carry; said J. R. Gaines, C. C. De Pew, and W. J. Carry assors. to C. F. Gaines. Handicapping device for racing sulkies. 3,103,259, 9–10–63, Cl. 188—19.
Gaines, John R. and C. F., C. C. De Pew, and W. J. Carry; said J. R. Gaines, C. C. De Pew, and W. J. Carry assors. to C. F. Gaines. Handicapping device for racing sulkies. 3,103,260, 9–10–63, Cl. 188—19.
Gaines, John R. and C. F., and C. C. De Pew. Safety wheel for racing sulkies. 3,103,369, 9–10–63, Cl. 280—63.
Gainesville Machine Co.: *See*—
Lewis, Ernest E. 3,113,341.
Gainesville Machine Co., Inc.: *See*—
De Long, Horace J. 3,103,696.
Gains, Jean H. Calf feeder. 3,090,355, 5–21–63, Cl 119—71.
Gainsbury, Peter E.: *See*—
Rhodes, Edwin C., and Gainsbury. 3,083,109.
Gaiotto, Battista. Spray nozzle. 3,092,333, 6–4–63, Cl. 239—491.
Gair, Albert W.: *See*—
Dier, Stephen A., and Gair. 3,079,680.
Gair, Albert W., to Thompson Ramo Wooldridge Inc. Readily disassembled joint socket assembly and method of making same. 3,089,717, 5–14–63, Cl. 287—85.
Gaiser, William J.: *See*—
Cone, Charles N., and Gaiser. 3,080,244.
Gait, John A., to Pam Clock Co., Inc. Instrument. 3,077,778, 2–19–63, Cl. 73—386.
Gaither, Charles C.: *See*—
Lawry, Frank R. E., and Gaither. 3,071,848.
Gaither, Charles C., Inc.: *See*—
Lawry, Frank R. E., and Gaither. 3,071,848.
Gaither, Donald D., and K. W. Bogardus. Holding means. 3,113,515, 12–10–63, Cl. 101—393.
Gaither, Raymond A., to General Motors Corp. Self-locking fastener for terminal post. 3,103,400, 9–10–63, Cl. 339—130.
Gal-Tronics Corp.: *See*—
Wenrich, Carl M., and Radomski. 3,080,454.
Gaitten, Walden M., to Soderhamn Machine Mfg. Co. Method and means for feeding logs to equipment to operate thereon such as a debarking machine. 3,074,565, 1–22–63, Cl. 214—1.
Gajac, Jean: *See*—
Roche, Andre, Grancher, Gajac, and Becanne. 3,096,377.
Gajdosik, Walter S. Toy communication device. 3,082,838, 3–26–63, Cl. 181—29.
Gal, Imre, F. Nágel, and E. Oldal, to Egyesult Izzolampa es Villamossag Reszvenytarsasag. Cathode assembly and method of making same. 3,076,915, 2–5–63, Cl. 313—346.
Galajda, John E., Jr. Electrically heated mixing device. 3,109,913, 11–5–63, Cl. 219—41.
Galanis, Rosalie M. Restraining garment. 3,082,764, 3–26–63, Cl. 128—133.
Galas, Charles P., to G. S. Blakeslee & Co. Can and bottle crusher. 3,104,607, 9–24–63, Cl. 100—53.
Galbierz, Jerome J., to R. C. Can Co. Dispensing device for caulking cartridges. 3,071,294, 1–1–63, Cl. 222—327.
Galbierz, Jerome J., to R. C. Can Co. Spouts for caulking cartridges. 3,093,274, 6–11–63, Cl. 222—541.
Galbraith, Bart A. Vibratory apparatus. 3,091,712, 5–28–63, Cl. 310—81.
Gale, Alfred J., to High Voltage Engineering Corp. Apparatus for carrying on nuclear reactions. 3,094,474, 6–18–63, Cl. 204—193.2.
Gale, Alfred J., and R. J. Connor, to High Voltage Engineering Corp. Compact neutron source. 3,104,322, 9–17–63, Cl. 250—84.5.
Gale, James G., to Newco Mfg. Co., Inc. Rope thimble. 3,083,991, 4–2–63, Cl. 287—81.
Gale, Richard H., to Combustion Engineering, Inc. Fuel element for nuclear reactor. 3,108,936, 10–29–63, Cl. 204—154.2.
Gale, William A., to American Potash & Chemical Corp. Process for making anhydrous lithium perchlorate and lithium perchlorate trihydrate. 3,102,784, 9–3–63, Cl. 23—85.
Galeazzi, Roberto. Breathing equipment particularly for divers. 3,111,946, 11–26–63, Cl. 128—142.
Galen Enterprises, Inc.: *See*—
Velonis, Stamatis G., Schnitzer, and Richardson. 3,072,-914.
Galey, William F.: *See*—
Huffman, Charles O., Galey, and Misson. 3,107,834.
Galiano, Francis R.: *See*—
Mantell, Gerald J., Galiano, and Rankin. 3,092,640.
Galiger, Michael O., and J. T. Muller, to Leslie Co. Self-regulating pitot for regulator valves. 3,086,548, 4–23–63, Cl. 137—484.8.
Gall Mallofre, Salvador. Engine starter arrangement. 3,094,-845, 6–25–63, Cl. 121—37.
Gallindo, Eugene R. Colostomy bag with disposable liner. 3,089,493, 5–14–63, Cl. 128—283.
Gallindo, Ramon G. Method and apparatus for measuring trouser lengths. 3,094,782, 6–25–63, Cl. 33—8.
Galls Electric & Machine Co.: *See*—
Ambrose, Frederick S. 3,075,644.
Gallitz, Raymond F., to Continental Can Co., Inc. Sheet slitting and scrap coiling method. 3,095,028, 6–25–63, Cl. 153—2.
Gall, George R. Curtain wall. 3,071,215, 1–1–63, Cl. 189—34.
Gall, John C., to Sears, Roebuck and Co. Hose nozzle. 3,102,-691, 9–3–63, Cl. 239—456.
Gallaghan, John A., to United States of America, Navy. Melamine perchlorate as a propellant ingredient. 3,110,-641, 11–12–63, Cl. 149—98.
Gallaghan, John A., and W. L. Reed, to Lockheed Aircraft Corp. Synthesis of hexanitroethane. 3,101,379, 8–20–63, Cl. 260—644.
Gallagher, Arthur P., to Burgess-Manning Co. Pulsation snubber and silencer. 3,114,430, 12–17–63, Cl. 181—45.
Gallagher, Brian M.: *See*—
Addie, Albert N., and Gallagher. 3,077,731.
Gallagher, Cornelius A.: *See*—
Pelino, William M., and Gallagher. 3,108,771.
Gallagher, Cornelius A., and W. M. Pelino, to Servo Corp. of America. Hot box detectors. 3,095,171, 6–25–63, Cl. 246—169.
Gallagher, Edward F. Shrine case. 3,085,839, 4–16–63, Cl. 312—33.
Gallagher, Edward J., Jr. Floating shockproof and vibrationless assembly for delicate instrument panel mount. 3,083,939, 4–2–63, Cl. 248—358.
Gallagher, Harry W. Optical control device. 3,102,473, 9–3–63, Cl. 101—233.
Gallagher, James D., J. R. Cummings, L. M. A. Lipchuck, and E. H. Stokey, to American Cyanamid Co. Composition comprising quinazoline diuretics potentiated by carbonic anhydrase inhibitors. 3,098,009, 7–16–63, Cl. 167—65.
Gallagher, John J., to Poor & Co. Rail anchor. 3,100,081, 8–6–63, Cl. 238—327.
Gallagher, John J., and W. R. Witt, Jr., to United States of America, Navy. Gas operated extendible probe for ballistic model. 3,086,467, 4–23–63, Cl. 102—50.
Gallagher, John J., and W. R. Witt, Jr. Gas operated movable mass for ballistic model. 3,088,407, 5–7–63, Cl. 102—50.
Gallagher, Paul: *See*—
Dyer, Richard F., and Gallagher. 3,079,663.
Dyer, Richard F., and Gallagher. 3,081,951.
Gallagher, Robert T.: *See*—
Reukauf, William B., and Gallagher. 3,113,357.
Gallagher, William H., and G. La Fleur. Clip. 3,091,487, 5–28–63, Cl. 287—130.
Gallagher, William P., and R. J. Dykinga, to International Register Co. Timing mechanism. 3,098,131, 7–16–63, Cl. 200—38.
Gallamos, Constancio R. Copyist's sheet stand with automatic line indicator. 3,087,462, 4–30–63, Cl. 120—33.
Gallant, Reginald R., to Connecticut Technical Corp. Bowling ball cleaner. 3,103,677, 9–17–63, Cl. 15—21.
Gallatin, Victor: *See*—
Gould, James C., Le Brasse, and Gallatin. 3,078,563.
Gallatin, Victor, and J. C. Gould, to Federal-Mogul-Bower Bearings, Inc. Composite bearings and method of making same. 3,094,415, 6–18–63, Cl. 75—208.
Gallaway, Norris W., to American Mfg. Co. of Texas. Means for pumping liquids from gas producing wells. 3,075,467, 1–29–63, Cl. 103—44.
Galle, Edward M., and F. L. Scott, to Hughes Tool Co. Rock bit with means for resisting radial thrust. 3,086,601, 4–23–63, Cl. 175—372.
Gallentine, Donal O., and C. E. Keith, to Radiation, Inc. Stylus assembly. 3,074,067, 1–15–63, Cl. 346—139.
Galler, William. Vitamin K animal feed premix. 3,079,260, 2–26–63, Cl. 99—2.

Galler, William. Menadione composition and process for its manufacture. 3,079,405, 2–26–63, Cl. 260—396.
Gallet, Georges L., to Thomson-Houston, Compagnie Francaise. Metalized ceramic members. 3,107,756, 10–22–63, Cl. 189—36.5.
Galli, Enrico J., and G. R. White, to Sperry Rand Corp. Voltage accumulator circuit. 3,079,086, 2–26–63, Cl. 235—193.
Galli, Joseph R., and R. B. Johnson, to Boeing Co. Organic anhydride reactions and products resulting therefrom. 3,108,902, 10–29–63, Cl. 117—126.
Galli, Joseph R., G. I. Wheeler, and R. B. Johnson, to Boeing Airplane Co. Method of preparing resin and product thereof. 3,108,987, 10–29–63, Cl. 260—45.4.
Gallo, Ella A.: *See*—
Barrett, Hillard E., and Gallo. 3,081,596.
Gallo, Ella A., to General Electric Co. Differential pressure apparatus. 3,106,094, 10–8–63, Cl. 73—407.
Gallo, Joseph. Flower pot. 3,076,289, 2–5–63, Cl. 47—39.
Gallo, Joseph. Flower pot. 3,076,290, 2–5–63, Cl. 47—39.
Gallo, Joseph S. Pine cone holder. 3,106,802, 10–15–63, Cl. 47—55.
Gallo, Julius R., and S. F. Udstad, to ACF Industries, Inc. Special purpose railway car. 3,106,900, 10–15–63, Cl. 105—355.
Galloway, Charles A., to The Lawrence Paper Co. Dispensing container. 3,078,018, 2–19–63, Cl. 222—183.
Galloway, Ethan C.: *See*—
Walborsky, Harry M., Galloway, and Wysong. 3,105,082.
Galloway, Robert E.: *See*—
Cunningham, James L., Sr., and J. L., Jr., and Galloway. 3,115,165.
Galloway, Robert K., to FMC Corp. Carton closing mechanism. Re. 25,450, 9–24–63, Cl. 53—374.
Gallup, John L., to Radio Corp. of America. Glass marking ink. 3,096,184, 7–2–63, Cl. 106—20.
Gallus, Julius P., to Jersey Production Research Co. Coring fluid. 3,112,799, 12–3–63, Cl. 175—58.
Galuska, Charles W., 50% to L. Edwards. Boom limit safety device. 3,094,221, 6–18–63, Cl. 212—39.
Galvao, Joseph A. Electric shaver with improved tubular comb and rotor type cutting head. 3,089,236, 5–14–63, Cl. 30—41.
Galvez, Delfin: *See*—
Olivares, Ismael A., and Galvez. 3,093,479.
Gálvez, Julio M. Dental appliance. 3,078,580, 2–26–63, Cl. 32—67.
Galvin, Jerome G. Forming device. 3,108,558, 10–29–63, Cl. 113—42.
Galy, Andre, to Pechiney, Compagnie de Produits Chimiques et Electrometallurgiques. Process for the manufacture of refractory materials and resultant product. 3,079,266, 2–26–63, Cl. 106—56.
Gamain, Charles H. A. Apparatus for producing artificial daylight. 3,093,319, 6–11–63, Cl. 240—1.1.
Gamaunt, Roger L. Drive and guide sprocket for track laying vehicle. 3,093,006, 6–11–63, Cl. 74—243.
Gambardella, Frank. Shucking device for hardshell fish. 3,071,802, 1–8–63, Cl. 17—7.
Gamber, Elmer L. Corneal contact lens having stop flange engaged by eyelids. 3,102,157, 8–27–63, Cl. 88—54.5.
Gamberg, Edward R., S. A. Yaczko, and G. H. Cotter, to Westinghouse Electric Corp. Arc welding method. 3,093,725, 6–11–63, Cl. 219—74.
Gamberini, Goffredo, to American Machine & Foundry Co. Method and apparatus for handling articles. 3,089,732, 5–14–63, Cl. 302—2.
Gamberini, Goffredo, to American Machine & Foundry Co. Cigarette making machine. 3,094,127, 6–18–63, Cl. 131—21.
Gambill, Marvin: *See*—
Little, Paul A., and Gambill. 3,091,291.
Gambino, James C. Toothbrush. 3,100,309, 8–13–63, Cl. 15—167.
Gamble Bros., Inc.: *See*—
Doskes, Cornelius D. 3,099,449.
Gamble, James E., to E. I. du Pont de Nemours and Co. Quilting and cushioning article of loosely-assembled, crimped, continuous synthetic organic filaments. 3,071,783, 1–8–63, Cl. 5—337.
Gamble, Ralph S.: *See*—
Hadley, Wilfred N., and Gamble. 3,077,054.
Gamble, Roger L., to Lockheed Aircraft Corp. Calorimetric radiation dosimeter. 3,096,440, 7–2–63, Cl. 250—83.3.
Gamertsfelder, George R., and G. Stavis, to General Precision, Inc. Television navigation aid. 3,111,664, 11–19–63, Cl. 343—6.
Gamewell Co., The: *See*—
Gagliardo, John P. 3,094,171.
Ernest, Ralph D., Nibbelink, and Komatar. 3,112,067.
Fieser, Garland E., and Hill. 3,110,880.
Hendricks, George D., and Fieser. 3,072,883.
Paul, Joseph N. 3,075,173.
Paul, Joseph N. 3,110,881.
Gamlen, George A., C. Morris, D. F. Scott, and H. J. Twitchett, to Imperial Chemical Industries Ltd. Textile colouration process. 3,116,103, 12–31–63, Cl. 8—18.
Gamlen, George A., C. Morris, D. F. Scott, and H. J. Twitchett, to Imperial Chemical Industries Ltd. Dyestuffs having an azo, anthraquinone, and phthalocyanine chromophoric group and a triazine or pyrimidine ring carrying a quaternary ammonium salt substituent. 3,116,275, 12–31–63, Cl. 260—146.
Gamma Machine & Instrument Corp.: *See*—
Spira, Josef. 3,110,136.
Gammeter, Harry F., F. R. Patalon, and R. J. Katterle, to Addressograph-Multigraph Corp. Master stripping means for rotary printing machines. 3,095,809, 7–2–63, Cl. 101—217.
Gammon, William H., and C. D. Hoertz, to Ashland Oil & Refining Co. Process for the production of naphthalene. 3,075,022, 1–22–63, Cl. 260—672.
Gamo, Hideya, to International Business Machines Corp. Pattern recognition. 3,074,634, 1–22–63, Cl. 235—151.
Gamrath, Harry R., and L. O. Raether, to Monsanto Chemical Co. Production of benzyl alkyl phthalates by ester interchange. 3,096,364, 7–2–63, Cl. 260—475.
Gancel, Pierre: *See*—
Desvignes, Jean L., and Gancel. 3,088,554.
Gancheff, David J.: *See*—
Snyder, Horace S., and Gancheff. 3,090,566.
Gancy, Alan B., and M. J. McCarthy, to FMC Corp. Manufacture of potassium bicarbonate. 3,111,379, 11–19–63, Cl. 23—64.
Gandolfi, Carmelo: *See*—
De Ruggieri, Pietro, Ferrari, and Gandolfi. 3,101,358.
De Ruggieri, Pietro, and Gandolfi. 3,114,749.
Gandrud, Ebenhard S. Hopper and feeding rotor structure for dispensers of granular material. 3,096,004, 7–2–63, Cl. 222—410.
Gandrud, Ebenhard S. Flexible feed tube with ball fastening said tube to a discharge spout. 3,099,373, 7–30–63, Cl. 222—527.
Gang, Herman, to Monroe Calculating Machine Co. Simultaneous tens transfer and fugitive one mechanisms. 3,102,088, 9–3–63, Cl. 235—137.
Gangawere, Lloyd B., to United States of America, Navy. Antibloom networks for use with display tubes of the cathode ray tube type. 3,103,610, 9–10–63, Cl. 315—20.
Ganim, Joseph A. Method of washing fabric articles. 3,110,045, 11–12–63, Cl. 8—158.
Ganley, Gregory J., and D. C. Sanford, to Minneapolis-Honeywell Regulator Co. Air data computing apparatus. 3,108,183, 10–22–63, Cl. 235—151.
Gannaway, Harrel. Clamp for radially split ring pallet. 3,096,555, 7–9–63, Cl. 25—1.
Gannaway, Harrell, to O'Malley-Gannaway Building Materials. Concrete pipe gasket groove forming apparatus. 3,114,956, 12–24–63, Cl. 25—39.
Gannett, Wright K., and H. H. Wiese, to United States of America, Army. Equilibrator for a gun. 3,078,766, 2–26–63, Cl. 89—37.
Gannoe, Thomas E., to Sylvania Electric Products Inc. Manufacture of electrical contacts. 3,114,828, 12–17–63, Cl. 219—103.
Gannon, Alfred C. Stationary or portable cooking oven. 3,087,414, 4–30–63, Cl. 99—259.
Gannon, Alfred C. Machine for cleaning elongated objects. 3,105,255, 10–1–63, Cl. 15—88.
Gans, Manfred, to Scientific Design Co., Inc. Crystallization process and apparatus. 3,077,746, 2–19–63, Cl. 62—58.
Gänsheimer, Josef: *See*—
Spengler, Günter, and Gänsheimer. 3,114,712.
Gansser, Alexander: *See*—
McCoubrey, Arthur O., and Gansser. 3,080,519.
Gant, Elliot B., to Gant Inc. Shirt collar construction. 3,104,397, 9–24–63, Cl. 2—132.
Gant Inc.: *See*—
Gant, Elliot B. 3,104,397.
Gant, Preston L.: *See*—
Bourne, Henry A., Jr., and Gant. 3,103,812.
Gantner, Edward G., to Gantner Industries, Inc. Dispensing package holder. 3,071,288, 1–1–63, Cl. 221—46.
Gantner Industries, Inc.: *See*—
Gantner, Edward G. 3,071,288.
Gantois, Marcel: *See*—
Plumat, Emile, Eloy, and Gantois. 3,113,856.
Gantz, Emmett J. Magnetic tool holder. 3,100,275, 8–6–63, Cl. 317—159.
Ganz, Henry, to Continental Can Co., Inc. Method and machine for packaging articles. 3,083,510, 4–2–63, Cl. 53—48.
Ganz, Robert H., to Continental Can Co., Inc. Method and machine for packaging articles. 3,070,928, 1–1–63, Cl. 53—48.
Ganz, Robert H., to Continental Can Co., Inc. Method and machine for packaging articles. 3,085,377, 4–16–63, Cl. 53—186.
Ganz, William, to Johnson & Johnson. Rolled pressure-sensitive adhesive tape. 3,089,587, 5–14–63, Cl. 206—59.
Ganzel, Charles: *See*—
Dunklee, Donovan M., and Ganzel. 3,107,110.
Ganzel, Charles, and W. H. Ransone, to William H. Ransone, Inc. Reverse-flush gun. 3,107,858, 10–22–63, Cl. 239—413.
Gar Hospital Equipment, Inc.: *See*—
Christensen, Robert C., Bement, and Brueckman. 3,093,836.
Garapolo, Orlando, and W. E. Moss, to Wilson & Co., Inc. Intermittent feed device for bacon slicing machine. 3,107,709, 10–22–63, Cl. 146—95.
Garay, Edward, and A. Norwood. Dental impression compositions. 3,081,177, 3–12–63, Cl. 106—38.5.
Garbage Service Co., Inc.: *See*—
Redman, Lawrence E. 3,080,988.
Garbato, Carlo, to Larderello Societa per Azioni per lo Struttamento delle Forze Endogene. Preparing boric acid from calcium containing boric minerals. 3,112,996, 12–3–63, Cl. 23—149.

Garbell, Maurice A., ½ to Garbell Research Foundation and ½ to Maurice A. Garbell, Inc. Fluid velocity measuring system for rotorcraft. 3,070,999, 1–1–63, Cl. 73—181.
Garbell, Maurice A., ½ to Garbell Research Foundation, and ½ to Maurice A. Garbell, Inc. Combined acoustic wall and exhaust gas deflector in operation of jet engines. 3,080,937, 3–12–63, Cl. 181—33.
Garbell, Maurice A., Inc.: *See*—
Garbell, Maurice A. 3,070,999.
Garbell, Maurice A. 3,080,937.
Garbell Research Foundation: *See*—
Garbell, Maurice A. 3,070,999.
Garbell, Maurice A. 3,080,937.
Garber, Calvin S.: *See*—
Unruh, Cornelius C., and Garber. 3,072,484.
Garber, John D.: *See*—
Utne, Torleif, Garber, and Jones. 3,083,236.
Garber, Sidney, to The British Iron and Steel Research Association. Process of annealing low carbon steel. 3,099,592, 7–30–63, Cl. 148—144.
Garberding, Waldo L. Cutting tool having universal joint. 3,087,360, 4–30–63, Cl. 77—75.
Garbett, Charles R.: *See*—
Coldren, Clarke L., and Garbett. 3,112,988.
Garbett, Thomas A.: *See*—
Agius, Peter J. V. J., Bryan, and Garbett. 3,087,893.
Garbig, Billy L. Air cleaner adapter. 3,085,383, 4–16–63, Cl. 55—504.
Garbo, Paul W., to General Cigar Co., Inc. Tobacco processing and resulting product. 3,076,729, 2–5–63, Cl. 131—17.
Garbuny, Max: *See*—
Fergason, James L., Vogl, and Garbuny. 3,114,836.
Garcia, Claudio. Lock. 3,111,020, 11–19–63, Cl. 70—107.
Garcia, Gustavo. Sanitary napkin. 3,071,138, 1–1–63, Cl. 128—290.
Garcia, Gustavo E., to Research Corp. Combined magnetic suspension and rotary transformer. 3,079,574, 2–26–63, Cl. 336—135.
Garcia, Robert E. Automatic time operated feeding means for successively feeding animals in a plurality of stalls. 3,097,627, 7–16–63, Cl. 119—51.11.
Gard, George E., to Armstrong Cork Co. Blending method. 3,088,713, 5–7–63, Cl. 259—18.
Gard, Inge S., to I-T-E Circuit Breaker Co. Electrical bushing with spaced conductor with metallic powder for thermally connecting the bushing and conductor. 3,086,075, 4–16–63, Cl. 174—152.
Gardam, Harry E., to J. Stone & Co. (Deptford) Ltd. Liquid regulators for boilers. 3,105,468, 10–1–63, Cl. 122—451.
Gardel, Robert. Doll walking mechanism. 3,098,318, 7–23–63, Cl. 46—173.
Gardel, Robert. Riding toy vehicle for dolls. 3,103,761, 9–17–63, Cl. 46—108.
Gardel, Robert, and A. Rogovin, to Delgar, Inc. Walking doll support and operating connection for doll carriages. 3,077,052, 2–12–63, Cl. 46—110.
Gardel, Robert, and E. Gorsky, to Doll Bottles, Inc. Toy nursing bottle. 3,105,325, 10–1–63, Cl. 46—1.
Gardella, Robert A.: *See*—
Hood, Bruce G., Hood, and Gardella. 3,101,244.
Hood, Bruce G., R. S., and Gardella. 3,111,365.
Garden City Fan & Blower Co.: *See*—
Freevol, Ralph H. 3,103,392.
Garden City Fan Co.: *See*—
Freevol, Ralph H. 3,081,019.
Gardes, Alfred W., and J. F. Gluth, to International Register Co. One way clutch. 3,100,559, 8–13–63, Cl. 192—43.2.
Gardiner, Frank J., and M. Berchtold, to I-T-E Circuit Breaker Co. Rotor design for zero-dynamic wave machine. 3,086,697, 4–23–63, Cl. 230—69.
Gardiner, Maurice, to The General Electric Co. Ltd. Four-terminal electric networks. 3,096,493, 7–2–63, Cl. 333—75.
Gardiner, Paul C., to United States of America, Navy. Transducer pitch control for echo controlled torpedo. 3,089,451, 5–14–63, Cl. 114—23.
Gardiner, Ralph G.: *See*—
Anderson, Gerald R., Creed, and Gardiner. 3,111,972.
Gardiner, Ralph G., to FMC Corp. Rotary cutter for peeling fruit. 3,113,603, 12–10–63, Cl. 146—43.
Gardiner, William A. Trash receptacle closure structure. 3,083,859, 4–2–63, Cl. 220—30.
Gardner, Arthur E., Jr., to Western Electric Co., Inc. Tension equalizer. 3,089,665, 5–14–63, Cl. 242—156.
Gardner, Ben R. Method and apparatus for vehicle guidance. 3,113,306, 12–3–63, Cl. 343—7.
Gardner, David M.: *See*—
Barth-Wehrenalp, Gerhard, and Gardner. 3,113,895.
Gould, Jack R., Gardner, and Paustian. 3,106,583.
Gould, Jack R., Gardner, and Paustian. 3,106,584.
Gardner, David M., and E. S. Eitelman, to Pennsalt Chemicals Corp. Process for preparing chlorodifluoroamine. 3,084,025, 4–2–63, Cl. 23—14.
Gardner, David M., and R. E. Oesterling, to Pennsalt Chemicals Corp. Novel diperchloryldiphenoquinones and process for their manufacture. 3,112,327, 11–26–63, Cl. 260—396.
Gardner, Delbert J.: *See*—
Hager, Robert R., and Gardner. 3,107,111.
Gardner, Delbert J., to The Bendix Corp. Servomotor control valve. 3,082,744, 3–26–63, Cl. 121—41.
Gardner, Delbert J., to The Bendix Corp. Split system power brake. 3,109,287, 11–5–63, Cl. 60—54.6.
Gardner-Denver Co.: *See*—
Bent, John H., and Olsson. 3,073,347.
Bos, John R., Hindal, Loy, and White. 3,103,735.
Huffman, Mervin C. 3,082,741.
Olds, William L., and Baker. 3,078,052.
Gardner, Edward L.: *See*—
Gardner, Frederick H. and E. L. 3,088,314.
Gardner, Edward M., to Merrill Bros. Lifting clamps and gripping pads therefor. 3,074,753, 1–22–63, Cl. 294—104.
Gardner, Elmer J.: *See*—
Exline, William C., Caywood, and Gardner. 3,109,418.
Gardner, Floyd E. Contour forming blade for use with earth moving equipment. 3,089,262, 5–14–63, Cl. 37—129.
Gardner, Frank. Seed germination promoter and method of making and using same. 3,076,291, 2–5–63, Cl. 47—58.
Gardner, Frederick H., to North American Aviation, Inc. In-flight aircraft angle of attack calibrator. 3,112,980, 12–3–63, Cl. 346—107.
Gardner, Frederick H., I. A. Kohn, and D. Rosenstock, to North American Aviation, Inc. Vane angle computer. 3,077,773, 2–19–63, Cl. 73—180.
Gardner, Frederick H. and E. L., to North American Aviation, Inc. Pressure compensator. 3,088,314, 5–7–63, Cl. 73—182.
Gardner, George R., to Bacharach Industrial Instrument Co. Thermometer carrying case. 3,100,044, 8–6–63, Cl. 206—16.5.
Gardner, George S., and H. L. Falgen, to Amchem Products, Inc. Condensation products of formaldehyde, primary amines and ketones. 3,071,590, 1–1–63, Cl. 260—309.6.
Gardner, George S., to Chemical Cleaning, Inc. Method of removing copper-containing iron oxide incrustations from ferriferous surfaces. 3,074,825, 1–22–63, Cl. 134—41.
Gardner, George S., F. E. Manson, and E. S. Hayman, Jr., to Amchem Products, Inc. Inhibitor composition and method of inhibiting acid attack on metal in the acidizing of wells. 3,094,490, 6–18–63, Cl. 252—149.
Gardner, Harold R. Portable, reversibly operated, power-driven tool. 3,088,445, 5–7–63, Cl. 123—41.
Gardner, Horace L., Jr., to Fairchild Stratos Corp. Fluid driven unit. 3,071,014, 1–1–63, Cl. 74—60.
Gardner, Irwin J.: *See*—
Minckler, Leon S., Jr., Gardner, and Cottle. 3,076,778.
Gardner, Irwin J., S. B. Robison, and A. H. Gleason, to Esso Research and Engineering Co. Mercapto derivatives of cyclododecenes. 3,081,352, 3–12–63, Cl. 260—609.
Gardner, Joseph H. S., to L. Gardner & Sons Ltd. Valve spring collar locating devices. 3,115,355, 12–24–63, Cl. 287—52.08.
Gardner, Karl A.: *See*—
Nihlen, Arvid C. K., and Gardner. 3,077,928.
Nihlen, Arvid C. K., and Gardner. 3,112,558.
Gardner, L., & Sons Ltd.: *See*—
Gardner, Joseph H. S. 3,115,355.
Gardner, Lloyd E., and R. J. Hogan, to Phillips Petroleum Co. Hydrocracking process for the conversion of hydrocarbons utilizing a platinum-cobalt-molybdenum catalyst composite. 3,099,618, 7–30–63, Cl. 208—112.
Gardner, Paul J., to The Bendix Corp. Liquid to gas conversion system. 3,070,968, 1–1–63, Cl. 62—52.
Gardner, Paul J., to The Bendix Corp. Level gages. 3,103,815, 9–17–63, Cl. 73—304.
Gardner, Stephen: *See*—
Averyt, Robert W., Gardner, and Harrison. 3,079,511.
Gardner, Thomas P., to Texaco Inc. Apparatus for fastening screw necks to can tops. 3,093,102, 6–11–63, Cl. 113—7.
Gardner, Wm., & Sons (Gloucester) Ltd.: *See*—
Smalley, William. 3,095,185.
Gardner, William E.: *See*—
McCormick, Jerry R. D., and Gardner. 3,074,975.
Gardner, William H.: *See*—
Elrick, Donald E., and Gardner. 3,077,388.
Gardocki, Joseph F., J. W. Poole, and G. I. Poos, to McNeil Laboratories, Inc. Therapeutic reaction complex for muscle relaxation. 3,094,462, 6–18–63, Cl. 167—65.
Gardon, John L., to Rohm & Haas Co. Treatment of cellulosic fabrics and the fabrics thereby obtained. 3,109,695, 11–5–63, Cl. 8—116.4.
Gardon, John L., and L. S. Luskin, to Rohm & Haas Co. Treatment of cellulosic fabrics and the fabrics obtained. 3,081,144, 3–12–63, Cl. 8—116.
Garff, George L.: *See*—
Reese, Frank P. 3,078,101.
Reese, Frank P. 3,100,651.
Garfield, Sidney R., and W. P. Davis. Patient-handling apparatus. 3,099,020, 7–30–63, Cl. 5—81.
Garfinkel, Julius, to Sturm & Scheinberg, Inc. Bust or breast pad construction. 3,077,197, 2–12–63, Cl. 128—479.
Gargini, Eric J., to Electric & Musical Industries Ltd. Velocity-modulated colour television receivers. 3,096,395, 7–2–63, Cl. 178—5.4.
Garibotti, Domenick J., to United Aircraft Corp. Dicing of micro-semiconductors. 3,112,850, 12–3–63, Cl. 225—2.
Gariepy, Henry J. Knockdown furniture. 3,115,367, 12–24–63, Cl. 297—440.
Garis, Gordon O., and A. O. Williamson, to Bros. Inc. Variable compaction. 3,108,520, 10–29–63, Cl. 94—50.
Garkavi, Iosif S.: *See*—
Saplievsky, Piotr F., Filimoshina, Klimkova, Zilpert, and Garkavi. 3,087,224.
Saplievsky, Piotr F., Garkavi, Mikhailov, Filimoshina, Vlasova, and Czerbin. 3,087,225.

Garland, Christopher M., E. B. Wallace, D. W. Pitts, and C. M. Lin, to Bethlehem Steel Co. Guide apparatus for container cells. 3,111,212, 11–19–63, Cl. 193—38.

Garland, Mather. Game scoring and subject-designating device. 3,073,523, 1–15–63, Cl. 235—114.

Garland, Thomas, to Sanders-Garland Mfg. Co. Method and apparatus for making perforating strip. 3,112,775, 12–3–63, Cl. 140—1.

Garlanda, Tiziano: *See*—
Marullo, Gerlando, Rinaudo, Dakil, Donati, Fornasieri, and Garlanda. 3,116,294.

Garlinghouse Brothers: *See*—
Garlinghouse, Leslie H. 3,104,125.

Garlinghouse, Leslie H., to Garlinghouse Brothers. Gas actuated power device. 3,104,125, 9–17–63, Cl. 294—69.

Garlington, Vergil L.: *See*—
Walvoord, James G., Garlington, and Hacke. 3,079,177.

Garlock Inc.: *See*—
Campbell, William B. 3,098,263.
Mayer, Ehrhard. 3,075,780.
Rudner, Merritt A. 3,094,585.
Stucke, Charles G. 3,084,944.

Garlock, Russell D. Chain-link roofing mop. 3,087,188, 4–30–63, Cl. 15—511.

Garmaise, David L.: *See*—
McKay, Arthur F., and Garmaise. 3,109,859.
McKay, Arthur F., and Garmaise. 3,113,151.
McKay, Arthur F., Garmaise, and Kay. 3,105,853.

Garment Finishing Equipment Corp.: *See*—
Reswick, James B., and Hug. 3,086,686.

Garms, Ralph F.: *See*—
Himes, John M., and Garms. 3,101,506.

Garmy, Robert J., and T. E. Perry, to Republic Steel Corp. Electric furnace. 3,108,151, 10–22–63, Cl. 13—10.

Garner, Albert Y., E. C. Chapin, and J. G. Abramo, to Monsanto Chemical Co. Ethylenically unsaturated benzyl phosphorus amides. 3,075,011, 1–22–63, Cl. 260—551.

Garner, Claude M., and J. C. Atterbury, Jr., to White-Rodgers Co. Gas burner control. 3,090,423, 5–21–63, Cl. 158—125.

Garner, Oscar G., to General Cable Corp. Trunnion roll type takeup stand. 3,103,322, 9–10–63, Cl. 242—86.5.

Garner, Philip J., and V. A. Moffatt, to Shell Oil Co. Orthosilicate thiaesters. 3,085,105, 4–9–63, Cl. 260—448.8.

Garner, Ralph F., to The B. F. Goodrich Co. Belt. 3,098,778, 7–23–63, Cl. 154—52.2.

Garner, Richard G.: *See*—
Green, Julius, Vanasse, Garner, and Scarpellino. 3,102,-816.

Garner, William, Jr.: *See*—
Smith, Harold W., Duesterhoeft, Bostick, and Garner. 3,096,477.

Garnett, Clifford: *See*—
Weatherley, Eric G., and Garnett. 3,083,122.

Garnett, Donald W., and G. A. Olofsson, to The Olofsson Corp. Material feeding and weighing apparatus. 3,094,-182, 6–18–63, Cl. 177—1.

Garnett, Edward V. Wire stringing equipment. 3,073,574, 1–15–63, Cl. 254—184.

Garnett, Edward V. Outriggers for vehicles. 3,100,049, 8–6–63, Cl. 212—145.

Garnett, John G.: *See*—
Boyle, John A., and Garnett. 3,076,634.

Garnett, Willard R., to Day-Brite Lighting, Inc. Two-way lighting fixture. 3,077,538, 2–12–63, Cl. 240—73.

Garnier, Georges, to Air-Equipment. Variable-flow pumps of the drum piston type. 3,075,472, 1–29–63, Cl. 103—162.

Garnier, Marcel, and H. Léonard, to Micro-Mega, Societe Anonyme. High-speed rotary tool holder. 3,107,101, 10–15–63, Cl. 279—41.

Garofalow, Donald G., and E. P. Schlosser. Combination filter, heater and light. 3,104,307, 9–17–63, Cl. 219—39.

Garrard Engineering and Mfg. Co., Ltd., The: *See*—
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Garrett, Alfred B.: *See*—
Altwicker, Elmar R., and Garrett. 3,106,582.
Altwicker, Elmar R., Weilmuenster, Garrett, and Harris. 3,109,030.

Garrett, Charles G. B., and W. K. Kaiser, to Bell Telephone Laboratories, Inc. Terbium and Cerium activated calcium fluoride optical maser material. 3,079,347, 2–26–63, Cl. 252—301.4.

Garrett, Charles G. B., and W. G. Pfann, to Bell Telephone Laboratories, Inc. Field effect parametric amplifier. 3,094,671, 6–18–63, Cl. 330—4.9.

Garrett Corp., The: *See*—
Brown, Norman M., Jr. 3,086,599.
Burriss, William L. 3,078,668.
Byloff, Robert C. 3,083,327.
Byloff, Robert C. 3,094,132.
Byloff, Robert C. 3,113,247.
Cazier, John M., Parker, and Silver. 3,104,520.
Cholvin, Robert L., and Burke. 3,073,338.
Clark, James. 3,078,709.
Cooper, Rollin A. 3,081,422.
England, Robert A. 3,075,738.
Fraebel, Robert J. 3,072,930.
Greenwald, Harold A. 3,070,974.
Greenwald, Harold A. 3,094,271.
Griffing, Robert S. 3,079,121.
Grosselfinger, Robert A., and Schoch. 3,095,701.
Hertzog, Heber T. 3,087,305.
Jensen, Raymond W. 3,079,898.

Garrett Corp., The: *See*—Continued
Johnson, Alfred L., Jr., and Wister. 3,091,242.
Kelley, Archibald P. 3,070,994.
Knight, Edward J., and Marlin. 3,073,511.
Lips, Donald C. 3,071,004.
Lytle, Elvin D. 3,107,318.
Rousseau, Jean L. I. 3,087,311.
Rowlett, Beb H., and Silver. 3,079,127.
Schacht, Kenneth N., and Panetta. 3,102,623.
Schelp, Helmut R., Kelley, and Norman. 3,093,348.
Schinnerer, Roy L. 3,071,347.
Silver, Alexander. 3,080,713.
Silver, Alexander, and Cholvin. 3,096,614.
Vance, John E. 3,103,943.
Vigilante, Artaur M. 3,085,567.
Weber, Fritz. 3,101,926.
Westman, Sydney E. 3,084,551.

Garrett, Donald E., F. J. Weck, A. J. Marsh, and H. R. Foster, Jr., to American Potash & Chemical Corp. Boron extractants. 3,111,383, 11–19–63, Cl. 23—149.

Garrett, Edgar J., R. T. Langford, and R. F. Nicks, to United States of America, Navy. Fin latch assembly. 3,093,075, 6–11–63, Cl. 102—50.

Garrett, Edward C. Fender boots for automobiles. 3,086,-794, 4–23–63, Cl. 280—152.

Garrett, Edward O., Jr., and G. V. Jefferson, to Westinghouse Air Brake Co. Railway braking apparatus. 3,107,751, 10–22–63, Cl. 188—62.

Garrett, Frederick W., and S. McCann, to Union Carbide Corp. Process for producing titanium disulfide. 3,079,229, 2–26–63, Cl. 23—134.

Garrett, George R.: *See*—
Klopstock, Frederick W., and Samson. 3,092,850.

Garrett, Glen N.: *See*—
Vogel, Alvin R., Garrett, and Mills. 3,079,758.

Garrett, John E., to The Goodyear Tire & Rubber Co. Hay rake tooth mounting means. 3,102,377, 9–3–63, Cl. 56—400.

Garrett, John E., and K. W. Howick, to The Goodyear Tire & Rubber Co. Hay rake tooth. 3,096,609, 7–9–63, Cl. 56—400.

Garrett, Peter L.: *See*—
Pecker, Edwin A., and Garrett. 3,112,362.

Garrett, Robert C. Handle for scouring pads. 3,090,064, 5–21–63, Cl. 15—209.

Garrett, Samuel J.: *See*—
Kendziorek, Wolfgang M., and Garrett. 3,103,594.

Garrett, Verne M., and V. G. Sommers, to Westinghouse Air Brake Co. Rock drill carrier. 3,08,531, 5–7–63, Cl. 175—201.

Garrett, William R., to Drilco Oil Tools, Inc. Resilient rotary drive fluid conduit. 3,099,918, 8–6–63, Cl. 64—27.

Garrigus, Walter E., and M. Axelrod, said Axelrod assor. to said Garrigus. Means for measuring properties of light. 3,073,213, 1–15–63, Cl. 88—23.

Garringtons Ltd.: *See*—
Macrae, Robert S. 3,091,996.

Garriott, Donald H., to Morgan Packing Co., Inc. Device for washing tomatoes and the like. 3,106,731, 10–15–63, Cl. 15—3.13.

Garrison, Allen D., to Texaco Inc. Treatment of uranium ore. 3,087,780, 4–30–63, Cl. 23—14.5.

Garrison, Clifford L., to Oliver Instrument Co. Grinding and metal disintegrating apparatus. 3,081,253, 3–12–63, Cl. 204—217.

Garrison, Clifford L., to Oliver Instrument Co. Drill grinder. 3,084,485, 4–9–63, Cl. 51—124.

Garrison, Clifford L., to Oliver Instrument Co. Apparatus for grinding twist drills. 3,114,988, 12–24–63, Cl. 51—55.

Garrison, Eugene P., Sr. Kitchen trailer. 3,073,646, 1–15–63, Cl. 296—22.

Garrison, Frank J. Pipe for smoking tobacco. 3,098,493, 7–23–63, Cl. 131—203.

Garrison, Harry A., and G. E. and J. E. Murphy. Reversible hydraulic power unit. 3,074,687, 1–22–63, Cl. 253—23.

Garrison, Joel F. Radiation collectors. 3,107,052, 10–15–63, Cl. 237—1.

Garrison, Judd F.: *See*—
Andres, James R., and Garrison. 3,106,128.

Garrison, Judd F., and J. C. Owen, to Grand Rapids Hardware Co. Hot air diffuser. 3,084,610, 4–9–63, Cl. 98—40.

Garrison, Marion A., to Empire Oil Tool Co. Deep well motor drill. 3,076,514, 2–5–63, Cl. 175—107.

Garrison, Marvin L., to Seymour Mfg. Co. Spreader. 3,096,-984, 7–9–63, Cl. 275—12.

Garrison, Randall W. Poultry watering fountain. 3,093,111, 6–11–63, Cl. 119—72.

Garrison, Rodger C., and D. J. Ward, to Universal Oil Products Co. Restoration of the activity of inorganic sorbents. 3,075,023, 1–22–63, Cl. 260—676.

Garritsen, Johan W.: *See*—
Ottenheym, Johannes H., and Garritsen. 3,080,358.

Garrity, Thomas A., Jr., and R. R. Proctor, to The Pure Oil Co. Seismic record picker. 3,101,467, 8–20–63, Cl. 340—15.5.

Garrou, James E., to Alba-Waldensian, Inc. Apparatus and method for packaging hosiery. 3,097,770, 7–16–63, Cl. 223—1.

Garrou, James E. and V. H., to Waldensian Hosiery Mills, Inc. Pattern drum for knitting machine. 3,099,145, 7–30–63, Cl. 66—154.

Garrou, Louis W., and G. F. Squillario, to Pilot Research Corp. Fashioned tubular girdle and method of making same. 3,075,375, 1–29–63, Cl. 66—177.

Garrou, Louis W., and G. F. Squillario, to Pilot Research Corp. Seamless knit garment having increased length and method of making same. 3,109,300, 11–5–63, Cl. 66—177.

Garrou, Louis W., and G. F. Squillario, to Pilot Research Corp. Seamless knit garment having increased width and method of making same. 3,109,301, 11–5–63, Cl. 66—177.

Garrou, Victor H.: *See*—
Garrou, James E. and V. H. 3,099,145.

Garshells, Ivan J.: *See*—
Starger, Samuel L., Levin, and Garshells. 3,106,502.

Garson, Stanley P. Smoker's ashtray. 3,099,270, 7–30–63, Cl. 131—240.

Garten, Felix, to Maschinenfabrik Goebel G.m.b.H. Speed regulating equipment for a winding machine. 3,112,086, 11–26–63, Cl. 242—67.5.

Garten, Herbert, and R. H. Schaffer, to General Electric Co. Shaft for use in nuclear radiation environment. 3,099,141, 7–30–63, Cl. 64—1.

Garten, Wilhelm, K. Dehmelt, H. von Dohren, and F. Peters, to Varta Aktiengesellschaft. Battery cell. 3,089,913, 5–14–63, Cl. 136—6.

Garth, Ernest D. G., deceased; L. C. May, and A. B. Young, executors. Method of making sterile bedside drainage bag. 3,079,292, 2–26–63, Cl. 156—269.

Garth, Ernest D. G., deceased (L. C. May and A. B. Young, executors of said E. D. G. Garth). Valved catheters. 3,087,492, 4–30–63, Cl. 128—350.

Garti, Moise, and P. L. Buchet; said Buchet assor. to Centre Technique du Bois. Treatment of sawdust and similar particles especially for use as a base layer. 3,088,836, 5–7–63, Cl. 106—202.

Gartner, Waldemar: *See*—
Scholkemeier, Friedrich-Wilhelm, Sommermeyer, and Gartner. 3,110,237.

Gartner, Wilhelm, to FMC Corp. Process for the treatment of wood. 3,085,039, 4–9–63, Cl. 162—78.

Garton, Corbin E.: *See*—
Allen, Malcolm H., Ballnaki, Garton, Hubbard and Olson. 3,101,184.

Gartrell, John T., to Birdsboro Corp. Incombustible wall panel joint. 3,074,123, 1–22–63, Cl. 20—4.

Garty, Kenneth T., T. B. Gibb, Jr., and J. A. Stenstrom, to Union Carbide Corp. Production of an aryl epoxy ether polymer structure. 3,084,991, 4–9–63, Cl. 18—54.

Garver, Oscar W.: *See*—
Luedi, Hans R., Stettler, and Garver. 3,076,300.

Garver, Richard F., to The B. F. Goodrich Co. Tire building machine. 3,075,570, 1–29–63, Cl. 156—400.

Garvey, Mary M.: *See*—
Meyer, Delbert H., and Garvey. 3,076,018.

Garvey, Richard J., and J. J. Richards; said Richards assor. to said Garvey. Apparatus for controlling heating systems. 3,076,606, 2–5–63, Cl. 236—38.

Garvin, Alex J., to Superpack Vending (Curacao) N.A. Cylindrical package. 3,089,630, 5–14–63, Cl. 229—4.5.

Garvin, Alex J., to Superpack Vending (Curacao) N.A. Device for vending cylindrical objects. 3,095,997, 7–2–63, Cl. 221—180.

Garvin, Gale F.: *See*—
Austin, James M., Garvin, and Karr-Ake. 3,073,295.

Garvin, Richard: *See*—
Johnson, Curtis R. A., Garvin, Ruppenthal, Morris, and Binder. 3,071,772.

Garwick, William N. Alarm system. 3,092,820, 6–4–63, Cl. 340—227.

Garwin, Richard L., to International Business Machines Corp. Persistent current storage device. 3,082,408, 3–19–63, Cl. 340—173.1.

Garwood, Turner G.: *See*—
Schwab, Carl M., Grimmer, and Garwood. 3,075,586.

Garwood, William E.: *See*—
Clapetta, Frank G., Coonradt, and Garwood. 3,111,482.
Clapetta, Frank G., Coonradt, and Garwood. 3,115,456.

Gary, James S., to Orthopedic Equipment Co. Vacuumized surgical cast cutter. 3,103,060, 9–10–63, Cl. 30—124.

Gas Drilling Services Co.: *See*—
Grable, Donovan B., and Keeler. 3,075,589.
Jackson, John G. 3,095,052.
Jackson, John G. 3,102,600.

Gas Engineering & Equipment Co.: *See*—
Fannin, Ray B. 3,097,687.

Gas Inc.: *See*—
Madaras, Julius D. 3,098,738.

Gas Processing Inc.: *See*—
Hull, Raymond J. 3,100,147.
Hull, Raymond J. 3,100,697.

Gasaway, Jack, ½ to P. H. Reedy and S. B. Smith, jointly. Bathing cap. 3,108,283, 10–29–63, Cl. 2—68.

Gasche, Fred, to Autoclave Engineers, Inc. High pressure joint. 3,090,630, 5–21–63, Cl. 277—171.

Gasche, Fred. Swivel grip for golf clubs. 3,095,198, 6–25–63, Cl. 273—165.

Gasche, Fred, to Autoclave Engineers, Inc. Screw connection having coil spring thread means. 3,104,583, 9–24–63, Cl. 85—46.

Gasche, Fred, to Autoclave Engineers, Inc. High pressure laboratory unit. 3,104,628, 9–24–63, Cl. 109—1.

Gaschen, Leon B. Screen door assembly for garages. 3,103,-967, 9–17–63, Cl. 160—113.

Gaser, Jacob: *See*—
Riley, Thomas, Zaas, Gaser, and Strmac. 3,084,882.

Gash, William K., to Moulded Products (Australasia) Ltd. Collapsible container with corrugations to facilitate the collapse of its walls. 3,083,877, 4–2–63, Cl. 222—107.

Gaskell, Merwin H., D. C. Lindley, and F. M. Perkins, Jr., to Jersey Production Research Co. Cellar oil recovery by water displacement. 3,083,764, 4–2–63, Cl. 166—9.

Gaskell, Merwin H., D. C. Lindley, and F. M. Perkins, Jr., to Jersey Production Research Co. Recovery of cellar oil. 3,104,702, 9–24–63, Cl. 166—9.

Gaskell, Walter L., to King-Seeley Thermos Co. Tilting arbor saw. 3,085,602, 4–16–63, Cl. 143—36.

Gaskill, George M., to General Motors Corp. Heat-sensing device. 3,092,997, 6–11–63, Cl. 73—355.

Gaskins, Glenn D. Baby burp seat. 3,071,410, 1–1–63, Cl. 297—195.

Gasmire, Richard C., to Owens-Illinois Glass Co. Method and apparatus for forming hollow plastic articles. 3,079,-631, 3–5–63, Cl. 18—5.

Gaspard, Joseph O., to Gaspard & Sons Ltd. Greeting card and candle contained therein. 3,077,981, 2–19–63, Cl. 206—47.

Gaspard & Sons Ltd.: *See*—
Gaspard, Joseph O. 3,077,981.

Gasparetti, Renato, and Z. Wislouch, to The Loewy Engineering Co. Ltd. Broadside transfer device for elongated metal articles. 3,072,267, 1–8–63, Cl. 214—1.

Gasparini, Francis A., to Westinghouse Electric Corp. Hose coupling for suction cleaning apparatus. 3,073,626, 1–15–63, Cl. 285—7.

Gasparini, Gino L.: *See*—
Davies, Gilbert E., and Gasparini. 3,095,222.

Gasper, Emeric, M. G. Munns, and R. A. Butler, to The Projectile & Engineering Co. Ltd. Injection moulding machine. 3,099,861, 8–6–63, Cl. 18—30.

Gasper, Paul. Trellis structure. 3,105,327, 10–1–63, Cl. 47—47.

Gasquet, Rene, to Societe Industrielle Generale de Mecanique Appliquee S.I.G.M.A. Piston operated wedge type gate valve. 3,111,298, 11–19–63, Cl. 251—62.

Gass, James F. Safety bathtub seat. 3,086,221, 4–23–63, Cl. 4—185.

Gass, James F. Adjustable raised toilet seat. 3,086,223, 4–23–63, Cl. 4—237.

Gasser, Hermann, to Luwa AG. Forming funnel and method of forming silver. 3,083,414, 4–2–63, Cl. 19—150.

Gasser, Hermann, to Luwa AG. Cleaning device for yarn carrying rotary cylinders of textile machines. 3,101,504, 8–27–63, Cl. 15—256.51.

Gassino, Teresio, to Ing. C. Olivetti & C., S.p.A. Ten-key adding machine for non-uniform decimal denominations. 3,084,855, 4–9–63, Cl. 235—60.

Gassman, Hans U., and H. R. Zblinden, to Ciba Ltd. Process for preparing stable aqueous pigment dispersions. 3,094,-499, 6–18–63, Cl. 260—29.4.

Gassmann, Fritz: *See*—
Corti, Ulrich A., Gassmann, and Weber. 3,090,226.

Gassner, Alfred A., and H. J. Kahn, to Kaiser Aluminum & Chemical Corp. Structural unit. 3,103,025, 9–10–63, Cl. 14—1.

Gasson, Edward J., and D. J. Hadley, to The Distillers Co. Ltd. Production of aliphatic bromides. 3,108,141, 10–22–63, Cl. 260—663.

Gast, Albert K., Jr., to Star Shade Cutter Co. Mandrel for cutting metal shade rollers. 3,100,649, 8–13–63, Cl. 279—1.

Gast, Theodor, to Sartorius-Werke A.G. (und vormals Gottinger Prazisionswaagenfabrik G.m.b.H.), Fa. Method of and apparatus for weighing in vacuum. 3,089,553, 5–14–63, Cl. 177—1.

Gaste, Michael, to Poly-Sil, Inc. Novel container. 3,077,-262, 2–12–63, Cl. 206—47.

Gately, Joseph R., to Forbo Design Corp. Relay control circuit. 3,088,053, 4–30–63, Cl. 317—40.

Gatens, Donald W., and C. S. Szekely, to ACF Industries, Inc. Rotary dump. 3,076,568, 2–5–63, Cl. 214—52.

Gates Acoustinet, Inc.: *See*—
Reed, George A., and Rosen. 3,087,578.

Gates, Charles T., deceased; R. Gates, special administratrix. Metal shredder. 3,103,163, 9–10–63, Cl. 100—98.

Gates, Francis H. Combination stacking and dispensing apparatus for coins and the like. 3,107,467, 10–22–63, Cl. 53—254.

Gates, John I., to Shell Oil Co. Hydrocarbon seep detection separator. 3,116,133, 12–31–63, Cl. 55—167.

Gates, John W., Jr., and W. W. Rees, to Eastman Kodak Co. Composition comprising gelatin and a potential hardener therefor. 3,110,597, 11–12–63, Cl. 96—111.

Gates Rubber Co., The: *See*—
Stevens, Bennie A. 3,090,716.

Gates, Ruth: *See*—
Gates, Charles T. 3,103,163.

Gates, Thomas S., to National Broach & Machine Co. Automatic gear gauging apparatus. 3,099,882, 8–6–63, Cl. 33—179.5.

Gateway Erectors, Inc.: *See*—
Relland, Frank D. 3,105,423.

Gatewood, Buford E.: *See*—
Banche, Joe, Vander Putten, and Gatewood. 3,105,969.

Gatewood, Sidney U., and C. G. Koontz, to Borg-Warner Corp. Clutches. 3,090,475, 5–21–63, Cl. 192—99.

Gathers, Glen E., to General Electric Co. Pole face winding connections. 3,084,270, 4–2–63, Cl. 310—183.

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Peters, Theodore J., Collins, and Gathman. 3,090,752.
Gatley, Derek R., and W. L. Abigail, ½ to Graviner Mfg. Co. Ltd. and ½ to Wilkinson Sword Ltd. Hermetically sealed detonator. 3,101,669, 8–27–63, Cl. 102—28.
Gatling, Herman D.: *See*—
Harums, Kenneth W. 3,112,225.
Gatti, Arno: *See*—
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Gatti, Arno, to General Electric Co. Method for sintering tungsten powder. 3,116,146, 12–31–63, Cl. 75—214.
Gatting, Earl J.: *See*—
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Gattnar, Anton, E. Schwausch, G. Bodmeier, and A. Zeltler, to Siemens-Bauunion G.m.b.H. Slip-form jack. 3,085,787, 4–16–63, Cl. 254—106.
Gatto, Joseph L., and R. O. Wyckoff, to Bell & Gossett Co. Self-priming centrifugal pump. 3,103,177, 9–10–63, Cl. 103—113.
Gatto, William: *See*—
Gegenheimer, Harold W., Gatto, and Stad. 3,084,625.
Gatward, Harry F. Carrier bags. 3,115,294, 12–24–63, Cl. 229—52.
Gatza, Casper J. Auxiliary hot water heater. 3,104,651, 9–24–63, Cl. 122—20.
Gatzert, Ernest H., to General Dynamics Corp. Data transmission system. 3,076,179, 1–29–63, Cl. 340—172.5.
Gatzert, Ernest H., to General Dynamics Corp. System for automatically inspecting a batch of samples. 3,087,063, 4–23–63, Cl. 250—106.
Gatzert, Ernest H., to General Dynamics Corp. Line circuit. 3,111,560, 11–19–63, Cl. 179—18.
Gatzert, Ernest H., and G. R. Paul, to General Dynamics Corp. Analog-to-digital converter. 3,111,661, 11–19–63, Cl. 340—347.
Gatzke, Edward. Automatic vacuum breaking still cock. 3,106,935, 10–15–63, Cl. 137—218.
Gaubats, Arthur W., and J. W. Moore, to General Motors Corp. Convergent-divergent jet nozzle. 3,095,695, 7–2–63, Cl. 60—35.6.
Gaubert, Rene J. Programmed tape apparatus. 3,083,269, 3–26–63, Cl. 179—100.2.
Gaubert, Rene J., to Triangle Package Machinery Co. Spaghetti wrapping machine and method. 3,109,502, 11–5–63, Cl. 177—1.
Gaucher, Louis. Method and means for the simulation of the action of mechanical parameters on a body. 3,097,436, 7–16–63, Cl. 35—12.
Gaudet, Francis C.: *See*—
Adams, John M., Cummings, Dalton, and Gaudet. 3,085,664.
Gaudler-Pons, Joseph, to The Sherwin-Williams Co. Color selector. 3,070,905, 1–1–63, Cl. 35—28.3.
Gaudillere, Odette: *See*—
Gaudillere, Pierre. 3,111,670.
Gaudillere, Pierre, deceased, O. Gaudillere and C. G. Bernard, heirs. Device for determining the direction of the ground speed of a moving body. 3,111,670, 11–19–63, Cl. 343—112.
Gaudin, Antoine M.: *See*—
Ziegler, George E., Hayes, and Gaudin. 3,076,546.
Gaudin, Antoine M., H. R. Spedden, and J. H. Sullivan, to Union Carbide Corp. Flotation procedures. 3,094,485, 6–18–63, Cl. 209—166.
Gaudin, Jacques: *See*—
Grollier-Baron, Thérèse and Gaudin. 3,079,452.
Gaudin, Olivier: *See*—
Thuillier, Andre A. A. 3,110,718.
Gauer, Walter W., to Wroble & Gauer Co., Inc. Diving barrier. 3,096,980, 7–9–63, Cl. 272—66.
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Gaul, Richard J., and W. J. Fremuth, to American Cyanamid Co. Selective cyanoethylation of mercaptoamines. 3,115,515, 12–24–63, Cl. 260—465.5.
Gauld, Brownlee B., to The Bendix Corp. Underwater transducer. 3,094,636, 6–18–63, Cl. 310—26.
Gauldie, Kenneth, to Hydraulic Crushers Ltd. Pilot operated release valve structure. 3,097,665, 7–16–63, Cl. 137—491.
Gaule, Gerhart K., H. H. Kedesdy, and L. J. D. Rouge, to United States of America, Army. Apparatus for pulling single crystals in the form of long flat strips from a melt. 3,096,158, 7–2–63, Cl. 23—273.
Gauley, Sherman, to Bausch & Lomb Inc. Recorder pen. 3,094,104, 6–18–63, Cl. 120—42.06.
Gauley, Sherman, to Bausch & Lomb Inc. Recorder pen. 3,094,104, 6–18–63, Cl. 120—42.06.
Gaulke, Arthur W., to Vanant Co., Inc. Packaging strip having outwardly protecting cushioning peaks. 3,095,970, 7–2–63, Cl. 206—62.
Gaumer, John O. Self-inflating life preserver entity and method of making the same. 3,084,357, 4–9–63, Cl. 9—327.
Gaumer, John O. Water craft. 3,113,548, 12–10–63, Cl. 115—12.
Gaumer, Lee S., Jr.: *See*—
Vander Arend, Peter C., and Gaumer. 3,092,461.
Vander Arend, Peter C., and Gaumer. 3,104,953.
Gaunt, John A., and J. W. Stutts, to Geigy Chemical Corp. Process for the preparation of phosphoric acid esters. 3,107,245, 10–15–63, Cl. 260—251.
Gaunt, Thomas N. Liquid proof containers. 3,073,216, 1–15–63, Cl. 93—36.01.
Gaunt, Thomas N. Process for the manufacture of hollow-ware articles composed of thermoplastic material. 3,082,482, 3–26–63, Cl. 18—48.
Gaunt, William E., and R. P. Tansey, to Strong Cobb Arner Inc. Controlled release compositions and their preparation. 3,101,293, 8–20–63, Cl. 167—82.
Gauntt, Wayne M.: *See*—
Berst, Neil W., Gauntt, and Maisel. 3,075,923.
Gaupp, Kurt, to Forstner, Inc. Slide for bracelets and the like. 3,075,266, 1–29–63, Cl. 24—116.
Gaus, Walter A. Carrying clamps for vehicles. 3,104,042, 9–17–63, Cl. 224—42.1.
Gauslaa, Kjetil, to Copolymer Rubber & Chemical Corp. Improved centrifuge tube. 3,081,029, 3–12–63, Cl. 233—26.
Gauslaa, Kjetil, and J. D. Sutherland, Jr., to Copolymer Rubber and Chemical Corp. Method of continuously coagulating rubber latices with fresh coagulant and the resultant product. 3,092,603, 6–4–63, Cl. 260—33.6.
Gautheret, Roger: *See*—
Menoret, Yves, and Gautheret. 3,094,060.
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Brodbeck, Willy. 3,086,426.
Rentschler, Waldemar T. 3,071,052.
Rentschler, Waldemar T. 3,071,053.
Rentschler, Waldemar T. 3,074,330.
Rentschler, Waldemar T. 3,079,848.
Rentschler, Waldemar T. 3,083,625.
Rentschler, Waldemar T. 3,086,436.
Rentschler, Waldemar T. 3,097,583.
Rentschler, Waldemar T. 3,104,601.
Rentschler, Waldemar T. 3,105,427.
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Richter, Carl F. 3,095,791.
Starp, Franz W. R. 3,089,397.
Starp, Franz W. R. 3,093,046.
Starp, Franz W. R. 3,093,048.
Starp, Franz W. R. 3,093,049.
Starp, Franz W. R. 3,115,817.
Stieringer, Albert. 3,085,485.
Weller, Erwin 3,091,165.
Weller, Erwin. 3,105,429.
Gauthier, George E., to General Electric Co. Lock-open contach latch. 3,110,792, 11–12–63, Cl. 200—153.
Gauthier, Raymond A. Magnetic work-holder. 3,089,986, 5–14–63, Cl. 317—162.
Gauthier, Theophile E., and D. J. Massa. Flexible cannula and intravenous needle combined. 3,094,122, 6–18–63, Cl. 128—221.
Gauthier, William D., to Ransburg Electro-Coating Corp. Apparatus for testing electrical resistivity of liquids. 3,082,372, 3–19–63, Cl. 324—30.
Gauthier, William D., to Ransburg Electro-Coating Corp. Shunt control to prevent arcing in an electrostatic spray coating system and method. 3,083,121, 3–26–63, Cl. 117—93.4.
Gauthron, Maurice: *See*—
Bernard, Jean L., Gauthron, and Gautier. 3,075,378.
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Gauthron, Robert. Method of constructing an elevated reservoir. 3,073,018, 1–15–63, Cl. 29—421.
Gautier, Andre: *See*—
Bernard, Jean L., Gauthron, and Gautier. 3,075,378.
Gauvain, Roger, to Societe Alsacienne de Constructions Mechaniques. Control mechanisms for the nippers of rectilinear combers. 3,074,119, 1–22–63, Cl. 19—227.
Gavasso, Louis J., to Burroughs Corp. Recording method and means. 3,114,500, 12–17–63, Cl. 234—1.
Gaver, Kenneth M., E. G. Adamek, and G. F. Fink, to Ogilvie Flour Mills Co. Ltd. Process of epoxidizing proteinaceous materials. 3,111,416, 11–19–63, Cl. 106—146.
Gavette, Leon D., to Lockheed Aircraft Corp. Multi-purpose powerplant stand. 3,085,798, 4–16–63, Cl. 269—17.
Gavin, Beauford E.: *See*—
Yearley, Bernard C., Norton, and Gavin. 3,094,749.
Gavin, John C., to United Aircraft Corp. Thrust reverser control system. 3,086,360, 4–23–63, Cl. 60—35.54.
Gavlin, Gilbert, and K. Hattori, to The Richardson Co. Process for making β-amino alkyl sulfate ester. 3,100,789, 8–13–63, Cl. 260—458.
Gavlin, Gilbert, W. M. Boyer, and D. R. Berger, to The Richardson Co. Process for preparing alpha sulfo fatty acids and salts thereof. 3,104,247, 9–17–63, Cl. 260—400.
Gavurnik, Steven: *See*—
McCauley, John H., and Gavurnik. 3,101,427.
Gaw, Norman W., Jr.: *See*—
Houck, Harry W., and Gaw. 3,102,980.
Gaw-O'Hara Envelope Co.: *See*—
Sauerman, Ernst C. 3,077,821.
Gawron, Paul F. Containers. 3,091,361, 5–28–63, Cl. 220—97.
Gawthrop, Asa D. Data sheet holder. 3,106,799, 10–15–63, Cl. 45—82.
Gay-Bell Corp.: *See*—
Bell, Harry G., Gay, and Shaffer. 3,091,769.
Bell, Harry G., Gay, and Shaffer. 3,101,479.
Joswig, Fred W., and Minnich. 3,112,831.
Gay, Herman P. Quick-response temperature-corrected internal type pressure gage. 3,089,341, 5–14–63, Cl. 73—398.
Gay, Jacob D.: *See*—
Bell, Harry G., Gay, and Shaffer. 3,091,769.

Gay, Jacob D., Jr.: *See*—
Bell, Harry G., Gay, and Shaffer. 3,101,479.
Gay, John A., to American Pipe and Construction Co. Method and apparatus for limiting loss of overhead mortar lining in pipe. 3,074,139, 1–22–63, Cl. 25—38.
Gay, Newsome W., to Min-O-Matic, Inc. Rice cooking package. 3,081,174, 3–12–63, Cl. 99—171.
Gay, Philip T.: *See*—
Barth, Harry J., and Gay. 3,098,755.
Gay, Raymond, and E. Siganos, to Esso Research and Engineering Co. Diesel fuel oil. 3,074,886, 1–22–63, Cl. 123—1.
Gay, Raymond, and E. Siganos, to Esso Research and Engineering Co. Fuel oil compositions of improved combustion characteristics. 3,085,866, 4–16–63, Cl. 44—57.
Gaydasch, Alexander: *See*—
Cox, William L., and Gaydasch. 3,116,328.
Hayes, Charles M., and Gaydasch. 3,116,329.
Gayer, John D.: *See*—
Hank, Emil J., and Gayer. 3,087,187.
Gayfer, Peter J., A. Jubb, and C. L. Johnson, to Rolls-Royce Ltd. Gas turbine engine fuel system. 3,076,310, 2–5–63, Cl. 60—39.28.
Gaylord, John A., to H. Koch & Sons. Separable line coupling. 3,094,345, 6–18–63, Cl. 287—76.
Gaylord, John A., to H. Koch & Sons. Actuating devices for aerial survival kits. 3,107,870, 10–22–63, Cl. 9—11.
Gaylord, John A., to H. Koch & Sons. Canopy spiller. 3,112,907, 12–3–63, Cl. 244—151.
Gaylord, Norman G.: *See*—
Hamermesh, Charles L., and Gaylord. 3,076,011.
Gaylord, Norman G., to Interchemical Corp. New acrylic copolymers containing the norbornene nucleus and coating compositions containing same. 3,083,190, 3–26–63, Cl. 260—80.5.
Gaylord, Norman G., to Interchemical Corp. New thermosetting compositions of acrylic polyester and amine-aldehyde resins. 3,098,835, 7–23–63, Cl. 260—33.6.
Gaylord, Paul C., to The Greif Bros. Cooperage Corp. Method of making a composite metal paper container. 3,072,517, 1–8–63, Cl. 156—83.
Gaylord Products, Inc.: *See*—
Trahish, Robert. 3,103,223.
Gayol, Roman M., to Empresa Nacional Calvo Sotelo de Combustibles Liquidos y Lubricantes, S.A. Process and apparatus for producing anhydrous aluminum chloride. 3,078,145, 2–19–63, Cl. 23—93.
Gayring, Wallace F., to Ward Industries Corp. Sub filter safety medium. 3,073,452, 1–15–63, Cl. 210—108.
Gaysowski, Joseph J., to General Electric Co. Methods of and apparatus for demineralising raw water. 3,074,864, 1–22–63, Cl. 204—151.
Gaysowski, Joseph J., to General Electric Co. Methods of and apparatus for demineralising raw water. 3,074,865, 1–22–63, Cl. 204—151.
Gaz de France (Service National): *See*—
Delaruelle, Jacques, and Banal. 3,114,920.
Gazdik, Emil R., to R. L. Kuss & Co., Inc. Swimming pool cover and holddown structure therefor. 3,077,610, 2–19–63, Cl. 4—172.
Gazdik, Frank. Battery powered heater for conserves. 3,105,138, 9–24–63, Cl. 219—43.
Gdovin, Edward: *See*—
Gdovin, William J. and E., and L. J. and F. E. Waller. 3,105,476.
Gdovin, William J. and E., and L. J. and F. E. Waller. Fuel injection system. 3,105,476, 10–1–63, Cl. 123—119
Gea-Luftkuhler Gesellschaft m.b.H.: *See*—
Erts, Helmut. 3,074,478.
Schulenberg Franz. 3,073,575.
Gear Industries, Inc.: *See*—
Ohlinger, Fred A. 3,107,413.
Gearhart, Walter S., and J. W. Hammond, to Curtiss-Wright Corp. System and mechanism for dispensing fluids. 3,101,101, 8–20–63, Cl. 141—207.
Gearhart, Walter S., and J. W. Hammond, to Curtiss-Wright Corp. Closed pressure system for dispensing fluids. 3,101,102, 8–20–63, Cl. 141—209.
Gearhart, William M., and F. M. Ball, to Eastman Kodak Co. Lacquer extender. 3,076,718, 2–5–63, Cl. 106—180.
Gearheart, John D.: *See*—
Christoff, Chris A., and Gearheart. 3,101,664.
Christoff, Chris A., Gearheart, and Busch. 3,090,298.
Geary, Arthur L.: *See*—
Aronin, Lewis R., and Geary. 3,085,007.
Geary, Daniel C., and R. D. West, to Union Carbide Corp. Powder aerosol. 3,088,874, 5–7–63, Cl. 167—82.
Geary, John I.: *See*—
Beuscher, Howard W., Geary, and Morris. 3,087,851.
Geary, Robert J., to Plant Products Corp. Particulate pesticidal composition coated with an amido-aldehyde resin polymerized in situ. 3,074,845, 1–22–63, Cl. 167—42.
Geary, Robert J., to Plant Products Corp. Acid-polymerized aminoplast resin insecticidal bait composition. 3,076,744, 2–5–63, Cl. 167—48.
Geary, Thomas A.: *See*—
Werra, Bruno H., and Geary. 3,105,516.
Geary, Thomas A., to Ladish Co. Mechanical sealing devices. 3,094,336, 6–18–63, Cl. 277—92.
Gebald, Gregor, and W. Hermes, to W. Reiners. Yarn-typing device. 3,110,511, 11–12–63, Cl. 289—12.
Geballe, Theodore H., to Bell Telephone Laboratories, Inc. Insulated superconducting wire. 3,109,963, 11–5–63, Cl. 317—123.
Gebel, Radames K. H., to United States of America, Air Force. Grain spacing to light intensity translator for photographic enlargements. 3,115,545, 12–24–63, Cl. 178—6.8.
Gebele, Kurt, to Compur-Werk Friedrich Deckel oHG. Photographic camera. 3,071,056, 1–1–63, Cl. 95—64.
Gebele, Kurt, to Compur-Werk Friedrich Deckel oHG. Preselection diaphragm structure for photographic cameras. 3,071,057, 1–1–63, Cl. 95—64.
Gebele, Kurt, to Compur-Werk Friedrich Deckel oHG. Photographic camera. 3,071,058, 1–1–63, Cl. 95—64.
Gebele, Kurt, to Compur-Werk Friedrich Deckel oHG. Photographic camera. 3,094,056, 6–18–63, Cl. 95—64.
Gebele, Kurt, and F. Singer, to Compur-Werk G.m.b.H. & Co. Photographic shutter. 3,089,401, 5–14–63, Cl. 95—63.
Gebele, Kurt, and F. Singer, to Compur-Werk Gesellschaft mit beschrankter Haftung & Co. Photographic camera. 3,095,790, 7–2–63, Cl. 95—10.
Geberin, Arthur R., to Screw Conveyor Corp. Conveyor flight. 3,111,216, 11–19–63, Cl. 198—174.
Gebert, Gregory G., and J. R. Schreiner, to Carrier Corp. Air purifying means and method. 3,105,749, 10–1–63, Cl. 55—47.
Gebhard, Frederick W. Plural battery system for vehicles. 3,108,190, 10–22–63, Cl. 290—36.
Gebhardt, Alfred A.: *See*—
Merrill, Charles W., and Gebhardt. 3,110,177.
Gebhardt, Carl C., to Hughes Aircraft Co. Sector scan control apparatus. 3,091,761, 5–28–63, Cl. 343—7.4.
Gebhardt, Carl C., to Hughes Aircraft Co. Radar antenna speed reference apparatus. 3,110,022, 11–5–63, Cl. 343—5.
Gebhardt, Eugen, to Ruti Machinery Works Ltd. Heald frame holder for looms. 3,106,229, 10–8–63, Cl. 139—82.
Gebhardt, Julius W., J. H. Ettinger, and J. H. Rittenhouse, to Sperry Rand Corp. Rotary waveguide switch. 3,101,457, 8–20–63, Cl. 333—7.
Gebhardt, Wilhelm, and F. Kuhrt, to Siemens-Schuckertwerke Aktiengesellschaft. Demodulators for frequency-modulated carrier signals. 3,094,669, 6–18–63, Cl. 329—119.
Gebhardt, Willard A., to Packers' Development Corp. Controlled refrigeration system. 3,111,012, 11–19–63, Cl. 62—419.
Gebura, Stanley E., to Monsanto Chemical Co. Method for the preparation of diglycidyl ether of tetrachlorobisphenol-A. 3,074,974, 1–22–63, Cl. 260—348.6.
Gecewicz, Norbert A., to Automatic Canteen Co. of America. Displacement means for currency testing device. 3,087,766, 4–30–63, Cl. 312—212.
Gecewicz, Norbert A., to Automatic Canteen Co. of America. Photosensitive currency testing device. 3,109,100, 10–29–63, Cl. 250—219.
Gecks, Donald L.: *See*—
Knosp, Robert N., and Gecks. 3,109,329.
Knosp, Robert N., and Gecks. 3,100,406.
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Gedenk, Rudolf: *See*—
Schmid, Christoph, and Gedenk. 3,106,525.
Gedgaudas, Mindaugas E.: *See*—
Shaver, Oliver R., and Gedgaudas. 3,115,697.
Gedid, Joseph C. Brush roller jacket. 3,084,699, 4–9–63, Cl. 132—46.
Gee, Arthur. Grain ripening machine. 3,091,054, 5–28–63, Cl. 47—1.
Gee, Ethlyn. Portfolio. 3,082,567, 3–26–63, Cl. 45—129.
Gee, George: *See*—
Marsden, John E., Gee, and Saxton. 3,079,274.
Gee, Leroy J.: *See*—
Matthews, Robert J., and Gee. 3,083,721.
Gee, Leroy J., to American Radiator & Standard Sanitary Corp. Resistance thermometer probe. 3,075,161, 1–22–63, Cl. 338—28.
Gee, Leroy J., to American Radiator & Standard Sanitary Corp. High temperature resistance thermometer. 3,103,641, 9–10–63, Cl. 338—28.
Gee, Leroy J., to American Radiator & Standard Sanitary Corp. Thermocouple probe. 3,116,168, 12–31–63, Cl. 136—4.
Gee, Paul Y. C.: *See*—
Andress, Harry J., Jr., and Gee. 3,095,286.
Gee, Paul Y. C., and H. J. Andress, Jr., to Socony Mobil Oil Co., Inc. Stabilized jet combustion fuels. 3,115,483, 12–24–63, Cl. 260—78.5.
Gee, William, Jr. Coffee brewer. 3,092,011, 6–4–63, Cl. 99—287.
Geen, Cory P., to Industrial Devices, Inc. Collet assembly. 3,099,411, 7–30–63, Cl. 242—46.5.
Geen, Cory P. Builder mechanism. 3,114,511, 12–17–63, Cl. 242—43.
Geen, Henry C.: *See*—
Smith, Thomas B., and Geen. 3,072,492.
Geer, Harold C. Multi-hanger bracket for conduit support. Re. 25,350, 3–12–63, Cl. 248—58.
Geer, Ronald L., to Shell Oil Co. Underwater wellhead flow line connector. 3,090,437, 5–21–63, Cl. 166—66.5.
Geering, Emil J., to Hooker Chemical Corp. Stabilization of 6,7,8,9,10,10 - hexachloro - 1,5,5α,6,9,9α - hexahydro - 6,9 - methano-2,4,3-benzodioxathiepin-3-oxide with nitrogen containing compounds. 3,078,277, 2–19–63, Cl. 260—327.
Geering, Emil J., to Hooker Chemical Corp. Bis (tetrachloroethyl) disulfide. 3,088,818, 5–7–63, Cl. 71—2.7.

Geering, Emil J., and E. Leon, to Hooker Chemical Corp. Stabilization of 6,7,8,9,10,10 - hexachloro - 1,5,5a,6,9,9a-hexahydro-6,9-methano - 2,4,3 - benzodioxathiepin-3-oxide. 3,078,278, 2–19–63, Cl. 260—327.

Geerts, Marcellus J., and C. T. O'Malley, to The Pure Oil Co. Method of preparing isomerization catalyst. 3,116,259, 12–31–63, Cl. 252—439.

Geertsen, Svend H.: *See*—
Zeuthen, Karl G., and Geertsen. 3,103,167.

Geesner, Charles R.: *See*—
Barnes, Charles R., and Geesner. 3,095,527.

Geffcken, Walter, and M. Faulstich, to Jenaer Glaswerk Schott & Gen. Optical glass. 3,074,805, 1–22–63, Cl. 106—47.

Geffcken, Walter, and M. Faulstich, to Jenaer Glaswerk Schott. Optical glass free of thorium. 3,080,240, 3–5–63, Cl. 106—47.

Geffcken, Walter, and M. Faulstich, to Jenaer Glaswerk Schott & Gen. Optical glass. 3,082,101, 3–19–63, Cl. 106—47.

Geffers, Klaus E.: *See*—
Drabert, Fritz E., and Geffers. 3,097,748.

Geffroy, Georges, to Societe Cellophane Investment Co., Ltd. Apparatus for sealing cartons. 3,074,213, 1–22–63, Cl. 53—133.

Gegauf, Fritz, to Fritz Gegauf Aktiengesellschaft Berninanahmaschinenfabrik. Abrasive belt grinding machine. 3,095,675, 7–2–63, Cl. 51—148.

Gegauf, Fritz, Aktiengesellschaft Berninananhmaschinenfabrik: *See*—
Gegauf, Fritz. 3,095,675.
Gegauf, Fritz, Jr. 3,101,685.

Gegauf, Fritz, Jr., to Fritz Gegauf, Aktiengesellschaft Bernina-Nahmaschinenfabrik. Automatic ornamental sewing machine. 3,101,685, 8–27–63, Cl. 112—158.

Gegenheimer, Harold W., W. Gatto, and A. N. Stad, to Baldwin-Gegenheimer Corp. Ink agitator device. 3,084,625, 4–9–63, Cl. 101—364.

Gehl Bros. Mfg. Co.: *See*—
Leverenz, John H. 3,108,421.

Gehlsen, Carlheinz. Emergency lamp for a motor vehicle. 3,072,885, 1–8–63, Cl. 340—72.

Gehm, Robert: *See*—
Stilz, Walter, Pommer, Gehm, Schmidt, Mertens, Hehl, and Grunwald. 3,076,020.

Gehre, Hans. Pressure and temperature compensator for a gas meter. 3,073,157, 1–15–63, Cl. 73—194.

Gehre, Hans. Device for regulating a fluid meter for temperature and pressure changes. 3,076,337, 2–5–63, Cl. 73—199.

Gehrie, Charles S., to Presto Lock Co. Valance. 3,112,018, 11–26–63, Cl. 190—28.

Gehrig, Edward H.: *See*—
Gens, Ralph S., and Gehrig. 3,089,013.

Gehring, Arthur J., Jr., and L. W. Stowe, to Sperry Rand Corp. Switching device. 3,103,650, 9–10–63, Cl. 340—174.1.

Gehring, John W., Jr. Eutectic alloy shaped charge liner. 3,112,700, 12–3–63, Cl. 102—20.

Gehring, William F. Industrial fork lift truck. 3,106,305, 10–8–63, Cl. 214—730.

Gehringer, Mervin L. Sewing machine attachment. 3,109,397, 11–5–63, Cl. 112—105.

Gehrke, Gunter, to Farbenfabriken Bayer Aktiengesellschaft. Process for the dyeing of polyester fibre materials. 3,099,513, 7–30–63, Cl. 8—39.

Gehrke, Herman A. Lift for oil and other fluids. 3,077,932, 2–19–63, Cl. 166—105.

Gehrke, Max R. Harness deer drag and the like. 3,077,292, 2–12–63, Cl. 224—5.

Gehrmann, Hasso: *See*—
Hartwig, Fritz, Kaspar, Klesow, and Gehrmann. 3,109,949.

Gelb, Buell H.: *See*—
Rice, Rip G., Gelb, Kaplan, and Hooker. 3,108,989.

Gelbel, Emmett H.: *See*—
Behrens, Curtis E., and Gelbel. 3,103,112.

Geler, Adam. Bathing drawers. 3,098,248, 7–23–63, Cl. 9—335.

Geiger, Ernst, to Chimiotex S.A. Process for the manufacture of regenerated cellulosic material. 3,113,828, 12–10–63, Cl. 18—54.

Geiger, Friedrich, to Daimler-Benz Aktiengesellschaft. Vehicle top construction. 3,087,753, 4–30–63, Cl. 296—103.

Geiger, Friedrich, W. Dalheimer, and A. Schmidt, to Daimler-Benz Aktiengesellschaft. Foldable roof construction, especially for motor vehicles. 3,075,804, 1–29–63, Cl. 296—107.

Geiger, Karl, S. L. Shapiro, and L. Freedman, to U.S. Vitamin & Pharmaceutical Corp. Process for preparing arylindandiones. 3,090,813, 5–21–63, Cl. 260—590.

Geiger, Russell C.: *See*—
Allen, Charles M., Geiger, and Meeker. 3,092,134.

Geiger, Russell C., to The Hobart Mfg. Co. Escapement drive. 3,099,164, 7–30–63, Cl. 74—125.

Geigy Chemical Corp.: *See*—
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Dexter, Martin. 3,110,696.
Ferguson, John F. 3,107,246.
Gaunt, John A., and Stutts. 3,107,245.
Graf, Wilfried, and Schmid. 3,082,212.
Johl, Albert J. H., and Stoll. 3,073,821.
Jöhl, Albert J. H., and Stoll. 3,074,942.
Jöhl, Albert J. H., and Stoll. 3,091,608.
Knell, Martin. 3,107,260.

Geigy Chemical Corp.: *See*—Continued
Kuhnis, Hans, H., Denss, and Eugster. 3,073,838.
Leitner, George J. 3,095,320.
Renner, Ulrich. 3,108,095.
Renner, Ulrich, and Prins. 3,090,787.
Schindler, Walter. 3,073,841.
Zimmermann, Markus, and Hafliger. 3,112,311.
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Bindler, Jakob, and Model. 3,108,903.
Bossard, Werner, Voltz, and Favre. 3,101,988.
Brenner, Carl M., and Stevens. 3,107,239.
Dussy, Paul, Bosshard, and Leutenegger. 3,085,849.
Gysin, Hans, and Knusli. 3,078,154.
Illrsbrunner, Hans-Rudolf, and Schaeuble. 3,083,069.
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Knüsli, Enrico, Rüfenacht, and Gysin. 3,086,855.
Margot, Alfred. 3,075,875.
Pugin, Andre. 3,076,815.
Pugin, André, and Bindler. 3,082,213.
Pugin, Andre, and Schetty. 3,107,243.
Schetty, Guido. 3,102,110.
Schlapfer, Hans, and Bindler. 3,096,309.
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Treboux, Jules, and Roth. 3,073,706.

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Gellich, Otto P., to Teletype Corp. Display register. 3,077,685, 2–19–63, Cl. 40—52.

Gels, James E., to New York Trap Rock Corp. Bin level indicator. 3,114,804, 12–17–63, Cl. 200—61.47.

Geisenhayer, Arthur J., to Tecumseh Products Co. Centrifugal oil separating an anti-slugging device for refrigeration compressors. 3,081,935, 3–19–63, Cl. 230—206.

Geiser, Edward M.: *See*—
Bloch, Herman S., and Geiser. 3,082,266.

Geiser, Hilda G.: *See*—
Geiser Homer E. 3,092,928.

Geiser, Homer E., deceased: W. Neuenschwander, administrator, to H. G. Geiser. Toy construction. 3,092,928, 6–11–63, Cl. 46—43.

Geiser, John R. Hoop-shaped vehicle having occupant seat therein. 3,076,666, 2–5–63, Cl. 280—206.

Geiser, Nickolaus: *See*—
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Geisler, William, and C. W. Goodwin, to American Seal-Kap Corp. Method and machine for making cylindrical containers. 3,103,857, 9–17–63, Cl. 93—39.2.

Geiss-bauer, Karl. Electrode plate for lead storage batteries. 3,083,250, 3–26–63, Cl. 136—38.

Geissing, Heinz, to Siemens-Schuckertwerke Aktiengesellschaft. Controlled power rectifier system. 3,071,720, 1–1–63, Cl. 321—18.

Geissing, Heinz, to Siemens-Schuckertwerke Aktiengesellschaft. Apparatus for controlling a power-rectifier system. 3,086,156, 4–16–63, Cl. 318—308.

Geissler, Ernst D., and R. F. Hoelker, to United States of America, Army. Artificially stabilized missile. 3,113,520, 12–10–63, Cl. 102—50.

Geissler, Ulrich M.: *See*—
Rowe, Henry H. G., and Geissler. 3,101,014.

Geist, George A., ½ to H. H. Geist. Paper clasp. 3,103,724, 9–17–63, Cl. 24—66.

Geist, Harry H.: *See*—
Geist, George A. 3,103,724.

Geist, William L., to RC Can Co. Machine for the production of helically wound tubes. 3,085,481, 4–16–63, Cl. 93—80.

Geistlich, Ed., Sohne A.G. fur Chemische Industrie: *See*—
Aebi, Albert, and Giger. 3,102,108.

Geitz, Robert C.: *See*—
Merritt, Henry B., Geitz, and Nellen. 3,101,722.

Gelb, Arthur: *See*—
Brown, Ethan A., and Gelb. 3,071,351.

Gelbard, Robert B., to General Electric Co. Refrigerator including defrost control means. 3,112,619, 12–3–63, Cl. 62—156.

Gelberman, Jacob: *See*—
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Gelbert, David. Fishing gunic. 3,106,394, 10–8–63, Cl. 272—8.

Gelbert, Heinz: *See*—
Dorfelt, Christoph, and Gelbert. 3,082,230.

Gelbert, Heinz, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Process for preparing liquid hexaalkyl-distannoxanes. 3,100,215, 8–6–63, Cl. 260—429.7.

Geld, Isidore, and I. F. Sternman, to United States of America, Navy. Colorimetric determination of chlorides in liquids. 3,104,160, 9–17–63, Cl. 23—230.

Gelenkwellenbau G.m.b.H.: *See*—
Kempf, Willi. 3,100,660.
Reinecke, Walter. 3,074,255.

Gelert, Robert A., to Northrop Architectural Systems. Screen wall construction. 3,072,230, 1–8–63, Cl. 189—82.

Gelfand, Leonard: *See*—
Rylander, Rolf E., Gelfand, and Ebert. 3,116,142.

Gelfand, Louis: *See*—
Grahn, Edwin O., and Gelfand. 3,088,453.

Gelfand, Nathan M., E. Nielsen, and B. Stopek, to Ideal Toy Corp. Space toy. 3,071,895, 1–8–63, Cl. 46—243.

Gelfand, Samuel: *See*—
Baranauckas, Charles F., and Gelfand. 3,080,429.

Gelhaus, Gustav: *See*—
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Gelinas, Ralph J. Swimming pool cleaner. 3,108,298, 10–29–63, Cl. 15—1.7.

Gell, Philip A. M., to Elemelt Ltd. Means for making fibres of vitreous material. 3,097,251, 7–9–63, Cl. 13—6.

Gell, Philip A. M., and D. G. Hann, to Elemelt Ltd. Method and apparatus for heating glass preparatory to delivery. 3,080,737, 3–12–63, Cl. 65—128.

Gellar, Charles A., to The Alloyd Corp. Paper metallizing process utilizing iron dodecacarbonyl. 3,108,014, 10–22–63, Cl. 117—107.2.

Geller, Milton: *See*—
Roth, Herbert, and Geller. 3,083,330.

Geller, William: *See*—
Fischman, Martin, and Geller. 3,098,162.

Gellerstad, Robert V. Method and means for erecting lighthouses, breakwaters, bridge-piers and similar structures. 3,091,089, 5–28–63, Cl. 61—46.

Gellert, Alvin W.: *See*—
Parstorfer, John, and Gellert. 3,071,661.

Gelles, William. Multiple light socket arrangement for Christmas trees and the like. 3,115,378, 12–24–63, Cl. 339—20.

Gelling, Helmut, to Walther Buromaschinen Gesellschaft m.b.H. Apparatus for printing of amounts being rounded off behind the decimal point in calculating machines. 3,076,597, 2–5–63, Cl. 235—61.

Gelling, Helmut, to Walther Buromaschinen Gesellschaft m.b.H. Mechanism for controlling the print of the decimal point with printing calculating machines, in particular with invoicing machines. 3,080,111, 3–5–63, Cl. 235—60.15.

Gelling, Helmut, to Precisa A.G. Mechanism for re-setting the pins in the pin box of a calculating and bookkeeping machine. 3,114,502, 12–17–63, Cl. 235—60.

Gellner, Walter E. Implement and transport therefor. 3,086,598, 4–23–63, Cl. 172—456.

Gellner, Walter E. Lifting and transporting mechanism for agricultural implements. 3,115,853, 12–31–63, Cl. 111—54.

Gelpey, Kenneth, to Traffic Control, Inc. Compartmented package and divider therefor. 3,082,867, 3–26–63, Cl. 206—47.

Gelpke, Karl A., to The Kendall Co. Non-woven fabrics. 3,104,998, 9–24–63, Cl. 161—109.

Gelzheiser, Francis L., to Westinghouse Electric Corp. Circuit breaker. 3,088,008, 4–30–63, Cl. 200—88.

Gelzheiser, Francis L., to Westinghouse Electric Corp. Electromagnetic thermal current circuit breaker. 3,110,786, 11–12–63, Cl. 200—88.

Gembol, August W.: *See*—
Carrozza, Roy J., and Gembol. 3,086,100.

Gemeinhardt, Paul G., to Mobay Chemical Co. Process for preparing cellular polyurethanes from mixture of two prepolymers and resulting product. 3,094,495, 6–18–63, Cl. 260—2.5.

Gemmer, Erwin, to Knapsack-Griesheim Aktiengesellschaft. Fluidized bed coating process for coating with thermosetting materials. 3,090,696, 5–21–63, Cl. 117—21.

Gemmer Mfg. Co., Division of Ross Gear and Tool Co., Inc.: *See*—
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Gemperline, Howard F.: *See*—
Foos, Raymond A., and Gemperline. 3,088,955.

Gena, Heinz, and E. Werner, to VEB Leuna-Werke "Walter Ulbricht." Low gas moisture measuring apparatus. 3,077,763, 2–19–63, Cl. 73—17.

Gendron Freres S.A.: *See*—
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Allegrette, Joseph W. 3,084,638.
Aller, Edmund R. 3,088,776.
Aller, Edmund R. 3,088,777.
Aller, Edmund R. 3,088,778.
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Budininkas, Pranas. 3,077,421.
Clejan, Deodat. 3,102,646.
Delbove, Emile. 3,081,525.
Lee, Warren G. 3,088,846.
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Price, Albert E. 3,102,496.
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Bergstrom, Herman A. 3,079,376.
Bialczak, Edward C. 3,113,025.
Bialczak, Edward C., and Welch. 3,078,162.
Blumenkopf, Norman. 3,104,934.
Buc, Saul R. 3,073,843.
Buc, Saul R. 3,083,233.
Chang, Charles H. 3,095,457.
Chiddix, Max E., and Wynn. 3,094,458.
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Cukier, Samuel T. 3,113,064.
Dersch, Fritz, and De Angelus. 3,071,465.
Dersch, Fritz, and De Angelus. 3,084,044.
Donaldson, Robert D., and Welch. 3,079,404.
Duggins, William E. 3,092,485.
Evans, Helene D., and Mueller. 3,101,270.
Frantz, Frederick H., and Ackerman. 3,081,737.
Frantz, Frederick H., and Klem. 3,110,241.
Freyermuth, Harlan B., and Mautner. 3,100,131.
Glickman, Samuel A., Miller, and Chiddix. 3,097,181.
Glickman, Samuel A., and Schultz. 3,092,630.
Goodman, Robert C., and Mastrolanni. 3,081,686.
Graham, David E., and Craig. 3,087,967.
Herrick, Clifford E., Jr. 3,087,403.
Hessel, Frederick A. 3,086,907.
Hort, Eugene V., Freyermuth, and Graham. 3,093,685.
Horwitz, Lester, and Clark. 3,102,142.
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Hosmer, William A., and Starke. 3,087,853.
Katz, Leon. 3,080,375.
Klinger, Gunther H. 3,112,198.
Kostelec, Joze, and Nitka. 3,095,301.
Levinos, Steven. 3,075,907.
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Marschall, Franz, and Mayhew. 3,112,317.
Mayhew, Raymond L., and Williams. 3,089,888.
Moore, Ralph G. D., and Cox. 3,082,200.
Perry, William M. 3,100,179.
Prescott, Francis J., and Wich. 3,088,837.
Randall, David I., Buc, Freyermuth, and Mayhew. 3,094,516.
Rauch, Emil B. 3,071,467.
Rauch, Emil B., and Dersch. 3,081,170.
Rauch, Emil B., and Hance. 3,079,259.
Roth, Curt B., and Mueller. 3,080,233.
Schenck, Leslie M., and Papalos. 3,089,882.
Schmeckenbecher, Arnold. 3,086,840.
Schmeckenbecher, Arnold F. 3,112,179.
Schmidt-Nickels, Wilhelm. 3,106,563.
Schultz, Herman S., Copes, and Mayhew. 3,073,822.
Schwerin, Andre K., and Evans. 3,110,592.
Smith, Carl M. 3,071,559.
Sprung, Joseph A. 3,113,026.
Stanley, Lester N. 3,073,866.
Stanley, Lester N. 3,092,663.
Stoner, George G. 3,073,974.
Streck, Clemens. 3,086,833.
Streck, Clemens. 3,113,825.
Strobel, Albert F., and Catino. 3,074,971.
Strobel, Albert F., and Catino. 3,085,097.
Strobel, Albert F., and Catino. 3,111,417.
Sweet, Monroe H. 3,102,202.
Takats, Zoltan. 3,074,467.
Takats, Zoltan. 3,081,687.
Takats, Zoltan. 3,086,438.
Tallet, Joseph, and Ben-Ezra. 3,080,317.
Trucker, Donald E. 3,077,403.
Turetzky, Melvin N. 3,086,977.
Welch, Eldred. 3,098,092.
Welch, Walter J. 3,102,812.
Werner, Jesse, and Hessel. 3,097,087.
Wilson, Robert C., and Freyermuth. 3,096,333.
Woitach, Peter T., Jr., and Herrick. 3,086,861.

General Applied Science Laboratories, Inc.: *See*—
Ferri, Antonio. 3,105,661.

General Atronics Corp.: *See*—
Preston, Glenn W. 3,100,943.
Sunstein, David E., Laurent, and Zuck. 3,074,017.

General Bathroom Products Corp.: *See*—
Tantillo, Alfred, and Nelson. 3,081,397.

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Bardy, Peter J. 3,083,963.
Levitan, Maurice D. 3,077,887.
Thieme, Julius F. 3,077,888.
Vakkinen, Ensio K. 3,087,497.

General Box Co.: *See*—
Foss, Orlando W. 3,113,492.
Goodrich, Stanley L., and Kordowski. 3,073,500.

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Bogner, Richard D. 3,087,157.
Hauck, Theodore. 3,081,502.
Wood, Edward H. 3,114,178.

General Cable Corp.: *See*—
Eager, George S., Jr. 3,105,871.
Garner, Oscar G. 3,103,322.
Jachimowicz, Ludwik. 3,087,007.

General Cigar Co., Inc.: *See*—
Bondy, Philip L. 3,114,452.
Domeck, Cornell L., Jr., and Moll. 3,115,882.
Garbo, Paul W. 3,076,729.

General Communication Co.: *See*—
Burt, William G., Jr. 3,076,883.

General Controls Co.: *See*—
Beard, Chester S., White, and Le Wan. 3,087,470.
Casassa, William H. L., Jr., and Sibley. 3,084,513.
Deubel, Justin A. 3,100,521.
Deubel, Justin A. 3,115,180.
Grayson, Richard D. 3,072,337.

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Ray, William A. 3,087,471.
Ray, William A. 3,101,740.
Ray, William A. 3,105,513.
Ray, William A. 3,108,616.
Ray, William A. 3,108,777.
Ray, William A. 3,115,926.
Ray, William A., Deubel, and McCormick. 3,076,495.
Ray, William A., and Grayson. 3,108,532.
General Development Corp. : *See*—
MacLean, William D. 3,075,895.
Schaer, Glenn R. 3,111,479.
General Dynamics Corp. : *See*—
Adamski, Adolph A. 3,071,657.
Alexander, William G. 3,115,075.
Babcock, Stephen W., and Grisel. 3,087,131.
Ballass, John T., and Freedman. 3,115,406.
Bass, Harold E. 3,100,499.
Beach, Laurence R., Slagle, and Thoman. 3,109,060.
Berch, William H. 3,098,125.
Berch, William H., Clement, Kaye, and Newitt. 3,102,-166.
Berch, William H., and Harris. 3,094,700.
Bianchi, Eduardo A. 3,076,103.
Bianchi, Eduardo A., and Hill. 3,087,144.
Bieler, Ernest L., and Kucharski. 3,098,177.
Boyd, Richard K., Clement, Confeld, and Ellis. 3,109,068.
Brightman, Barrie, and Pearce. 3,087,022.
Brower, David F., and Hayward. 3,114,585.
Brown, Bonlard I. 3,093,117.
Brown, Bonlard I. 3,093,118.
Brune, William L., A. F. Perkins and J. C. Perkins, Jr. 3,105,937.
Campana, Robert J. 3,115,837.
Carr, Duane B., and Kruegers. 3,076,172.
Carter, Wilbert V. 3,114,519.
Cochran, Joe F. 3,091,684.
Cole, Donald W. 3,073,268.
Confeld, James D., and Kaye. 3,079,590.
Curry, Robert C. 3,102,258.
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Cutler, Melvin. 3,106,085.
Cvjetkovic, Antun M., and Chanin. 3,105,414.
David, Freddy. 3,105,875.
Dodd, Glen M., and Jacobs. 3,075,153.
Elsaman, Leo C., and Schiff. 3,091,741.
Fisher, Charles R., Jr. 3,105,874.
Fortescue, Peter. 3,112,866.
Franco, George A. 3,116,374.
Frankel, Theodor. 3,071,651.
Frankel, Theodor, and Black. 3,105,878.
Frankel, Theodor, and Tubinis. 3,112,371.
Gatzert, Ernest H. 3,076,179.
Gatzert, Ernest H. 3,087,063.
Gatzert, Ernest H. 3,111,560.
Gatzert, Ernest H., and Paul. 3,111,661.
Hardy, Herbert L., Harrington, Collier, and Summers. 3,102,429.
Harris, Ben A. 3,087,020.
Harrison, John E. R. 3,102,183.
Hart, Kenneth G., and Leadon. 3,110,280.
Harvey, George W. 3,092,185.
Harvey, George W., and Allen. 3,108,325.
Herman, Robert F., and Moehlmann. 3,094,661.
Howeth, Marvin S. 3,071,178.
Johnstone, Norman J. 3,102,241.
Jones, Augustus, and Haskins. 3,083,129.
Jorgensen, Otto A. 3,087,096.
Jorgensen, Otto A. 3,099,801.
Kaarlela, William T. 3,111,406.
Kalthoff, Clement H. 3,097,580.
Kontz, Stanley L., Duffield, Minogue, Compton, and Lynch. 3,072,549.
Kurnick, Samuel W., La Grange, Fitzpatrick, and Merriam. 3,073,882.
Layburn, Robert L. 3,071,653.
Lennon, George V., III, and Lins. 3,098,195.
Lennon, George V., III, and Lins. 3,116,453.
Liu, John K. 3,090,976.
Livingstone, James K. 3,071,696.
Martin, Joseph F., and Niertit. 3,105,914.
Martin, Joseph F., Niertit, and Root. 3,071,732.
May, Richard K., Sunafrank, and Powell. 3,093,370.
McCandliss, Robert K. 3,075,619.
McMordie, Warren C., Jr., and Petrovich. 3,098,826.
McNaney, Joseph T. 3,071,645.
McNaney, Joseph T. 3,087,087.
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McNaney, Joseph T. 3,102,162.
McNaney, Joseph T. 3,102,203.
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Merkowitz, Samuel. 3,093,151.
Moehlmann, Richard H. 3,105,936.
Morris, Frank A. 3,083,356.
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Moulton, Eric W. 3,098,206.
Muehlner, Egon E. 3,092,821.
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Nass, Walter R. 3,074,385.
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Perreault, Donald A. 3,071,701.
Potter, Frank J. 3,094,660.
Prace, Harvey D., and Wharton. 3,076,063.
Proctor, Thomas. 3,111,538.
Richards, Glenn L. 3,071,695.
Richards, Glenn L. 3,079,560.
Richards, Glenn L. 3,087,071.
Richardson, Morris E. 3,094,395.
Riparbelli, Carlo. 3,073,494.
Rodek, Victor. 3,109,153.
Rondash, John T. 3,110,960.
Sanner, Medford D., and Cox. 3,091,755.
Schupp, Arthur A., Jr., and Forsen. 3,075,162.
Schwan, Herbert A., and Thomas. 3,106,519.
Scott, Richard, Brightman, and Perkins. 3,111,557.
Sharp, Rodman A., and Eichen. 3,097,301.
Sheets, Herman E. 3,075,743.
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Speidel, Thomas O. P., and Howard. 3,104,218
Stone, Richard S., and Kraker. 3,094,470.
Takes, Donald E., and Boyd. 3,091,748.
Tatham, Thomas H., Jr. 3,111,598.
Trousdale, Robert B. 3,087,021.
Tyrlick, William V. 3,091,664.
Urshan, Samuel A. 3,094,873.
Van Sandwyk, Johannes. 3,071,676.
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Wharton, Armistead. 3,077,658.
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Rice, Rip G., Geib, Kaplan, and Hooker. 3,108,989.
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Abbott, Harold W., and Suran. 3,079,593.
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Adams, Albert H. 3,096,131.
Adamson, Arthur P. 3,080,876.
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Agens, Maynard C. 3,075,855.
Agens, Maynard C., and Kiser. 3,115,476.
Albright, John W., and Blanco. 3,096,391.
Allard, Gerard A. 3,114,872.
Anderson, John M. 3,099,768.
Anderson, Robert P. 3,083,219.
Anderson, Roy E. 3,106,643.
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Arone, Nicholas F., and Mankoff. 3,086,073.
Ashley, Eugene. 3,114,291.
Ashley, Robert B. 3,098,171.
Atchison, Leonard W. 3,070,972.
Atchison, Leonard W. 3,105,306.
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Auger, Claude H. 3,114,533.
Aven, Manuel, and Potter. 3,080,325.
Ayers, Ralph E. 3,113,281.
Ayres, Reginald J. 3,093,768.
Ball, Burton B. 3,111,396.
Bahn, John J., Coggeshall, Maher, and Waldbillig. 3,089,048.
Bahn, John J., and Dormandy. 3,112,415.
Bailey, Francis M. 3,102,975.
Baird, Leslie L. 3,073,936.
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Baldwin, George C. 3,076,895.
Barkan, Philip, and Tognella. 3,114,387.
Barnstead, John W. 3,115,987.
Barr, James R. 3,113,172.
Baskerville, Ralph J. 3,084,238.
Baumann, Frederick W. 3,083,308.
Baumann, Frederick W. 3,109,978.
Beardsley, Kenneth D., and Wilk. 3,074,038.
Beatty, John W. 3,114,816.
Bebinger, Jack E. 3,084,877.
Bennett, Moreland P., and Hughes. 3,075,299.
Berman, Max. 3,087,104.
Bigelow, John E. 3,100,261.
Blonn, William A. 3,102,009.
Bluestein, Ben A. 3,071,561.
Bobear, William J. 3,098,836.
Bobear, William J. 3,114,721.
Bochan, John. 3,088,304.
Bochan, John. 3,089,515.
Bochan, John. 3,091,110.
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Bochan, John. 3,098,372.
Bochan, John. 3,106,832.
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Boyles, Robert L. 3,085,136.
Boyles, Robert L. 3,086,351.
Bradley, Guy D. 3,089,737.
Bradley, Guy D. 3,107,956.
Brandt, Theodore C. 3,089,315.
Brandt, Thomas F., Jr. 3,110,844.
Breault, Homer H. 3,116,116.
Breiling, Robert W. 3,088,191.
Brezosky, Bernard J., and Cushing. 3,079,094.
Briggs, Walton E., and Jones. 3,085,198.
Brisbin, Philip H., and Heffernan. 3,094,385.
Brock, George D., and Topping. 3,096,408.
Brooks, Wesley W. 3,080,503.
Broughton, Carl R. 3,084,416.
Broverman, Michael, and Dripps. 3,073,479.
Brown, Dale H. 3,090,565.
Brown, Donald V., and Lucas. 3,082,181.
Brunot, Albert W. 3,101,423.
Buchhold, Theodor A. 3,098,189.
Bundy, Francis P. 3,075,245.
Bundy, Francis P. 3,107,395.
Burch, Byron F., Jr. 3,098,566.
Burnett, Kenneth J. 3,109,953.
Butsch, Alfred G., and Jenkins. 3,111,135.
Cabaniss, Edward H., and Isak. 3,114,046.
Cabaniss, Edward H., and Prince. 3,109,090.
Cain, Dallas E. 3,098,666.
Caird, David W. 3,087,908.
Callan, Patrick C., Eggenberger, Malone, and Troutman. 3,097,490.
Camilli, Guglielmo. 3,073,885.
Caprino, Joseph C., and Prochaska. 3,096,303.
Carlson, Robert G. 3,078,554.
Carr, James C. 3,090,115.
Carter, Ralph E. 3,074,888.
Casey, Edward J., and Miller. 3,109,961.
Casey, Robert T. 3,080,462.
Chang, Winston H., and Clark. 3,113,863.
Chase, David R., and Michaelis. 3,077,530.
Cheney, James E. 3,101,260.
Chi, Jerome N. C. 3,075,106.
Chin, Bock M., and Orlando. 3,109,140.
Chin, Bock M., and Orlando. 3,109,939.
Chisholm, Roy D. 3,082,311.
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Chow, Woo F. 3,093,802.
Clark, Donald E. 3,088,695.
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Clark, Edward B. 3,083,857.
Clark, Gordon W. 3,097,487.
Clark, Joseph H., Jr. 3,113,848.
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Clements, Francis J. 3,113,735.
Cleveland, Donald S. 3,084,560.
Cobine, James D. 3,093,766.
Cockrell, William D. 3,086,121.
Cockrell, William D. 3,093,534.
Cogan, Richard M. 3,106,114.
Collier, William R. 3,095,164.
Cook, Leonard W. 3,072,778.
Cook, Leonard W. 3,098,137.
Coolidge, Arthur W., Jr. 3,082,347.
Cooper, Alfred L. 3,085,809.
Cooper, Benjamin. 3,092,764.
Cooper, Gleun D., and Gilbert. 3,099,672.
Costas, John P. 3,101,448.
Contant, Ralph E. 3,111,858.
Craft, Donald W. 3,104,964.
Crain, Norman R., Levinthal, Facenda, and Vea. 3,108,-694.
Cronin, Edward F., Johnston, and Delisle. 3,101,386.
Crosby, Howard M. 3,106,600.
Cummings, Harold R. 3,081,413.
Cunningham, Clarence V. 3,089,931.
Cusano, Dominic A. 3,108,904.
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Cutler, Clarence M. 3,112,891.
Dally, Roy. 3,088,000.
Dalton, Wayne D., and McGee. 3,092,772.
Damon, Richard W. 3,078,419.
Damon, Richard W. 3,116,467.
Daniels, Franklin W. 3,076,160.
Dantowitz, Philip. 3,107,896.
Day, Harold R., Jr. 3,116,191.
De Kanter, Sciplo. 3,077,084.
Dell, Paul A., and Fridrich. 3,102,443.
Dellario, Patrick J. 3,105,633.
Dewey, Clyde G. 3,105,920.
De Witt, Stuart L., and Dymek. 3,099,914.
Diedrich, Gunther E. 3,088,279.
Diefendorf, Russell J. 3,107,180.
Diehl, Max H. 3,085,131.
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Dills, Raymond L. 3,096,420.
Dinger, Edward H. 3,071,697.
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Downing, Arthur C. 3,095,493.
Driesch, Theodore W. 3,106,265.
Dubberley, Charles A. 3,098,604.
Dunham, Stuart B. 3,117,877.
Durst, Paul T. 3,114,813.
Eargle, Verde H. 3,113,439.
Edson, William A. 3,100,881.
Edwards, Keith A. 3,080,533.
Eggenberger, Markus A., and Troutman. 3,097,489.
Eggenberger, Markus A., Troutman, and Callan. 3,097,-488.
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Egle, John E. 3,116,430.
Elis, Ralph O., and Howard. 3,075,107.
Ellenburg, George W., and Specht. 3,112,614.
Elsworth, Robert M. 3,103,737.
Enochs, John R., Dimond, and Springer. 3,078,358.
Eppert, Franklin P. 3,080,505.
Erickson, Clifford E. 3,102,796.
Euker, Harold W., and Coceano. 3,080,521.
Evans, Thomas M., and Brown. 3,085,680.
Evjen, John M. 3,077,244.
Fabel, George W., and Daily. 3,093,379.
Falk, Richard B. 3,073,728.
Falk, Richard B., and Hooper. 3,100,167.
Farmer, Herbert E., and Buckley. 3,078,995.
Ferrin, Kenneth S. 3,094,647.
Fiedler, Howard C. 3,096,222.
Finch, Thomas E. 3,105,135.
Flowers, Ralph G., and Juneau. 3,083,119.
Flynn, Edward L. 3,092,124.
Foody, Francis B., and Skala. 3,114,209.
Foote, Alton G. 3,109,747.
Foote, Lawrence R. 3,100,268.
Forman, Hugh M. 3,086,448.
Forrer, Max P. 3,077,564.
Fox, Daniel W. 3,110,299.
Fox, Gerald R. 3,110,527.
Francis, Wallace R. 3,093,434.
Frank, Edward J. 3,113,191.
Freeman, Arthur H. 3,115,869.
French, Richard W. 3,089,094.
Frischmann, Peter G., and Walter. 3,108,912.
Fuhrman, Richard E. 3,109,411.
Fuhrman, Richard E., and Huddleston. 3,109,412.
Gabriel, Richard H. 3,084,530.
Gallo, Ella A. 3,106,094.
Garten, Herbert, and Schaffer. 3,099,141.
Gathers, Glen E. 3,084,270.
Gatti, Arno. 3,116,146.
Gauthier, George E. 3,110,792.
Gaysowski, Joseph J. 3,074,864.
Gaysowski, Joseph J. 3,074,865.
Gelbard, Robert B. 3,112,619.
Genuit, Luther L. 3,116,438.
George, Philip D. 3,099,671.
Germer, John H. 3,085,959.
Gesman, Jorgen. 3,071,914.
Gesmar, Jorgen. 3,081,690.
Glaever, Ivar. 3,116,427.
Gilbert, Alfred R., and Precoplo. 3,084,114.
Gillooly, George R., Rabatin, and Vincent. 3,109,819.
Gisslen, Jan M. 3,112,865.
Glenn, William E., Jr. 3,078,338.
Glenn, William E., Jr. 3,084,590.
Glenn, William E., Jr. 3,093,705.
Glenn, William E., Jr. 3,113,179.
Goetz, Ernest F., and Anderson. 3,107,548.
Goldberg, Leon J. 3,098,949.
Goldman, Richard G. 3,109,135.
Goldstein, David N. 3,094,311.
Goodman, Gilbert. 3,116,262.
Goodridge, Lawrence C. 3,116,081.
Gordon, James F. 3,071,717.
Gordon, James F. 3,071,718.
Goss, Wesley R., and Suhr. 3,088,044.
Graf, Carlton E. 3,077,556.
Grandey, Max F. 3,078,552.
Grandey, Max F., and Kulp. 3,085,886.
Graves, Donald E. 3,079,506.
Greenwood, Allan. 3,090,852.
Greenwood, Allan N., and Lee. 3,082,307.
Grimshaw, Charles. 3,100,827.
Grisler, Carl A., Jr. 3,071,227.
Gustafson, Ralph W. 3,096,811.
Guth, Lauren W. 3,077,200.
Guth, Lauren W. 3,087,769.
Guth, Lauren W. 3,092,122.
Gvozdjak, John, and Onischak. 3,095,495.
Hahn, William C. 3,103,661.
Hallbauer, Dankmar. 3,112,839.
Haltner, Arthur J., and Oliver. 3,075,279.
Ham, Donald M. 3,075,392.
Ham, Donald M. 3,075,399.
Ham, Donald M. 3,092,318.
Hamilton, Douglas J. 3,104,330.
Hamilton, James, Lundberg, and Schoening. 3,076,919.
Hammerly, Herman J., and Salomone. 3,111,354.
Hammond, Richard F., and Spicer. 3,080,498.
Hardy, Albert L., Cushing, and Jenkins. 3,084,701.

General Electric Co.: *See*—Continued
Harle, Harold P. 3,089,312.
Harrington, Dean B., and Becker. 3,116,429.
Harris, Samuel C., Jr., and Langley. 3,089,555.
Hart, Benjamin F. 3,095,774.
Hartmanis, Juris. 3,103,648.
Harvey, Gordon C. 3,116,437.
Hawkins, Daryl W. 3,082,346.
Hay, Allan S. 3,078,283.
Hay, Allan S. 3,087,793.
Hay, Allan S. 3,099,640.
Heerlein, William J. 3,115,352.
Heintz, Milton L. 3,114,817.
Herman, Maynard. 3,110,530.
Herrick, Carlyle S., and Etherington. 3,079,087.
Hess, Paul J., and Seyler. 3,094,298.
Hicks, William R., and Oehlbeck. 3,071,899.
Hill, Edward. 3,097,417.
Hilliker, Donald E. 3,070,852.
Hoag, Yates M. 3,115,381.
Hobson, Charles F., Jr. 3,116,388.
Hobson, Charles F., Jr., and Murphy. 3,110,848.
Hodge, William F. 3,073,986.
Hoehn, Walter G., Forslund, and Fulton. 3,073,722.
Hoffman, Thomas R. 3,094,686.
Hoffmann, Daniel C. 3,113,245.
Holmes, Robert G. 3,114,820.
Hoppin, George S., III, and Schwegman. 3,073,269.
Horecky, Stanley V. 3,072,386.
Horton, Paul B., Funk, and Hill. 3,111,739.
Horvay, Julius B. 3,070,964.
Howell, Edward K. 3,080,491.
Howell, Louis J. 3,096,419.
Hsu, Hsiung. 3,090,012.
Hubbard, Leo J., Heckel, and Leyland. 3,103,355.
Huey, Norman R. 3,111,219.
Hughes, Stanley G. 3,103,385.
Hughes, Stanley G. 3,110,185.
Hull, Thomas N., Jr., and Le Bell. 3,094,309.
Humpage, Harold A., and Stegmaier. 3,075,164.
Hurko, Bohdan. 3,113,200.
Huschke, Ernst G. J., Mobley, and Blackham. 3,089,769.
Hutt, Philip. 3,091,671.
Hutt, Philip. 3,104,300.
Ingleson, James F. 3,085,398.
Ipsen, Peter G. 3,070,962.
Jacobs, Israel S., and Kouvel. 3,116,254.
Jacobsen, Edward H. 3,105,966.
Jakowatz, Charles V. 3,114,884.
Japka, Joseph E. 3,106,493.
Jasionowski, Walter J. 3,074,863.
Jencks, Charles L. 3,105,132.
Jenkins, Thomas E. 3,115,885.
Johnson, Frederic R. 3,100,251.
Johnson, Major A. 3,086,172.
Johnson, Robert R. 3,077,984
Jones, Albert C., Lingel, and Troup. 3,085,168.
Jones, Dwight V. 3,075,136.
Jones, William H. 3,108,158.
Judd, Edwin B., and Hellar. 3,075,394.
Judd, Edwin B., and Young. 3,076,882.
Kamide, Harris P. 3,083,284.
Keeling, Kermit B., Sr. Re. 25,326.
Keiter, Robert W. 3,111,912.
Keiter, Robert W., and Nahigyan. 3,112,026.
Kelley, Fred W., Jr. 3,099,828.
Kelley, Fred W., Jr., Lezan, and Rettig. 3,086,129.
Kilburn, William C., and Somers. 3,114,825.
Kendt, Norman L. 3,096,125.
Kimball, Donald G. 3,071,659.
Kinkle, Robert A. 3,089,407.
Kirchner, Paul H. 3,098,929.
Kirkpatrick, George M. 3,112,452.
Kirkpatrick, William J., and Funston. 3,099,532.
Kitson, Harold J., Jr., Marshall, and Mazanek. 3,079,519.
Klapproth, John F. 3,084,511.
Klein, Keith W., and Powell. 3,084,236.
Knowlton, James A., Jr., and Arndt. 3,109,931.
Kolbe, Carl L., and McKechnie. 3,078,197.
Koller, Lewis R. 3,081,201.
Kothelmer, William C. 3,079,533.
Kouvel, James S. 3,116,182.
Kurt, Howard D. 3,113,244.
Kutney, John T. 3,106,372.
Lafferty, James M. 3,087,092.
Lafferty, James M. 3,093,767.
Lafferty, James M. 3,109,115.
Lafferty, James M., and Vandersliee. 3,093,298.
Lafuze, David L. 3,110,857.
Landig, Thomas W., and Kiesler. 3,099,532.
Landolt, Paul H. 3,094,498.
Lane, Lawrence J. 3,095,510.
Laskowski, Edward. 3,115,244.
Latter, Bruce B. 3,071,719.
Lawson, Gustaf R. 3,089,934.
Lawton, Elliott J., and Woodruff. 3,097,960.
Lee, Max M. 3,074,818.
Lee, Max M. 3,102,873.
Lee, Thomas H. 3,071,667.
Leeds, Laurance M. 3,114,844.
Lemmers, Eugene. 3,096,464.
Lemmers, Eugene. 3,098,945.
Leo, Robert E. 3,084,286.

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Leo, Robert E. 3,097,745.
Leschen, John G. 3,113,846.
Lester, Ronald H. 3,097,101.
Letteron, Henry A. 3,074,883.
Letteron, Henry A. 3,099,897.
Lewis, Franklin W. 3,113,175.
Lewis, Mayland P., Jr., and Swanson. 3,111,038.
Lewis, Paul, and Murray. 3,071,207.
Lewis, Paul, and Streifert. 3,090,656.
Lewis, Richard N. 3,114,759.
Lezan, Georges R. E. 3,095,513.
Liao, Tseng W. 3,086,424.
Libby, Henry T. 3,114,829.
Liebhafsky, Herman A., and Niedrach. 3,098,769.
Lind, James N. 3,086,181.
Lindstrom, Jonbert, and Moore. 3,094,291.
Linkous, Clovis E. 3,113,230.
Loch, Joseph F. 3,086,511.
Lord, Harold W. 3,084,299.
Louden, William C., and Homonnay. 3,088,201.
Lovinger, Daniel. 3,089,979.
Low, Frank D. 3,087,319.
Low, Frank D. 3,111,830.
Low, Frank D., and Raucher. 3,108,754.
Low, John R., Jr. 3,105,780.
Ludewig, Frederick A., Jr. 3,087,148.
Lukes, Robert M. 3,075,856.
Lustenader, Edward L., and Brown. 3,099,607.
Lynch, Edward I. 3,099,769.
Lynch, Edward I., and True. 3,098,896.
Lynch, Edward I., and True. 3,109,955.
Macintyre, John R., and Miller. 3,109,167.
Manfredi, Robert E. 3,082,339.
Manning, Ralph M. 3,097,270.
Manning, Ralph M., and Schultz. 3,075,636.
Manteuffel, Erich W. 3,076,924.
Manteuffel, Erich W. 3,088,065.
Manwarren, Thomas E. 3,076,157.
Marscher, William F. 3,084,510.
Martellock, Arthur C. 3,103,502.
Masters, William R., and Glenn. 3,072,779.
May, Howard F. 3,116,134.
Mayer, Charles B. 3,090,016.
McCary, Richard O. 3,079,541.
McClure, John L. 2,096,407.
McHugh, James D. 3,097,853.
McMillan, Stephen L. 3,100,030.
McNeir, George, and Oppel. 3,074,042.
Meahl, Harry R. 3,076,914.
Megantz, Samuel O., and Hopkins. 3,114,678.
Meiklejohn, William H. 3,116,255.
Merritt, Philip E., and Steele. 3,092,809.
Mets, Edwin J. 3,073,720.
Milford, Richard E. 3,092,732.
Milford, Richard E. 3,111,645.
Milford, Richard E. 3,112,469.
Miller, Blaine M., Jr., and Scheer. 3,112,916.
Miller, De Witt H. 3,098,965.
Miller, John W., and Nidenberg. 3,074,147.
Miller, Meritt L. 3,112,449.
Miller, William R. 3,092,789.
Millis, Walter T. 3,092,749.
Mittermaier, Armin F. 3,110,873.
Mobley, Paul R. 3,098,743.
Mobley, Paul R. 3,110,588.
Morey, Everett D., and Loeb. 3,114,253.
Morgan, Raymond E. 3,102,206.
Morris, Drew. 3,112,915.
Morris, William C. 3,092,758.
Morrison, Donald A. R. 3,090,472.
Mullaney, George J., and Kydd. 3,075,353.
Munz, Robert E., and Collins. 3,111,166.
Nasser, Mitchell. 3,084,702.
Navias, Louis. 3,083,123.
Netzler, Kenneth C., and Stillman. 3,085,917.
Neusbaum, Frank A. 3,089,980.
Newberry, Sterling P. 3,106,700.
Newell, James K., Jr. 3,099,259.
Newell, James K., Jr., Akers. 3,081,763.
Newhouse, David L. 3,110,636.
Newhouse, Vernon L. 3,088,040.
Newhouse, Vernon L., and Bremer. 3,076,102.
Newkirk, Arthur E. 3,079,226.
Newton, David L. 3,109,230.
Nichols, Frank S. 3,086,184.
Nickstadt, Gerhard A. 3,079,814.
Noel, Edward B., and Levand. 3,080,497.
Oatman, Thomas D., and Dixon. 3,112,386.
Ocko, Richard. 3,109,991.
Olashaw, William F. 3,086,191.
Oliphant, William J., and Cornell. 3,085,588.
Omohundro, William A. 3,095,496.
O'Neill, William C. 3,085,395.
Oppel, John A. 3,076,081.
Owens, Robert F. 3,073,116.
Paganini, Frank T. 3,102,409.
Parke, Robert M. 3,094,752.
Patterson, Herbert. 3,085,838.
Paynter, Donald A. 3,080,534.
Peaslee, Lawrence R. 3,082,331.
Pell, Erik M. 3,116,183.
Pepplatt, Harry J. 3,092,774.

General Electric Co.: *See*—Continued
Perkins, Donald W. 3,116,468.
Peterson, Eric O., and Cole. 3,087,136.
Petrie, Adelore F. 3,072,213.
Phaneuf, Edgar A. 3,072,988.
Pietsch, Joseph A. 3,077,079.
Pietsch, Joseph A. 3,077,080.
Polonsky, Samuel, and King. 3,101,586.
Popa, John. 3,077,570.
Powell, David B. 3,076,052.
Powell, David B. 3,104,297.
Prather, Marvin E. 3,091,682.
Precoplo, Frank M., and Gilbert. 3,079,370.
Prener, Jerome S. 3,085,863.
Pringle, Ross A., and Wallace. 3,098,893.
Prober, Maurice. 3,078,292.
Prober, Maurice. 3,099,670.
Proffitt, Richard V. 3,088,396.
Propster, Charles H., Jr. 3,093,730.
Propster, Charles H., Jr. 3,098,221.
Proxmire, Harry J. 3,114,196.
Prucha, Richard V. 3,082,936.
Pulaski, John W. 3,089,202.
Rademaker, Leo C., and Dierstein. 3,074,149.
Rand, Albert. 3,080,709.
Reardon, John J., and Axelson. 3,105,331.
Redden, Thomas K. 3,085,006.
Rex, Charles H. 3,102,893.
Rhodes, John E. 3,091,107.
Rhodes, John E. 3,103,803.
Rich, Theodore A. 3,102,200.
Rinehart, Dean C. 3,109,297.
Robb, Walter L. 3,077,385.
Robb, Walter L. 3,115,393.
Roberts, John A. 3,071,722.
Roberts, John A. 3,076,139.
Rochow, Eugene G. 3,098,830.
Rohats, Nicholas, and Bhimani. 3,071,724.
Rood, Robert M., and Villers. 3,095,951.
Rose, Lloyd R. 3,073,952.
Rosenberg, Joseph. 3,098,054.
Rosenberg, Richard H., and Chipouras. 3,106,062.
Rosenberry, George M., Jr. 3,098,959.
Rowan, Hartley D., and Conghlin. 3,073,356.
Rowe, Brian H. 3,095,165.
Rowe, Raymond N. 3,099,504.
Rubio, Abdon, and Ernest. 3,084,343.
Rubio, Abdon, and Parent. 3,077,334.
Ruck, Vincent J., Jr., and Woolley. 3,103,692.
Ruediger, Bernt A. 3,109,759.
Ruscetta, Ralph A., and Richards. 3,114,085.
Russell, Edgar F. 3,103,605.
Saffire, Victor N. 3,095,317.
Safford, Moyer M., and Myers. 3,083,175.
St. Pierre, Philippe D. S. 3,115,698.
Saldi, Ideal T. 3,079,515.
Santeler, Donald J. 3,103,108.
Sasnett, Russell M. 3,116,123.
Sawada, Fred H. 3,104,304.
Schanz, Joseph L. 3,115,450.
Scheldorf, Owen H. 3,082,512.
Schlee, Matthew. 3,099,508.
Schmitt, Roland W., and Fiske. 3,088,077.
Schneider, Harold N., and Bogert. 3,110,790.
Scholefield, Clifford L. 3,087,125.
Schultz, Warner W. 3,094,621.
Schulz, Albert E., and Reisch. 3,102,249.
Schumacher, Frank A. 3,083,248.
Schumacher, Frank A., and King. 3,111,814.
Schütze, Hans-Jürgen, and Kallweit. 3,097,112.
Scott, George A., and Williams. 3,099,471.
Scultto, Thomas J. 3,110,865.
Seal, John D. 3,072,129.
Seavey, Alton W. 3,084,852.
Seaward, Carl R. 3,113,094.
Seeley, Harold T. 3,088,066.
Sees, Myron M. 3,083,863.
Shartrand, Allan C., and Otteson. 3,091,710.
Sheldon, Luther M., and Lawson. 3,109,079.
Shell, Ernest F., and Pressley. 3,071,329.
Shelton, Winston L. 3,108,774.
Shipley, Eugene E. 3,076,428.
Shipley, Eugene E. 3,100,901.
Shipley, Eugene E., and Sorensen. 3,070,979.
Sholtes, George T. 3,091,675.
Silvester, Austin G. 3,113,083.
Simon, James P. 3,084,907.
Simpson, James W., Jr., and Arnold. 3,092,071.
Sindy, Clarence F. 3,098,335.
Sindy, Clarence F., and Kolda. 3,084,721.
Sisler, Robert R. 3,092,230.
Sjostrom, John S. 3,105,935.
Skala, George F. 3,094,392.
Skala, George F. 3,102,192.
Skiff, Russel A. 3,073,799.
Slauson, Dudley B. 3,102,957.
Sleeper, David P. 3,072,452.
Smialek, Leon J. 3,085,171.
Smith, David L. 3,093,399.
Smith, Jack. 3,098,180.
Smith, Sidney R., Jr. 3,089,936.
Smith, Sidney R., Jr. 3,112,383.
Smith, William H. 3,081,241.

General Electric Co.: *See*—Continued
Sofianek, Joseph C., and Streater. 3,114,079.
Solley, Douglas A., Jr. 3,111,817.
Solomon, Michael M. 3,098,833.
Soltys, Theodore J. 3,110,849.
Somerville, Gareth G., and Blasioli. 3,113,375.
Sonder, Gerhard, and Leis. 3,085,400.
Spacil, Henry S., and Tragert. 3,109,118.
Spalaris, Constantine N. 3,088,893.
Speaker, Lawrence W. 3,079,767.
Speaker, Lawrence W. 3,089,314.
Spencer, John H. 3,113,995.
Spencer, John H., and Brackett. 3,076,167.
Spencer, Robert C., Jr., and Eggenberger. 3,098,190.
Spofford, Warren A. 3,111,010.
Stachowiak, Frank R., and Szeremy. 3,096,397.
Stamets, Richard J. 3,114,087.
Stephens, Carl J. 3,115,916.
Stern, Ernest. 3,082,383.
Sternlicht, Beno. 3,110,085.
Sternlicht, Beno. 3,110,525.
Sternlicht, Beno. 3,110,526.
Sternlicht, Beno. 3,110,828.
Stiner, James E., and Dullmeyer. 3,098,685.
Stirgwolt, Ted F., and Edkins. 3,088,694.
Stone, Aidan M. 3,075,296.
Stone, Aidan M. 3,096,164.
Stone, Aidan M. 3,098,726.
Stone, Aidan M. 3,112,187.
Stone, George M. 3,102,940.
Strong, Herbert M. 3,088,170.
Sults, Chauncey G. 3,106,080.
Swanson, Roger W. 3,076,151.
Swetlitz, Myron. 3,083,286.
Szalay, Istvan, and Etherington. 3,112,457.
Tassie, Douglas P., and Wetzel. 3,115,062.
Tatge, Robert R. 3,101,889.
Taub, Alvin, Feldman, and Le Bell. 3,098,352.
Taylor, Clement F. 3,084,544.
Taylor, Clement F., Macintyre, and Oakley. 3,110,180.
Tehon, Stephen W. 3,097,264.
Thomas, William A. 3,112,385.
Thompson, Paige W., and Baclawski. 3,109,947.
Thor, Robert C., and Webb. 3,080,559.
Tiemann, Jerome J. 3,083,319.
Tiemann, Jerome J. 3,097,311.
Tiemann, Jerome J. 3,104,352.
Tiemann, Jerome J. 3,116,459.
Tillson, Robert S. 3,114,024.
Titterington, William A., and Blackmer. 3,098,768.
Toma, John W. 3,080,742.
Townsend, George R. 3,076,073.
Tragert, William E., and Gatti. 3,078,553.
Truesdell, Francis W., and Faus. 3,112,069.
Tupper, Myron D. 3,109,684.
Vallino, Dominic J. 3,084,113.
Vandersliee, Thomas A. 3,080,104.
Van Luik, Frank W., Jr. 3,079,787.
Van Luik, Frank W., Jr. 3,111,844.
Varadi, Louis E., Bourque, and Judge. 3,107,897.
Varadi, Louis E., Bourque, and Pesarek. 3,098,355.
Varga, Joseph J. 3,100,413.
Vermeulen, William. 3,100,822.
Vigour, Hervey E. 3,083,323.
Vodicka, Vincent. 3,080,243.
Von Hoorn, Fred G., and Sheldon. 3,089,937.
Wagner, Burton F. 3,112,471.
Wagner, James B., and Straney. 3,091,933.
Waite, David P. 3,098,215.
Walker, Chapman J. 3,097,152.
Walter, John L. 3,105,781.
Walter, John L. 3,105,782.
Ward, Howard C., Jr. 3,075,103.
Watters, Robert L. 3,076,944.
Watters, Robert L. 3,081,436.
Watters, Robert L. 3,092,784.
Watters, Robert L. 3,111,592.
Webb, Herbert J. 3,111,609.
Weiner, Albert P. 3,094,098.
Weir, Alex F. 3,075,323.
Welch, Stanley B. 3,094,605.
Welch, Stanley B. 3,116,398.
Wellinger, Roger P. 3,090,881.
Wentorf, Robert H., Jr. 3,078,232.
Wentorf, Robert H., Jr. 3,088,169.
Werts, Everett W. 3,105,919.
Wesolowski, Adolph J. 3,073,976.
Wesolowski, Adolph J. 3,106,654.
Wesolowski, Adolph J., and Penn. 3,071,846.
Westbrook, John H., and Stover. 3,091,028.
Wheeler, Charles M., and Folger. 3,089,971.
Whipple, Richard E. 3,114,081.
Wiley, Emmett H. 3,093,430.
Willis, Robert J., Jr. 3,094,967.
Willis, Robert J., Jr. 3,111,111.
Willis, Robert J., Jr., and Sorensen. 3,083,680.
Willis, Winfield H., Louden, and Malm. 3,113,010.
Willyoung, David M. 3,098,941.
Willyoung, David M., and Becker. 3,075,104.
Winfield, William S., and Muschamp. 3,098,208.
Wirt, Harrison L. 3,097,767.
Woestemeyer, Francis B. 3,074,435.
Wolf, Irving W., and White. 3,081,210.

General Electric Co.: *See*—Continued
Wolff, George M., and Lasak. 3,109,461.
Woodward, Stewart A. 3,095,756.
Woolley, Samuel J., and Padgett. 3,082,678.
Wormser, Alexander F., and Lynch. 3,111,032.
Worthington, Peter L. 3,110,793.
Wray, Robert L., Jr. 3,085,145.
Wright, Floyd H. 3,116,445.
Wright, John H. 3,103,491.
Yartz, Johnny W. 3,082,964.
Yartz, Johnny W. 3,112,077.
Yartz, Johnny W., and Clements. 3,108,755.
Yates, Charles G., Jr. 3,072,370.
Yerman, Alexander J., and Bloomer. 3,085,431.
Yoder, Joe B. 3,079,774.
Zellna, William B. 3,077,549.
Zellna, William B. 3,105,186.
Ziegler, Edwin E. 3,102,551.
Zuerker, Siegfried J. 3,097,268.

General Electric Co. Ltd., The: *See*—
Blackburn, Alan P., and Miles. 3,111,429.
Boyland, Donald A. 3,108,955.
Breadner, Robert L. 3,107,757.
Brown, Allan, and Norreys. 3,088,900.
Brown, Eric. 3,082,952.
Burgess, Peter J. 3,090,116.
Busby, Terence S., and Davies. 3,088,898.
Cox, Harry A. 3,093,568.
Davidson, Hugh W. 3,104,159.
Davidson, Hugh W., and Ryde. 3,097,931.
Doncian, James A. 3,108,177.
Essam, Roy. 3,113,269.
Essam, Roy, Walsh, and Whiting. 3,099,794.
Fuller, Hubert D., and Sewell. 3,084,342.
Gardiner, Maurice. 3,096,493.
Gibbons, David J. 3,088,899.
Grant, Peter J. 3,081,248.
Harold, Arthur E., and Smith. 3,078,466.
Ingram, Derek G. W. 3,097,345.
Leakey, David M. 3,098,976.
Levy, Ralph. 3,081,438.
Newbery, Edward V. 3,107,278.
Rivington, Herbert L. 3,102,047.
Shepherd, Sydney A., and Woods. 3,095,913.
Smart, Norman C. 3,087,997.
Wayman, Cecil J. 3,099,830.
Williams, Michael. 3,095,319.

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General Electronic Laboratories, Inc.: *See*—
Levine, Martin W. 3,090,920.
Moore, Richard K. 3,091,735.
Rullman, Robert G. 3,074,021.
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General Fire Extinguisher Corp.: *See*—
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Machingo, William J., and Swimmer. 3,073,314.
Wilmer, Rudolph H. 3,114,584.

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Danis, Robert A. 3,088,416.
Shutkufski, John J. 3,080,119.

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General Foods Corp.: *See*—
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Baldwin, Robert R., Lowry, Mezzino, and Ohan. 3,108,874.
Barnes, Harry M., Mitchell, and Kremzner. 3,086,370
Bowden, Howard J., and Schwartzberg. 3,089,772.
Buehler, Karl, and Rollins. 3,101,761.
Cameron, John A. 3,074,099.
Cameron, John A. 3,109,191.
Cameron, John A. 3,112,384.
Clinton, William P., and Pitchon. 3,077,405.
Creegan, Robert M. 3,105,765.
Finucane, Thomas P., Mitchell, and Raymond. 3,096,179.
Graham, James V., Goodrich, and Miller. 3,094,059.
Green, Julius. 3,102,817.
Green, Julius, Morse, and Westfall. 3,095,326.
Green, Julius, and Smith. 3,094,947.
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Ishler, Norman H., MacAllister, Szczesniak, and Engel. 3,093,483.
MacAllister, Robert V., and Finucane. 3,102,031.
Miller, Frederick J. 3,086,867.
Mitchell, William A., and Studer. 3,077,411.
Oldershaw, Charles G. 3,079,964.
Perkovich, Mark J. 3,097,387.
Perkovich, Mark J., Wardwell, and Wolfe. 3,104,915.
Raffensperger, Stanley P., and Takashima. 3,108,002.
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Sarko, Anatole, Zeitlin, and Germino. 3,086,890.
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Spotholz, Clifford H., and Eisesser. 3,102,815.
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White, William V., Hamell, and Danielczik. 3,092,498.
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Costyn, Ernest. 3,111,638.
Hill, Lawrence R. 3,110,100.
Reely, Walter J. 3,075,043.
Schmerzler, Lawrence J. 3,073,127.
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Altermann, Francis J. 3,086,200.
Andersen, Donald L. 3,079,221.
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Benson, John O. 3,077,406.
Brastad, William A. 3,071,304.
Chang, Robert W. H. 3,084,189.
Church, David A. 3,080,138.
Church, David A. 3,103,326.
Drobnick, James L., and Lewis. 3,083,076.
Freese, Royce G. 3,093,591.
Froehlich, Harold E. 3,104,641.
Fulmer, Richard W. 3,096,147.
Graber, Robert P., and Meyers. 3,085,090.
Graber, Robert P., and Meyers. 3,101,351.
Hamilton, Robert M. 3,087,839.
Harrison, Stuart A., McCaleb, and Ward. 3,073,864.
Hedin, Robert S. 3,109,545.
Hoffman, William J., and Pankow. 3,103,323.
James, Thomas R., Melton, and Hedin. 3,108,498.
Jordan, Wesley A. 3,084,057.
Kohl, Douglas A. 3,071,746.
Kozlik, Robert F. 3,093,484.
Lewis, Clifford J., and Drobnick. 3,083,085.
Long, George, Tsuchiya, and Hum. 3,101,853.
Melton, Donald F., and Froehlich. 3,099,913.
Mueller, Rolf K. 3,109,163.
Nelson, Leroy E., and Pankow. 3,103,330.
Ovrebo, Julian P., and Wood. 3,103,586.
Paschke, Raymond F. 3,093,806.
Pohl, Russell A. 3,092,359
Pohl, Russell A. 3,093,354.
Raabe, Herbert P. 3,098,229.
Rogier, Edgar R. 3,081,304.
Ryan, James J., and Neumeier. 3,075,192.
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Stone, Vernon H. 3,108,765.
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Allen, Robert C., Jr., and Mitter. 3,091,232.
Altson, Ralph. 3,091,500.
Amala, Raymond S. 3,108,341.
Amann, Charles A., Collman, Haushalter, Ricketts, Turunen, and Vickers. 3,095,700.
Amann, Charles A., and Scheel. 3,096,728.
Antonidis, John E., and Edmundson. 3,071,013.
Arlauskas, Alfonsas. 3,092,377.
Arlauskas, Alfonsas, Augunas, and Lohr. 3,081,973.
Armentrout, Everett C. 3,110,159.
Armentrout, Everett C., and Sucro. 3,113,818.
Aspinwall, Robert H. 3,090,597.
Baird, Donald R. 3,089,067.
Baker, Max P. 3,091,486.
Baldwin, Bryce R. 3,080,771.
Baldwin, Glenn A., Frame, and Maletzke. 3,092,420.
Barberis, Fortunato F. 3,090,200.
Barcus, Edward L. 3,073,920.
Barcus, Edward L. 3,073,921.
Barker, Harold E. 3,112,539.
Barnes, William E., and Zubaty. 3,073,178.
Bauman, Robert H. 3,114,439.
Beck, George W., Harris, Millhouse, and Moorman. 3,110,938.
Begeman, Charles R., and Williamitis. 3,092,981.
Behnke, Robert C., and Palmer. 3,073,292.
Bekkala, Ralph R., and Humphries. 3,103,209.
Bekkala, Ralph R., and Humphries. 3,109,417.
Beltz, John B. 3,073,647.
Bemmann, Richard W., and Turner. 3,088,337.
Berger, Werner W., Gwin, and Wood. 3,103,380.
Bernaden, Alex, Jr., Schmidt, and Quier. 3,114,084.
Bernard, James A. 3,082,933.
Berninger, Kenneth L. 3,092,090.
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Beyers, Eugene J., and Wente. 3,100,964.
Bidwell, Joseph B. 3,097,485.
Billings, Charles K., Alexander, and Harrold. 3,078,700.
Black, Robert L. 3,088,339.
Black, Robert L. 3,091,980.
Blackburn, Alan B. 3,077,026.
Blenman, William G. 3,104,675.
Blum, Fred E., and Hough. 3,103,483.
Bockemuehl, Robert R. 3,076,129.
Bockemuehl, Robert R. 3,085,237.
Bockemuehl, Robert R., and Hanysz. 3,073,522.
Boden, Roy C., Brandes, Hirsch, McDonald, and Wood. 3,088,449.
Bohm, Walter F., and Holton. 3,112,541.
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Boretti, Napoleon P. 3,076,087.
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Bowne, Charles P. 3,108,560.
Bowser, Phillip C., and Sihvonen. 3,077,028.
Boyd, David R., and Sihvonen. 3,073,011.
Boylan, Henry W., and Haight. 3,103,155.
Brady, William A., Jr. 3,081,736.
Brailowsky, Vladimir. 3,110,675.
Bremer, Robert D. 3,110,795.
Bremer, Robert D., and Van Scoyk. 3,110,796.
Brenner, John B., Force, McMurray, McDougal, and Harada. 3,088,538.
Bretzner, Hans S. 3,095,600.
Brock, Eugene W., and Onksen. 3,082,304.
Brooks, Frank W. 3,082,745.
Brooks, Frank W., and Helvern. 3,081,744.
Brooks, Frank W., and Helvern. 3,102,453.
Brown, Arthur E., and Ehlke. 3,092,167.
Brown, Arthur E., Gaeke, Hiller, and Zeisloft. 3,095,702.
Brown, Jack C. 3,077,128.
Brown, Richard C., and Saunders. 3,079,770.
Brown, William E. 3,115,328.
Brucken, Byron L. 3,080,874.
Brucken, Byron L. 3,087,321.
Brucken, Byron L., and Fogt. 3,110,852.
Brucken, Byron L., Fogt, and Light. 3,091,956.
Buchwald, Robert M. 3,090,368.
Buchwald, Robert M. 3,097,663.
Bullock, Norman J. 3,088,596.
Bullock, Norman J., Brubaker, and Billings. 3,091,954.
Burnham, John B., Jr. 3,085,059.
Burns, John R., and McDowall. 3,112,970.
Burton, Robert W. 3,103,132.
Busch, Paul A., Mewhinney, and Wirtz. 3,072,349.
Bush, Jerome J. 3,077,874.
Bush, John J., Mattson, and Roberts. 3,073,022.
Bush, Russell J. 3,095,994.
Buskirk, John E., and Childs. 3,092,520.
Butler, Martin R., Jr., and Tucker. 3,075,406.
Campbell, Edgar C., and Timpner. 3,103,210.
Candelise, Alfred. 3,073,289.
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Candelise, Alfred. 3,113,232.
Caplan, Isadore, Rufiin, and Van Zile. 3,073,019.
Carlson, Wilbur L. 3,077,030.
Carlson, Wilbur L., and Deyle. 3,080,615.
Carpenter, Arthur J., and Mackie. 3,107,383.
Carpenter, Tracy L. 3,112,947.
Castle, William S., and Minnich. 3,081,021.
Chaplin, Albin, and Reddy. 3,096,849.
Chapman, Charles S., Jr. 3,077,115.
Chapman, Charles S., Jr., and Craig. 3,075,408.
Chapman, Charles S., Jr., and Craig. 3,110,363.
Clason, Bertil H. 3,109,908.
Chayne, Charles A. 3,097,542.
Chayne, Charles A., and Pollemus. 3,108,650.
Cheek, Willard D., and Wilfcox. 3,106,641.
Chrisman, La Verne A., and Ryan. 3,114,965.
Christenson, Howard W. 3,073,179.
Christenson, Howard W. 3,083,588.
Christenson, Howard W., and Breting. 3,088,552.
Christenson, Howard W., Fisher, and Mabley. 3,096,666.
Christenson, Howard W., Fisher, and Schaefer. 3,095,760.
Christenson, Howard W., Livezey, and Schilke. 3,101,012.
Christenson, Howard W., and Schaefer. 3,106,268.
Clark, Harry F. 3,116,397.
Cline, Charles W. 3,107,551.
Colautti, Albert J., and Wanlass. 3,090,847.
Cole, Edward N., and Johnston. 3,096,938.
Coleman, Richard B. 3,113,282.
Collman, John S., Ricketts, and Turunen. 3,077,074.
Collman, John S., Ricketts, and Turunen. 3,093,009.
Colten, Robert B., Wanttaja, and Scarpelli. 3,105,907.
Colvill, Donald E. 3,076,075.
Colvill, Donald E., and Dennis. 3,076,098.
Comer, Richard L. 3,108,905.
Conlan, Harry J. 3,088,782.
Conn, Francis E., and Covert. 3,087,554.
Conover, George W., Hulsing, and Koehler. 3,094,190.
Contant, Peter R., Hardy, and Reese. 3,097,389.
Cory, Carleton D., Jr., and Jenkins. 3,105,119.
Coverley, Harold E. 3,100,918.
Crabtree, Wilbur. 3,073,161.
Cromwell, Harold J. 3,114,803.
Dakin, Vernon W. 3,091,808.
Danforth, John P., and Black. 3,093,739.
Davis, James E. 3,090,244.
De Beaubien, William J. 3,084,867.
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Dega, Robert L. 3,073,033.
Dega, Robert L. 3,075,693.
Dega, Robert L. 3,092,899.
Dega, Robert L. 3,097,521.
Dega, Robert L. 3,104,463.
De Haan, Wolbert. 3,101,186.
De Hart, Arnold O. 3,115,034.
De Man, Heiko T. 3,080,840.
Denman, Stephen A. 3,092,143.
Dennis, William L. 3,110,065.
De Rees, Delbert D. 3,096,538.
De Rees, Delbert D., and Fox. 3,091,128
Dew, Joseph H. 3,105,479.
Dew, Joseph H. 3,106,391.
Diamond, Milton J., and Spain. 3,089,084.
Diamond, Milton J., Spain, and Lutch. 3,097,523.
Dickey, Donald K., and Principe. 3,081,115.
Diehl, Gordon H. 3,102,530.
Dilworth, William G. 3,090,655.
Dison, James R., Johnson, and Jones. 3,081,097.
Ditto, Edwin D. 3,101,020.
Doerfner, William H. Re. 24,526.
Dolza, John. Re. 25,492.
Downing, Kenneth D., Hall, and Poston. 3,115,401.
Drayer, William L., and Makela. 3,108,749.
Duer, Morris J. 3,081,648.
Duer, Morris J. 3,104,962.
Duer, Morris J. 3,107,987.
Duluk, Stanley, and West. 3,082,030.
Dunn, Wallace F. 3,114,560.
Dzienis, Jerome J., Gillespie, Trevillian, and Weber. 3,078,118.
Eder, Virgil K. 3,092,306.
Eder, Virgil K. 3,106,061.
Egbert, Earl L., and Shellman. 3,103,129.
Elfes, Donald B. 3,095,824.
Ellis, John H. 3,107,892.
Erickson, Anton F. 3,115,952.
Essenmacher, Ernest R. 3,096,643.
Etnyre, Edwin L. 3,112,809.
Evernden, Harold I. F. 3,097,544.
Fales, Douglas I. 3,092,754.
Falk, Frank J. 3,112,820.
Ferkins, Russell C., and Meyer. 3,114,990.
Fierstine, Burton A. 3,108,830.
Fischer, Harold. 3,087,588.
Fiteny, Louis M. 3,081,837.
Flaherty, James H. 3,079,291.
Flanigan, Eugene E., and Zeek. 3,095,706.
Flanigan, Eugene E., and Zeek. 3,095,707.
Flatt, James H., and Guetersloh. 3,081,793.
Fleming, Jack A. 3,088,566.
Flynn, Gregory, Jr., and Percival. 3,080,706.
Fodrea, James W. 3,088,336.
Forbush, Lothrop M., Wolf, and Wood. 3,112,510.
Foust, Floyd J., Childress, and Snowden. 3,082,371.
Fowler, F. Robert J. 3,077,298.
Fox, William R., and Humphries. 3,088,446.
Frame, Thomas B., and Maletzke. 3,096,124.
Frame, Thomas B., and Maletzke. 3,103,194.
Frame, Thomas B., Maletzke, and Smith. 3,078,123.
Francis, Philip L. 3,106,387.
Frank, Bernard E. 3,091,848.
Fraylick, James A., Machek, and Stawinski. 3,077,251.
Fraylick, James A., Machek, and Stawinski. 3,115,225.
Frei, Arthur J. 3,093,980.
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Furey, Patrick W. 3,074,372.
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Gaskill, George M. 3,092,997.
Gaubatz, Arthur W., and Moore. 3,095,695.
Geyer, Howard M. 3,080,852.
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Gilvarry, John J., Gore, Augenstein, and Randels. 3,097,717.
Gorsky, Rudolph J. 3,087,589.
Gorsky, Rudolph J. 3,087,590.
Gould, Richard E. 3,078,682.
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Grabowski, Leonard R. 3,073,177.
Graham, Robert W. 3,077,206.
Graham, Robert W. 3,112,939.
Grahn, Edwin O., and Gelfand. 3,088,453.
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Griswold, Charles J., Jr., and West. 3,080,602.
Grzegorczyk, Daniel. 3,081,492.
Guetersloh, Donald G. 3,109,127.
Gute, Loren R. 3,091,792.
Hagler, Norman R. 3,073,345.
Hallenbeck, Virgil R. 3,096,117.
Hancock, James L., and Lakes. 3,100,933.
Hanink, Dean K., and Bolin. 3,080,643.
Hanley, George P. 3,106,195.
Hanley, George P. 3,110,195.
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Hansen, Kai H. 3,106,198.
Hanson, Robert S. 3,108,455.
Hanysz, Eugene A. 3,105,120.
Harada, Henry H. 3,097,792.
Hardy, Alexander. 3,106,107.
Harmon, Kenneth B. 3,073,182.
Harris, Donald E. 3,104,174.
Harris, Edward P. 3,090,154.
Harry, Gordon W. 3,096,748.
Harry, Gordon W. 3,106,104.
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Hause, Gilbert K. 3,084,568.
Hause, Gilbert K. 3,090,256.
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Hay, Charles N. 3,096,129.
Haynes, William D., Jr. 3,078,134.
Heaton, William B. 3,077,103.
Heldorn, John H. 3,092,307.
Helgery, Ralph O. 3,073,978.
Helvern, James O. 3,094,814.
Helvern, James O. 3,114,138.
Helvern, James O., and Wuellner. 3,099,941.
Henry, Donald J., and Lottridge. 3,075,847.
Herr, Lewis E. 3,101,126.
Hetzler, Lewis R. 3,098,964.
Hetzler, Lewis R., Hartman, and Huntzinger. 3,072,838.
Hill, Vernon L. 3,085,125.
Hines, Eugene W., and Hard. 3,081,139.
Hockaday, Beverly G., Grady, Short, and Bates. 3,091,295.
Hogsten, Leslie G. 3,093,389.
Hollenbaugh, William J., and Winter. 3,095,737.
Holzwarth, James C., and Ross. 3,077,659.
Hopkins, Joseph H. 3,076,171.
Hubel, Karl A., Eicker, and Bonn. 3,081,843.
Hughel, Thomas J. 3,106,086.
Hulten, Richard E. 3,101,129.
Hulverson, Adrian F. 3,084,371.
Humphries, Harvey G. 3,115,304.
Hunsberger, John R., and Welch. 3,081,194.
Hyde, Arthur P. S. 3,103,186.
Ireland, Frank L., and Mangett. 3,085,035.
Isbell, Donald K., and Nagy. 3,102,608.
Jablonski, Francis E., and Leffert. 3,093,567.
Jacobs, James W. 3,070,971.
Jacobs, James W. 3,082,779.
Jacobs, James W. 3,084,520.
Jacobs, James W. 3,095,895.
Jacobs, James W. 3,115,565.
Jacobs, James W. 3,115,566.
Jacobs, James W., and Suttman. 3,078,858.
Jaffe, Lawrence L., and Wetzel. 3,092,169.
Jaquish, Paul E., Jr., and Rohde. 3,107,417.
Johnson, Marvin W., and Szrovy. 3,077,735.
Johnson, Ralph S. 3,090,676.
Johnson, Ralph S. 3,097,074.
Johnson, Robert E., and Konopa. 3,082,461.
Johnson, Roy E. 3,090,646.
Johnston, John R. 3,076,107.
Johnstone, Theodore H. 3,096,112.
Jordan, Charles M., and Yee. 3,109,159.
Kalls, Edward R. 3,101,065.
Kantar, Raymond G. 3,102,800.
Karlgaard, Wayne A. 3,088,555.
Karlgaard, Wayne A. 3,093,891.
Karlgaard, Wayne A. 3,098,546.
Kast, Howard B. 3,073,329.
Kast, Howard B. 3,096,618.
Kelghtley, Earl E. 3,084,866.
Kell, Nathaniel B. 3,105,558.
Kell, Nathaniel B. 3,108,494.
Kelley, Douglas M. 3,073,045.
Kelley, Oliver K. 3,073,183.
Kelley, Oliver K. 3,075,891.
Kelley, Oliver K. 3,090,474.
Kelley, Oliver K. 3,108,667.
Kellogg, George E. 3,101,742.
Kellogg, George E., and Naismith. 3,104,590.
Kesling, Keith K. 3,077,644.
Kesling, Keith K. 3,078,003.
Kesling, Keith K. 3,091,846.
Kevelin, Bruce E. 3,107,190.
Kincaid, Donald E., and White. 3,077,849.
King, Kahl V., and Wilson. 3,093,764.
King, William F. 3,087,357.
Kirk, Thomas E. 3,072,823.
Kniffin, Walter G. 3,075,364.
Kniffin, Walter G., Jr. 3,110,553.
Koehly, Paul F., and Walters. 3,097,320.
Koeppen, Jack A. 3,073,023.
Kolbe, Adelbert E. 3,106,168.
Kolt, Paul. 3,088,174.
Konopa, Richard L. 3,087,090.
Kotlin, James J., and Ware. 3,081,755.
Krauthurst, Homer V. 3,109,320.
Krebs, Henry. 3,075,405.
Kripke, Joseph B. 3,110,005.
Kripke, Joseph B., and Turner. 3,108,163.
Krodel, Leander J. 3,090,125.
Kruger, Rine, Jr. 3,092,438.
Kugler, Alfred E. 3,077,647.
Kuhn, Albert J., and O'Connell. 3,110,158.
La Boda, Mitchell A., and Wiese. 3,078,203.
La Boda, Mitchell A., and Wiese. 3,082,137.
La Boda, Mitchell A., and Wiese. 3,088,889.
La Flame, Frank E. 3,099,992.
Lahr, Gilbert M. 3,095,948.
Larkin, Robert G. 3,084,540.
Larson, Robert L., and Ervin. 3,076,110.
Lautzenhiser, Argyle G. 3,112,962.
Laviana, Donald W. 3,093,635.
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Lawless, Norman D. 3,084,556.
Leland, Robert W. 3,095,531.
Leonard, Henry J., and Watt. 3,073,291.
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Haugwitz, Otto. 3,088,690.
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Geolograph Co., The: *See*—
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Geophysical Research Corp.: *See*—
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Georas, John N.: *See*—
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Georgas, John J., to United Aircraft Corp. Rotor head. 3,080,927, 3–12–63, Cl. 170—160.25.

George, Carl R.: *See*—
Black, Du Wayne G., McKelvy, and George. 3,107,819.

George, Delbert L., and R. O. Howe, to Raytheon Co. Hydrosqueegee press. 3,112,520, 12–3–63, Cl. 18—5.

George, Donald K., and W. B. Tuemmler, to FMC Corp. Process for the synthesis of triazines. 3,108,101, 10–22–63, Cl. 260—248.

George, Henri J. C., to Quartz & Silice S.A. Optical pyrometers. 3,079,507, 2–26–63, Cl. 250—217.

George, Howard A. Fast and slow speed drive motor control system. 3,083,325, 3–26–63, Cl. 318—102.

George, James H. R., to A. D. Little, Inc. Process for purifying caustic soda and caustic potash. 3,105,740, 10–1–63, Cl. 23—184.

George, James W. Animal enclosure. 3,099,978, 8–6–63, Cl. 119—19.

George, Kurt O.: *See*—
Nachbar, Henry D., Biggs, Tariello, and George. 3,073,961.

George, Melvin F., Jr., E. Simon, and E. H. Burkart, to Lockheed Aircraft Corp. High dielectric constant material and method of making same. 3,079,289, 2–26–63, Cl. 154—43.

George, Philip D., to General Electric Co. Preparation of organosilanes. 3,099,671, 7–30–63, Cl. 260—448.2.

George, Robert H., to Brakemaster Corp. Automatic air brake system including circuit integrity testing. 3,106,430, 10–8–63, Cl. 303—1.

George, Sidney W.: *See*—
Peacock, George T., and George. 3,106,924.

George, Thomas J. Electronic tremulant system. 3,093,700, 6–11–63, Cl. 84—1.22.

George, Thomas J. Organ ensemble and reverberation system. 3,093,701, 6–11–63, Cl. 84—1.24.

George, Walter C.: *See*—
Larson, Louis P., and George. 3,082,583.

George, Warren E., and G. W. McIninch, to Auburn Machine Works, Inc. Trench digger blade. 3,104,481, 9–24–63, Cl. 37—191.

George, William, Jr.: *See*—
Gray, John R. 3,106,170.

George, William L., and G. A. Romanek, to Johnson & Johnson. Method and apparatus for making brushed nonwoven fabric. 3,101,520, 8–27–63, Cl. 28—1.

Georgeff, Vasil, to Danly Machine Specialties, Inc. Quick die change press. 3,111,100, 11–19–63, Cl. 113—49.

Georges, Raymond. Internal combustion engines, in particular of the constant pressure cycle type. 3,081,754, 3–19–63, Cl. 123—41.16.

Georges, Raymond. Machines and in particular internal combustion engines having an eccentrically mounted rotor with radial blades slidable therein. 3,103,920, 9–17–63, Cl. 123—16.

Georges, Raymond E. Internal combustion engines. 3,077,868, 2–19–63, Cl. 123—32.

Georgette, Daniel. Pneumatic motion regulator. 3,107,753, 10–22–63, Cl. 188—94.

Georgi, Theodor, to Fifth Wheel Ltd. Retractable vehicle support. 3,106,382, 10–8–63, Cl. 254—86.

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Georgia Kaolin Co.: *See*—
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Georgia-Pacific Corp.: *See*—
Hess, Robert W. 3,094,747.

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Allen, Robert L. 3,073,348.
Allen, Robert L. 3,077,872.
Allen, Robert L. 3,079,948.
Allen, Robert L. 3,105,640.

Gerace, Samuel. Letter box with signal system. 3,114,141, 12–10–63, Cl. 340—281.

Gerard, Deryck A.: *See*—
De Neergaard, Leif E. 3,076,374.

Gerard, George, and J. Brayman, to Barogenics, Inc. Multianvil apparatus and test bodies therefor. 3,080,609, 3–12–63, Cl. 18—16.

Gerard, George, and J. Brayman, to Barogenics, Inc. Hydrostatic press for an elongated object. 3,091,804, 6–4–63, Cl. 18—5.

Gerard, George, and J. Brayman, to Borogenics, Inc. Compact hydrostatic pressure apparatus. 3,093,862, 6–18–63, Cl. 18—16.5.

Gerard, George, and J. Brayman, to Barogenics, Inc. Superhigh pressure apparatus. 3,103,699, 9–17–63, Cl. 18—5.

Gerard, George, and J. Brayman, to Barogenics, Inc. Pressure apparatus. 3,105,994, 10–8–63, Cl. 18—16.

Gerard, Nules A. G., to Central Farm Equipment Co. Structures. 3,102,609, 9–3–63, Cl. 189—34.

Gerard, Robert L., ½ to R. F. Kolosky. Shoe cleaner. 3,077,624, 2–19–63, Cl. 15—37.

Gerard, Roger E. J.: *See*—
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Gerardin, Jean-Jacques, to Compagnie de Pont-A-Mousson. Process and device for producing foundry cores. 3,100,321, 8–13–63, Cl. 22—10.

Gerardin, Jean-Jacques, to Compagnie de Pont-A-Mousson. Machine for handling foundry moulds. 3,100,920, 8–20–63, Cl. 22—10.

Gerbasi, Joseph: *See*—
O'Brien, Edward F., Jr., and Gerbasi. 3,094,058.

Gerber, Charles H., to Avtron Mfg. Inc. Frequency modulation meter. 3,074,015, 1–15–63, Cl. 324—78.

Gerber, Eduard A., to United States of America, Army. Crystal frequency stabilization. 3,102,963, 9–3–63, Cl. 310—8.9.

Gerber, Fritz W.: *See*—
Krämer, Rolf, Breitinger, and Gerber. 3,098,345.

Gerber, Hanns, and R. Stroh, to Farbenfabriken Bayer Aktiengesellschaft. Process for the production of phenyl cyanates and phenyl cyanates. 3,107,261, 10–15–63, Cl. 260—453.

Gerber, Hans R., to Sulzer Freres, S.A. Valve having a removable seat. 3,106,380, 10–8–63, Cl. 251—362.

Gerber, Heinz J., to The Gerber Scientific Instrument Co. Data reading apparatus. 3,089,243, 5–14–63, Cl. 33—1.

Gerber, Heinz J., to The Gerber Scientific Instrument Co. Chart positioning mechanism for data reading apparatus. 3,102,701, 9–3–63, Cl. 242—67.3.

Gerber, Heinz J., to The Gerber Scientific Instrument Co. Data reading apparatus. 3,110,106, 11–12–63, Cl. 33—1.

Gerber, Henry. Underwater acoustic pressure measuring device. 3,098,211, 7–16–63, Cl. 340—8.

Gerber, Herbert A., to Schering Corp. Hydrohalogenation of 9,11-epoxy steroids. 3,086,032, 4–16–63, Cl. 260—397.45.

Gerber, Jossel. Folded display card. 3,112,827, 12–3–63, Cl. 206—78.

Gerber Products Co.: *See*—
Eolkin, Dave. 3,116,124.
Eolkin, Dave, and Allard. 3,115,433.
Krupp, Robert F. 3,087,353.
Krupp, Robert F., and Wagner. 3,075,332.
Krupp, Robert F., and Wagner. 3,086,668.
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Gerber Scientific Instrument Co., The: *See*—
Gerber, Heinz J. 3,089,243.
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Gerbig, Kurt, to VEB Fernmeldewerk Arnstadt. Electronic switch. 3,093,813, 6–11–63, Cl. 340—166.

Gerbino, Anthony J., to American Can Co. Carton. 3,081,017, 3–12–63, Cl. 229—39.

Gerbore, Alexander E., R. A. Plyer, and W. C. Steger, Jr., to Bell Telephone Laboratories, Inc. Private branch exchange telephone system including conference facilities. 3,099,719, 7–30–63, Cl. 179—27.02.

Gerchow, Wilbur R., to Sommerfeld Machine Co., Inc. Machine tool. 3,109,335, 11–5–63, Cl. 82—27.

Gercke, Ferdinand. Lawn mower grass catcher. 3,108,420, 10–29–63, Cl. 56—205.

Gerdeman, Dale B. Symmetrical coupling having interlocking lugs. 3,092,403, 6–4–63, Cl. 285—86.

Gerdes, Claus-Holmer. Mixing valve. 3,098,508, 7–23–63, Cl. 137—637.4.

Gerdes, Claus-Holmer. Electric combination switch. 3,105,888, 10–1–63, Cl. 200—815.
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Gere, Ansel J.: *See*—
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Gerecke, Hans G. P., to H G Designs Ltd. Sashless window. 3,111,727, 11–26–63, Cl. 20—52.
Gerecke, Max: *See*—
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Geren, Phillip M.: *See*—
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Gerhardt, Andrew H., and W. P. Yanik, to American Motors Corp. Washing machine having a filter. 3,086,380, 4–23–63, Cl. 68—17.
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Gerhardt, Carl W. Apparatus for measuring corrosion rates. 3,112,641, 12–3–63, Cl. 73—86.
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Gerhold, Clarence G., to Universal Oil Products Co. Catalytic converter-muffler. 3,113,000, 12–3–63, Cl. 23—288.
Gericke, Erich. Arrangement for cleaning printing ink, dirt, or the like from cylindrical surfaces in a printing press. 3,094,068, 6–18–63, Cl. 101—425.
Gerin, Jacques J.-M. J. Deflecting fender device. 3,074,751, 1–22–63, Cl. 293—19.
Gerin, Jacques J.-M. J. Shock-resisting motor vehicles. 3,098,675, 7–23–63, Cl. 296—28.
Gerjovich, Henry J., and R. W. Luckenbaugh, to E. I. du Pont de Nemours and Co. Herbicidal method. 3,089,765, 5–14–63, Cl. 71—2.6.
Gerjovich, Henry J., and R. W. Luckenbaugh, to E. I. du Pont de Nemours and Co. 1-phenyl, 1-hydroxyalkyl, 3,3-dialkylureas. 3,113,968, 12–10–63, Cl. 260—553.
Gerkens, Dirk R. d'A. Process for producing an expanded foodstuff. 3,076,711, 2–5–63, Cl. 99—100.
Gerlach, John R., to The American Hardware Corp. Knob construction for cylinder locks. 3,077,100, 2–12–63, Cl. 70—224.
Gerlach, Rudolph H., to Beteiligungs- und Patentverwaltungsgesellschaft mit beschrankter Haftung. Method of recovering iron from reduced ores. 3,103,315, 9–10–63, Cl. 241—14.
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63, Cl. 108—64.
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Germain, Jack, to Motorola, Inc. Radio communications equipment with sectionalized chassis and heat sinks. 3,091,736, 5–28–63, Cl. 325—355.
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Germano, Carmen P., and M. G. Kullin, to Clevite Corp. Ceramic electromechanical transducer. 3,073,914, 1–15–63, Cl. 179—100.41.
Germano, Charles E. Self-contained measuring and dispensing spout. 3,077,213, 2–12–63, Cl. 141—358.
Germany, Leslie W., to Pye Ltd. Apparatus for checking television waveforms. 3,072,739, 1–8–63, Cl. 178—6.
Germen, Ustun, to Radio Corp. of America. Control apparatus. 3,092,254, 6–4–63, Cl. 211—1.5.
Germer, John H., to General Electric Co. Liquid moderated vapor superheat reactor. 3,085,959, 4–16–63, Cl. 204—193.2.
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Gerow, Clarence C., H. F. Bottcher, C. F. Molzen, and H. Landell. Column shower. 3,095,579, 7–2–63, Cl. 4—145.
Gerow, Clarence C., and H. F. Bottcher, to Speakman Co. Panel showers. 3,095,581, 7–2–63, Cl. 4—192.
Gerow, Milo R. Extrusion machines and methods for tubing and sheeting. 3,084,386, 4–9–63, Cl. 18—14.
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Gerrand, Fred, and G. Thomas, to International Business Machines Corp. Utilizing predicted parity. 3,111,578, 11–19–63, Cl. 235—153.
Gerrans, Alfred W. Apparatus for handling fruit-carrying trays and the fruit. 3,107,800, 10–22–63, Cl. 214—306.
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Martin, Thomas R., and Whatley. 3,073,086.
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Gershen, Irvin J., to Johnson & Johnson. Tape dispenser. 3,102,671, 9–3–63, Cl. 225—43.
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Gersic, John J., N. L. Malakoff, L. B. Nelson, and H. T. Van Horn, to Socony Mobil Oil Co., Inc. Dewaxing and deoiling process. 3,083,154, 3–26–63, Cl. 208—31.
Gerst, Chris, to Dana Corp. Power transmission. 3,077,116, 2–12–63, Cl. 74—15.86.
Gerst, Chris, to Dana Corp. Multiple speed forward and reverse transmission. 3,102,432, 9–3–63, Cl. 74—360.
Gerstenfeld, Arthur, and D. R. Pall, to Mytron Products Inc. Device for translating reciprocating movement of a solenoid into oscillating motion. 3,110,826, 11–12–63, Cl. 310—23.
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Gerteis, Karl M., to Carrier Corp. Compressor muffler construction and method for muffling compressor discharge gases. 3,109,584, 11–5–63, Cl. 230—232.
Gerteis, Karl M., to Carrier Corp. Refrigerant flow distribution means. 3,110,162, 11–12–63, Cl. 62—196.
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Gerwick, Ben C., Jr., to Ben C. Gerwick, Inc. Pretensioning machine for making prestressed concrete bodies. 3,103,238, 9–10–63, Cl. 140—71.
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Geschickter, Charles F., and J. R. Meadow, to The Geschickter Fund For Medical Research, Inc. Novel diuretics and sedatives. 3,080,365, 3–5–63, Cl. 260—247.2.
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Geschwender, Robert C., to Lancaster Research and Development Corp. Rotary internal combustion engine. 3,074,387, 1–22–63, Cl. 123—16.
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Gesell, Carlos I. Internal combustion motor. 3,104,527, 9–24–63, Cl. 60—39.63.
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Gessler, Albert E., and W. H. Van Kirk, to Interchemical Corp. Metallic inks and pigment for use therein. 3,074,801, 1–22–63, Cl. 106—30.
Gessler, Albert M., and W. J. Sparks, to Esso Research and Engineering Co. Composition comprising aggregate, rubber and a steam-cracked petroleum resin. 3,093,601, 6–11–63, Cl. 260—5.
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Gewecke, Theodore H., C. R. Broman, and W. E. Morris, to Baxter Laboratories, Inc. Parenteral solution equipment and method of making. 3,087,491, 4–30–63, Cl. 128—272.
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Rosenberg, Harry, and Linke. 3,072,241.
Gewertz, Harry: *See*—
Raibourn, Paul, and Gewertz. 3,112,421.
Gewiss, Lucien V., to Wood, Marc, Societe Anonyme pour la Promotion des Echanges Techniques Internationaux. Chevron pleated filter sheet cartridge for fluids. 3,087,623, 4–30–63, Cl. 210—493.
Gex, Virgil E.: *See*—
Burt, Robert V., Gex, and Franz. 3,097,783.
Gex, Virgil E., and A. Bart, to The Procter & Gamble Co. Controlled volumetric filling of granular product into continuously moving pockets. 3,107,702, 10–22–63, Cl. 141—1.
Gey, William A., and R. W. Van Dolah, to United States of America, Navy. Alkyl ether of linear methylene nitramines. 3,104,262, 9–17–63, Cl. 260—584.
Gey, William A., and R. W. Van Dolah, to United States of America, Navy. Explosive compositions. 3,110,640, 11–12–63, Cl. 149—92.
Geyer, Gerhard H., to VEB Tabak-und Industriemaschinen Dresden. Apparatus for rolling cigar fillers. 3,108,601, 10–29–63, Cl. 131—56.
Geyer, Howard M., to General Motors Corp. Variable stroke actuator. 3,080,852, 3–12–63, Cl. 121—38.
Geyer, Howard M., to General Motors Corp. Actuator assembly. 3,092,082, 6–4–63, Cl. 121—40.
Geyer, Howard M., to General Motors Corp. Electromechanical actuator. 3,102,437, 9–3–63, Cl. 74—752.
Geyer, Paul, to United States Rubber Co. Thrust bearing. Re. 25,505, 12–31–63, Cl. 308—3.
Geyer, Robert L., and N. R. Sparks, to Pan American Petroleum Corp. Seismic well logging data display. 3,093,810, 6–11–63, Cl. 340—18.
Geyser, Albert I.: *See*—
Rasmussen, Arne P., Bertl, and Geyser. 3,085,354.
Gfeller, Ernst. Apparatus for treating oils and fats. 3,089,755, 5–14–63, Cl. 23—260.
Ghee, Elliit L. Beverage can holder. 3,103,295, 9–10–63, Cl. 220—85.
Ghougasian, John N. Propulsion unit. 3,105,444, 10–1–63, Cl. 103—87.
Giacchetti, Anacleto D., to National Video Corp. Regulation of high frequency induction heating apparatus. 3,097,283, 7–9–63, Cl. 219—10.77.
Giachetti, Ettore: *See*—
Natta, Giullo, Pasquon, and Giachetti. 3,073,811.
Giacomuzzi, Kenneth L., to Draper Corp. Cloth roll drive. 3,081,855, 3–19–63, Cl. 192—93.
Giacosa, Dante, to Fiat Societa per Azioni. Rear-engined motor vehicles having air-cooled engines. 3,096,843, 7–9–63, Cl. 180—54.
Giacosa, Dante, and P. S. Baldwin, to Fiat Societa per Azioni. Device for varying hydraulic pressure. 3,088,285. 5–7–63, Cl. 60—546.
Giaever, Ivar, to General Electric Co. Electron tunnel emission device utilizing an insulator between two conductors either or both of which may be superconductive. 3,116,427, 12–31–63, Cl. 307—88.5.
Gianmarco, Giuseppe, to Vetrocoke S.p.A. Method of purifying gaseous mixtures from acidic compounds. 3,086,838, 4–23–63, Cl. 23—2.
Gianmarco, Giuseppe, to Vetrocoke Societa per Azioni. Method of removing arsenical compounds contained in sulphur. 3,110,566, 11–12–63, Cl. 23—225.
Giampapa, Cirino, M. Paleschuck, and J. O. Bruno, to Hydra-Power Corp. Fluid pressure operated mechanisms. 3,070,959, 1–1–63, Cl. 60—54.5.
Gianinazzi, Rolando: *See*—
Casas-Robert, Ramon, and Gianinazzi. 3,108,556.
Casas-Robert, Ramon, and Gianinazzi. 3,115,043.
Giannini, Anthony J. Adjustable exhaust hood. 3,098,423, 7–23–63, Cl. 98—115.
Giannini Controls Corp.: *See*—
Frank, Karl F. 3,102,195.
Howard Robert C. 3,090,229.
Howard, Robert C., and Conow. 3,104,315.
Jablonsky, Roy D. 3,090,906.
Moncrieff-Yeates, Alexander J. 3,087,069.
Moncrieff-Yeates, Alexander J. 3,104,188.
Moncrieff-Yeates, Alexander J. 3,116,433.
Mounteer, Carlyle A. 3,079,953.
Riggio, Frank L. 3,111,867.
Serra, Gerald F., Daro, and Buchtenkirch. 3,108,478.
Skillen, Dawson C. 3,073,969.
Van Utt, Damon, and Sampson. 3,092,743.
Giannino, Amedio W. Oil level warning devices. 3,098,914, 7–23–63, Cl. 200—138.
Giannuzzi, George A., to International Business Machines Corp. Tape feed mechanism. 3,092,295, 6–4–63, Cl. 226—49.
Gianukos, James V., to Goodman Mfg. Co. Multiple rope side frame conveyor. 3,077,258, 2–12–63, Cl. 198—192.
Giardina, Andrew N., to General Molds & Plastics Corp. Combined plastic and cardboard toy. 3,088,243, 5–7–63, Cl. 46—123.

Giardina, Andrew N. Remote electrically controlled wheeled toy. 3,101,569, 8-27-63, Cl. 46—244.

Giarratano, Joseph. Practice drum pad. 3,113,480, 12-10-63, Cl. 84—411.

Giarrusso, Frederick F.: *See*—
Patchett, Arthur A., and Giarrusso. 3,083,200.

Giattino, Louis R.: *See*—
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Glauque, Louis F. Heat exchange apparatus. 3,074,479, 1-22-63, Cl. 165—110.

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Foss, Clifton T., and Giba. 3,080,514.

Gibb, Thomas B., Jr.: *See*—
Garty, Kenneth T., Gibb, and Stenstrom. 3,084,991.

Gibbar, Harold L.: *See*—
Gibbar, Paul L. and H. L. 3,090,105.

Gibbar, Paul L. and H. L. Crushing roll construction. 3,090,-105, 5-21-63, Cl. 29—124.

Gibbard, Thomas, F. B. Sharp, and M. Salway-Waller, to United Shoe Machinery Corp. Shoe-bottom heaters. 3,105,-891, 10-1-63, Cl. 219—39.

Gibbings, William R.: *See*—
Bragg, Stephen L., and Gibbings. 3,106,822.

Gibbon, William: *See*—
Cox, John E., and Gibbon. 3,111,552.

Gibbons, Charles G.: *See*—
Estabrooks, Roger S., and Gibbons. 3,080,040.

Gibbons, David J., to The General Electric Co. Ltd. Nuclear reactor burst cartridge detection. 3,088,899, 5-7-63, Cl. 204—193.2.

Gibbons, Edith M.: *See*—
Gibbons, Lloyd O. 3,084,620.

Gibbons, Joseph W. Adjustable shelf bracket assembly. 3,080,980, 3-12-63, Cl. 248—225.

Gibbons, Lloyd O., by E. M. Gibbons, guardian. Crop wafering machine. 3,084,620, 4-9-63, Cl. 100—71.

Gibbs Automatic Moulding Corp.: *See*—
Brown, William G. 3,071,299.

Gibbs, Eric G.: *See*—
Pereny, Louis, Gibbs, and Pyron. 3,090,694.

Gibbs, Hugh H., to E. I. du Pont de Nemours and Co. Nitrogen derivatives of fluoroalkyl sulfonic acid sultones. 3,091,619, 5-28-63, Cl. 260—327.

Gibbs, Joe W., C. J. McKiernan, and P. E. Davis, Jr. Threadless type well tubing safety joint. 3,107,930, 10-22-63, Cl. 285—18.

Gibbs, John D., and F. E. Smith, to Chicago Bridge and Iron Co. Pressure door locking device. 3,113,352, 12-10-63, Cl. 20—16.

Gibbs Mfg. & Research Corp.: *See*—
Brandt, Raymond W., Shoup, and Ziehlke. 3,075,423.
Gibbs, Thomas B. 3,103,570.
Gibbs, Thomas B. 3,109,341.
Gibbs, Thomas B., and Krug. 3,078,753.
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Gibbs, Peter F., to Brecknell, Dolman & Rogers Ltd. Egg orientating mechanism. 3,075,629, 1-29-63, Cl. 198—33.

Gibbs, Thomas B., to Gibbs Mfg. & Research Corp. Stop switch. 3,103,570, 9-10-63, Cl. 200—172.

Gibbs, Thomas B., to Gibbs Mfg. & Research Corp. Key switch. 3,109,341, 11-5-63, Cl. 84—423.

Gibbs, Thomas B., and W. H. Krug, to Gibbs Mfg. & Research Corp. Swell control. 3,078,753, 2-26-63, Cl. 84—1.27.

Gibbs, William B., C. V. Wahl, and D. H. Wenny, Jr.; said Gibbs assor. to Western Electric Co., Inc., and said Wahl and said Wenny assors. to Bell Telephone Laboratories, Inc. Processing of soft magnetic materials. 3,086,280. 4-23-63, Cl. 29—155.5.

Gibbs, William L. Signalling devices for telephones. 3,112,-366, 11-26-63, Cl. 179—6.4.

Gibbs, Winfield S., to The Budd Co. Turnover apparatus and method of use. 3,083,840, 4-2-63, Cl. 214—1.

Gibbs, Zack E.: *See*—
McCurtain, Frank. 3,096,213.

Gibeault, Robert N. Expandable finger ring having apertured shank. 3,077,750, 2-19-63, Cl. 63—15.5.

Gibney, Robert D., to Amsted Industries, Inc. Method of making a slack adjuster nut. 3,113,378, 12-10-63, Cl. 29—525.

Gibola, Joseph: *See*—
Munro, William D., Barker, Ellis, and Gibola. 3,083,289.

Gibson, C. R., & Co., The: *See*—
Bowman, Robert G. 3,104,011.

Gibson, Christian D., to The Raymond Corp. Lift truck reach mechanism. 3,082,894, 3-26-63, Cl. 214—730.

Gibson, Clyde M., and H. C. De Vore. Dental articulator. 3,073,030, 1-15-63, Cl. 32—32.

Gibson, Colin C., and W. A. Spinks. Folding chair. 3,071,-409, 1-1-63, Cl. 297—45.

Gibson, Dale C.: *See*—
Rehman, Irving, and Gibson. 3,108,282.

Gibson, Daniel L., to The Dow Chemical Co. Gelling hydrocarbon liquids. 3,097,169, 7-9-63, Cl. 252—8.55.

Gibson Electric Co.: *See*—
Gwyn, Childress B., Jr., and Hoyer. 3,078,562.

Gibson, Frank M., and C. H. Schamel, to General Motors Corp. Automotive body shroud and rocker panel construction. 3,084,972, 4-9-63, Cl. 296—28.

Gibson, Fred M., and W. E. Preston. Applying tool for spring-loaded fasteners. 3,073,474, 1-15-63, Cl. 218—19.

Gibson, George T., to John Gibson & Son, Ltd. Refuse-collecting vehicles. 3,104,021, 9-17-63, Cl. 214—503.

Gibson, Gordon, W. C. Jordan, and E. J. Lauer, to United States of America, Atomic Energy Commission. Apparatus for trapping energetic charged particles and confining the resulting plasma. 3,085,173, 4-9-63, Cl. 313—161.

Gibson, Gordon P., and J. G. Schwarzkopf, to Westinghouse Electric Corp. Protector for dynamoelectric machines. 3,079,524, 2-26-63, Cl. 318—473.

Gibson, Henry C., Jr.: *See*—
Cohen, Martin J., and Gibson. 3,091,463.
Payne, Robert E., Cohen, and Gibson. 3,092,723.

Gibson, Henry T. Electric drill and power tool support. 3,071,988, 1-8-63, Cl. 77—6.

Gibson-Homans Co., The: *See*—
Wormser, Eric S., Ankney, and Hurschman. 3,075,675.

Gibson, Howard B.: *See*—
Martin, Harold B., Gibson and O'Loughlin. 3,102,311.

Gibson, James: *See*—
Billett, Michael G., and Gibson. 3,113,054.

Gibson, James E., Jr. Valve means for inflatable articles. 3,100,498, 8-13-63, Cl. 137—223.

Gibson, James E., Jr. Spinning top toy assembly. 3,110,125, 11-12-63, Cl. 46—66.

Gibson, James O.: *See*—
Sheer, Charles, Korman, and Gibson. 3,101,308.

Gibson, John, & Son, Ltd.: *See*—
Gibson, George T. 3,104,021.

Gibson, John C., and T. L. Bowers, to International Telephone and Telegraph Corp. Combined switching and adjusting system. 3,110,885, 11-12-63, Cl. 340—147.

Gibson, Joseph W., Jr., to E. I. du Pont de Nemours and Co. Multifilobal textile filaments having controlled uniform twist and fabrics prepared therefrom. 3,109,278, 11-5-63, Cl. 57—140.

Gibson, Levi D. Crane attachment for bumper jacks. 3,081,-064, 3-12-63, Cl. 254—2.

Gibson Mfg. Co.: *See*—
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Gibson, Richard R., and G. C. Rhoad, to Gibson Mfg. Co. Fluorescent lighting fixtures. 3,075,072, 1-22-63, Cl. 240—51.11.

Gibson, Robert: *See*—
Cook, William W., Gibson, Roberts, and Scott. 3,072,999.

Gibson, William D., to White-Rodgers Co. Space temperature control. 3,096,935, 7-9-63, Cl. 236—1.

Gicanov, Rada R. Thermal expansible wire switch device. 3,113,192, 12-3-63, Cl. 200—113.

Giddey, Claude R., to Koopmans Meelfabrieken N.V. Process for the production of ready-for-use soups and sauces in powdered form and the resulting product. 3,116,151, 12-31-63, Cl. 99—124.

Giddings & Lewis Machine Tool Co.: *See*—
Kilroy, Henry P., and McDonough. 3,078,400.
Reichert, Charles L., and Lehmkuhl. 3,078,741.
Wagner, Elmer K. 3,090,266.
Younkin, George W. 3,101,436.

Giddings, Ronald W., and A. C. Davies, to Lever Brothers Co. Interesterification process. 3,095,431, 6-25-63, Cl. 260—410.7.

Giddings, Sydney A.: *See*—
Malley, Thomas J., Cosway, and Giddings. 3,101,999.
Malley, Thomas J., De Lapp, Giddings, and Cosway. 3,102,000.

Gideon, Victor W.: *See*—
Thompson, Arnold M., and Gideon. 3,091,134.

Gidley, John L., P. H. Monaghan, and G. K. Dumbauld, to Jersey Production Research Co. Drilling fluid and drilling therewith. 3,076,758, 2-5-63, Cl. 252—8.5.

Giebel, Joseph: *See*—
Temple, Robert, Giebel, and Temple. 3,111,927.

Giedd, Gary R.: *See*—
Behrndt, Marianne E., Giedd, Perkins, and Weed. 3,091,-556.

Gieffers, Ward J., to International Telephone and Telegraph Corp. Circuit for maintaining a load energized at decreased power following energization. 3,116,441, 12-31-63, Cl. 317—148.5.

Giegel, Charles J.: *See*—
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Giegerich, August, and R. Sievers, to Dr. Lehfeldt & Co., G.m.b.H. Ultrasonic machining. 3,091,060, 5-28-63, Cl. 51—59.

Giel, George J., to Genisco, Inc. Multiplexer system. 3,108,-267, 10-22-63, Cl. 340—364.

Glenger, Edwin B., Jr.: *See*—
Miller, Wilbur A., and Glenger. 3,079,643.

Giepen Associates, Inc.: *See*—
Giepen, Hubert M. 3,098,585.

Giepen, Hubert M., to Giepen Associates, Inc. Cup dispenser. 3,098,585, 7-23-63, Cl. 221—116.

Gier, John R., Jr. Method of making a heat exchanger cross tied pin assembly. 3,100,332, 8-13-63, Cl. 29—157.3.

Gierhart, Melvin. Device for lifting a drum while controlling tilting thereof. 3,112,835, 12-3-63, Cl. 214—313.

Giers, Alfred J. A.: *See*—
Maus, Otfrid G. H., and Giers. 3,098,391.

Gierse, Heinz. Press for adhesively bonding soles to footwear. 3,078,483, 2-26-63, Cl. 12—37.

Gies, Paul E., to Houdaille Industries, Inc. Linear hydraulic damper. 3,103,993, 9-17-63, Cl. 188—96.

Giese, Constance R. Paperboard carton blanking dies and method of making same. 3,109,328, 11-5-63, Cl. 76—107.

Giese, Elroy J.: *See*—
Chernak, John A., and Giese. 3,094,145.

Giese, Ralf, to Ford Motor Co. Seat back rest with adjustable spring rate. 3,095,188, 6-25-63, Cl. 267—89.

Giesecke, Gerhard: *See*—
Warmbrunn, Franz. 3,073,159.

Giesecke, Gunter: *See*—
Warmbrunn, Franz. 3,072,159.

Giesecke, Hermine: *See*—
Warmbrunn, Franz. 3,072,159.

Giesecke, Karoline: *See*—
Warmbrunn, Franz. 3,072,159.

Gieseke, Elmer W., to American Cyanamid Co. Process of recovering coal fines. 3,079,331, 2-26-63, Cl. 210—53.

Giesen, Johann, and F. Müller, deceased (by G. Müller-Grunwaldt, administratrix), to Inventa A.G. fur Forschung und Patentwertung. Process for the concentration of substances by absorption from solutions. 3,095,329, 6-25-63, Cl. 127—55.

Gieske, William R.: *See*—
Berry, Theodore L., and Gieske. 3,075,292.

Gieskieng, David H., to Allis-Chalmers Mfg. Co. Control system for automatically regulating cement kilns and auxiliary apparatus. 3,075,756, 1-29-63, Cl. 263—32.

Giesking, Paul F., to Erie Mining Co. Automatic car dumping apparatus. 3,080,075, 3-5-63, Cl. 214—63.

Giesler, Harold C., to Formica Corp. Devices for removing foreign particles simultaneously from two closely adjacent plane surfaces. 3,105,256, 10-1-63, Cl. 15—104.

Giesler, Jerry: *See*—
Brunson, Thomas H. 3,092,844.

Giesse, Robert C., to American Machine and Metals, Inc. Filter. 3,075,646, 1-29-63, Cl. 210—391.

Giesse, Robert C., to Ametek, Inc. Filter scraper. 3,080,064, 3-5-63, Cl. 210—396.

Giesse, Robert C., to Ametek, Inc. Filter. 3,115,459, 12-24-63, Cl. 210—484.

Giezendanner, Edwin R. Static electricity apparatus. 3,081,-558, 3-19-63, Cl. 35—19.

Giffen, James W., to Corning Glass Works. Pneumatic sheet molding apparatus. 3,114,620, 12-17-63, Cl. 65—145.

Gifford, Guthrie W. Apparatus for use in setting up printing machinery. 3,090,129, 5-21-63, Cl. 33—184.5.

Gifford, Robert T., to Vernay Laboratories, Inc. Method of making a rigid resilient tipped needle valve element. 3,090,-108, 5-21-63, Cl. 29—156.4.

Gifford, Robert T., to Vernay Laboratories, Inc. Rubber tipped needle valve. 3,090,596, 5-21-63, Cl. 251—333.

Gifford, Donald O., to Automatic Electric Laboratories, Inc. Multivibrator and amplifier powered by pulsating D.C. 3,109,994, 11-5-63, Cl. 331—71.

Giffrick Dock & Development, Inc.: *See*—
Scholley, George G. 3,103,907.

Giger, Adolph J., P. T. Haury, R. W. McKenzie, and L. F. Staehler, to Bell Telephone Laboratories, Inc. Double circuit coaxial jack with automatic cross-connection upon plug removal and automatic termination of idle lines upon plug insertion. 3,109,997, 11-5-63, Cl. 333—8.

Giger, Paul: *See*—
Aebi, Albert, and Giger. 3,102,108.

Giger, Urs: *See*—
Stamm, Heinrich, and Giger. 3,082,594.

Gignilliat, Leigh R., III: *See*—
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Gignilliat, Leigh R., Jr. Cutting device. 3,085,331, 4-16-63, Cl. 30—334.

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Keirstead, Karl F., Giguere, and Fortin. 3,094,515.

Gilbert, A. C., Co., The: *See*—
Effinger, William L., Jr. 3,094,109.
Frisbie, Marshall H. 3,102,523.
Frisbie, Marshall H., and Kretzmer. 3,086,319.
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Gilbert, Abner C., to Air Reduction Co., Inc. Safety helmet. 3,087,164, 4-30-63, Cl. 2—3.

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Precoplo, Frank M., and Gilbert. 3,079,370.

Gilbert, Alfred R., and F. M. Precoplo, to General Electric Co. Irradiated filler-containing polyethylene. 3,084,114, 4-2-63, Cl. 204—154.

Gilbert Associates, Inc.: *See*—
Switzer, George W., Jr., and Smith. 3,081,631.

Gilbert & Barker Mfg. Co.: *See*—
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Rapisarda, Edward D. 3,084,832.
Rapisarda, Edward D. 3,107,032.

Gilbert, Bruce. Methods of and means for fracturing earth formations. 3,089,416, 5-14-63, Cl. 102—20.

Gilbert, Bruce, to The Western Co. of North America. Apparatus for initiating fractures in earth formations. 3,101,051, 8-20-63, Cl. 102—20.

Gilbert, Clifford J.: *See*—
Girling, Douglas S., and Gilbert. 3,073,043.

Gilbert, Everett E.: *See*—
Carlson, Emery J., and Gilbert. 3,081,345.

Gilbert, Geoffrey, to Chavannes Industrial Synthetics, Inc. Embossing apparatus. 3,072,961, 1-15-63, Cl. 18—10.

Gilbert, George W., to United States of America, Navy. Weapon transfer dolly. 3,095,212, 6-25-63, Cl. 280—124.

Gilbert, Herbert, and G. Eiseman. Universal orthopedic traction and holding device. 3,087,489, 4-30-63, Cl. 128—84.

Gilbert, Jack J., to Swiveller Co., Inc. Swivel unit having split ball. 3,072,426, 1-8-63, Cl. 287—91.

Gilbert, Jack J., to S. Adler. Infusion apparatus. 3,095,800, 7-2-63, Cl. 99—289.

Gilbert, Jack J., to Adler-Gilbert Enterprises. Emergency signal devices for automobiles, trucks and the like. 3,114,-129, 12-10-63, Cl. 340—87.

Gilbert, Lewis F., to Ethyl Corp. Gasoline fuels. 3,113,005, 12-3-63, Cl. 44—69.

Gilbert, Lyman F., to Bailey Meter Co. Control apparatus. 3,078,723, 2-26-63, Cl. 73—507.

Gilbert, Lynford W.: *See*—
Pinkston, Herbert C., Gilbert, and Lloyd. 3,102,454.

Gilbert Mfg. Co., Inc.: *See*—
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Wieckmann, Gerhard. 3,101,984.

Gilbert, Marcellus N., Jr., and E. H. Dodge, to Sylvania Electric Products Inc. Lamp sealing apparatus. 3,113,011, 12-3-63, Cl. 65—138.

Gilbert, Nathan, to United States of America, Navy. Sensor apparatus for primary battery system. 3,107,184, 10-15-63, Cl. 136—86.

Gilbert, Paul T., Jr., to Beckman Instruments, Inc. Pump for liquids. 3,112,882, 12-3-63, Cl. 239—273.

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Smith, Frank W., Gilbert, and Sewell. 3,092,595.

Gilbert, Roswell W.: *See*—
Norris, Bevitt J., Nichols, Gilbert, and Cohen. 3,087,-147.

Gilbert, Roswell W., to Daystrom, Inc. Pulse-timed encoding apparatus. 3,074,057, 1-15-63, Cl. 340—347.

Gilbert, Seymour G., and J. I. Mergy, to Milprint, Inc. Method and apparatus for treating plastic packaging materials and articles prepared thereby. 3,111,418, 11-19-63, Cl. 117—15.

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Gilbert, William I., R. E. Kline, and C. W. Montgomery, to Gulf Research & Development Co. Process for preparing esters from olefins. 3,073,860, 1-15-63, Cl. 260—497.

Gilbertson, Herman F. Replaceable shoe for scraper bowl edges. 3,088,232, 5-7-63, Cl. 37—141.

Gilbertson, Theodore L. Explosion preventing means for coal stoves. 3,084,683, 4-9-63, Cl. 126—290.

Gilbody, Roger W., and C. R. Walker, to Sanders Associates, Inc. Method for photographically producing electrical conductor patterns inside a hollow object. 3,080,232, 3-5-63, Cl. 96—35.

Gilbride, Andrew J.: *See*—
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Gilbride, Andrew J., to United Shoe Machinery Corp. Toe lasting machines. 3,076,209, 2-5-63, Cl. 12—8.8.

Gilchrist, Allan E., to The Glidden Co. Latex paint pigment and process. 3,093,603, 6-11-63, Cl. 260—17.

Gilchrist, James R., to Truly-Magic Products, Inc. Method of making a cleaning pad. 3,073,716, 1-15-63, Cl. 117—43.

Gilchrist, William E.: *See*—
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Gildard, James H., and R. D. Lemmerman, to Koppers Co., Inc. Acoustical panel. 3,078,948, 2-26-63, Cl. 181—33.

Gildard, James H., III, and R. D. Lemmerman, to Koppers Co., Inc. Acoustical panel construction. 3,103,987, 9-17-63, Cl. 181—33.

Gildard, James H., III, and R. D. Lemmerman, to Koppers Co., Inc. Panel for the reduction of sound transmission. 3,115,948, 12-31-63, Cl. 181—33.

Gile, William B., to Borg-Warner Corp. Shipping carton. 3,100,594, 8-13-63, Cl. 229—16.

Giler, Roger R.: *See*—
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Giles, John K., and E. W. Michener, ½ to R. A. Nash. Methods of training horses. 3,099,248, 7-30-63, Cl. 119—29.

Giles, Ralph R.: *See*—
Straley, James M., and Giles. 3,072,683.
Straley, James M., and Giles. 3,087,773.
Straley, James M., and Giles. 3,113,952.

Giles, Walter D. Tractor hitch. 3,081,827, 3-19-63, Cl. 172—677.

Giles, William H., and A. R. Frank, to Nu Roll Corp. Web supplying and replacing apparatus. 3,072,354, 1-8-63, Cl. 242—58.4.

Giles, William S., to Thompson Ramo Wooldridge Inc. Valve stem oil seal. 3,110,288, 11-12-63, Cl. 123—188.

Giletta, Dario: *See*—
Vanzo, Marcello, Giletta, and Pacciarini. 3,111,443.

Giletta, Dario, and A. Pacciarini, to Pirelli S.p.A. Method of making expansible tubular diaphragms for tire building drums. 3,101,289, 8-20-63, Cl. 156—133.

Gilfillan Bros., Inc.: *See*—
Cutler, Burton. 3,096,513.
Davis, Donovan C., and Cutler. 3,080,557.
Davis, Donovan C., Ule, and Stoltz. 3,076,940.
Ule, Louis A. 3,094,675.
Van Alstyne, Alvin G., and Michels. 3,111,643.

Gilfry, Kenneth R. Guide attachment for a router. 3,099,299, 7-30-63, Cl. 144—144.

Gilkerson, Francis M. Form fitting shoe structure. 3,091,-042, 5-28-63, Cl. 36—2.5.

Gilkey, Russell: *See*—
Caldwell, John R., and Gilkey. 3,091,600.
Caldwell, John R., Gilkey, and Jackson. 3,077,466.

Gill, Bernard J., to Kiwi Coders Corp. Printing wheel. 3,086,461, 4-23-63, Cl. 101—377.

Gill, Donald W., to The Frank F. Taylor Co. Rollable baby jump seat. 3,083,050, 3-26-63, Cl. 297—16.

Gill, Edwin R., Jr., to K. W. Flock. Traffic controllers. 3,105,954, 10-1-63, Cl. 340—41.

Gill, Hedley, to The British Iron and Steel Research Assn. Rolling mills. 3,101,016, 8-20-63, Cl. 80—35.

Gill, Henry, to The Cincinnati Milling Machine Co. Conveyor mechanism. 3,095,119, 6-25-63, Cl. 221—234.

Gill, Joseph, to Hagan Chemicals & Controls, Inc. Multiple range measuring system for non-linear input signals using feedback gain control means to provide a linear response. 3,090,916, 5-21-63, Cl. 324—115.

Gill, Lester D. Box with self locking tab. Re. 25,449, 9-24-63, Cl. 229—17.

Gill, Robert F., Jr., and P. G. S. Mero, to Victor Comptometer Corp. Recording device. 3,096,742, 7-9-63, Cl. 120—42.06.

Gill, Thomas H.: *See*—
Anderson, Paul E., and Gill. 3,094,786.

Gill, Vincent A.: *See*—
Antrim, Doron S., Kling, and Gill. 3,097,666.

Gill, Wilbur. Dispensing device. 3,082,914, 3-26-63, Cl. 222—135.

Gillanders, Stephen R.: *See*—
Hall, Anthony P., and Gillanders. 3,107,412.

Gille, Paul, B. Hettich, W. Lorenz, and H. Schörner, to Kienzle Apparate G.m.b.H. Motion control arrangement for a business machine 3,074,628, 1-22-63, Cl. 235—60.47.

Giller, Morris, and J. G. Neuberth, to The Bendix Corp. Dual frequency feed horn. 3,100,894, 8-13-63, Cl. 343—756.

Gillerman, Harvey M., to Shampaine Industries, Inc. Means and methods for electrically measuring the amount of oxygen in a gas. 3,076,929, 2-5-63, Cl. 324—36.

Gilles, Juan E. Mechanical power transmissions. 3,083,803, 4-2-63, Cl. 192—60.

Gillespie, Arthur S., Jr.: *See*—
Richter, Harold G., and Gillespie. 3,110,835.

Gillespie, Frank L.: *See*—
Thomas, John H., and Gillespie. 3,101,966.

Gillespie, George R.: *See*—
Dzienis, Jerome J., Gillespie, Trevillian, and Weber. 3,078,118.

Gillespie, Howard L. Notched tillage disc with radially projecting teeth. 3,097,704, 7-16-63, Cl. 172—540.

Gillespie, Paul M., to Thompson Ramo Wooldridge Inc. Reactive liquid expulsion device for fuel tanks. 3,083,870, 4-2-63, Cl. 222—1.

Gillespie, Russell A., to Engineering Metal Products Corp. Curtain wall metal window frame. 3,077,962, 2-19-63, Cl. 189—75.

Gillespie, William, to Mavor & Coulson Ltd. Cutter-loaders for mining minerals. 3,091,440, 5-28-63, Cl. 262—30.

Gillessen, Josef L.: *See*—
Geschka, Hugo W., Gillessen, and Heidenreich. 3,099,022.
Irmscher, Klaus, Mannhardt, Brücker, and Gillessen. 3,103,505.

Gillett, Morris F.: *See*—
Wood, John P., Gillett, Neitzel, and Godbey. 3,113,265.

Gillette Co., The: *See*—
Alter, Harvey. 3,071,858.
Claisse, Arnold J., Collett, and Stagg. 3,114,455.
Laiderman, Donald D. 3,072,580.
Lewiecki, Edward M., and Shnitzler. 3,095,122.
Mitchell, Dennis M., and Safianoff. 3,105,502.
Muros, Joseph. 3,088,206.
Pugh, Harry H. 3,089,811.
Safianoff, Albert. 3,078,011.
Safianoff, Albert. 3,105,503.

Gilliam, George R.: *See*—
Smith, Joseph A., and Gilliam. 3,114,624.

Gilliam, Robert A.: *See*—
Isley, John V., and Gilliam. 3,094,858.
Isley, John V., and Gilliam. 3,094,859.

Gilligan, Larence H.: *See*—
Corson, Carl R., and Gilligan. 3,078,454.

Gilliland, Joe E., R. Ray, and W. E. White, to Ozark-Mahoning Co. Hydrogen fluoride detinning process and production of stannous fluoride. 3,097,063, 7-9-63, Cl. 23—88.

Gilliland, Ralph G.: *See*—
Donnelly, Ralph G., Gilliland, and Slaughter. 3,079,251.

Gilliland, William L. Explosive cartridges and explosives. 3,103,882, 9-17-63, Cl. 102—24.

Gillis, Edmund A., to The Cronite Co., Inc. Presses for printing engraved stationery. 3,094,927, 6-25-63, Cl. 101—322.

Gillis, Tom S.: *See*—
Wight, Edward M. 3,104,460.

Gillissen, Josef: *See*—
Bruckner, Klaus, Irmscher, and Gillissen. 3,087,942.
Bruckner, Klaus, Irmscher, and Gillissen. 3,098,084.

Gillman, Edward T., to Putnam Rolling Ladder Co., Inc. Ladders. 3,085,649, 4-16-63, Cl. 182—46.

Gillman, Edward T., and G. E. Basile, to Putnam Rolling Ladder Co., Inc. Machine for the manufacture of rails used in ladders. 3,108,921, 10-29-63, Cl. 156—432.

Gillman, Harold K., to The Allbright-Nell Co. Apparatus for slaughtering domestic animals. 3,106,744, 10-15-63, Cl. 17—1.

Gillo, Leon, to Indalco, S.A. Esters of reserpilic acid. 3,104,-243, 9-17-63, Cl. 260—294.3.

Gillooly, George R., J. G. Rabatin, and T. C. Vincent, to General Electric Co. Preparation of halophosphate phosphor. 3,109,819, 11-5-63, Cl. 252—301.6.

Gil-Mac Machine Co.: *See*—
McCormick, Rayna H. 3,109,243.

Gilman Brothers Co., The: *See*—
Bickford, Warren H. 3,082,483.
Kurhan, Maurice. 3,106,313.

Gilman, David M. Pick-up mechanism. 3,079,148, 2-26-63, Cl. 271—27.

Gilman, Henry: *See*—
Tamborski, Christ, and Gilman. 3,079,414.
Tamborski, Christ, and Gilman. 3,103,529.

Gilman, Morris: *See*—
Christianson, Charles, Gilman, and Maggio. 3,114,042.

Gilmore, Frank C.: *See*—
Rossi, Alfred J., Van Goey, and Gilmore. 3,076,982.

Gilmore, John F., to Bell Telephone Laboratories, Inc. Variable reset time monostable multivibrator. 3,113,219, 12-3-63, Cl. 307—88.5.

Gilmour, Robert A. Spraying device with dilution control. 3,090,564, 5-21-63, Cl. 239—318.

Gilmour, Robert A. Spraying device. 3,112,884, 12-3-63, Cl. 239—318.

Gilpatrick, Sherman R. Bed clothes holder. 3,109,181, 11-5-63, Cl. 5—320.

Glisdorf, Robert T., to E. I. du Pont de Nemours and Co. Preparation of organic titanates. 3,091,625, 5-28-63, Cl. 260—429.5.

Gilson Bros. Co.: *See*—
Ertsgaard, Byron L. 3,111,996.

Gilson, Joseph H., and E. G. Podolan, to General Motors Corp. Convertible top. 3,097,883, 7-16-63, Cl. 296—137.

Gilson, Paul R., and W. L. Kitchens, to Beckman Instruments, Inc. Circuit including an "AND" gate for pulsing a capacitive load. 3,114,054, 12-10-63, Cl. 307—88.5.

Gilson, Robert J., to Charles Colston, Ltd. Dishwashing machines. 3,073,527, 1-15-63, Cl. 239—1.

Gilson, Robert J., to Charles Colston Ltd. Liquid spray apparatus for dishwashing machines. 3,107,859, 10-22-63, Cl. 239—468.

Gilson Screen Co., The: *See*—
Cline, Robert A., and Tonjes. 3,071,969.
Tonjes, Burl D., and Cline. 3,098,037.

Gilvarry, John J., L. A. Gore, B. W. Augenstein, and W. C. Randels, to General Motors Corp. Automatic self-steering auxiliary for parking purposes. 3,097,717, 7-16-63, Cl. 180—1.

Gilwood, Martin E.: *See*—
Manchester, Donald F., Hossain, Gilwood, and Mindler. 3,083,078.

Gimber, George A.: *See*—
Tatnall, George J., Scarcelli, and Gimber. 3,093,808.

Gimple, David C. Garment bag making equipment. 3,086,577, 4-23-63, Cl. 156—495.

Gimple, John L., to Dairypak Butler, Inc. Reclosable carton. 3,101,883, 8-27-63, Cl. 229—51.

Ginaven, Marvin E., to The Bauer Bros., Co. Peanut cooler. 3,079,705, 3-5-63, Cl. 34—174.

Ginaven, Marvin E., to The Bauer Bros. Co. Cage assembly. 3,115,087, 12-24-63, Cl. 100—129.

Ginaven, Marvin E., and A. H. Adams, to The Bauer Bros. Co. Impregnator. 3,085,623, 4-16-63, Cl. 162—236.

Gindes, Philip, and A. S. Craig, to United Industrial Corp. Damped accelerometer. 3,078,724, 2-26-63, Cl. 73—516.

Gindroz, Frank H., to Electronic Specialty Co. Electro-mechanical clutch. 3,104,337, 9-17-63, Cl. 310—78.

Gingher, Carl E., and C. E. Gingher, Jr. Adjustable supporting surfaces. 3,100,572, 8-13-63, Cl. 211—153.

Gingher, Carl E., Jr.: *See*—
Gingher, Carl E., and C. E. Gingher, Jr. 3,100,572.

Ginnette, Lewis F.: *See*—
Graham, Robert P., Ginnette, and Morgan. 3,093,488.

Ginocchio, Andre, to Commissariat a l'Energie Atomique. Shaft-sinking bar. 3,113,627, 12-10-63, Cl. 173—43.

Ginsberg, Leon: *See*—
Jacob, Albert H., and Ginsberg. 3,087,990.

Ginsberg, Samuel J.: *See*—
Blanford, George W. 3,089,168.

Ginsburg, Abraham. Hypodermic needle. 3,099,988, 8-6-63, Cl. 128—221.

Ginsburg, Martin J.: *See*—
Bonarrigo, Paul J., and Ginsburg. 3,105,698.

Ginsburgh, Irwin: *See*—
Berg, William G., and Ginsburgh. 3,080,479.

Ginsburgh, Irwin, and H. G. J. Myers, to Standard Oil Co. Protective housing for radioactive sources. 3,0085,157, 4-9-63, Cl. 250—106.

Ginsling, Allen A.: *See*—
Rorden, Robert J., and Ginsling. 3,073,164.

Ginter, James C. Disposable brush for paint and the like. 3,105,263, 10-1-63, Cl. 15—244.

Ginther, Robert J. Radiation sensitive glass. 3,097,172, 7-9-63, Cl. 252—301.4.

Gintis, Daniel: *See*—
Christens, John M., Gintis, and Kirkpatrick. 3,104,450.

Ginzel, Günther: *See*—
Hotop, Werner, Meese, Masjoshusmann, Böhle, and Ginzel. 3,097,598.

Giolitti, Giovanni: *See*—
Craveri, Renato, and Giolitti. 3,093,543.

Giordano, Roger F. Shearing or bending presses. 3,109,476, 11-5-63, Cl. 153—21.

Giordano, Salvatore, to United States of America, Atomic Energy Commission. Radio frequency attenuator. 3,110,-872, 11-12-63, Cl. 333—81.

Giovannoni, Bruno C., and J. P. Lavin. Dispensing device. 3,072,302, 1-8-63, Cl. 222—442.

Giovannucci, Julius L., to National Distillers and Chemical Corp. Heat treating articles wrapped in a metallic envelope. 3,092,524, 6-4-63, Cl. 148—13.

Gipps, Louis H. F. P.: *See*—
Ainsworth, John R., and Gipps. 3,102,467.

Giraitis, Albert P.: *See*—
Blitzer, Sidney M., Giraitis, and Zietz. 3,098,706.
Johnston, James D., Shapiro, and Giraitis. 3,097,222.

Giraitis, Albert P., J. D. Johnston, and H. Shapiro, to Ethyl Corp. Subdivided lead product. 3,085,319, 4-16-63, Cl. 29—101.2.

Giraldi, Piernicola, D. Artini, and W. Logemann, to Carlo Erba S.p.A. Substituted triazines and process for their preparation. 3,074,943, 1-22-63, Cl. 260—247.2.

Giraldi, Piernicola, and W. Logemann, to Carlo Erba, S.p.A. Benzoylcarbinol-aminoacetates. 3,088,947, 5-7-63, Cl. 260—247.2.

Girard, Andre, to Roussel-UCIAF S.A. Chemotherapeutic agents and processes for their production. 3,101,298, 8-20-63, Cl. 167—65.

Girard, André G., to Roussel-UCLAF, S.A. Process of and composition for combatting influenza virus and processes of preparing the active constituent thereof. 3,092,549, 6-4-63, Cl. 167—65.

Girard, Peter F.: *See*—
Armstrong, Ray W., Girard, and Clinkenbeard. 3,102,-703.

Girard, Theodore A., and W. A. Neumann, to Heyden Newport Chemical Corp. Production of polychlorobenzoic acid. 3,075,008, 1-22-63, Cl. 260—523

Girard Trust Corn Exchange Bank: *See*—
Roff, Charles F. 3,107,528.

Girardot, Peter R., to Callery Chemical Co. Preparation of diborane. 3,106,454, 10-8-63, Cl. 23—204.

Girardot, Peter R., and L. Zeldin, deceased (J. M. Diehl, special administrator), to Callery Chemical Co. Alkylchloroalkylboranes. 3,083,230, 3-26-63, Cl. 260—606.5.

Girardy, Adolphe J.: *See*—
Epstein, Irving A., and Girardy. 3,093,920.

Giraudon, Jean R., to Societe Industrielle General de Mecanique Appliquee S.I.G.M.A. Fuel injection pumps. 3,081,231, 5-28-63, Cl. 123—140.

Girchel, Wayne B.: *See*—
Schoeffel, Eugene W., and Girchel. 3,107,142.

Girden, Barney B. Swimming device. 3,112,503, 12-3-63, Cl. 9—309.

Girdler, Ronald B.: *See*—
Dean, Ronald A., and Girdler. 3,098,816.

Giri de Teramala, Piero M. Mechanically propelled or mechanically driven apparatus. Re. 25,478, 11-12-63, Cl. 74—731.

Girling, Douglas S., and C. J. Gilbert, to International Standard Electric Corp. Manufacture of electrical capacitors. 3,073,943, 1-15-63, Cl. 219—50.

Girling Ltd.: *See*—
Botterill, John R. 3,113,643.
Harrison, Anthony W. 3,111,199.
Kings, Leonard W. 3,071,943.
Kings, Leonard W. 3,075,370.
Redmayne, Leonard, Wilson, and Kings. 3,077,246.
Sadler, Francis A. D. 3,075,502.
Wilson, Alexander J. 3,109,681.

Girouard, Paul M. Arcuate double edge razor blade. 3,109,-237, 11-5-63, Cl. 30—354.

Girton Mfg. Co., Inc.: *See*—
Girton, Paul K. 3,104,670.
Girton, Paul K. 3,109,380.

Girton, Paul K., to Girton Mfg. Co., Inc. Bottle washer. 3,104,670, 9-24-63, Cl. 134—74.

Girton, Paul K., to Girton Mfg. Co., Inc. Centrifugal pump. 3,109,380, 11-5-63, Cl. 103—97.

Girs, Alexander, to Schreyer & Co. Vehicular toy with acoustic signal. 3,080,678, 3-12-63, Cl. 46—232.

Girs, Alexander, to Schreyer & Co. Toy monorailways. 3,115,845, 12-31-63, Cl. 104—148.

Gish, Lyman C., to Packaging Corp. of America. Carrier carton. 3,115,273, 12-24-63, Cl. 220—115.

Gisholt Machine Co.: *See*—
Fibikar, Robert J., and Senger. 3,079,802.
Leifer, Lorenz A. 3,072,416.

Gislon, Andre: *See*—
Welsang, Edouard, Scherrer, and Gislon. 3,098,033.

Gissel, Kurt, to Ernst Leitz Gesellschaft mit beschrankter Haftung. Cylindrical mount for photographic objectives. 3,112,627, 12-3-63, Cl. 64—23.5.

Gisser, George H. Carousel toy. 3,112,929, 12-3-63, Cl. 273—1.

Gisser, Henry: *See*—
Mertwoy, Abraham, Trachtman, and Gisser. 3,112,273.

Gisser, Henry, and G. Rove. Precision and reliability of timing devices. 3,098,448, 7-23-63, Cl. 102—70.2.

Gisslen, Jan M., to General Electric Co. Blade platform structure. 3,112,865, 12-3-63, Cl. 230—116.

Gissy, John L.: *See*—
Noethlich, Richard M., Dunleavy, Kura, and Gissy. 3,088,195.

Gist, William B., and F. P. Sollinger, to Curtiss-Wright Corp. Cooling system for rotary mechanisms. 3,102,516, 9-3-63, Cl. 123—8.

Gits Bros. Mfg. Co.: *See*—
Gits, Remi J., and Warner. 3,109,659.
Kopplus, Wibrandus J. 3,116,066.
Schulz, George. 3,093,381.
Wahl, Edward C., and Kopplus. 3,109,660.

Gits, Joseph A.: *See*—
Gits, Jules P. 3,086,245.
Gits, Jules P. 3,086,250.

Gits, Jules P., ½ to J. A. Gits. Mold for making an indicia-bearing article. 3,086,245, 4-23-63, Cl. 18—36.

Gits, Jules P., ½ to J. A. Gits. Methods of making a molded indicia-bearing article. 3,086,250, 4-23-63, Cl. 18—59.

Gits, Remi J., and D. J. Warner, to Gits Bros. Mfg. Co. Demountable seal assembly. 3,109,659, 11-5-63, Cl. 277—38.

Gittus, John H., to The International Nickel Co., Inc. Nickel-chromium alloys. 3,093,476, 6-11-63, Cl. 75—171.

Gittus, John H., to The International Nickel Co., Inc. Creep-resistant nickel-chromium-cobalt alloy. 3,107,999, 10-22-63, Cl. 75—171.

Gittus, John H., and R. M. Cook, to The International Nickel Co., Inc. Nickel-chromium base alloy. 3,110,587, 11-12-63, Cl. 75—171.

Gitzen, Walter H., to Aluminum Co. of America. Production of low-soda alumina. 3,092,452, 6-4-63, Cl. 23—143.

Gitzen, Walter H., to Aluminum Co. of America. Production of low-soda alumina. 3,092,453, 6-4-63, Cl. 23—143.

Giuffrida, Joseph, to Columbia Broadcasting System, Inc., d.b.a. CBS-Hytron, a division of Columbia Broadcasting System, Inc. Color television picture tube. 3,076,910, 2-5-63, Cl. 313—92.

Giuffrida, Philip, and J. Pratt, to Electronics Corp. of America. Flame detection circuit. 3,091,724, 5-28-63, Cl. 317—149.

Giugni, Bruno: *See*—
Giugni, Nello, B. and R. 3,098,513.

Giugni, Nello, B. and R. Log debarking machine. 3,098,513, 7-23-63, Cl. 144—208.

Giugni, Rino: *See*—
Giugni, Nello, B. and R. 3,098,513.

Giuliano, Angelo. Amusement tarket striking device with bombsight. 3,083,019, 3-26-63, Cl. 273—101.

Giuliano, Frank: *See*—
Olson, Carl T., and Eckert. 3,082,469.

Giulietti, Luciano, to RIV Officine di Villar Perosa Societa per Azioni. Bearing with flexible sealing means. 3,090,628, 5-21-63, Cl. 277—94.

Giulini G.m.b.H., Gebrüder: *See*—
Rüter, Hermann, Weingärtner, and Cherdron. 3,076,692.

Giuntini, Roland. Device for converting values of one unit system into equivalent values in another system. 3,083,-906, 4-2-63, Cl. 235—89.

Giustiniani, Piero, G. Natta, G. Mazzanti, and G. Crespi, to Montecatini, Societa Generale per l'Industria Mineraria e Chimica. Poly-alpha-olefin compositions having improved affinity. 3,115,478, 12-24-63, Cl. 260—45.5.

Givaudan Corp., The: *See*—
Kitchens, Garry C. 3,076,022.
Naves, Yves-Rene, and Caujolle. 3,112,245.
Porcaro, Peter J. 3,093,592.
Wood, Thomas F. 3,078,319.

Givens, Richard C.: *See*—
Kreuz, Kenneth L., Wiley, and Givens. 3,085,064.

Glwosky, Harry L., to Realist, Inc. Miniature light source. 3,085,149, 4-9-63, Cl. 240—6.4.

Giza, Edward M., to United States of America, Army. Adjusting mechanism for recoilless rifle spotting barrel. 3,098,410, 7-23-63, Cl. 89—1.7.

Gizeski, Terrence. Digital regulator valve. 3,072,146, 1-8-63, Cl. 137—552.

Gizeski, Terrence. Pilot digital positioner. 3,114,297, 12-17-63, Cl. 91—414.

Glabau, Ernest R., to Vitramon, Inc. Vitreous ceramic compositions. 3,106,474, 10-8-62, Cl. 106—53.

Glaceries de la Sambre Societe Anonyme, Les: *See*—
Laverdisse, Edmond. 3,073,075.
Mols, Adolphe. 3,088,298.

Glacier Metal Co. Ltd., The: *See*—
Love, Phil P. 3,101,980.

Gladden, Donald W. Reinforcing arrangement for automobile front wheel suspension. 3,110,505, 11-12-63, Cl. 280—96.2.

Gladding, Edward K., to E. I. de Pont de Nemours and Co. Sulfur-curable elastomeric copolymers of ethylene, α-olefins, and 5-methylene-2-norbornene. 3,093,621, 6-11-63, Cl. 260—80.5.

Gladding, Edward K., and D. N. Robinson, to E. I. du Pont de Nemours and Co. 5-alkenyl-2-norbornenes and sulfur-curable elastomeric copolymers thereof. 3,093,620, 6-11-63, Cl. 260—79.5.

Gladding, Edward K., and D. C. Remy, to E. I. du Pont de Nemours and Co. Thermally stable fluorocarbon compounds. 3,102,889, 9-3-63, Cl. 260—308.

Gladding, McBean & Co.: *See*—
Compton, Max D. 3,086,880.
Ragan, Randall C. 3,097,929.

Gladitz, Walter J., and H. Todtenhöfer, to Augusta-Zunder Feuerzeugfabrik Mayer & Co. Gas lighter. 3,077,759, 2-19-63, Cl. 67—7.1.

Gladrow, Elroy M.: *See*—
Ellert, Henry G., and Gladrow. 3,074,893.
Gladrow, Elroy M., and P. T. Parker, to Esso Research and Engineering Co. Hydrodesulfurization process employing cobalt-molybdenum-molecular sieve catalyst. 3,098,032, 7-16-63, Cl. 208—216.
Gladstone, Matthew T., to Norton Co. Coated abrasives. 3,089,763, 5-14-63, Cl. 51—295.
Gladwin Plastics, Inc.: *See*—
Triplett, George C. 3,110,934.
Glahe, Frederick W., to Wilson Athletic Goods Mfg. Co., Inc. Chest protector. 3,076,197, 2-5-63, Cl. 2—2.
Glaister, Raymond M.: *See*—
Planer, George V., and Glaister. 3,074,804.
Glamann, Wilhelm, to Differential-Diesel-Vaduz (Furstentum Liechtenstein). Driving arrangement for a supercharged internal combustion engine. 3,077,730, 2-19-63, Cl. 60—12.
Glamann, Wilhelm, to Differential-Diesel-Vaduz (Furstentum Liechtenstein). Internal combustion engines. 3,090,194, 5-21-63, Cl. 60—13.
Glamorise Foundations, Inc.: *See*—
Basile, Gino. 3,107,639.
Glasbrenner, Stanley N., to Armstrong Cork Co. Method of improving torque strength of molded closures. 3,080,082, 3-5-63, Cl. 215—43.
Glaser, David, and F. V. Madaffore, to New Brunswick Scientific Co., Inc. Bacteria-counting apparatus. 3,083,909, 4-2-63, Cl. 235—92.
Glaser, Donald A.: *See*—
Cozad, Lawrence H., Didde, and Glaser. 3,072,398.
Dutro, Orville V., Hewson, and Glaser. 3,103,125.
Dutro, Orville V., Hewson, and Glaser. 3,111,250.
Glaser, Donald A., and L. C. Warren, to Didde-Glaser, Inc. Bottom feed apparatus for sheet handling equipment. 3,093,371, 6-11-63, Cl. 271—29.
Glaser, Ernest: *See*—
Flugge, Sylvester L., and Glaser. 3,094,396.
Glaser, Kurt F., to Reynolds Metals Co. Extrusion construction. 3,108,663, 10-29-63, Cl. 189—37.
Glaser, Marvin B., and A. Schriesheim, to Esso Research and Engineering Co. Aluminum halide recovery from hydrocarbon reactions. 3,071,635, 1-1-63, Cl. 260—683.74.
Glaser, Myron B., and H. Miller, to Sperry Rand Corp. Flare-out system. 3,115,319, 12-24-63, Cl. 244—77.
Glaser, Peter E.: *See*—
Chellis, Fred F., Glaser, and Ayling. 3,103,574.
Glasgow, Clarence O., to National Tank Co. Emulsion treaters and emulsion treating methods. Re. 25,504, 12-31-63, Cl. 55—42.
Glasgow, Clarence O., to National Tank Co. Meter. 3,073,159, 1-15-63, Cl. 73—249.
Glasgow, Clarence O., to National Tank Co. Flame arrester. 3,079,242, 2-26-63, Cl. 48—192.
Glasgow, Clarence O., to National Tank Co. Emulsion treating means. 3,087,292, 4-30-63, Cl. 55—175.
Glasgow, Clarence O., to National Tank Co. Level gage. 3,089,338, 5-14-63, Cl. 73—324.
Glasgow, Clarence O., to National Tank Co. Metering methods and means. 3,090,230, 5-21-63, Cl. 73—224.
Glasgow, Clarence O., to National Tank Co. Fluid pressure control system. 3,094,146, 6-18-63, Cl. 137—596.14.
Glasgow, Clarence O. Spare wheel construction. 3,116,094, 12-31-63, Cl. 301—38.
Glasgow, Clarence O., and C. T. Patterson, to National Tank Co. Gas dehydrator. 3,094,574, 6-18-63, Cl. 261—23.
Glasgow, Lyle E., and E. O. Dryer, to North American Aviation, Inc. Freeze seal liquid metal valve. 3,098,497, 7-23-63, Cl. 137—74.
Glass, Eugene D.: *See*—
Campion, Frank E., Glass, and Morse. 3,115,928.
Glass, Eugene D., to Pan American Petroleum Corp. Oil recovery method. 3,093,191, 6-11-63, Cl. 166—11.
Glass, Gilbert W., to Chain Belt Co. Method for seeding fines. 3,083,411, 4-2-63, Cl. 18—48.
Glass, Harvey W., and C. S. Tyler, to Cutler-Hammer, Inc. Cold transmission line terminations. 3,109,150, 10-29-63, Cl. 333—22.
Glass, Henry P. Collapsible furniture. 3,096,866, 7-9-63, Cl. 297—159.
Glass, Henry P. Lounge furniture having rotatable movable arm rests. 3,115,366, 12-24-63, Cl. 297—417.
Glass, Jerrold. Instrument casement leak testing device. 3,081,620, 3-19-63, Cl. 73—40.
Glass, Jerzy G., to The English Electric Co. Ltd. Hinged armature relays. 3,083,279, 3-26-63, Cl. 200—87.
Glass, John P. Counter apparatus. 3,076,184, 1-29-63, Cl. 340—198.
Glass, Marvin I.: *See*—
Licitis, Gunars. 3,080,675.
Weiner, Hilman. 3,091,370.
Weiner, Hilman. 3,099,933.
Glass, Marvin I., and G. Licitis; said G. Licitis, assor. to M. I. Glass. Toy fish. 3,077,698, 2-19-63, Cl. 46—92.
Glass, Marvin I., and L. Kripak, said L. Kripak assor. to said M. I. Glass. Toy. 3,081,084, 3-12-63, Cl. 272—27.
Glass, Marvin I., and B. C. Meyer; said Meyer assor. to said Glass. Novelty. 3,081,997, 3-19-63, Cl. 272—8.
Glass, Marvin I., and L. Kripak; said Kripak assor. to said Glass. Toy. 3,084,934, 4-9-63, Cl. 272—27.
Glass, Marvin I., and G. Licitis; said Licitis assor. to said Glass. Toy. 3,091,051, 5-28-63, Cl. 46—14.
Glass, Marvin I., and L. Kripak, said Kripak assor. to said Glass. Remotely controlled electric toy. 3,103,762, 9-17-63, Cl. 46—232.
Glass, Theodore D. Wind direction indicator. 3,112,645, 12-3-63, Cl. 73—188.
Glass, Warren V.: *See*—
Cook, Thomas L. 3,096,575.
Glass, William H., to Westinghouse Air Brake Co. Vacuum pump unloading apparatus. 3,114,498, 12-17-63, Cl. 230—31.
Glass, William H., and R. G. Widmyer, to Westinghouse Air Brake Co. Automatic cleaning apparatus for filters in compressed air systems. 3,080,693, 3-12-63, Cl. 55—163.
Glassco, Robert B., and B. M. Craig, to Bert M. Morris Co. Postage stamp dispenser. 3,101,282, 8-20-63, Cl. 118—40.
Glassey, Eugene A.: *See*—
Davidson, James P., and Glassey. 3,089,502.
Glassie, Donelson C., and C. B. Stevens, Jr. Apparatus for generating electric power. 3,105,931, 10-1-63, Cl. 322—28.
Glassman, Jacob A., to V. Mueller & Co. Non-crushing clamp. 3,101,715, 8-27-63, Cl. 128—322.
Glassman, Jacob A. Surgical extractor. 3,108,593, 10-29-63, Cl. 128—328.
Glassman, Jacob A. Surgical extractor and method of use. 3,108,594, 10-29-63, Cl. 128—328.
Glassman, Jerome M.: *See*—
Bruce, William F., Muehlmann, and Glassman. 3,081,229.
Glassman, Martin W.: *See*—
Peck, Allan W., and Glassman. 3,110,397.
Glasson, John G., to Dorr-Oliver Inc. Centrifuges. 3,073,516, 1-15-63, Cl. 233—28.
Glastra, Hendrik: *See*—
Van den Berg, Gijsbertus C., and Glastra. 3,103,779.
Glatthard, Roland: *See*—
Matter, Max, Glatthard, Kuhn, and Michel. 3,087,933.
Glattli, Hans H., to International Business Machines Corp. Fluid devices for computors. 3,114,390, 12-17-63, Cl. 137—597.
Glauber, Myron J. Diaphragm valve. 3,095,905, 7-2-63, Cl. 137—625.33.
Glaubke, Allen F., to Western Electric Co., Inc. Apparatus for inserting a succession of articles in oriented relationship into article-receiving seats in a carrier. 3,101,868, 8-27-63, Cl. 221—225.
Glaum, John C. Inside knurling tools. 3,088,344, 5-7-63, Cl. 80—5.1.
Glaus, Bernhard, to Ulrich Steinemann, AG. Maschinenfabrik. Pouring head for pressureless pouring of liquids. 3,088,633, 5-7-63, Cl. 222—108.
Glaverbel, S.A.: *See*—
Plumat, Emile. 3,109,682.
Glavis, Frank J.: *See*—
Lowell, John A., Hatton, Glavis, and Buechler. 3,103,447.
Glawon, Paul, to Deimag-Maschinenfabrik Reinbold Dornfeld. Pile pulling machine. 3,109,500, 11-5-63, Cl. 173—127.
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Anslow, Winston K. 3,095,410.
Clark, Dennis E., Ritchie, and Walker. 3,102,118.
Clark, Victor M., Walker, and Webb. 3,102,123.
Fantes, Karl H. 3,078,215.
Howell, Dennis G., Parr, and Heath. 3,083,142.
Oughton, John F. 3,112,330.
Raper, Alan H., and Lockwood. 3,102,113.
Rhodes, Alan, and McGonagle. 3,095,360.
Walker, Thomas. 3,102,122.
Walker, Thomas, Meredith, and Ritchie. 3,105,835.
Walker, Thomas, and Webb. 3,109,849.
Glaxo Laboratories Ltd.: *See*—
Phillipps, Gordon H. 3,115,508.
Glaze, Herbert L. Holst. 3,071,349, 1-1-63, Cl. 254—186.
Glaze, John W., Jr., to Autoboard Corp. Device for straightening the welts of socks preparatory to a boarding operation. 3,096,006, 7-2-63, Cl. 223—60.
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Glazenburg, Hilko, to Sterovita Melkproducten, N.V. Apparatus and process for the churning of coagulated skim milk. 3,079,241, 2-26-63, Cl. 31—89.
Glazier, Edwin M.: *See*—
Condrasky, John A., and Glazier. 3,071,535.
Glazier, Walter H., to Jersey Production Research Co. Method and apparatus for making variable density seismic depth sections. 3,076,379, 2-5-63, Cl. 88—24.
Gleason, Anthony H.: *See*—
Antonsen, Donald H., Gleason, Paulson, and Van Nostrand. 3,088,839.
Gardner, Irwin J., Robison, and Gleason. 3,081,352.
Gleason, David S.: *See*—
Severson, Donald E., and Gleason. 3,110,578.
Gleason, Geoffrey I., to Abbott Laboratories. Radioactive iodine process. 3,107,155, 10-15-63, Cl. 23—218.
Gleason, Jay L., one-tenth to Gadget-of-The-Month Club, Inc. Sewing awl. 3,107,831, 10-22-63, Cl. 223—104.
Gleason, Robert A. Supporting device. 3,106,390, 10-8-63, Cl. 269—254.
Gleason Works, The: *See*—
Baxter, Meriwether L., Jr. 3,104,557.
Bergemann, Werner E., and Whitmore. 3,099,883.
Carlsen, Leonard O., and Deprez. 3,086,508.
Carlsen, Leonard O., and King. 3,110,225.
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Gleason Works, The: *See*—Continued
Haase, Nelson K., and Pigage. 3,099,939.
Hunkeler, Ernst J. 3,099,901.
Male, Herman A. 3,083,616.
Stark, Robert E. 3,083,976.
Gleckler, George C.: *See*—
Kennerly, George W., Hoffenberg, and Gleckler. 3,097,195.
Gleeson, Murray A., to Goodman Mfg. Co. Long wearing flexible troughing idler assembly for flexible belt conveyors. 3,106,285, 10-8-63, Cl. 198—192.
Gleim, William K. T., to Universal Oil Products Co. Treating hydrocarbon distillates. 3,097,158, 7-9-63, Cl. 208—204.
Gleim, William K. T., and R. B. Thompson, to Universal Oil Products Co. Stabilization of organic substances. 3,071,548, 1-1-63, Cl. 252—46.6.
Gleim, William K. T., and P. Urban, to Universal Oil Products Co. Catalyst and manufacture thereof. 3,108,081, 10-22-63, Cl. 252—428.6.
Gleitsman, Harold, and C. Fuerst, to Gleitsman's, Inc. Combination valet and seat. 3,100,128, 8-6-63, Cl. 297—190.
Gleitsman's, Inc.: *See*—
Gleitsman, Harold, and Fuerst. 3,100,128.
Glemser, Oskar, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Process for the manufacture of carbon tetrachloride. 3,083,241, 3-26-63, Cl. 260—664.
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Dolnick, Seymour S. 3,087,524.
Glenn, Charles A., to United Aircraft Corp. Mirror petal modulator. 3,105,486, 10-1-63, Cl. 126—270.
Glenn, Charles A., and F. W. Reichenbacher, to United Aircraft Corp. Throttle valve. 3,071,345, 1-1-63, Cl. 253—59.
Glenn, Clifford M. Leg fin. 3,109,186, 11-5-63, Cl. 9—309.
Glenn, James P., to Westinghouse Electric Corp. Manufacture of articles from powdered materials. 3,075,244, 1-29-36, Cl. 18—16.5.
Glenn, Laurence D.: *See*—
Masters, William R., and Glenn. 3,072,779.
Glenn, William E., Jr., to General Electric Co. Orthogonal diffraction grantings for color reproduction. 3,078,338, 2-19-63, Cl. 178—5.4.
Glenn, William E., Jr., to General Electric Co. Optical system. 3,084,590, 4-9-63, Cl. 88—1.
Glenn, William E., Jr., to General Electric Co. Projecting system. 3,093,705, 6-11-63, Cl. 178—5.4.
Glenn, William E., Jr., to General Electric Co. Method and apparatus for recording. 3,113,179, 12-3-63, Cl. 178—6.6.
Glenny, Clarence S., to The Washburn Co. Bicycle basket. 3,080,100, 3-5-63, Cl. 224—36.
Glenny, Clarence S., deceased; by M. Glenny, administratrix, to The Washburn Co. Saddle basket brackets. 3,087,661, 4-30-63, Cl. 224—32.
Glenny, Clarence S., deceased, by M. Glenny, administratrix, to The Washburn Co. Combination condiment rack and barbecue tool holders. 3,115,107, 12-24-63, Cl. 108—152.
Glenny, Margaret: *See*—
Glenny, Clarence S. 3,087,661.
Glenny, Clarence S. 3,115,107.
Glerum, Irvin L., to W. C. Dillon & Co., Inc. Force measuring device. 3,084,297, 4-2-63, Cl. 336—30.
Glerum, Irvin L., to W. C. Dillon & Co., Inc. Force gauge. 3,090,227, 5-21-63, Cl. 73—141.
Glerum, Irvin L., to W. C. Dillon and Co. Force measuring device. 3,092,995, 6-11-63, Cl. 73—141.
Glerum, Irvin L., to W. C. Dillow & Co., Inc. Load measuring device. 3,097,524, 7-16-63, Cl. 73—141.
Glerum, Irvin L., to W. C. Dillon & Co., Inc. Electrical measuring instrument with a constant speed motor inductively driving a spring biased energized armature. 3,101,445, 8-20-63, Cl. 324—139.
Glew, David N., to The Dow Chemical Co. Fire extinguishing agents. 3,106,530, 10-8-63, Cl. 252—8.
Gley, Paul R., to Dependable Printed Circuit Corp. Dual in-place pipe cleaning apparatus. 3,094,998, 6-25-63, Cl. 134—56.
Glezen, Lewis E., to Nestaway Inc. Knock-down and stackable cabinet with accessories. 3,079,206, 2-26-63, Cl. 312—109.
Glickman, Louis S. Transparent snap-on lid for meat display tray. 3,101,864, 8-27-63, Cl. 220—60.
Glickman, Samuel A., and H. S. Schultz, to General Aniline & Film Corp. Preparation of N-substituted-3-morpholones. 3,092,630, 6-4-63, Cl. 260—247.7.
Glickman, Samuel A., E. S. Miller, and M. E. Chiddix, to General Aniline & Film Corp. Composition comprising polypyrrolidone and another polyamide. 3,097,181, 7-9-63, Cl. 260—42.
Glidden Co., The: *See*—
Bain, Joseph P., and Webb. 3,102,134.
Gilchrist, Allan E. 3,093,603.
Johnson, Paul D., Popin, and Koers. 3,073,270.
Kiefer, Harry J., Pekarek, and Zier. 3,080,246.
Pickett, Harold. 3,103,460.
Tonner, Francis I., and Dison. 3,107,226.
Glidden, Robert T. Container for spray appliance. 3,083,883, 4-2-63, Cl. 222—567.
Glidomatic Corp.: *See*—
Schwartzman, Gilbert. 3,084,375.
Schwartzman, Gilbert. 3,091,374.
Glielmi, Carmine: *See*—
Chrest, Roy W., Rummery, Richards, and Roseman. 3,079,269.
Curran, Irene S., Glielmi, and Lafortezza. 3,078,989.
Hood, Everett D., and Jaffers. 3,077,461.
Maker, Walter J., and Laurinaitis. 3,077,424.
Webb, Robert L. 3,076,839.
Glinski, Richard A.: *See*—
Rosser, Charles M., and Glinski. 3,091,554.
Glintz, Georgia E. Hair curling implement. 3,086,535, 4-23-63, Cl. 132—41.
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Glitsch, Hans C. 3,087,711.
Glitsch, Hans C., and Winn. 3,080,155.
Winn, Francis W. 3,079,134.
Glitsch, Hans C., to F. W. Glitsch & Sons, Inc. Fluid contact trays. 3,087,711, 4-30-63, Cl. 261—114.
Glitsch, Hans C., and F. W. Winn, to Fritz W. Glitsch & Sons, Inc. Flow control means. 3,080,155, 3-5-63, Cl. 261—114.
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Wallace, George A., and Browne. 3,098,542.
Globe Industries, Inc.: *See*—
Isaacson, Max. 3,087,080.
Murphy, Desmond F. 3,111,632.
Wizelman, Morris. 3,092,945.
Wizelman, Morris. 3,104,172.
Globe Mfg. Co.: *See*—
Cacella, Arthur F., and Killen. 3,115,384.
Globe-Union Inc.: *See*—
Hennen, Roy E., and Lawrie. 3,093,516.
Sabatino, Anthony, and Jackson. 3,100,162.
Sabatino, Anthony, and Lowe. 3,087,005.
Schlmek, Robert. 3,097,334.
Globe-Wernicke Industries, Inc.: *See*—
Brooks, Wesley M., and Hoffsis. 3,095,234.
Brooks, Wesley M., and Hoffsis. 3,107,940.
Globus, Alfred R., to United International Research, Inc. Method of producing manganese sulfate. 3,106,451, 10-8-63, Cl. 23—117.
Glocker, Paul L. Method and device for charging a workpiece holder. 3,089,613, 5-14-63, Cl. 221—176.
Glocker, Paul L. Setting mechanism for watch movements. 3,111,002, 11-19-63, Cl. 58—68.
Gloeckler, Fred A., to Star Sprinkler Corp. Dry pendant sprinklers. 3,080,000, 3-5-63, Cl. 169—41.
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Selkregg, Edward M., Jr., and Colligan. 3,097,747.
Glomb, Walter L., D. R. Campbell, and J. H. Kressman, to International Telephone and Telegraph Corp. Signal to noise ratio indicator. 3,101,446, 8-20-63, Cl. 325—67.
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Gloor, Otto. 3,075,758.
Gloor, Otto, to Gloor & Co., Gebr. Articulated-arm torch cutting machine. 3,075,758, 1-29-63, Cl. 266—23.
Gloor, Paul, and J. Baumann, to Bell Intercontinental Corp. Continuous metal cleaning apparatus. 3,107,455, 10-22-63, Cl. 51—9.
Glorvig, James O. Automatic weapon and ammunition. 3,104,588, 9-24-63, Cl. 89—33.
Glosup, Virgil E., and R. E. Paulson. Method and apparatus for handling track ties. 3,107,803, 10-22-63, Cl. 214—520.
Glover, Everett D., to Nalco Chemical Co. Method of producing hydrous metal oxide sols. 3,098,044, 7-16-63, Cl. 252—313.
Glover, Jack H., to The British Oxygen Co. Ltd. Method of and apparatus for oxygen determination. 3,088,905, 5-7-63, Cl. 204—195.
Glover, Sidney T., to Imperial Chemical Industries Ltd. Process for the production of caustic alkali solutions from alkali metal amalgams and to apparatus therefor. 3,104,949, 9-24-63, Cl. 23—184.
Glowka, Martin. Grip holder for garment hangers. 3,086,687, 4-23-63, Cl. 223—91.
Gluck, William, to United International Dynamics Corp. Electromechanical device. 3,072,757, 1-8-63, Cl. 200—16.
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Grishman, Simon. 3,108,600.
Grishman, Simon. 3,112,751.
Gluckman, Muriel S.: *See*—
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Glueckert, George L. Fuse-alarm. 3,071,760, 1-1-63, Cl. 340—250.
Gluhareff, Eugene M. Valveless jet engine with inertia tube. 3,093,962, 6-18-63, Cl. 60—35.6.
Gluth, Joseph F.: *See*—
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Gluth, Norman P., to Hughes Aircraft Co. Synchronous demodulator for radiotelegraph signals with phase lock for local oscillator during both mark and space. 3,109,143, 10-29-63, Cl. 325—320.
Glutting, Roy H., Sr. Shower bath curtain. 3,107,361, 10-22-63, Cl. 4—149.
Glynn, Robert P. Weighted insole. 3,109,245, 11-5-63, Cl. 36—2.5.
Glynn, Theodore W., to American-Saint Gobain Corp. Method of attaching a metal channel to a glass plate. 3,098,698, 7-23-63, Cl. 18—59.
Gmelner, Günter, and H. Lemmerzahl, to Daimler-Benz Aktiengesellschaft. Slidable roof construction. 3,075,806, 1-29-63, Cl. 296—137.

Gmitter, George T., to The General Tire & Rubber Co. Improved polyether-urethane foams and preparation of same. 3,078,239, 2–19–63, Cl. 260—2.5.

Gmunder, John: *See*—
Jucker, Ernst, Lindenmann, and Gmunder. 3,108,110.

Gnehm, Johann. Speculum, particularly for stomatological purposes. 3,082,762, 3–26–63, Cl. 128—10.

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Tedesco, Anthony J. 3,087,216.

Goar, Harry J. Hydro plane. 3,094,962, 6–25–63, Cl. 114—66.5.

Goard, Howard W.: *See*—
Koble, Robert A., and Goard. 3,099,525.

Goard, Howard W., to Phillips Petroleum Co. Apparatus and method for continuous separation of solids from liquids. 3,091,335, 5–28–63, Cl. 210—71.

Gobby, Alan B. Bearing puller for universal joints. 3,107,420, 10–22–63, Cl. 29—263.

Gobel, Charles, and L. W. Bluemle, Jr., to the trustees of The University of Pennsylvania. Dialyzer. 3,077,268, 2–12–63, Cl. 210—321.

Gobel, Wilhelm: *See*—
Malz, Hugo, Roos, and Gobel. 3,107,231.

Gobel, William B. Bottle holder. 3,085,612, 4–16–63, Cl 150—52.

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Gobran, Riad H., A. V. Tobolsky, and P. C. Colodny, to Thiokol Chemical Corp. Mercapto-terminated liquid polyurethane polymer. 3,114,734, 12–17–63, Cl. 260—75.

Goby, Clifford S. Railway car for freight trucks and the like. 3,075,479, 1–29–63, Cl. 105—455.

Goceliak, Anthony J. Combination pouring spout and strainer. 3,081,912, 3–19–63, Cl. 222—189.

Gochenour, Olin C., and A. G. Shumaker, to Jones & Laughlin Steel Corp. Apparatus for operating expanding mandrels. 3,107,875, 10–22–63, Cl. 242—72.1.

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Douis, Michel, Godart, Jouin, Laurent, and Sougl. 3,085,327.

Godbey, Josiah J.: *See*—
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Godbold, Warren B.: *See*—
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Lippman, Alfred, Jr., and Godchaux. 3,097,072.

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Goddard, Denis A., to Dominion Engineering Works Ltd. Apparatus for automatic knock-off shower for paper machine. 3,097,993, 7–16–63, Cl. 162—255.

Goddard, Denis A., to Dominion Engineering Works Ltd. Baffle for paper machine. 3,105,789, 10–1–63, Cl. 162—352.

Goddard, George W., to Bulova Research and Development Laboratories, Inc. Multiple-sensor airborne reconnaissance systems. 3,076,189, 1–29–63, Cl. 343—6.

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Goddard, J., & Sons Ltd.: *See*—
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Goddard, John A., to Ronson Corp. Smokers' or the like lighters. 3,093,990, 6–18–63, Cl. 67—7.1.

Goddard, Robert B., to Laboratory for Electronics, Inc. Low pressure pumping. 3,084,257, 4–2–63, Cl. 250—84.5.

Goddard, William A.: *See*—
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Godden, Thomas E., E. Danvers, and E. H. Morris, to Dowty Rotol Ltd. Hydraulically operated variable pitch propellers. 3,080,928, 3–12–63, Cl. 170—160.32.

Godderidge, Jean. Arrangements for winding wire at high speed into circular turns. 3,093,339, 6–11–63, Cl. 242—82.

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Godefroi, Erik F., to Parke, Davis & Co. Amine compounds and methods for their production. 3,111,527, 11–19–63, Cl. 260—330.5.

Godefroi, Erik F., V. H. Maddox, and R. F. Parcell, to Parke, Davis & Co. Process for producing a depressant-like effect on the central nervous system. 3,097,136, 7–9–63, Cl 167—65.

Godel, Siegfried: *See*—
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Godfrey, Elmore M., Jr. Tire retread material rolling machine. 3,097,984, 7–16–63, Cl. 156—408.

Godfrey, James, and E. A. Thurber, to Bell Telephone Laboratories, Inc. Protective element for hermetically enclosed semiconductor devices. 3,083,320, 3–26–63, Cl. 317—234.

Godfrey, James E., and E. Lesserson. Tone-arm for a playback sound reproducer. 3,101,952, 8–27–63, Cl. 274—23.

Godfrey, John J., to W. R. Grace & Co. Production of methyl methacrylate. 3,075,001, 1–22–63, Cl. 260—486.

Godfrey, John J., to California Research Corp. Mercaptan and amide production. 3,086,049, 4–16–63, Cl. 260—561.

Godfrey, Kenneth L., and H. L. Morrill, to Monsanto Chemical Co. Stablization of insecticides. 3,095,351, 6–25–63, Cl. 167—30.

Godfrey, Norman B., to Jefferson Chemical Co., Inc. Method for preparing N-alkylmorpholines. 3,087,928, 4–30–63, Cl. 260—247.

Godin, George W., and A. R. Graham, to The Distillers Co. Ltd. Production of acetyl-substituted pyridines. 3,075,989, 1–29–63, Cl. 260—297.

Godins "The Rollers of Steel Sections" Ltd.: *See*—
Nash, Leonard J. 3,080,838.

Godley, Frank E.: *See*—
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Godnight, Hershell: *See*—
Zink, John S., Reed, and Godnight. 3,101,769.

Godron, Yves G., to Compagnie de St. Gobain. Working of titaniferous metals. 3,110,399, 11–12–63, Cl. 207—10.

Godshalk, James B., to Fox Products Co. Battery chargers with polarity control means. 3,085,187, 4–9–63, Cl. 320—25.

Godshalk, James B., to Fox Products Co. Electrical systems. 3,089,073, 5–7–63, Cl. 320—21.

Godshalk, James B., to Fox Products Co. Automatic poultry watering valve. 3,090,309, 5–21–63, Cl. 137—614.14.

Godshalk, James B., to Fox Products Co. Poultry watering devices. 3,106,907, 10–15–63, Cl. 119—72.

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Godshalk, James B., and G. Muhler, to Fox Products Co. Automatic valves. 3,090,609, 5–21–63, Cl. 267—1.

Godshalk, Russell L., to The Babcock & Wilcox Co. Expansion pipe joint for conveying solids laden gas or fluid. 3,099,467, 7–30–63, Cl. 285—114.

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Godsil, Edward C., and E. Y. Robinson, to United States of America, Atomic Energy Commission. Variable-throw cam. 3,097,543, 7–16–63, Cl. 74—568.

Godtfredsen, Wagn O., H. O. B. Lorck, and S. Jahnsen, to Løvens, Kemiske Fabrik Ved A. Kongsted. Antibiotic and therapeutic compositions thereof. 3,072,531, 1–8–63, Cl. 167—65.

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Myers, Latimer D., Goebel, and Barrett. 3,076,003.

Goebel, Charles G., to Emery Industries, Inc. Method of producing polymers of linolenic acid. 3,100,784, 8–13–63, Cl. 260—407.

Goebel G.m.b.H., Maschinenfabrik: *See*—
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Goeddel, Walter V., and M. T. Simnad, to United States of America, Atomic Energy Commission. Method of making fuel bodies. 3,087,877, 4–30–63, Cl. 204—154.2.

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Goekler, Robert G., and W. B. Handwerk, to Crose-Perrault Equipment Corp. Full floating welding head carriage for welding cylindrical objects of relatively large diameter. 3,095,501, 6–25–63, Cl. 219—124.

Goel, Ram N., R. Rüegg and U. Schwieter, to Hoffmann-La Roche Inc. Process for preparing 3,4-dimethoxytoloquinone. 3,081,314, 3–12–63, Cl. 260—396.

Goeltz, Philip H., to The Gleason Works. Magnetic separator. 3,094,486, 6–18–63, Cl. 210—222.

Goepfrich, Rudolph A., to The Bendix Corp. Brake shoe and method of making same. 3,100,340, 8–13–63, Cl. 29—520.

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Goerz, Richard E. Process of making a die assembly. 3,094,886, 6–25–63, Cl. 76—107.

Goeser, Paul A., to Swift & Co. Method of slicing meat. 3,108,883, 10–29–63, Cl. 99—194.

Goessling, Gerald A. Key holder. 3,111,152, 11–19–63, Cl. 150—35.

Goethe, Paul K., and C. C. Horstman, to Westinghouse Electric Corp. Magnetic cores hermetically sealed within metal core boxes. 3,106,769, 10–15–63, Cl. 29—155.56.

Goettl, Adam D., to McGraw-Edison Co. Evaporative cooler pad frame construction. 3,075,750, 1–29–63, Cl. 261—97.

Goettl, Adam D., to McGraw-Edison Co. Combination evaporative cooler and a carbon filtering means. 3,086,342, 4–23–63, Cl. 55—316.

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Goettl, Adam D., to McGraw-Edison Co. Louver structure. 3,096,703, 7–9–63, Cl. 98—110.

Goettl, Adam D., to McGraw-Edison Co. Louver structure. 3,096,705, 7–9–63, Cl. 98—121.

Goettl, Adam D., to McGraw-Edison Co. Resilient mounts for electric motors. 3,114,060, 12–10–63, Cl. 310—51.

Goettl, Adam D. and J., to McGraw-Edison Co. Evaporative cooler and pad frame latch means therefor. 3,071,218, 1–1–63, Cl. 189—36.

Goettl, Adams D. and J., to McGraw-Edison Co. Evaporative cooler and pad frame latch means therefor. 3,115,222, 12–24–63, Cl. 189—34.

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Goettl, Adam D. and J. 3,115,222.

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Goettl, John and A. B., and R. L. Koble, Jr., to McGraw-Edison Co. Blower damper. 3,115,299, 12–24–63, Cl. 230—114.

Goettsch, Walter J., and H. W. Moser, to Samuel M. Langston Co. Board feed squaring device for rotary cutoff machines. 3,107,589, 10–22–63, Cl. 93—58.

Goetz, Alexander, to California Institute Research Foundation. Means for separating particles from fluids. 3,074,627, 1–22–63, Cl. 233—32.

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Goff, David C. Heater. 3,105,484, 10–1–63, Cl. 126—59.5.

Goff, David C., to Concrete Thermal Casings, Inc. Underground insulating conduit. 3,112,183, 11–26–63, Cl. 25—154.

Goff, Henry R., and G. E. Meckley, to ACF Industries, Inc. Portable punch riveter. 3,111,869, 11–26–63, Cl. 78—46.

Goff, Lionel E., to Olin Mathieson Chemical Corp. Gas release mechanisms. 3,094,070, 6–18–63, Cl. 102—25.

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Goffstein, Albert A., to ATR Electronics, Inc. Combination antenna and radio support for vehicles. 3,087,118, 4–23–63, Cl. 325—312.

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Gogan, Joseph. Spring quenching machine. 3,094,576, 6–18–63, Cl. 266—6.

Gogia, Jugal K., and J. C. Guyeska, to Thompson Ramo Wooldridge Inc. Quadrature rejection system. 3,085,166, 4–9–63, Cl. 307—105.

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Smith Alfred L., Gohring, J. E. and W. R. 3,076,970.

Gohs, Howard C., and J. F. Budnick, to Electrical Fittings Corp. Clamp for conduit or the like. 3,080,140, 3–5–63, Cl. 248—74.

Goin, Pierre R. M., to Compagnie des Machines Bull (Societe Anonyme). Triggering electronic devices for the control of electromagnetic actuating devices. 3,072,045, 1–8–63, Cl. 101—93.

Goin, Pierre R. M., and R. J. J. Urvoy, to Machine Bull (Societe Anonyme), Compagnie des. Sheet feeding apparatus. 3,086,771, 4–23–63, Cl. 271—31.

Goins, Rex H., and H. E. Davis, to Eastman Kodak Co. Process for manufacturing sugar esters. 3,096,324, 7–2–63, Cl. 260—234.

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Golay, Donaven E., to Golay & Co., Inc. Individual cow milk receiver and measurer. 3,082,738, 3–26–63, Cl. 119—14.46.

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Gold, Harold. Hydraulic flow control system. 3,086,365, 4–23–63, Cl. 60—52.

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Gold, Richard L., to Joseph Lucas (Industries) Ltd. Liquid fuel burning apparatus, a seal between a stationary cylindrical casing and a substantially cylindrical hollow member. 3,092,392, 6–4–63, Cl. 277—5.

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Gold, Robert M., to Dayton Rogers Mfg. Co. Reciprocating agitator. 3,081,746, 3–19–63, Cl. 121—164.

Gold, Samuel, and L. Fox, to National Starch and Chemical Corp. Release coatings for pressure sensitive adhesives. 3,111,449, 11–19–63, Cl. 161—151.

Gold, Samuel, and D. S. Greif, to National Starch and Chemical Corp. Direct method for metalization of cast-coated paper. 3,113,888, 12–10–63, Cl. 117—71.

Gold, Theodore, to Sperry Rand Corp. Aircraft take-off performance monitoring apparatus. 3,077,109, 2–12–63, Cl. 73—178.

Gold, Theodore, to Sperry Rand Corp. System for monitoring the take-off performance of an aircraft. 3,077,110, 2–12–63, Cl. 73—178.

Gold, Theodore, to Sperry Rand Corp. Acceleration measuring apparatus. 3,094,877, 6–25–63, Cl. 73—517.

Gold, Thomas. Solar power source for use in space. 3,089,043, 5–7–63, Cl. 307—149.

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Goldberg, Albert I., and V. Jasinski, to National Starch and Chemical Corp. Polyvinyl ethyl ether-vinyl acetate graft copolymers. 3,098,838, 7–23–63, Cl. 260—45.5.

Goldberg, Albert I., and I. J. Davis, to National Starch and Chemical Corp. Thermosetting acrylate ester copolymer adhesive for vinyl-to-metal laminates. 3,108,986, 10–29–63, Cl. 260—41.

Goldberg, Allan M., D. A. Hamilton, and S. D. James, to McGlaw Laboratories, Inc. Transfusion equipment. 3,115,152, 12–24–63, Cl. 137—408.

Goldberg, Edwin A., to Radio Corp. of America. Stabilized tracking system. 3,099,005, 7–23–63, Cl. 343—7.

Goldberg, Harold, to Litton Systems, Inc. Continuous wave frequency modulation distance measuring apparatus. 3,112,481, 11–26–63, Cl. 343—14.

Goldberg, Harry, S. Z. Siwek, and F. Fosnacht, to Pioneer Gen-E-Motor Corp. Lawn mower receptacle system for clippings, leaves and the like. 3,110,998, 11–19–63, Cl. 56—202.

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Goldberg, Leon J., to General Electric Co. Controlled rectifier D.C. switching circuit. 3,098,949, 7–23–63, Cl. 317—33.

Goldberg, Michael, to United States of America, Navy. Method of and system for guiding a missile. 3,116,039, 12-31-63, Cl. 244—14.

Goldberg, Moses W., H. H. Lehr, and M. Muller, to Hoffmann-La Roche Inc. Derivatives of benzothiadiazine 1,1-dioxide. 3,112,307, 11-26-63, Cl. 260—243.

Goldberg, Norman N. Motorized drive mechanism for roll film cameras. 3,084,606, 4-9-63, Cl. 95—31.

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Goldberg, Ralph. Sash element for metal pivoted windows. 3,077,250, 2-12-63, Cl. 189—65.

Goldberg, Samuel D., to Graham Chemical Corp. Disposable cartridge type hypodermic syringes. 3,089,490, 5-14-63, Cl. 128—218.

Goldberg, Samuel D., to Graham Chemical Corp. Disposable cartridge type hypodermic syringe devices. 3,102,539, 9-3-63, Cl. 128—218.

Goldberg, Samuel S., and L. T. Perriam, to Imperial Chemical Industries Ltd. Magnetic detection of flaws using mutually coupled coils. 3,075,145, 1-22-63, Cl. 324—37.

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Dupuy, Harold P., Goldblatt, and Magne. 3,079,387.
Dupuy, Harold P., Goldblatt, and Magne. 3,079,388.

Goldblatt, Leo A., and L. L. Hopper, Jr., to United States of America, Agriculture. Epoxy resin esters containing tung oil fatty acids. 3,079,354, 2-26-63, Cl. 260—18.

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Golde, Erich. Closure for bottles. 3,074,580, 1-22-63, Cl. 215—42.

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Golde, Erich, and K. Treydte. Grip-on cap seals for bottles or other containers and method of production of said cap seals. 3,089,604, 5-14-63, Cl. 215—39.

Golde, H. T., G.m.b.H., & Co. K.G.: *See*—
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Golde, Hans, to H. T. Golde, G.m.b.H., & Co. K.G. Manually-workable devices, particularly for operating locking means of sliding roofs of motor vehicles. 3,079,196, 2-26-63, Cl. 296—137.

Golde, Hans T., and J. Werner. Sun roller blind. 3,075,805, 1-29-63, Cl. 296—137.

Golde, Hans, and J. Werner, to H. T. Golde, G.m.b.H., & Co. K.G. Vehicle roofs. 3,079,195, 2-26-63, Cl. 296—137.

Goldemberg, Robert L., and R. J. James, to Shulton, Inc. Process of dyeing keratinous fibers. 3,075,821, 1-29-63, Cl. 8—10.

Golden, Bertie C., to Millhiser Bag Co., Inc. Bag making machine-hem forming, drawstring inserting and loop forming mechanism. 3,077,168, 2-12-63, Cl. 112—2.

Golden, Bertie C., to Millhiser Bag Co., Inc. Bag making machine and method. 3,109,394, 11-5-63, Cl. 112—10.

Golden, Bobby F. Leveling device for derricks. 3,078,072, 2-19-63, Cl. 254—104.

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Goldfader, Sol. Electro-lift. 3,083,948, 4-2-63, Cl. 254—7.

Goldfarb, Adolph E. Gum ball-dispensing machine. 3,077,-234, 2-12-63, Cl. 194—80.

Goldfarb, Adolph E. Traveling target. 3,082,002, 3-19-63, Cl. 273—102.2.

Goldfarb, Adolph E. Buckle key chain. 3,100,608, 8-13-63, Cl. 242—96.

Goldfarb, Adolph E. Toy crane. 3,104,015, 9-17-63, Cl. 212—59.

Goldfarb, Adolph E. Impact reaction toy. 3,108,395, 10-29-63, Cl. 46—65.

Goldfarb, Adolph E., and H. G. Saperstein. Ball projecting apparatus. 3,084,680, 4-9-63, Cl. 124—16.

Goldhammer, Albert, to Bodenseewerk Perkin-Elmer & Co., G.m.b.H. Photographic camera with exposure counting device and rewinding attachment. 3,079,850, 3-5-63, Cl. 95—31.

Goldheim, Samuel L. Anti-fouling multiple coating. 3,097,-932, 7-16-63, Cl. 29—195.

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Goldman, David. Instrument washers. 3,101,729, 8-27-63, Cl. 134—145.

Goldman, David. Drying apparatus employing radiant panel heaters. 3,102,007, 8-27-63, Cl. 34—48.

Goldman, Dexter S., and F. A. Lornitzo, to United States of America, Army. Isolation of mycoribnin-T6P. 3,102,843, 9-3-63, Cl. 167—65.

Goldman, Joseph. Tow line handle. 3,078,481, 2-26-63, Cl. 9—8.

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Goldman, Leon, J. W. Marsico, and G. W. Anderson, to American Cyanamid Co. Novel nucleotide coenzymes. 3,082,-203, 3-19-63, Cl. 260—211.5.

Goldman, Marvin, to Gro-Wel Fish-Ade Co., Inc. Fish feeder. 3,095,852, 7-2-63, Cl. 119—3.

Goldman, Maurice A., to E. Shapiro. Fiber integrating apparatus. 3,081,499, 3-19-63, Cl. 19—99.

Goldman, Richard G., to General Electric Co. Transistorized voltage regulator. 3,109,135, 10-29-63, Cl. 323—22.

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Goldring, John E., and A. E. Kremiller, to Modernair Corp. Pneumatic fastener driving machine. 3,081,741, 3-19-63, Cl. 121—21.

Goldring, John E., and A. E. Kremiller, to Modernair Corp. Pneumatically operated fastener driving machine. 3,081,-742, 3-19-63, Cl. 121—21.

Goldsby, Arthur R., and H. H. Gross, to Texaco Development Corp. Alkylation process. 3,083,247, 3-26-63, Cl. 260—683.46.

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Goldschmidt, Hans. Self testing device. 3,097,435, 7-16-63, Cl. 35—8.

Goldschmidt, Hans, and J. W. Edgemond, Jr., to Magna American Corp. Sliding table saw. 3,115,168, 12-24-63, Cl. 143—52.

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Goldsmith, Elaine B. Contour covering for mattresses. 3,090,052, 5-21-63, Cl. 5—334.

Goldsmith, Fred C., to The Lubrizol Corp. Apparatus for carrying out chemical process. 3,086,849, 4-23-63, Cl. 23—260.

Goldsmith, Fred C., to The Lubrizol Corp. Phosphating process. 3,104,177, 9-17-63, Cl. 117—71.

Goldsmith, Herbert, to National Instrument Laboratories, Inc. Linear flow meter. 3,071,001, 1-1-63, Cl. 73—211.

Goldsmith, Philip H. Up-flow headbox. 3,095,348, 6-25-63, Cl. 162—216.

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Goldstein, Arthur, to Tru Balance Corsets, Inc. Girdle. 3,094,126, 6-18-63, Cl. 128—529.

Goldstein, Bernard H.: *See*—
Moore, Albert N. 3,090,485.

Goldstein, Daniel, to Schenley Industries, Inc. Combination shipping container and display device. 3,072,246, 1-8-63, Cl. 206—44.

Goldstein, Daniel, to Schenley Industries, Inc. Self-standing display. 3,083,488, 4-2-63, Cl. 40—124.1.

Goldstein, Daniel, to Schenley Industries, Inc. Bottle closure and pourer. 3,085,721, 4-16-63, Cl. 222—484.

Goldstein, Daniel, to Schenley Industries, Inc. Self-erecting advertising display associated with shipping containers. 3,090,492, 5-21-63, Cl. 211—73.

Goldstein, Daniel, to Schenley Industries, Inc. Multi-purpose carton and game. 3,100,642, 8-13-63, Cl. 273—105.

Goldstein, David: *See*—
Chang, Melvin C., and Goldstein. 3,095,463.

Goldstein, David N., to General Electric Co. Turbine acceleration control system. 3,094,311, 6-18-63, Cl. 253—59.

Goldstein, Ernst M. Process for separating cobalt and nickel from ammoniacal solutions. 3,107,996, 10-22-63, Cl. 75—108.

Goldstein, Herbert J., and P. V. Srother, to Texas-U.S. Chemical Co. Stable non-adhesive butadiene-styrene rubber containing a silicone oxide condensation polymer and finely divided silica and process for making same. 3,073,-789, 1-15-63, Cl. 260—29.1.

Goldstein, Herbert L., T. L. Heying, to Olin Mathieson Chemical Corp. Organoboron polymers and process of making same. 3,109,031, 10-29-63, Cl. 260—606.5.

Goldstein, Irving S.: *See*—
Oberley, William J., and Goldstein. 3,080,212.

Goldstein, Irving S., and J. W. Weaver, to Koppers Co., Inc. Process of acetylating wood. 3,094,431, 6-18-63, Cl. 117—59.

Goldstein, Louis: *See*—
Witten, Louis J., and Goldstein. 3,094,964.

Goldstein, Marvin C. Elastic thread ligature. 3,091,856, 6-4-63, Cl. 32—14.

Goldstein, Mayer. Portable blower. 3,086,698, 4-23-63, Cl. 230—117.

Goldstein, Myron. Method for separating knitted fabrics. 3,090,098, 5-21-63, Cl. 28—72.

Goldstein, Samuel, deceased (by Manufacturers Hanover Trust Co., executor), and I. Lichtenstein, to Tri-Wall Containers, Inc. Corrugated paper board product. 3,096,224, 7-2-63, Cl. 154—45.9.

Goldstein, Samuel E. Vehicular antenna bumper mount. 3,100,241, 8-6-63, Cl. 174—138.

Goldstein, Sidney: *See*—
Wright, William B., Jr., Goldstein, and Brabander. 3,116,286.

Goldstick, Gerson H., to The National Cash Register Co. Memory sensing system. 3,116,476, 12-31-63, Cl. 340—174.

Goldthwait, Richard G.: *See*—
Fogle, Merald C., Goldthwait, Kwolek, and Rice. 3,105,-859.

Goldwasser, Eugene: *See*—
White, Whfrid F., Goldwasser, Weber, Egan, and Schlueter. 3,111,458.

Goldwater, Robert, to Safeway Stores, Inc. Conversion and information inserting apparatus. 3,111,262, 11-19-63, Cl. 234—17.

Goldwater, Robert, and F. B. Calhoun, to Safeway Stores, Inc. Store ordering system and apparatus. 3,100,814, 8-13-63, Cl. 178—3.

Golec, Edward J., to Sears, Roebuck and Co. Spinning type fishing reel. 3,097,813, 7-16-63, Cl. 242—84.2.

Golenpaul, Dan, Associates: *See*—
Cohn, Hugo, and Bonanno. 3,104,110.

Golightly, James S., to Pittsburgh Plate Glass Co. Glass bending method. 3,087,815, 4-30-63, Cl. 65—103.

Golko, Edward H., to John C. Virden Co. Fluoroescent lighting fixture. 3,080,476, 3-5-63, Cl. 240—51.11.

Gollbach, Ludwig: *See*—
Lindenmaier, Ernst, Gollbach, and Fischel. 3,080,310.

Goller, George N.: *See*—
Levy, Walter B., and Goller. 3,082,083.

Goller, George N., to Armco Steel Corp. Stainless steel product and method. 3,100,729, 8-13-63, Cl. 148—12.8.

Goller, Herbert, to Ankerwerk Gebruder Goller. Screw injection molding machine. 3,101,512, 8-27-63, Cl. 18—30.

Goller, William W.: *See*—
Zeller, Robert C., and Goller. 3,110,524.

Golley, Frank B., and R. J. Rachus, to International Harvester Co. Ganging device for steel rolling mill. 3,103,-072, 9-10-63, Cl. 33—143.

Gollmar, Herbert A., to Koppers Co., Inc. Process for recovery of ammonia from coke oven gas as ammonium chloride and ammonium sulfate. 3,097,065, 7-9-63, Cl. 23—100.

Gollwitzer, George E.: *See*—
Shumaker, Charles S., and Gollwitzer. 3,078,748.

Gollwitzer, George E., F. F. Forma, and H. R. Bierwirth, to Kelsey-Hayes Co. Material depiling and handling apparatus. 3,079,011, 2-26-63, Cl. 214—1.

Golten, Sigurd. Crankshaft journal grinders. 3,103,088, 9-10-63, Cl. 51—241.

Göltner, Wolfgang: *See*—
Schlack, Paul, and Göltner. 3,084,992.

Golub, Joseph H. Locking mechanism. 3,071,957, 1-8-63, Cl. 70—90.

Golub, Leo, and M. Zaiger, to P. R. Engel. Play pen. 3,095,583, 7-2-63, Cl. 5—99.

Golub, Leo, and M. Zaiger, to M. Zaiger. Windshield wiper. 3,103,687, 9-17-63, Cl. 15—250.42.

Goman, Robert L., and A. J. Kettenhofen. Fluid dispensing system. 3,104,986, 9-24-63, Cl. 118—2.

Gomco Surgical Mfg. Corp.: *See*—
Henderson, Stanford A. 3,106,835.

Gomes, John M.: *See*—
Zadra, John B., and Gomes. 3,075,900.
Zadra, John B., Heinen, and Gomes. 3,071,523.

Goncz, John H.: *See*—
Goldberg, Seymour, Goncz, and Israelsohn. 3,075,121.

Gonda, Desire: *See*—
Hawley, Edwin L., and Gonda. 3,101,109.

Gondard, Jean C. P., to Broyeurs Gondard. Hammer grinder. 3,082,963, 3-26-63, Cl. 241—82.

Gondek, John T. Pump constructions. 3,077,839, 2-19-63, Cl. 103—126.

Gondek, John T. Pressure relief valve. 3,084,710, 4-9-63, Cl. 137—514.

Gondek, John T. Telescoping hydraulic cylinder. 3,086,502, 4-23-63, Cl. 121—46.

Gondek, John T., to United States of America, Navy. Torpedo tube and method for making same. 3,106,905, 10-15-63, Cl. 114—238.

Gondek, John T., to United States of America, Navy. Torpedo tube. 3,109,343, 11-5-63, Cl. 89—16.

Gondek, Stanley, to Bundy Tubing Co. Push rod structure. 3,094,107, 6-18-63, Cl. 123—90.

Gondek, Stanley, to Bundy Tubing Co. Push rod structure and method of manufacture. 3,101,402, 8-20-63, Cl. 219—107.

Gong, Howard, J. Sanchez, and R. E. Talmo, to Electro Optical Systems, Inc. Semiconductor strain gauge. 3,089,108, 5-7-63, Cl. 338—2.

Gongoll, Vernon F., J. N. Simpson, and C. J. Boyer, to The Electric Storage Battery Co. Headset. 3,073,410, 1-15-63, Cl. 181—23.

Gongoll, Vernon F., and G. G. Klinger, to The Electric Storage Battery Co. Respirator spenking diaphragm and exhalation valve unit. 3,109,425, 11-5-63, Cl. 128—141.

Gongwer, Calvin A.: *See*—
Higgins, Horace M., and Gongwer. 3,098,351.

Gongwer, Calvin A., to Aerojet-General Corp. Hydroductor. 3,079,753, 3-5-63, Cl. 60—35.6.

Gongwer, Calvin A., to Aerojet-General Corp. Pressure wave generator. 3,105,450, 10-1-63, Cl. 116—27.

Gonia, August T., H. H. Fante, and M. J. Shepard, to Rockwell Standard Corp. Machine and method for bending preformed sinuous wire. 3,104,685, 9-24-63, Cl. 140—71.

Gonnella, Carmen J., and P. A. Marchant, to The Mennen Co. and Consolidated Thermoplastics Co. Dispensing container. 3,095,598, 7-2-63, Cl. 15—571.

Gonnert, Rudolf: *See*—
Schraufstatter, Ernst, and Gonnert. 3,079,297.

Gönnert, Rudolf, and E. Schraufstatter, to Farbenfabriken Bayer Aktiengesellschaft. 2-hydroxy-5,2'-dichloro-4'-nitrobenzanilide for combating tapeworms. 3,074,848, 1-22-63, Cl. 167—55.

Gonsalves, Conrad J., and H. J. Leijser, to American Enka Corp. Apparatus for treating thread. 3,073,000, 1-15-63, Cl. 28—59.5.

Gonski, Joseph, to Goodman Mfg. Co. Boring type continuous mining machine. 3,088,719, 5-7-63, Cl. 262—9.

Gontier, Georges V. Shredding apparatus with screen clearing comb. 3,074,655, 1-22-63, Cl. 241—88.

Gooch, Fred P.: *See*—
Payne, Robert E., and Gooch. 3,094,828.

Gooch, Fred P., to The Sharples Corp. Centrifugal machine. 3,087,621, 4-30-63, Cl. 210—376.

Gooch, Fred P., to The Sharples Corp. Centrifuge. 3,098,-820, 7-23-63, Cl. 233—7.

Good, Arthur L., to Robertshaw-Fulton Controls Co. Air volume control. 3,088,412, 5-7-63, Cl. 103—6.

Good, Arthur L., to Robertshaw Controls Co. Pressure control switch. 3,109,902, 11-5-63, Cl. 200—83.

Good, Fred C. Anchor boom. 3,082,730, 3-26-63, Cl. 114—210.

Good, Fred C. Windlass. 3,100,626, 8-13-63, Cl. 254—175.5.

Good, Orland D., and D. A. Walls, to Frick Co. Panel control sawmill. 3,088,501, 5-7-63, Cl. 143—118.

Good, Paul F., to Speedco, Inc. Proportioning device. 3,101,-042, 8-20-63, Cl. 99—256.

Good, Paul J., to Dynacolor Corp. Film processing apparatus. 3,089,658, 5-14-63, Cl. 242—55.01.

Good Roads Machinery Corp.: *See*—
Hank, Emil J., and Gayer. 3,087,187.

Good, Robert C.: *See*—
Lee, Wei H., and Good. 3,087,863.

Good, Romer F., and A. A. Mauser, to Morgan Machine Co., Inc. Apparatus for making structural frames. 3,086,210, 4-23-63, Cl. 1—149.

Goodale, Charles J. Computing apparatus. 3,079,477, 2-26-63, Cl. 200—92.

Goodale, Kenneth S., to Ampex Corp. Tape storage device. 3,091,409, 5-28-63, Cl. 242—55.12.

Goodale, Richard J. Pulp press. 3,110,244, 11-12-63, Cl. 100—120.

Goodall, Donald G., to Rolls-Royce Ltd. Piston and cylinder arrangement for tilting aircraft powerplant. 3,089,668, 5-14-63, Cl. 244—12.

Goodall, Robert J., to The Raymond Corp. Hose control arrangement. 3,080,943, 3-12-63, Cl. 187—9.

Goodall, William M., to Bell Telephone Laboratories, Inc. Cipher system for pulse code modulation communication system. 3,071,649, 1-1-63, Cl. 179—1.5.

Goodall, William M., to Bell Telephone Laboratories, Inc. Timing for regenerative repeaters. 3,085,200, 4-9-63, Cl. 325—13.

Goodbar, Isaac: *See*—
Price, Edison, and Goodbar. 3,098,612.

Goodbar, Isaac. Camera with lenticulated mask. 3,099,195, 7-30-63, Cl. 95—37.

Goode, Michael J.: *See*—
Troup, Alexander, Tanner, and Goode. 3,083,624.

Goode, Robert W., to G. A. M. Petersen. Brake disk. 3,084,-768, 4-9-63, Cl. 188—218.

Goode, William E.: *See*—
Fellman, Robert P., Goode, and Owens. 3,100,761.
Fox, Thomas G., Jr., Goode, and Stroupe. 3,103,503.

Goodell, Everett M.: *See*—
Pidhayny, Denny D., Lakatos, and Goodell.
Goodell, Harvey L. Bridge scaffold apparatus. 3,076,522, 2–5–63, Cl. 182—13.
Goodell, John D., to General Precision, Inc. **Magnetic signal storage logic computing element.** 3,093,747, 6–11–63, Cl. 307—88.
Goodell, John D., B. Ivins, and J. C. Wistrand, to Minnesota Mining & Mfg. Co. Magnetic tape magazine. 3,092,346, 6–4–63, Cl. 242—55.13.
Goodell, John D., B. Ivins, J. C. Wistrand, and V. Tasi, to Minnesota Mining & Mfg. Co. Magnetic tape magazine changer mechanism. 3,100,090, 8–6–63, Cl. 242—55.13.
Goodell, John D., and E. F. Shelley, to U.S. Industries, Inc. Automated mail handling apparatus. 3,103,285, 9–10–63, Cl. 214—11.
Goodell, Murel G., W. F. Appelt, and F. A. Davis, to Alwac International. Elevated track and support structure therefor. 3,090,326, 5–21–63, Cl. 104—124.
Goodell, Murel G., W. F. Appelt, and F. A. Davis, to Alwac International. Coach and suspension therefor. 3,092,041, 6–4–63, Cl. 105—153.
Goodell, Richard H., to Ethyl Corp. Coating method. 3,110,-610, 11–12–63, Cl. 117—49.
Goodenough, Henry W., to Harvard Specialty Mfg. Corp. Bracket for net in table tennis. 3,078,094, 2–19–63, Cl. 273—30.
Goodfriend, David J. Dental method and apparatus. 3,084,-438, 4–9–63, Cl. 32—20.
Goodhouse, Carl J.: *See*—
Lundin, Robert S., and Goodhouse.
Goodhue, Lyle D., **and K. E. Cantrel, to Phillips Petroleum Co. Insect repellent composition. 3,079,298, 2–26–63, Cl. 167—33.**
Goodhue, Lyle D., and K. E. Cantrel, to Phillips Petroleum Co. Aromatic hydrocarbon extract of gas oil as a bird repellent. 3,082,149, 3–19–63, Cl. 167—46.
Goodhue, Lyle D., K. E. Cantrel, and R. P. Louthan, to Phillips Petroleum Co. Insect combatting agent. 3,092,542, 6–4–63, Cl. 167—22.
Goodhue, Lyle D., K. E. Cantrel, and R. P. Louthan, to Phillips Petroleum Co. Bird repellant composition. 3,103,-465, 9–10–63, Cl. 167—46.
Goodhue, Lyle D., R. L. Cobb, and K. E. Cantrel, to Phillips Petroleum Co. Repelling insects. 3,108,037, 10–22–63, Cl. 167—30.
Goodhue, Lyle D., A. J. Reinert, and R. P. Williams, to Phillips Petroleum Co. Nitro-substituted heterocyclic nitrogen compounds as bird management chemicals. 3,113,072, 12–3–63, Cl. 167—46.
Gooding, Chester M., to Corn Products Co. Highly nutritious fat composition. 3,099,564, 7–30–63, Cl. 99—118.
Gooding, Chester M., and C. A. Cravens, to Corn Products Co. Novel confectioners fat. 3,085,882, 4–16–63, Cl. 99—118.
Gooding, Willard H., to Western Velo & Cement Specialties Co. Pit structures. 3,085,673, 4–16–63, Cl. 198—52.
Gooding, Willard H., to Western Velo & Cement Specialties Co. Unloaders. 3,085,674, 4–16–63, Cl. 198—64.
Goodings, Eric P., G. W. Taylor, and W. A. O'Neill, to Imperial Chemical Industries Ltd. Treatment of polyesters with covalent compounds to improve dyeability. 3,082,-053, 3–19–63, Cl. 8—100.
Goodings, Eric P., W. A. O'Neill, and G. W. Taylor, to Imperial Chemical Industries Ltd. Silican chloride treated polyolefin articles and its production. 3,099,515, 7–30–63, Cl. 8—82.
Goodling, R. A.: *See*—
Parks, Noble L.
Goodloe, Alfred M. Material adapted for abrasive effect in use and scouring devices, pot cleaners and the like produced therefrom. 3,099,854, 8–6–63, Cl. 15—209.
Goodloe, Alfred M., and R. L. Hartwell, to Metal Textile Corp. Capillary strand material. 3,083,952, 4–2–63, Cl. 261—99.
Goodman, David M.: *See*—
Salzberg, Emmett R., and Goodman.
Goodman, David M. Wide band cathode ray tubes and the like. 3,081,414, 3–12–63, Cl. 315—10.
Goodman, David M. High power vacuum tubes. 3,092,755, 6–4–63, Cl. 315—158.
Goodman, De Witt: *See*—
Spowart, Samuel J., Goodman, and Sutherland.
Goodman, Donald: *See*—
Trofimow, Alexei, Isaacs, and Goodman.
Goodman, George, Ltd.: *See*—
Disley, Audrey.
Disley, Aubrey.
Goodman, Gilbert, to General Electric Co. Ceramic composition. 3,116,262, 12–31–63, Cl. 252—519.
Goodman, Harold: *See*—
Metzger, Louis G., and Goodman.
Goodman, Henry G., Jr., to Union Carbide Corp. Textile finishing composition comprising aqueous solution of aminoplast and textile impregnated therewith. 3,095,395, 6–25–63, Cl. 260—29.4.
Goodman, Herman W. Removable denture attachment. 3,076,264, 2–5–63, Cl. 32—5.
Goodman, Irving: *See*—
Hitchings, George H., and Goodman.
Hitchings, George H., and Goodman.
Goodman, John E.: *See*—
Cottell, Eric C., and Goodman.
Goodman, Joseph L., to Vitro Corp. of America. Converter apparatus for rate modulated pulses. 3,113,302, 12–3–63, Cl. 340—347.
Goodman, Leonard, to Foster Grant Co., Inc. Multi-wall insulating receptacle. 3,082,900, 3–26–63, Cl. 220—15.
Goodman Mfg. Co.: *See*—
Arndt, Charles J.
Arndt, Charles J., Lo Presti, and Ogden.
Beck, William R.
Bergmann, Ernst R.
Bergmann, Ernst R.
Bledess, Anthony R.
Biedess, Anthony R.
Biek, Paul A.
Brumbaugh, Robert T.
Craggs, Joseph, and McCann.
Davis, Thomas R.
Davis, Thomas R.
Davis, Thomas R.
Giannikos, James V.
Gleeson, Murray A.
Gonski, Joseph.
Goodman, William E., and Lo Presti.
Herbert, Gerald A.
Herbert, Gerald A.
Hlinsky, Emil J.
Hlinsky, Emil J.
Huber, William J.
Jernigan, Howard M.
Lo Presti, Roy F.
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Lundquist, Richard C.
McCann, Keith.
McWhorter, Cedric E.
Newton, John S.
Newton, John S.
Risse, Ralph F.
Stinson, Mary L.
Goodman, Morris. Gem and setting having means for obscuring flaws in the gem or setting. 3,075,367, 1–29–63, Cl. 63—26.
Goodman, Robert C., and E. G. Mastrolanni, to General Aniline & Film Corp. Microfilm duplicating apparatus. 3,081,686, 3–19–63, Cl. 95—73.
Goodman, Robert J. Latches and mechanical couplings. 3,114,562, 12–17–63, Cl. 280—11.3.
Goodman, Robert M., Jr.: *See*—
Suhr, Robert N., and Goodman.
Goodman, Sidney: *See*—
Vale, Corwyn P., Gutter, Wilson, and Goodman.
Goodman, Walter, to Pixley and Ehlers. Recessed luncheon table. 3,111,095, 11–19–63, Cl. 108—26.
Goodman, William E., and R. F. Lo Presti, to Goodman Mfg. Co. Resilient belt training troughing idler assembly. 3,097,737, 7–16–63, Cl. 198—192.
Goodmann, Eugene P. M. Gordon, and G. E. Thompson, to Standard Oil Co. Liquid phase contacting of hydrocarbons. 3,075,914, 1–29–63, Cl. 208—199.
Goodrich, B. F., Co., The: *See*—
Bair, Herbert Q.
Barus, Fred K., and Wenger.
Blalkowski, Ludwik S.
Brown, Harold P., Walters, and Anderson.
Colley, Russell S.
Cooper, Ralph F.
Folt, Vernon L.
Garner, Ralph F.
Garver, Richard F.
Graddock, Donald L., and Wasserman.
Groves, Dale D., and Wagner.
Hasselquist, Victor H.
Kehe, Henry J., Johnson, Driscoll, and Bloor.
Krupp, Carroll P.
Krupp, Carroll P., and Wenger.
Kuts, Mathew.
Lund, Richard I.
Miller, H. Paul, and Soper.
Morris, Roger E., and Taylor.
Murphy, Walter T.
Pennino, Charles J.
Porter, Donald K.
Rinker, William R.
Schornstheimer, Robert E.
Shively, Harmon G.
Shockney, Joseph C.
Smith, Billy N., and Le Blanc.
Yakousky, Walter J.
Van Antwerp, Arthur E.
Vandenberg, Le Roy J.
Goodrich, Charles B.: *See*—
Carter, Joseph E., and Goodrich.
Goodrich, George W.: *See*—
Wiley, William C., Goodrich and Adams.

Goodrich, Gordon A.: *See*—
Graham, James V., Goodrich, and Miller.
Goodrich-Gulf Chemicals, Inc.: *See*—
Fernald, Herbert B.
Fernald, Herbert B.
Horne, Samuel E., Jr.
Klein, John E.
Roha, Max E., and Becars.
Tucker, Harold.
Goodrich, Judson E.: *See*—
Dreher, John L., and Goodrich.
Goodrich, Judson E., to California Research Corp. Compositions thickened by formolite resins. 3,081,262, 3–12–63, Cl. 252—38.
Goodrich, Stanley L., and E. S. Kordowski, to General Box Co. Container. 3,073,500, 1–15–63, Cl. 229—14.
Goodrick, LeRoy J.: *See*—
Close, Patrick B., Coulter, Ditmer, Fahrenbruck, Goldammer, Goodrick, Gulden, Holloran, Jenkins, Kilheffer, Kinker, Lyons, Manor, Marvin, Miller, O'Brian, Randall, Garner, Sather, Yost, and Braden.
Goodridge, Edward S., to Induction Heating Corp. Method for the formation of cylinders. 3,072,770, 1–8–63, Cl. 219—8.5.
Goodridge, Harold C., to Freeman-Goodridge Ltd. Method and apparatus for measurement of temperature. 3,091,-694, 5–28–63, Cl. 250—83.3.
Goodridge, Lawrence C., to General Electric Co. Fastening device. 3,116,081, 12–31–63, Cl. 292—212.
Goodshaw, Charles T., C. E. Grabiel, and H. Volk, to The Dow Chemical Co. Process for preparing vinylaromatic sulfonic acid salts. 3,079,430, 2–26–63, Cl. 260—505.
Goodson, Albert E. Process for making relief maps. 3,078,-598, 2–26–63, Cl. 35—41.
Goodson, Robert T.: *See*—
Hatcher, Frank L., and Goodson.
Goodstein Bros. & Co., Inc.: *See*—
Salvatore, Joseph.
Goodwill, Maurice W., and L. W. Haug. Method of forming modular frameless roof construction. 3,073,021, 1–15–63.
Goodwillie, John E., to Beloit Iron Works. Suction forming paper machine operation. 3,072,181, 1–8–63, Cl. 162—350.
Goodwin, Aubrey J. H., to Yarrow and Co. Ltd. Vibration isolating shaft coupling. 3,091,103, 5–28–63, Cl. 64—26.
Goodwin, Carl W.: *See*—
Geisler, William, and Goodwin.
Goodwin, Edwin C., Jr., to Allis-Chalmers Mfg. Co. Spring actuated contact opening and closing mechanism. 3,072,-763, 1–8–63, Cl. 200—92.
Goodwin, John, to Akron Standard (Engineers) Ltd. Machines for feeding stock to tyre building machines. 3,081,-959, 3–19–63, Cl. 242—64.
Goodwin, John B.: *See*—
Zandmer, Solis M., Caldwell, and Goodwin.
Goodwin, John R., to Sunbeam Lighting Co. Edge-bead former for thermoplastic sheets. 3,111,716, 11–26–63, Cl. 18—19.
Goodwin, Korwin J.: *See*—
Monroe, Roger F., Kucera, and Goodwin.
Goodwin, Mack C.: *See*—
Bogan, Robert W., and Goodwin.
Goodwin, Manfred E., and A. Nekludov, to International Resistance Co. Electrical resistor. 3,111,642, 11–19–63, Cl. 338—257.
Goodwin, Perry H., Jr.: *See*—
Crafts, Cecil A., and Goodwin.
Goodwin, Ralph C., to The Western States Machine Co. Spout compensating loading gate control. 3,079,046, 2–26–63, Cl. 222—52.
Goodwin, Ralph C., to The Western States Machine Co. Drives for centrifugals. 3,081,598, 3–19–63, Cl. 60—53.
Goodwin, Robert J.: *See*—
Becker, Frederick L., and Goodwin.
Goodwin, Roscoe H., to Curtiss-Wright Corp. Aircraft training apparatus for simulating the propeller system of turbo-propeller aircraft. Re. 25,325, 1–29–63, Cl. 35—12.
Goodwin, Roscoe H., to Curtiss-Wright Corp. Simulated on-ground aircraft pitching moment system. 3,089,257, 5–14–63, Cl. 35—12.
Goodwin, Roscoe H., to Curtiss-Wright Corp. Servo motor speed control system. 3,114,869, 12–17–63, Cl. 318—28.
Goodwin, Wayne M., to Burns Lumber and Mfg. Co. Side dumping trailer. 3,091,498, 5–28–63, Cl. 298—8.
Goodwin, Winchel J.: *See*—
Kullgren, Gilbert V., and Goodwin.
Goody, Robert B., and W. Kafenbaum, to Federal Pacific Electric Co. Dual element fuses. 3,116,390, 12–31–63, Cl. 200—135.
Goodyear Aircraft Corp.: *See*—
Burkley, Ralph A.
Cook, Richard L.
Hampshire, William J.
Kelly, Charles M., and Raffel.
Lewis, Dwight C., and Steigerwalt.
Morrill, Charles D., and Weyrick.
Price, James O., and Smith.
Goodyear, Chalmers M.: *See*—
Huettner, Robert J., and Goodyear.
Goodyear, Cyrus S.: *See*—
Barber, Michael D.
Goodyear, Robert S., to Fenwal Electronics, Inc. Uniform thermistor manufacture. 3,109,227, 11–5–63, Cl. 29—155.62.
Goodyear Tire & Rubber Co., The: *See*—
Andresen, Gilbert J. C.
Appleby, Paul E.
Appleby, Paul E.
Bain, Bruce K., Blair, Burger, Ross, Vorachek, and Wolcott.
Barrett, Donald L.
Bender, Newell R., and Ten Broeck.
Bletso, Nelson C.
Boenig, Hermann V., and Weir.
Brown, George M.
Buckland, Paul S.
Cousins, Edward.
Finelli, Anthony F.
Garrett, John E.
Garrett, John E., and Howick.
Hardman, Albert F.
Hawkes, Joseph S.
Hermanns, Otto E.
Kolaczewski, Mitchell S., Hobson, and Hamill.
Larson, William M., and Mastin.
Lewis, Richard J.
McNennev, William.
Namsick, Raymond J.
Nichols, Raymond B.
Palm, Donald C.
Palm, Donald C.
Palm, Donald C.
Pengilly, Brian W.
Pierson, Robert M., Weinstein, Wargotz, and Meyer.
Purdy, John F.
Roberts, Harold P.
Rogers, Thomas H., Jr.
Rogers, Thomas H., Jr., and Heineman.
Rogers, Thomas H., Jr., Heineman, and Howard.
Ruddel, Walter H.
Sanderson, William M.
Shepherd, David J.
Sindelar, Lawrence R.
Smith, Edwin S.
Smith, Malneard L., and Tate.
Snyder, Robert F.
Snyder, Robert F.
Spacht, Ronald B.
Spacht, Ronald B.
Spacht, Ronald B.
Spacht, Ronald B.
Spacht, Ronald B.
Sudman, Charles F.
Tausch, Harry W.
Taylor, Charles W., Jr., and Remlta.
Taylor, Charles W., Jr., and Wadlinger.
Wach, Andrew P.
Wargotz, Bernard.
Yakubik, Michael A.
Yazell, Harold N., Jr.
Yoe, Duane O.
Googin, John M., to United States of America, Atomic Energy Commission. Sintering method. 3,109,735, 11–5–63, Cl. 75—224.
Goolsby, Teslie C. Safety device for a high chair. 3,082,035, 3–19–63, Cl. 297—174.
Goorissen, Jan, to North American Philips Co., Inc. Method for the manufacture of rods of meltable material. 3,092,462, 6–4–63, Cl. 23—223.5.
Goorley, John T., to Standard Chemical Products, Inc. Odor destroying agent derived from pycnanthenum albescens (Lahiatae). 3,080,295, 3–5–63, Cl. 167—94.
Goossak, Lev A., G. V. Evart, and D. Ribinsky. Carburetor type internal combustion engine with prechamber. 3,092,-088, 6–4–63, Cl. 123—41.31.
Gopfert, Herbert, to VEB Kamera- und Kinowerke Dresden. Photographic or cinematographic camera. 3,077,153, 2–12–63, Cl. 95—64.
Goppelt, Vern L., to Aluminum Co. of America. Rolling of aluminous metal foil. 3,105,400, 10–1–63, Cl. 80—60.
Göransson, Rolf E., to Casius Corp. Ltd. Arrangement for cutting semi-plastic bodies. 3,075,271, 1–29–63, Cl. 25—112.
Gorcyca, Edward R.: *See*—
Hoyer, Llewellyn E., and Gorcyca.
Hoyer, Llewellyn E., Wilson, and Gorcyca.
Gordon, Alan M., and L. A. Meacham, to Bell Telephone Laboratories, Inc. Dual channel frequency selective attenuator utilizing cross coupled impedance networks between input and output terminals. 3,103,601, 9–10–63, Cl. 307—88.5.
Gordon, Bernard M., and R. P. Talambiras, to Epsco Inc. Data signal processing apparatus. 3,105,231, 9–24–63, Cl. 340—347.
Gordon, Bernard M., and R. P. Talambiras, to Epsco, Inc. Signal conversion apparatus. 3,108,266, 10–22–63, Cl. 340—347.
Gordon, Carroll G., ½ to W. F. Stoesser. Hydraulic relief valves. 3,086,551, 4–23–63, Cl. 137—514.5.
Gordon, Carroll G., and W. F. Stoesser. Torque motors. 3,076,920, 2–5–63, Cl. 317—172.

Gordon, Charles P. Magnetic toy device. 3,090,155, 5-21-63, Cl. 46—22.

Gordon-Chapman Co.: *See*—
Gordon, Jack C. 3,074,835.
Gordon, Jack C. 3,080,579.

Gordon, Chester D.: *See*—
Stuart, Frank A., and Gordon. 3,081,261.

Gordon Co., The: *See*—
Butler, Vaughn H. 3,077,097.
Butler, Vaughn H., and Burleson. 3,079,779.
Moyer, James D. 3,097,512.
Read, Robert C., and Gregor. 3,108,533.

Gordon, David A., to The Dow Chemical Co. Thermoplastic compositions having improved light stability. 3,080,339, 3-5-63, Cl. 260—45.85.

Gordon, David A., to The Dow Chemical Co. 2-hydroxy-4-(2-hydroxyalkoxy) benzophenones and their lower alkanoic acid esters. 3,086,988, 4-23-63, Cl. 260—488.

Gordon, Donald W., and A. R. Snow. Exercising and recreational apparatus. 3,083,037, 3-26-63, Cl. 280—206.

Gordon, Dwight M., to ACF Industries, Inc. Engine idle speed control. 3,103,128, 9-10-63, Cl. 74—472.

Gordon, Eugene I., to Bell Telephone Laboratories, Inc. Electron discharge device. 3,072,817, 1-8-63, Cl. 315—3.

Gordon, Eugene I., to Bell Telephone Laboratories, Inc. Cyclotron wave electron beam parametric amplifier. 3,109,-146, 10-29-63, Cl. 320—4.7

Gordon, Frances M.: *See*—
Macdonald, Angus S. 3,104,866.

Gordon, Hayden S., R. C. Marker, and R. F. Post, to Applied Radiation Corp. Waveguide construction. 3,070,873, 1-1-63, Cl. 29—155.5.

Gordon, Irving: *See*—
Price, Dennis T., and Gordon. 3,109,787.

Gordon, Irving, to Hooker Chemical Corp. Preparation of tertiary phosphine oxides. 3,076,034, 1-29-63, Cl. 260—606.5.

Gordon, Irving, to Hooker Chemical Corp. Method of preparing phosphine. 3,109,785, 11-5-63, Cl. 204—90.

Gordon, Irving, to Hooker Chemical Corp. Method of preparing phosphine. 3,109,791, 11-5-63, Cl. 204—101.

Gordon, Irving, to Hooker Chemical Corp. Method of preparing phosphine. 3,109,792, 11-5-63, Cl. 204—101.

Gordon, Irving, to Hooker Chemical Corp. Method of preparing phosphine. 3,109,793, 11-5-63, Cl. 204—101.

Gordon, Irving, to Hooker Chemical Corp. Method of preparing phosphine. 3,109,794, 11-5-63, Cl. 204—101.

Gordon, Irving, to Hooker Chemical Corp. Method of preparing phosphine. 3,109,795, 11-5-63, Cl. 204—101.

Gordon, Irwin, to Radio Corp. of America. Method and apparatus for preparing magnetic cores. 3,079,639, 3-5-63, Cl. 18—47.5.

Gordon, Jack C., to Gordon-Chapman Co. Carpet tile. 3,074,-835, 1-22-63, Cl. 154—49.

Gordon, Jack C., to Gordon-Chapman Co. Platform structure for upholstered article and method of manufacture. 3,080,579, 3-12-63, Cl. 5—354.

Gordon, James E., C. C. Evans, and N. J. Parratt, to T.I. (Group Services) Ltd. Process for the continuous production of thin, elongated, single crystals of zinc oxide and antimony tri-oxide. 3,096,155, 7-2-63, Cl. 23—144.

Gordon, James F., to General Electric Co. Motor starting circuit. 3,071,717, 1-1-63, Cl. 318—221.

Gordon, James F., to General Electric Co. Motor protection circuit. 3,071,718, 1-1-63, Cl. 318—473.

Gordon, James H., to American Can Co. Screw cap assembling head. 3,100,366, 8-13-63, Cl. 53—317.

Gordon, John E., to Joy Mfg. Co. Sealing means. 3,108,514, 10-29-63, Cl. 92—240.

Gordon, Leon B., T. P. Moote, and H. Eckstrom, to Standard Oil Co. Olefin polymerization with catalyst containing $SiCl_4$ extract of transition metal oxide. 3,112,297, 11-26-63, Cl. 260—88.2.

Gordon, Louis. Towel washing machine. 3,112,631, 12-3-63, Cl. 68—19.

Gordon Mfg. Co., Inc., The: *See*—
Wyatt, Ernest V., Jr. 3,103,996.

Gordon, Marshall H. Display rack for floor covering materials. 3,094,216, 6-18-63, Cl. 211—45.

Gordon, Moses: *See*—
Goodmann, Eugene P., Gordon, and Thompson. 3,075,-914.

Gordon, Percy, 50% to A. E. Broadnax. Railway rail mounting means. 3,104,059, 9-17-63, Cl. 238—284.

Gordon, Philip N.: *See*—
Bell, William E., Buckley, and Gordon. 3,093,659.

Gordon & Piatt, Inc.: *See*—
Robb, Wendell E. 3,076,497.

Gordon, Ralph S., to The McKay Co. Device for sustaining loads having a deformable indicating element. 3,077,178, 2-12-63, Cl. 116—114.

Gordon, Richard O., to Vickers Inc. Power transmission. 3,101,808, 8-27-63, Cl. 180—79.2.

Gordon, Richard O., to Clark Equipment Co. Hydraulic valve. 3,106,938, 10-15-63, Cl. 137—621.

Gordon, Robert B., and W. J. Hurford, to Westinghouse Electric Corp. Method of producing sound and homogeneous ingots. 3,072,982, 1-15-63, Cl. 22—200.

Gordon, Roger G. Bundle feeder. 3,077,157, 2-12-63, Cl. 100—4.

Gordon, Ronald H., and A. E. Schoennauer, to Varian Associates. Output window for electron tube apparatus. 3,098,-207, 7-16-63, Cl. 333—98.

Gordon, Samuel: *See*—
Cantrall, Edward W., Littell, Bernstein, and Gordon. 3,094,541.
Schlesinger, Albert, and Gordon. 3,073,842.

Gordon, Sherman L., and F. L. Eluskie. Bottle counter. 3,094,279, 6-18-63, Cl. 235—91.

Gordon, Sumner, to United States of America, Navy. Repetitive scanning of a dual record track on a fragment of a record. 3,105,227, 9-24-63, Cl. 340—174.1.

Gordon, Sumner, and W. F. Saars, to United States of America, Navy. Repetitive scanning of a record track on a fragment of a record. 3,075,049, 1-22-63, Cl. 179—100.2.

Gordon, Travis C. Ball-point pens. 3,079,895, 3-5-63, Cl. 120—42.12.

Gordon, William E.: *See*—
Wall, James R., Gordon, and Dempsey. 3,080,613.

Gordon, William E., to United States Golf Association. Apparatus for measuring the coefficient of restitution of a resilient body. 3,093,995, 6-18-63, Cl. 73—13.

Gordon, William E., and W. A. Salmon, to Arthur D. Little, Inc. Reduction of explosion hazards in the separation of gaseous mixtures. 3,080,724, 3-12-63, Cl. 62—20.

Gordon, William E., and W. A. Salmon, to Arthur D. Little, Inc. Liquid composition comprising liquid free oxygen and method of reducing the sensitivity of same. 3,081,157, 3-12-63, Cl. 23—221.

Gordon, William J. J., C. S. Marden, and C. R. Sperry, to Linen Supply Assn. of America. Apparatus for continuous restaurant counter place mats. 3,092,045, 6-4-63, Cl. 108—50.

Gore, Le Roy D., to The Vendo Co. Particulate material dispenser. 3,109,564, 11-5-63, Cl. 222—196.

Gore, Linn A.: *See*—
Gilvarry, John J., Gore, Augenstein, and Randels. 3,097,-717.

Gore, Owen L., and L. C. Williams, to Miehle-Goss-Dexter, Inc. Signature handling apparatus. 3,089,693, 5-14-63, Cl. 270—54.

Gore, Robert H., and J. J. Barabas, to Castro Convertible Corp. Convertible chair. 3,093,412, 6-11-63, Cl. 297—217.

Gore, Robert T.: *See*—
Kenedi, Peter G., and Gore. 3,108,006.

Gore, Robert W., to W. L. Gore & Associates, Inc. Multiconductor wiring strip. 3,082,292, 3-19-63, Cl. 174—117.

Gore, W. L., & Associates, Inc.: *See*—
Gore, Robert W. 3,082,292.

Gorell, John H.: *See*—
May, George, and Gorell. 3,074,839.

Goren, Mayer B., to Kerr-McGee Oil Industries, Inc. Process for the treatment of aqueous solutions. 3,082,059, 3-19-63, Cl. 23—1.

Goren, Mayer B., to Kerr-McGee Oil Industries, Inc. Reduction of ferric ions in aqueous solutions. 3,109,732, 11-5-63, Cl. 75—101.

Goren, Mayer B., to Kerr-McGee Oil Industries, Inc. Hydrometallurgical process for the recovery of uranium. 3,115,-388, 12-24-63, Cl. 23—14.5.

Gores, Philip, to Chrysler Corp. Automatic brake adjuster. 3,111,200, 11-19-63, Cl. 188—79.5.

Gorgens, Joseph E., and E. J. Plavcan, to Manning, Maxwell & Moore, Inc. Dial instrument with external calibration. 3,096,651, 7-9-63, Cl. 73—363.9.

Gorgens, Joseph E., and R. Goff, to Manning, Maxwell & Moore, Inc. Bimetal coil for use in temperature recorders. 3,099,161, 7-30-63, Cl. 73—363.9.

Gorham, Robert H., ¼ to A. Wopat, and ¼ to A. Verwiebe. Crop gathering and chopping device. 3,090,188, 5-21-63, Cl. 56—503.

Gorike, Rudolf, to Akustische u. Kino-Gerate Gesellschaft m.b.H. Frequency independent directional condenser microphone. 3,082,298, 3-19-63, Cl. 179—111.

Görike, Rudolf. Electromagnetic electroacoustic transducer. 3,112,374, 11-26-63, Cl. 179—115.

Gorin, Everett: *See*—
Batchelor, James D., Curran, and Gorin. 3,101,303.

Gorin, Everett, and R. J. Friedrich, to Consolidation Coal Co. Method of making formcoke. 3,073,751, 1-15-63, Cl. 202—26.

Gorin, Everett, and W. B. Retallick, to Consolidation Coal Co. Method for the production of hydrogen. 3,108,857, 10-29-63, Cl. 23—212.

Gorin, Everett, and C. H. Rice, to Consolidation Coal Co. Process for the production of hydrogen. 3,115,394, 12-24-63, Cl. 23—212.

Gorin, Manuel H.: *See*—
Rosenstein, Ludwig, and Gorin. 3,098,733.

Gorloff, Anatoly: *See*—
Payor, Oscar, and Gorloff. 3,106,082.

Gorman, Charles F. Battery charging system. 3,090,871, 5-21-63, Cl. 307—10.

Gorman, Charles F. Test probe and supporting bracket therefor. 3,108,842, 10-29-63, Cl. 339—108.

Gorman, Edmond B., to McGraw-Edison Co. Refractory metal contacts and methods of manufacture. 3,107,418, 10-22-63, Cl. 29—182.3.

Gorman, Francis P. Aerial harness. 3,098,539, 7-23-63, Cl. 182—3.

Gorman-Rupp Co., The: *See*—
McFarlin, Stanley B. 3,072,063.

Gorman-Rupp Industries, Inc.: *See*—
Foster, Arthur A. 3,074,410.
Schmitt-Matzen, John G. 3,103,225.
Smith, Edward M., and Steidley. 3,075,551.

Gorman, Thomas P.: *See*—
Bown, Delos E., Gorman, and Watson. 3,073,766.

Gorman, William G., to Sterling Drug Inc. Miniature aerosol unit. 3,106,321, 10-8-63, Cl. 222—394.

Gorman, William G., to Esta Medical Laboratories, Inc. Combination aerosol, container and applicator. 3,108,590, 10-29-63, Cl. 128—173.

Gorman, William S., Jr., to National Gypsum Co. Process of deinking printed paper. 3,098,784, 7-23-63, Cl. 162—5.

Gormley, Frederick J., to Pan American Sulphur Co. Sulfur purification process. 3,071,445, 1-1-63, Cl. 23—224.

Gormley, Leslie E.: *See*—
Davis, Billy E., and Gormley. 3,097,527.

Gorn Electric Co., Inc.: *See*—
Piorunneck, Heinz. 3,099,510.

Gorndt, John H., R. R. Peterson, and W. E. Schmidt, to Lord Mfg. Co. Rotor head. 3,106,965, 10-15-63, Cl. 170—160.53.

Gorndt, John H., R. R. Peterson, and W. E. Schmidt, to Lord Mfg. Co. Rotor head. 3,111,172, 11-19-63, Cl. 170—160.51.

Gorozpe, Raul D. Process for preparing a quick-cooking rice product. 3,071,471, 1-1-63, Cl. 99—80.

Gorrie, Harvard H., A. J. Hornfeck, H. H. Koppel, and J. F. Lubrs, to Bailey Meter Co. Load control for electric power systems. 3,076,097, 1-29-63, Cl. 290—4.

Gorrill, William S.: *See*—
Rossetto, Louis, Squassoni, Coleman, and Gorrill. Re. 25,354.

Gorsich, Richard D., to Ethyl Corp. Cyclopentadienyl metal oxyhalides. 3,072,691, 1-8-63, Cl. 260—429.5.

Gorsich, Richard D., to Ethyl Corp. Manufacture of cyclopentadienyl metal halides. 3,080,305, 3-5-63, Cl. 204—158.

Gorsich, Richard D., to Ethyl Corp. Organo-bimetallic compositions. 3,088,814, 5-7-63, Cl. 44—69.

Gorsich, Richard D., to Ethyl Corp. Bimetallic carbonyl halide compositions. 3,099,666, 7-30-63, Cl. 260—429.

Gorsich, Richard D., to Ethyl Corp. Organo group IV-A metal manganese carbonyl ligand compounds and process for same. 3,099,667, 7-30-63, Cl. 260—429.

Gorsich, Richard D., to Ethyl Corp. Manufacture of esters. 3,109,017, 10-29-63, Cl. 260—475.

Gorski, Edward: *See*—
Rively, Clair M., and Gorski. 3,099,296.

Gorski, Henry L.: *See*—
Downing, James H., Gorski, and Koerner. 3,104,970.

Gorsky, Egon: *See*—
Gardel, Robert, and Gorsky. 3,105,325.

Gorsky, Rudolph J., to General Motors Corp. One-way device. 3,087,589, 4-30-63, Cl. 192—45.

Gorsky, Rudolph J., to General Motors Corp. One-way device. 3,087,590, 4-30-63, Cl. 192—45.

Gorter, Evert W., F. K. Lotgering, G. H. Jonker, H. P. J. Wijn, and C. Kooy, to North American Philips Co., Inc. Ferromagnetic body and method of making the same. 3,072,575, 1-8-63, Cl. 252—62.5.

Gorter, Evert W., J. A. Schulkes, and J. Verweel, to North American Philips Co., Inc. Ferromagnetic material. 3,085,980, 4-16-63, Cl. 252—62.5.

Gorton, Howard B.: *See*—
Fremstad, Viles K., and Gorton. 3,094,363.

Gorton, Robert T., to S. Curtis & Son, Inc. Reclosable boxes. 3,078,030, 2-19-63, Cl. 229—44.

Gorton, Thomas S., Jr., to Riverside Inc. Apparatus for dumping debris from the deck of a vessel. 3,111,102, 11-19-63, Cl. 114—32.

Gortval, Alexander F., and E. J. Monfils, to United Merchants and Manufacturers, Inc. Textile finishing. 3,102,042, 8-27-63, Cl. 117—7.

Gorychka, Carl A., and H. J. Wieck, to L. A. M. Phelan. Serving valve for continuous freezers. 3,081,920, 3-19-63, Cl. 222—509.

Goryl, William M., and F. A. Howard, to Esso Research and Engineering Co. System for transporting oil under water. 3,085,533, 4-16-63, Cl. 114—16.

Goshen Rubber Co., Inc.: *See*—
Hobson, Carroll D. 3,072,450.
Hobson, Carroll D. 3,077,003.

Goshima, Takeshi, to Canon Camera Co., Inc. Exposure controlling mechanism for photographic cameras. 3,078,772, 2-26-63, Cl. 95—10.

Goshima, Takeshi, to Canon Camera Co. Automatic iris diaphragm operating mechanisms for reflex type cameras. 3,081,680, 3-19-63, Cl. 95—42.

Gosnell, Michael P., to Philco Corp. Control system for automatic dry-cleaning machines. 3,085,415, 4-16-63, Cl. 68—12.

Gosnell, Michael P., to Philco Corp. Lint screen. 3,096,637, 7-9-63, Cl. 68—20.

Goss, Herbert C. Sprinkler device. 3,101,176, 8-20-63, Cl. 239—524.

Goss, John R. Hydraulic motor device. 3,104,529, 9-24-63, Cl. 60—53.

Goss, Wesley R., and F. W. Suhr, to General Electric Co. Subsynchronous timing motor. 3,088,044, 4-30-63, Cl. 310—162.

Goss, Worth C., to Gossol, Inc. Lignosulfonate derivative. 3,079,353, 2-26-63, Cl. 260—17.5.

Gossard, Thomas F., to Standard Coil Products Co. Inc. Fixed frequency amplifier. 3,096,466, 7-2-63, Cl. 317—101.

Gosselin, Kenneth F., and H. Shalit, to Air Products and Chemicals, Inc. Oxidative dehydrogenation. 3,113,984, 12-10-63, Cl. 260—677.

Gosselink, Karl R., E. H. Fay, Jr., and F. M. Loop, to Pittsburgh Plate Glass Co. Halocarboxylic acid catalysts for mixtures of alkyd resins and aminoplast resins. 3,113,117, 12-3-63, Cl. 260—21.

Gossen, Clarence E. Spaceband cleaner. 3,090,057, 5-21-63, Cl. 15—4.

Gossen, P., & Co. G.m.b.H.: *See*—
Falkenburg, Fritz. 3,107,594.
Kock, Max. 3,072,027.

Gossett, Earle C. Wear adjustment apparatus and method for sprocket drives. 3,104,556, 9-24-63, Cl. 74—397.

Gossland, John K., to Technical Oil Tool Corp. Transistor R-C oscillator. 3,101,454, 8-20-63, Cl. 331—111.

Gosslau, Fritz, and K. Reiniger, to Junkers Flugzeug- und Motorenwerke AG. Jet aircraft for short take-off and landing distances. 3,089,667, 5-14-63, Cl. 244—12.

Gossol, Inc.: *See*—
Goss, Worth C. 3,079,353.

Gostyn, Ernest, to General Instrument Corp. Interleaved layer winding. 3,111,638, 11-19-63, Cl. 336—183.

Goswick, George D. Poultry water fountain. 3,092,078, 6-4-63, Cl. 119—81.

Gotaverken, Aktiebolaget: *See*—
Aarvold, Reinhardt O. 3,077,225.
Aarvold, Reinhardt O., Isaksson, and Wadman. 3,103,-968.
Collin, Lars T., Andersson, and Olsson. 3,080,705.
Svensson, Nils V. 3,105,583.
Svensson, Nils V., and Svenson. 3,083,541.

Gotch, Ronald W., to Foster Wheeler Corp. Internal tube welding torch. 3,084,243, 4-2-63, Cl. 219—60.

Gotex, Aktiebolaget: *See*—
Aberg, Lars D. 3,105,438.

Göthberg, Karl E. A., to Svenska Kullagerfabriken Aktiebolaget. Cage for cylindrical roller bearings. 3,087,762, 4-30-63, Cl. 308—217.

Goto, Eiichi: *See*—
Takahashi, Hidetoshi, Goto, and Oshima. 3,101,450.

Goto, Yasutaka. Device for producing puppet animation films. 3,081,667, 3-19-63, Cl. 88—16.

Goton, Roland P., to Union Carbide Corp. High temperature differential thermal analyzer. 3,084,534, 4-9-63, Cl. 73—15.

Gotoverken, Aktiebolaget: *See*—
Hellstrom, Axel G. 3,106,199.

Gotsch, Lenard P., and D. E. Webbe, to American Can Co. Method of forming the side seam of a can body. 3,077,171, 2-12-63, Cl. 113—120.

Gottdenker, Friedrich, and P. Krumholz. Process for the separation of thorium, cerium and rare earth starting from their oxides or hydroxides. 3,111,375, 11-19-63, Cl. 23—14.5.

Götte, August, W. Noll, H. H. Steinbach, and A. Zappel, to Farbenfabriken Bayer Aktiengesellschaft. Process for concentrating ores. 3,072,256, 1-8-63, Cl. 209—167.

Gottesman, Roy T.: *See*—
Sidi, Henri, and Gottesman. 3,096,308.
Sidi, Henri, and Gottesman. 3,097,190.

Gottesmann, Emanuel, to Veriscope Corp. Optical reader and indicator. 3,079,888, 1-1-63, Cl. 33—125.

Gottfried, Max, to The Jobst Institute. Sleeve or legging for stimulating flow of fluids within an animal body. 3,083,708, 4-2-63, Cl. 128—39.

Gottfried, Siegfried, and L. Baxendale, to Biorex Laboratories Ltd. Glycyrrhetinic acid derivatives. 3,084,185, 4-2-63, Cl. 260—488.

Gotthardt, Manfred R., to Bell Telephone Laboratories, Inc. Translator checking circuit for telephone switching system. 3,099,720, 7-30-63, Cl. 179—175.2.

Gottlly, Arthur L., to Monsanto Chemical Co. Label dispenser. 3,093,278, 6-11-63, Cl. 225—42.

Gottlieb, Irving J. Device for screening frames. 3,077,907, 2-19-63, Cl. 140—109.

Gottlieb, Leon. Flow-boosting register for air ducts. 3,099,-201, 7-30-63, Cl. 98—101.

Gottman, Carman. Knee crutches. 3,074,420, 1-22-63, Cl. 135—50.

Gottschald, Rudolf, to V. Langen, Ball and socket joints. 3,073,634, 1-15-63, Cl. 287—90.

Gottschald, Rudolf, to V. Langen. Method of making bushings for ball and socket joints. 3,090,079, 5-21-63, Cl. 18—59.

Gottschald, Rudolf, to A. Ehrenreich & Co. Suspension joint. 3,099,469, 7-30-63, Cl. 287—90.

Gottschald, Rudolf, and W. Scheerer, to A. Ehrenreich & Cie. Ball joint. 3,089,718, 5-14-63, Cl. 287—90.

Gottschald, Rudolf, and G. Maxeiner, to V. Langen. Ball and socket joints. 3,090,642, 5-21-63, Cl. 287—90.

Gottschalk, Gordon W.: *See*—
Thiem, Darold W., and Gottschalk. 3,110,942.

Gottschalk, Juan M., H. P. White, and C. K. Chow, to Burroughs Corp. Magnetic record transducer. 3,104,381, 9-17-63, Cl. 340—174.1.

Gottschalk, Roy F., to Chemetron Corp. Process for cleaning and degassing molten aluminum and aluminum alloys. 3,087,808, 4-30-63, Cl. 75—68.

Gottschalk, William H.: *See*—
Aldrich, Adelbert, Schwarz, and Gottschalk. 3,097,070.

Gottsche, Marcus J., Jr.: *See*—
Hussey, Russell B., and Gottsche. 3,103,853.

Gottscho, Adolph, Inc.: *See*—
Jones, William B. 3,072,044.
Talarico, Lawrence J. 3,112,690.
Worth, Francis C. 3,075,457.
Worth, Francis C. 3,085,506.
Worth, Francis C. 3,102,468.
Worth, Francis C. 3,112,689.
Worth, Francis C. 3,112,691.

Gottstein, William J.: *See*—
Cheney, Lee C., Risser, and Gottstein. 3,104,240.

Gottula, Gerard W. All-direction level. 3,101,554, 8–27–63, Cl. 33—212.

Gottwald, Bruce C., and J. M. Haigh, to Albemarle Paper Mfg. Co. Method and apparatus for cast coating paper. 3,110,612, 11–12–63, Cl. 117—64.

Gottzmann, Christian F.: *See*—
Reynolds, Martin M., Gottzmann, Hansen, Procter, and Riede. 3,082,690.

Gotwald, David E. S., Jr., and C. J. Munchel, to The Dentist's Supply Co. of New York. High speed tool. 3,077,333, 2–12–63, Cl. 253—2.

Gotz, Armin: *See*—
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Götz, Elmar: *See*—
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Gotz, Gerhard L. M., to Steyr-Daimler-Puch Aktiengesellschaft. Air-compressing, self-igniting, pre-combustion chamber injection type, internal-combustion engine. 3,111,117, 11–19–63, Cl. 123—32.

Götze, Fritz. Method of and device for producing pressed models for dies to be cast. 3,085,304, 4–16–63, Cl. 22—195.

Götze, Johannes, and M. Hase, to Agfa Aktiengesellschaft. Cyanine dyes derived from thienylbenzothiazoles and silver halide emulsions sensitized therewith. 3,084,045. 4–2–63, Cl. 96—106.

Gotzmann, Karl: *See*—
Thles, Karl, Quitmann, Zboralski, and Gotzmann. 3,083,194.

Gouban, Georg J. E., to Beam Guidance Inc. Transmission of electromagnetic wave beams. 3,101,472, 8–20–63, Cl. 343—100.

Goudriaan, Jan B., to Centrale Suiker Maatschappy, N.V., and The Paterson Engineering Co., Ltd. Method for the desilizing of feeding water for steamboilers. 3,087,889. 4–30–63, Cl. 210—48.

Gougelot, Alain H. E.: *See*—
Merritt, Henry E., Tiberghien, and Gougelot. Re. 25,415.

Gough, Edward W., and P. D. Irwin. Plastic solar heater. 3,076,450, 2–5–63, Cl. 126—271.

Goulrand, Rene. Means for controlling pressures in pneumatic suspension cushions of a tractor-trailer combination. 3,104,679, 9–24–63, Cl. 137—625.2.

Gould, Albert A., to Arthur Imerman Undergarment Corp. Flarable garment combination. 3,088,120, 5–7–63, Cl. 2—216.

Gould, Arthur. Book stand reversible book holder. 3,103,760, 9–17–63, Cl. 45—82.

Gould, Charles D., to Richdel, Inc. Electric programmer 3,101,418, 8–20–63, Cl. 307—141.

Gould, Charna. Garment fastener. 3,096,525, 7–9–63, Cl. 2—335.

Gould, Charna. Garment fastener. 3,096,553, 7–9–63, Cl. 24—246.

Gould, David H.: *See*—
Hershberg, Emanuel B., and Gould. 3,089,881.
Reimann, Hans, and Gould. 3,087,938.

Gould, David H., and H. L. Herzog, to Schering Corp. 9α-halo-1,4,6-pregnatrienes and therapeutic compositions containing same. 3,079,301, 2–26–63, Cl. 167—77.

Gould, Eric G., and J. Biggs, to Dunlop Rubber Co. Ltd. Sheet producing or sheet coating apparatus. 3,091,800, 6–4–63, Cl. 18—2.

Gould, Henry: *See*—
Friedman, Lester, and Gould. 3,088,917.

Gould, Jack R., D. M. Gardner, and J. E. Paustian, to Thiokol Chemical Corp. Production of liquid alkylated pentaborane. 3,106,583, 10–8–63, Cl. 260—606.5.

Gould, Jack R., D. M. Gardner, and J. E. Paustian, to Thiokol Chemical Corp. Production of liquid alkylated pentaborane. 3,106,584, 10–8–63, Cl. 260—606.5.

Gould, James C.: *See*—
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Gould, James C., G. J. Le Brasse, and V. Gallatin, to Federal-Mogul-Bower Bearings, Inc. Method of bonding aluminum to steel by roll pressure. 3,078,563, 2–26–63, Cl. 29—494.

Gould, Lawrence H., to Avro Aircraft Ltd. Vibration damping in sheet metal structures. 3,071,217, 1–1–63, Cl. 189—34.

Gould, Merle L., to Ethyl Corp. Organoaluminum compounds. 3,086,038, 4–16–63, Cl. 260—448.

Gould, Murray W. Helicopter. 3,096,044, 7–2–63, Cl. 244—12.

Gould-National Batteries, Inc.: *See*—
Albrecht, Carl F. 3,113,892.
Bradshaw, Franklin C. 3,110,634.
Miller, James H. 3,108,911.
Whitfield, Marshall G., and Cheney. 3,084,005.
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Gould, Richard E., to General Motors Corp. Thermoelectric refrigerating apparatus. 3,078,682, 2–26–63, Cl. 62—3.

Gould, Richard E., to General Motors Corp. Refrigerating apparatus with condenser lint burner. 3,102,395, 9–3–63, Cl. 62—155.

Gould, Richard E., to General Motors Corp. Refrigerating apparatus with indicating means. 3,105,362, 10–1–63, Cl. 62—126.

Gould, Roy A., to Diamond Lumber Co. Laminated siding. 3,112,580, 12–3–63, Cl. 50—240.

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Gould, William A.: *See*—
Wu, Yao H., Feldkamp, and Gould. 3,108,117.

Gould, William G. Flush tank siphon. 3,090,966, 5–28–63, Cl. 4—50.

Goulding, Frederick S., and W. L. Hansen, to United States of America, Atomic Energy Commission. Guard ring semiconductor junction. 3,113,220, 12–3–63, Cl. 307—88.5.

Goulds Pumps Inc.: *See*—
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Goulet, Fernand, and S. Salaman, to Allied Record Mfg. Co. Automatic stockmold and curing press. 3,112,523, 12–3–63, Cl. 18—5.3.

Goulet, Roger T., and H. E. Pritchard, to Fram Corp. Air filters. 3,104,966, 9–24–63, Cl. 55—510.

Gouliston, Arthur R., and M. S. Simon, to Polaroid Corp. Photographic products and processes using metallic chelates. 3,081,167, 3–12–63, Cl. 96—29.

Goulston, Philip H., and J. F. Hardy, to Cabot Corp. Newsinks having excellent rub-off characteristics. 3,075,845, 1–29–63, Cl. 106—31.

Goupil, Jean: *See*—
Cochinal, Roland, Goupil, and Megy. 3,093,003.

Goupil, Jean, to Commissariat a l'Energie Atomique. Detection of burst jackets in nuclear reactors cooled by a plurality of gaseous streams. 3,084,251, 4–2–63, Cl. 250—83.3.

Goupil, Jean, J. Graftieaux, and J. Mégy, to Commissariat a l'Energie Atomique. Monitoring of fission products in a gaseous stream, particularly for detecting burst slugs in nuclear reactors. 3,084,252, 4–2–63, Cl. 250—83.3.

Goupil, Jean, J. Mégy, and A. Roguin, to Commissariat a l'Energie Atomique. Burst jacket detection in neutronic reactors. 3,084,254, 4–2–63, Cl. 250—83.6.

Goupil, Jean, and A. Roguin, to Commissariat a l'Energie Atomique. Selective measurement of short-lived fission products in a gas flow. 3,089,032, 5–7–63, Cl. 250—71.5.

Goupil, Jean, and A. Roguin, to Commissariat a l'Energie Atomique. Device for selectively detecting the occurrence of fission products in gases. 3,105,146, 9–24–63, Cl. 250—43.5.

Gour, Philip J. Method and apparatus for providing combustibly inert gas to a variety of locations. 3,103,296, 9–10–63, Cl. 220—88.

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Govin, Charles T., to The Salem Tool Co. Auger reaming head. 3,072,205, 1–8–63, Cl. 175—386.

Govin, Charles T., to The Salem Tool Co. Collapsible mining head. 3,077,235, 2–12–63, Cl. 175—285.

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Gowin, Grover Z., to Singer-Cobble, Inc. Guilding apparatus for a work head. 3,073,107, 1–15–63, Cl. 83—368.

Goyarts, Wynand M., to Curtiss-Wright Corp. Front suspension systems. 3,083,981, 4–2–63, Cl. 280—112.

Goveneche, Primitivo E. Angle indicator in combination with sine bars and the like. 3,090,127, 5–21–63, Cl. 33—174.

Goyette, Lewis E., to Virginia-Carolina Chemical Corp. Method for controlling nematodes with phosphorothioltes and phosphorothioates. 3,112,244, 11–26–63, Cl. 167—22.

Govke, Gerhard. Slide frame. 3,090,145, 5–21–63, Cl. 40—152.

Gozinsky, John R., to Boeing Airplane Co. Microwave scimitared antenna. 3,087,159, 4–23–63, Cl. 343—848.

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Graber, Carl D., to Diebold, Inc. Vault door construction. 3,110,271, 11–12–63, Cl. 109—59.

Graber, Carl D., and L. J. Grosswiller, Jr., to Diebold, Inc. After-hour depository. 3,114,499, 12–17–63, Cl. 232—44.

Graber, Joseph V., and F. F. Salzmann, to Graber Mfg. Co., Inc. Drapery rod fixture. Re. 25,399, 6–18–63, Cl. 160—346.

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Salzmann, Ferdinand F. 3,104,086.

Graber, Robert P., and M. B. Meyers, to General Mills, Inc. 6,16-dialkyl-17-oxygenated steroids. 3,085,090, 4–9–63, Cl. 260—239.55.

Graber, Robert P., and M. B. Meyers, to General Mills, Inc. Dialkyl progesterones and process therefor. 3,101,351, 8–20–63, Cl. 260—397.4.

Grabes, Walter, to American Tool Engineering, Inc. Turret type vertical milling machine. 3,080,794, 3–12–63, Cl. 90—17.

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Mattano, Leonard A., and Grabiel. 3,088,972.

Grabiel, Charles E., and H. Volk, to The Dow Chemical Co. Process for preparing 2,6-dimethylmorpholinylmercaptobenzothiazole 3,071,585, 1–1–63, Cl. 260—247.1.

Grable, Donovan B., and H. P. Keeler, to Gas Drilling Services Co. Dual passage drilling stem having self-contained valve means. 3,075,589, 1–29–63, Cl. 175—215.

Grable, Michael A., to Hercules Powder Co. Manufacture of casting powder granules. 3,106,498, 10–8–63, Cl. 149—96.

Grabow, Paul W. Steam nozzle boring device. 3,101,799. 8–27–63, Cl. 175—422.

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Grace, Billy J., and J. F. O'Toole, to Motorola, Inc. Portable auto radio receiver. 3,071,728, 1–1–63, Cl. 325—312.

Grace, Casper R., to Continental Granite Corp. Grinding wheel with provision for coolant application. 3,110,993. 11–19–63, Cl. 51—267.

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Barrett, Wayne T., Sanchez, and Vanik. 3,097,175.
Baush, Edward R., and Howe. 3,113,874.
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Bridger, Grover L., and Alfrey. 3,111,304.
Carriere, John G. 3,081,956.
Cullen, James J., Stokes, and Mackay. 3,094,254.
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D'Alelio, Gaetano F. 3,095,383.
Dayden, William R., Harrison, and Keller. 3,081,571.
Dearborn, Elizabeth C., and Isaacs. 3,093,655.
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Godfrey, John J. 3,075,001.
Gregorian, Razmie S. 3,090,770.
Harrison, John W. 3,071,819.
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Marans, Nelson S. 3,111,469.
Marans, Nelson S. 3,111,470.
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Taylor, Roger K. 3,110,442.
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Grada, Walter, and F. W. Kallmeyer. Apparatus for recording received echoes. 3,109,154, 10–29–63, Cl. 340—3.

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Grado, Joseph F. Phonograph turntable. 3,082,635, 3–26–63, Cl. 74—216.5.

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Graef, William T. Irrigating attachment for a garden hose. 3,116,019, 12–31–63, Cl. 239—542.

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Graf, Roderich, P. Schlack, and G. Lohaus, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Polyamides from beta-amino carboxylic acids. 3,093,618, 6–11–63, Cl. 260—78.

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Collett, Rulon F., and Graf von Soden. 3,103,930.
Silva, Alfred W. 3,083,999.

Graf von Soden, Adolph F. Combined hydraulic and pneumatic pump and motor unit for simultaneous air, vacuum and fluid circulation. 3,107,622, 10–22–63, Cl. 103—4.

Graf, Wilfried, and E. Schmid, to Geigy Chemical Corp. Sulphonamides of 5H-pyrrolo [3,4-β]-pyridines. 3,082,212, 3–19–63, Cl. 260—294.8.

Graf, Willi, to Maag Gear Wheel & Machine Co. Ltd. Indexing device. 3,093,014, 6–11–63, Cl. 74—822.

Graff, Alan R., R. B. Oesting, and P. K. Marple, to The Columbia Malting Co. Rotary malting drum with adjustable louvers. 3,098,797, 7–23–63, Cl. 195—131.

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Grafmyer, James M. Mechanical back brush and height scale. 3,109,177, 11-5-63, Cl. 4—158.

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Corsan, George W. 3,092,349.

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Graham, David E., and W. C. Craig, to General Aniline & Film Corp. Process for manufacture of benzaldehyde from benzal chloride. 3,087,967, 4-30-63, Cl. 260—599.

Graham, David J., and D. H. Taysum, to The Natural Rubber Producers' Research Association. Preservation of rubber latex. 3,100,235, 8-6-63, Cl. 260—815.

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Graham, Elwood M. Combined handle and lock. 3,080,996, 3-12-63, Cl. 220—55.7.

Graham, Fred B. Transfer system. 3,091,188, 5-28-63, Cl. 104—29.

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Graham, James H. Stabilizer holder for tractor hitch. 3,104,892, 9-24-63, Cl. 280—460.

Graham, James T., and J. G. Kay, to Jos. Lamb Co. Helical storage units. 3,071,240, 1-1-63, Cl. 198—212.

Graham, James V., G. A. Goodrich, and R. B. Miller, to General Foods Corp. Vertical gun-puffing apparatus. 3,094,059, 6-18-63, Cl. 99—238.

Graham, John. Sun visor for window. 3,107,760, 10-22-63, Cl. 189—63.

Graham, John P.: *See*—
Mitacek, Bill, and Graham. 3,112,270.

Graham, John W., to Jersey Production Research Co. Apparatus for centering well tools in a well bore. 3,087,552, 4-30-63, Cl. 166—243.

Graham, John W., to Anocut Engineering Co. Electrolytic grinding. 3,103,482, 9-10-63, Cl. 204—217.

Graham, John W., and L. H. Robinson, Jr., to Jersey Production Research Co. Drilling of earth formation by extrusion. 3,078,934, 2-26-63, Cl. 175—331.

Graham, John W., J. S. Osoba, and P. H. Monaghan, to Jersey Production Research Co. Increasing production of hydrocarbons. 3,083,766, 4-2-63, Cl. 166—42.

Graham, John W., J. S. Osoba, and P. H. Monaghan, to Jersey Production Research Co. Increasing production of hydrocarbons. 3,102,589, 9-3-63, Cl. 166—15.

Graham, John W., and J. K. Kerver, to Jersey Production Research Co. Method of reducing viscosity of drilling fluids during drilling. 3,113,195, 12-24-63, Cl. 175—17.

Graham, Karl L., to Deere & Co. Cotton harvester. 3,088,-262, 5-7-63, Cl. 56—41.

Graham, Louis A. Storage cabinet. 3,080,203, 3-5-63, Cl. 312—10.

Graham, Louis A. and R. A. Transmission. 3,085,450, 4-16-63, Cl. 74—796.

Graham, Martin B. Reference gage for radiographic examination of tubing. 3,088,027, 4-30-63, Cl. 250—65.

Graham, Ralph G., to L. A. James. Liquid distributor for dishwashing machines. 3,115,306, 12-24-63, Cl. 239—243.

Graham, Richard A.: *See*—
Graham, Louis A. and R. A. 3,085,450.

Graham, Robert E., to Owens-Illinois Glass Co. Hermetically sealed food package with tamper resistant closure. 3,088,-830, 5-7-63, Cl. 99—171.

Graham, Robert E., to Bell Telephone Laboratories, Inc. Telewriting apparatus. 3,089,918, 5-14-63, Cl. 178—19.

Graham, Robert L.: *See*—
Mullinix, Lloyd M., and Graham. 3,073,727.
Mullinix, Lloyd M., and Graham. 3,080,590.

Graham, Robert P., L. F. Ginnette, and A. I. Morgan, Jr., to United States of America, Agriculture. Preparation of stable dehydrated products. 3,093,488, 6-11-63, Cl. 99—199.

Graham, Robert W., to General Motors Corp. Air suspension control apparatus. 3,077,206, 2-12-63, Cl. 137—592.

Graham, Robert W., to General Motors Corp. Threadless tubing connector. 3,112,939, 12-3-63, Cl. 285—238.

Graham, Roger K., L. V. N. Bauer, and M. S. Gluckman, to Rohm & Haas Co. Graft copolymers. 3,087,875, 4-30-63, Cl. 204—154.

Graham, Seymour: *See*—
Mueller, Martin. 3,083,868.

Graham, Thomas A., and T. L. Smith, to Smith-Blair, Inc. Pipe clamp. 3,089,212, 5-14-63, Cl. 24—279.

Graham, Tom S.: *See*—
Laborde, Alden J., and Graham. 3,097,495.

Graham, Ward A., and H. W. Stratford, to Stratford Engineering Corp. Sulfur dioxide and sludge removal process. 3,097,234, 7-9-63, Cl. 260—504.

Graham, Ward A., and O. Webb, Jr., to Stratford Engineering Corp. Apparatus for continuous edible oil finishing. 3,102,062, 8-27-63, Cl. 159—3.

Graham-White Mfg. Co.: *See*—
Bernard, John E., Jr. 3,106,366.

Graham-White Sales Corp.: *See*—
Kelly, Daniel A., and Bernard. 3,102,464.

Grahling, Josephine. Safety leaders. 3,104,650, 9-24-63, Cl. 119—96.

Grahm, William H., and V. L. Gilbert. Sterilizer. 3,078,525, 2-26-63, Cl. 21—91.

Grahn, Edwin O., and L. Gelfand, to General Motors Corp. Domestic appliance. 3,088,453, 5-7-63, Cl. 126—273.

Grahn, Karl M. R., to Svenska Tandsticks Aktiebolaget. Method and apparatus for making fold lines in fibrous sheet material. 3,074,327, 1-22-63, Cl. 93—58.

Grain Processing Corp.: *See*—
Kathrein, Henry R. 3,108,402.
Kathrein, Henry R. 3,108,928.

Grall, John G., E. B. Nickles, R. J. Van De Hey, and J. D. West, to Manitowoc Engineering Corp. Drive system and mechanism. 3,088,564, 5-7-63, Cl. 192—98.

Gram, James P. Drinking cup construction. 3,080,081, 3-5-63, Cl. 215—1.

Gram, Sigmund R.: *See*—
Balko, Verlie A., and Gram. 3,077,998.

Gramenzi, Frank V. Control device for pump. 3,104,614, 9-24-63, Cl. 103—25.

Grammer, George N., to Ethyl Corp. Stable solvent composition. 3,074,890, 1-22-63, Cl. 252—171.

Grammer, George N., and P. W. Trotter, to Ethyl Corp. Stable methylchloroform compositions. 3,099,694, 7-30-63, Cl. 260—652.5.

Grammer, Robert E.: *See*—
Benzing, Walter C., and Schaarschmidt. 3,112,997.

Gran, Burton E., J. O. Holmen, and R. J. Prosen, to Minneapolis-Honeywell Regulator Co. Magnetic films. 3,102,048, 8-27-63, Cl. 117—61.

Gran, Carl A. Container and filling means therefor. 3,071,-287, 1-1-63, Cl. 220—86.

Granacher, Hugo, to E. Probstl. Cigarette perforating device. 3,080,872, 3-12-63, Cl. 131—170.

Granatek, Alphonse P.: *See*—
Buckwalter, Frank H., and Granatek. 3,087,858.
Buckwalter, Frank H., Kaplan, and Granatek. 3,074,819.

Granath, Axel G.: *See*—
McIlvaine, Robert L., and Granath. Re. 25,475.

Grancher, Pierre: *See*—
Roche, Andre, Grancher, Gajac, and Becanne. 3,096,377.

Granco Products, Inc.: *See*—
Napolin, Seymour. 3,085,182.

Grand, Joseph A., and R. R. Miller, to United States of America, Navy. Expendable ammonia noisemaker. 3,093,-107, 6-11-63, Cl. 116—27.

Grand Specialties Co.: *See*—
Hopfeld, Fred P. 3,085,656.
Hopfeld, Fred P. 3,098,587.

Grand Steel & Mfg. Co.: *See*—
Blose, John A. 3,109,533.

Grande, Paul: *See*—
Nachtsheim, Henry G., Meyer, and Grande. 3,089,786.

Grandel, Felix, and H. Neumann, to Kelmdiaet G.m.b.H. Process of producing ferment preparations and products obtained thereby. 3,071,517, 1-1-63, Cl. 195—71.

Grandey, Max F., to General Electric Co. Copper foam material and method. 3,078,552, 2-26-63, Cl. 29—182.

Grandey, Max F., and J. F. Kulp, to General Electric Co. Method of preparing silicon nitride foam material. 3,085,-886, 4-16-63, Cl. 106—41.

Grand Haven Brass Foundry: *See*—
Jacobson, Alvin E., Jr. 3,109,447.

Grand Haven Stamped Products Co.: *See*—
Markley, Vern C., Jr. 3,104,306.

Grandine, Lester D., Jr., and W. K. Wilkinson, to E. I. du Pont de Nemours and Co. Process for preparing aqueous slurries of acrylonitrile polymer and resulting product. 3,075,934, 1-29-63, Cl. 260—29.6.

Grandis, Stanley, and L. M. Baum. Ornamental hair clip. 3,106,215, 10-8-63, Cl. 132—48.

Grandjacques, Francois: *See*—
Greffe, Andre, Asselin, and Grandjacques. 3,096,550.

Grandner, John F.: *See*—
Forster, John H., and Grandner. 3,116,443.

Grand Rapids Hardware Co.: *See*—
Garrison, Judd F., and Owen. 3,084,610.
Teggelaar, Claude J. 3,103,711.
Teggelaar, Claude J., and Swierbut. 3,098,647.

Granisen, Lyle. Beet harvester. 3,084,785, 4-9-63, Cl. 198—103.

Granet, Charles, and R. Craue. Vehicle-seat suspension. 3,096,066, 7-2-63, Cl. 248—399.

Granger Associates: *See*—
Tanner, Robert L. 3,106,663.

Granger, Fred L., to Union Carbide Corp. Battery assembly. 3,078,329, 2-19-63, Cl. 136—108.

Granier, Emile, to Laborde & Kupfer. Alternator armature teeth. 3,081,412, 3-12-63, Cl. 310—258.

Granite Machine Co.: *See*—
Roberts, Ralph L. 3,079,098.
Walker, Howard L. 3,102,457.

Graniteville Co.: *See*—
Johnston, Lawton L., and Carpenter. 3,079,782.

Granito, Nicholas A.: *See*—
Oldham, Wilbur N., Granito, and Kerfoot. 3,114,930.

Granqvist, Carl-Erik, to Svenska Aktiebolaget. Sound or pulse recording and reproducing apparatus. 3,078,351, 2-19-63, Cl. 179—100.2.

Granqvist, Carl-Erik, to Svenska Aktiebolaget Gasaccumulator. Tunable high frequency circuit of wide frequency range. 3,082,385, 3-19-63, Cl. 333—82.

Graunryd, Thorvald G., to The Frank G. Hough Co. Transmission controlled loader hydraulic circuit. 3,095,990, 7-2-63, Cl. 214—140.

Granstedt, Karl E., to Arenco Aktiebolag. Apparatus for severing portions of a tobacco web. 3,076,366, 2-5-63, Cl. 83—98.

Grant, Cameron B. Pelletizing mill. 3,108,055, 10-22-63, Cl. 204—196.

Grant, Charles H. Airplane with stabilizing fins. Re. 25,418, 7-16-63, Cl. 244—91.

Grant, Clyde P.: *See*—
Forrester, Gilbert, and Grant. 3,110,110.

Grant, Dale W.: *See*—
Cords, Helmuth, Grant, and Butterworth. 3,115,489.

Grant, Donald E. Power transmission mechanism. 3,076,-347, 2-5-63, Cl. 74—190.

Grant, Edwin A., Jr., to Minnesota Mining and Mfg. Co. Heat-sensitive copying paper. 3,080,254, 3-5-63, Cl. 117—36.8.

Grant, Edwin A., Jr., to Minnesota Mining and Mfg. Co. Ultra-violet-radiation-desensitizable thermographic copy-sheet and method. 3,094,619, 6-18-63, Cl. 250—65.

Grant, Eugene F.: *See*—
Potts, Thomas J., Jr.; and Grant. 3,115,611.

Grant, Eugene F., and L. F. Fenton, to National Co., Inc. Frequency control apparatus for an atomic beam tube. 3,088,078, 4-30-63, Cl. 331—3.

Grant, Frederic F., and G. E. Mosher, to North American Aviation, Inc. Slip clutch gear box. 3,084,880, 4-9-63, Cl. 242—55.13.

Grant, Gardner L., to Universal Controls, Inc. Coin register. 3,104,057, 9-17-63, Cl. 235—99.

Grant, Gardner L., to Universal Controls, Inc. Toll system for highways. 3,104,367, 9-17-63, Cl. 340—31.

Grant, George S. Column and mounting socket therefor. 3,080,186, 3-5-63, Cl. 287—119.

Grant, Harold C.: *See*—
Adams, Arthur A., Arval, Bartson, Dudzinski, Grant, and McAnulty. 3,113,019.

Grant, James J.: *See*—
Kenny, James P., and Grant. 3,094,152.

Grant, John, to Sylvania Electric Products Inc. Intercommunication system. 3,071,647, 1-1-63, Cl. 179—1.

Grant, John A., to Owens-Corning Fiberglas Corp. Coated glass fiber combinations. 3,079,664, 3-5-63, Cl. 28—75.

Grant, John B., to Richardson-Merrell Inc. Containers and closures therefor. 3,096,903, 7-9-63, Cl. 220—42.

Grant, Louis A. Checker chamber cleaning apparatus. 3,084,921, 4-9-63, Cl. 263—19.

Grant, Louis A. Power operated brush attachment for earth moving machine. 3,099,852, 8-6-63, Cl. 15—50.

Grant, Leslie L., to Massey-Ferguson (United Kingdom) Ltd. Grain feeding attachment for hillside operation of a combine. 3,108,064, 10-22-63, Cl. 209—247.

Grant, Marc E. Method of preparing meat. 3,100,713, 8-13-63, Cl. 99—194.

Grant, Nicholas J., K. M. Zwilsky, and A. S. Bufferd, to New England Materials Laboratory, Inc. Dispersion strengthened molybdenum. 3,105,760, 10-1-63, Cl. 75—206.

Grant, Peter J., to The General Electric Co. Ltd. Nuclear reactors. 3,081,248, 3-12-63, Cl. 204—193.2.

Grant, Reginald H. Portable machine shop apparatus. 3,073,193, 1-15-63, Cl. 82—2.

Grant, Richard W. Differential valve having a tubular diaphragm encircled by an annular sealing surface. 3,087,507, 4-30-63, Cl. 137—414.

Grant, Verna C. Convertible scarf and retaining collar. 3,088,119, 5-7-63, Cl. 2—207.

Grant, Walter F. Cable slitting tool. 3,091,031, 5-28-63, Cl. 30—91.

Grantham, Lloyd B., and R. A. Mengelkamp, to Phillips Petroleum Co. Liquid petroleum gas converter. 3,077,745, 2-19-63, Cl. 62—52.

Grantham, Raymond J., and J. W. Shepherd, to Callery Chemical Co. Preparation of synthetic polyesters using borane catalysts. 3,113,125, 12-3-63, Cl. 260—75.

Granzow, Carl A., to United States of America, Air Force. Gage-slap roll thread. 3,080,660, 3-12-63, Cl. 33—199.

Graper, Lawrence F., to Armour and Co. Suspension device. 3,090,990, 5-28-63, Cl. 17—44.3.

Grappo, George A.: *See*—
Pickard, Edgard C., Jackson, and Grappo. 3,091,305.

Grasel, Nicholas: *See*—
Romine, Roy T., Jacobsen, and Grasel. 3,107,677.

Graser, Earl J., to Olin Mathieson Chemical Corp. Top loading article carrier. 3,086,680, 4-23-63, Cl. 220—112.

Graser, Earl J., to Olin Mathieson Chemical Corp. Linerless carton. 3,107,837, 10-22-63, Cl. 229—3.1.

Grass, Edward P.: *See*—
Teplansky, George J., Grass, Weisend, and Lewis. 3,074,-840.

Grassetti, Davide R.: *See*—
Klein, Howard C., and Grassetti. 3,097,244.

Grassl, Donald A., and R. W. Noyes, to Raytheon Co. Control knob. 3,082,643, 3-26-63, Cl. 74—553.

Grassl, Simon. Cervical collars. 3,075,521, 1-29-63, Cl. 128—75.

Grasso's Koninklijke Machinefabrieken N.V.: *See*—
Hoen, Cornelis. 3,114,388.

Grasswich, Edward, and J. W. Cedarquist, to Dohrman Sales Co. Rotatable baffle for kitchen range ventilators. 3,077,-717, 2-19-63, Cl. 55—404.

Grathwohl, Kenneth T. Disposable razor. 3,070,883, 1-1-63, Cl. 30—32.

Grattan, Worthin F. Automatic transmission for automotive vehicles. 3,115,792, 12-31-63, Cl. 74—752.

Gratzmuller, Jean L. Hydraulic pumping units. 3,073,-255, 1-15-63, Cl. 103—204.

Gratzmuller, Jean L. Electro-magnetic control device. 3,082,358, 3-19-63, Cl. 317—157.

Grau, Henry W. Feed mechanism attachment for power driven portable drills. 3,089,357, 5-14-63, Cl. 77—33.9.

Graubremse G.m.b.H., Firma: *See*—
Schneider, Friedrich. 3,079,122.

Grauel, Ernest R. Detergent dispensing shower head. 3,083,-915, 4-2-63, Cl. 239—310.

Graulich, Wilhelm: *See*—
Scriba, Gottfried, Graulich, and Schneider. 3,103,498.
Wagner, Kuno, Schwaebel, and Graulich. 3,101,273.
Wagner, Küno, Schwaebel, Käss, Graülich, and Kleiner. 3,099,635.

Graumann, John L., and A. N. Major, to The Whitlock Mfg. Co. Drying apparatus and method. 3,087,533, 4-30-63, Cl. 159—13.

Gravelle, Arthur J. Latch guard. 3,097,008, 7-9-63, Cl. 292—346.

Graves, Charles E.: *See*—
Brink, Paul L., Graves, and McGillem. 3,091,993.

Graves, Donald E., to General Electric Co. X-ray timer. 3,079,506, 2-26-63, Cl. 250—95.

Graves, Edward B.: *See*—
Palermo, Anthony, Jr., and Graves. 3,094,616.

Graves, Edward B., to Picker-X-Ray Corp., Waite Mfg. Div. Inc. Energy translating device. 3,079,526, 2-26-63, Cl. 321—27.

Graves, Henry B., to Electronic Devices Corp. Transceiver construction. 3,091,734, 5-28-63, Cl. 325—25.

Graves, Howard K., to Bell & Howell Co. Automatic exposure control. 3,074,335, 1-22-63, Cl. 95—64.

Graves, Howard K. Piano action. 3,096,675, 7-9-63, Cl. 84—237.

Graves, Howard K., to Bell & Howell Co. Automatic exposure control mechanism. 3,111,890, 11-26-63, Cl. 95—64.

Graves, Richard H.: *See*—
Weiss, Walter J., and Graves. 3,108,068.

Graves, Richard L. Score recording attachment for game machines. 3,112,979, 12-3-63, Cl. 346—33.

Graves, Shelby J., to Otis Engineering Corp. Well tools. 3,088,521, 5-7-63, Cl. 166—214.

Graves, Thomas L., to Burlington Industries, Inc. Thread cutting means for sewing machines. 3,087,449, 4-30-63, Cl. 112—252.

Graves, William C.: *See*—
Dickison, Earl B., Graves, and Purdy. 3,080,054.
Dickison, Earl B., Graves, and Purdy. 3,107,432.

Graviner Mfg. Co. Ltd.: *See*—
Gatley, Derek R., and Abigail. 3,101,669.
Rogers, Edward A., and Bennett. 3,089,339.
Sturrock, Donald G. 3,078,802.

Grawey, Charles E., and R. W. Untz, to Caterpillar Tractor Co. Method of sealing contacting surfaces, and article of manufacture produced thereby. 3,116,198, 12–31–63, Cl. 161—217.

Grawitz, Jacques, to Societe Anonyme dite: Compagnie Francaise de Raffinage. Refining of lubricant oils. 3,112,250, 11–26–63, Cl. 208—264.

Gray, Alan H.: *See*—
Griggs, William H., Gray, and Zaffrann. 3,103,462.

Gray, Allan P.: *See*—
Cavallito, Chester J., and Gray. 3,107,249.

Gray, Alfred E., H. J. Malin, and H. B. Thompson, to Magnavox Co. Card processing apparatus. 3,074,711, 1–22–63, Cl. 271—5.

Gray, Alfred E., H. J. Malin, and H. B. Thompson, to Magnavox Co. Card processing apparatus. 3,081,872, 3–19–63, Cl. 209—74.

Gray, Alvin E., to International Business Machines Corp. Unit document originating machine. 3,075,194, 1–22–63, Cl. 346—74.

Gray, Alvin N., to Western Electric Co., Inc. Methods of and apparatus for extruding thermoplastic compounds. 3,078,514, 2–26–63, Cl. 18—13.

Gray, Burl B.: *See*—
Brutten, Eugene J., Gray, and Rose. 3,083,682.

Gray, Charles L., Jr., to E. I. du Pont de Nemours and Co. Solvent-soluble water-repellency compositions. 3,083,114, 3–26–63, Cl. 106—271.

Gray, Cyril, to Associated Electrical Industries Ltd. X-ray tube with focusing means at the cathode. 3,107,311, 10–15–63, Cl. 313—57.

Gray, Earl H.: *See*—
Mathis, Clyde H., and Gray. 3,113,164.

Gray, Edward E., and K. E. McFarland, to General Precision, Inc. Radar simulation. 3,100,238, 8–6–63, Cl. 35—10.4.

Gray, Edward E., T. P. Pappas, and R. L. Taylor, to General Precision, Inc. Terrain radar simulation. 3,113,989, 12–10–63, Cl. 35—10.4.

Gray, Frank, C. W. Robinson, and R. Collins, to International Standard Electric Corporation. Programe controlled board piercing equipment. 3,073,518, 1–15–63, Cl. 234—28.

Gray, G. A., Co., The: *See*—
Walter, John M. 3,103,144.

Gray, George W., to Radio Corp. of America. Vehicle control systems. 3,078,944, 2–26–63, Cl. 180—82.

Gray, George W., to McAx Corp. Wall structure. 3,087,586, 4–30–63, Cl. 189—34.

Gray, Gordon E.: *See*—
Scherry, George A. 3,081,497.
Skvorc, Kasimir J. 3,081,486.

Gray, Harvey & Associates, Inc.: *See*—
Gray, James H. 3,086,736.

Gray, Howard E. Baseball game board. 3,105,688, 10–1–63, Cl. 273—93.

Gray, James H., to Gray, Harvey, & Associates, Inc. Parachute risers. 3,086,736, 4–23–63, Cl. 244—151.

Gray, John, to Ekco Products Co. Merchandise handling rack. 3,111,915, 11–26–63, Cl. 108—6.

Gray, John B., to Packard-Bell Electronics Corp. Tape feed mechanism. 3,109,898, 11–5–63, Cl. 179—100.2.

Gray, John R., ½ to W. George, Jr., and ½ to J. A. Elfarr. Apparatus for flowing oil from a well. 3,106,170, 10–8–63, Cl. 103—234.

Gray, John W.: *See*—
Dworetzky, Lawrence H., and Gray. 3,095,562.

Gray, John W., to General Precision, Inc. Variable frequency multivibrator. 3,077,567, 2–12–63, Cl. 332—16.

Gray, John W., W. H. Heath, and R. A. Finkler, to General Precision Inc. Navigation system. 3,108,182, 10–22–63, Cl. 235—61.5.

Gray, Lowell C., and L. H. Bishop, to The Bendix Corp. Pilot type solenoid valve. 3,114,532, 12–17–63, Cl. 251—30.

Gray Mfg. Co., The: *See*—
Dervieux, Andre C. 3,094,590.

Gray, Milo C., and J. I. Pope, to Hall-Toledo, Inc. Machine tool and pilot therefor. 3,106,804, 10–15–63, Cl. 51—90.

Gray, Oscar S. Method and apparatus for sterilizing. 3,092,503, 6–4–63, Cl. 99—217.

Gray, Paul A., Jr.: *See*—
Horsley, Franz A., and Gray. 3,100,698.

Gray, Peter R., to The Dow Chemical Co. Separation of cesium values from aqueous solution. 3,075,826, 1–29–63, Cl. 23—25.

Gray, Philip J.: *See*—
Francis, Samuel A., Gray, and Ayer. 3,083,261.

Gray, Raymond K., and S. C. Wolniak, to The Illinois Lock Co. Door closer. 3,078,499, 2–26–63, Cl. 16—52.

Gray, Reuben F., to United States of America, Navy. Resuscitation apparatus. 3,078,842, 2–26–63, Cl. 128—30.

Gray, Reuben F., to United States of America, Navy. Apparatus for controlling the volume of air and the distribution of blood in the body. 3,089,482, 5–14–63, Cl. 128—1.

Gray, Richard I., Jr., to Walrus Mfg. Co. Adjustable support for bulletin board. 3,081,972, 3–19–63, Cl. 248—33.

Gray, Robert A., Jr., to Mueller Brass Co. Plastic closures for protective use. 3,104,681, 9–24–63, Cl. 138—96.

Gray, Robert H. Pawl and ratchet mechanism for load binding winch. 3,077,791, 2–19–63, Cl. 74—577.

Gray, Robert H. Load binding winch. 3,101,927, 8–27–63, Cl. 254—161.

Gray, Robert T. Answer guard. 3,089,260, 5–14–63, Cl. 35—48.

Gray, Russell M. Method and application of surgical sponge. 3,097,649, 7–16–63, Cl. 128—296.

Gray, Thomas E. H., and J. Jones-Hinton, to Dunlop Rubber Co. Ltd. Inflatable eight-corner reflector. 3,103,662, 9–10–63, Cl. 343—18.

Gray Tool Co.: *See*—
Pierce, Elwood K., Jr. 3,095,110.
Watts, John D., Ireland, and Crain. 3,080,181.

Gray, Vivian C. Electrical sound reproducing devices. 3,090,461, 5–21–63, Cl. 181—31.

Gray, Walter F. Mop washing machines. 3,101,088, 8–20–63, Cl. 134—151.

Gray, Walter W., to Specialties, Inc. Fluid flow instrument. 3,085,430, 4–16–63, Cl. 73—179.

Gray, Walter W., to Specialties, Inc. Instrument adjusting device. 3,088,307, 5–7–63, Cl. 73—1.

Gray, Walter W., to Specialties, Inc. Compensated vertical speed indicator. 3,111,029, 11–19–63, Cl. 73—179.

Gray, William T., to Minneapolis-Honeywell Regulator Co. Motor testing apparatus. 3,111,841, 11–26–63, Cl. 73—116.

Graybar Precast Ltd.: *See*—
Knudsen, Vagn A. 3,092,371.

Graybeal, Warren E., to Standard Conveyor Co. Transfer mechanism for conveyors. 3,083,808, 4–2–63, Cl. 198—20.

Graybill, Clinton L., to Graybill Industries, Inc. Mixing machine and portable dispenser. 3,084,917, 4–9–63, Cl. 259—177.

Graybill Industries, Inc.: *See*—
Graybill, Clinton L. 3,084,917.

Graybill, Paul J. Dispensing container with reclosable cover for dispensing containers. 3,096,921, 7–9–63, Cl. 229—17.

Graybill, Paul J. Dispensing containers. 3,096,922, 7–9–63, Cl. 229—17.

Graybill, Inc.: *See*—
Kikta, John M. 3,116,101.

Grayson, Martin, to American Cyanamid Co. Method of preparing dichlorides primary phosphine. 3,074,994, 1–22–63, Cl. 260—464.

Grayson, Martin, and P. A. Keough, to American Cyanamid Co. Organic tertiary phosphines. 3,116,317, 12–31–63, Cl. 260—465.1.

Grayson, Richard D.: *See*—
Ray, William A., and Grayson. 3,108,532.

Grayson, Richard D., to General Controls Co. Top burner control for gas ranges. 3,072,337, 1–8–63, Cl. 236—32.

Greanias, Evon C., and A. Hamburgen, to International Business Machines Corp. Apparatus for analyzing intelligence manifestations. 3,072,886, 1–8–63, Cl. 340—146.3.

Greanias, Evon C., and A. Hamburgen, to International Business Machines Corp. Character recognition system. 3,105,956, 10–1–63, Cl. 340—146.3.

Great Dane Trailers, Inc.: *See*—
Jewell, Robert A. 3,087,717.

Great Lakes Carbon Corp.: *See*—
Bishop, Fred W. 3,091,588.
Fann, James D. 3,073,150.
Fann, James D. 3,073,151.
Fryer, Glenn E., and Armand. 3,081,625.
Martin, Samuel W. 3,097,151.
Shea, Frederick L., Jr., and Hau. 3,077,439.

Great Lakes Pipe Line Co.: *See*—
Klein, Vernon W., and Jones. 3,090,038.

Great Lakes Runway Co.: *See*—
Raich, Walter L. 3,109,526.

Great Neck Saw Manufacturers, Inc.: *See*—
Jacoff, Salem L. 3,114,402.

Great West Super Markets, Inc.: *See*—
Mommsen, Gordon V. 3,115,825.

Great Western Consolidated No Liability: *See*—
Denham, Kenneth E. 3,090,511.

Grebe, Carl E.: *See*—
Rice, Warren A. 3,106,058.

Grebe, Carl E., to The Dow Chemical Co. Method for loading a bore hole. 3,091,177, 5–28–63, Cl. 102—22.

Grebe, Carl E., to The Dow Chemical Co. Disc for upgrading work of explosives. 3,112,701, 12–3–63, Cl. 102—22.

Greco, Peter: *See*—
Raila, Edward S., and Greco. 3,105,870.

Grecu, Thomas J. Automatic battery charger control circuit. 3,076,127, 1–29–63, Cl. 320—36.

Greder, Raymond V.: *See*—
Jennings, William R., and Greder. 3,077,014.

Greding, Robert, to Dominion Engineering Works Ltd. Winders and rewinders for paper machines. 3,107,873, 10–22–63, Cl. 242—66.

Greedy, Edwin F., and E. J. Schaaf, to FMC Corp. Corn conveying, orienting and husking machine. 3,113,574, 12–10–63, Cl. 130—5.

Greegor, Ralph H., to The Kinnear Mfg. Co. Chain hoist governor. 3,102,580, 9–3–63, Cl. 160—133.

Green, A. P., Fire Brick Co.: *See*—
Frank, Joseph M., Boyer, and Crookston. 3,100,677.

Green, Alan H.: *See*—
Sherman, Albert J., and Green. 3,114,211.

Green, Albert J., H. O. Randall, P. H. Williams, and F. R. Werner, to The National Cash Register Co. Line finding mechanism for cash registers and accounting machines. 3,100,037, 8–6–63, Cl. 197—127.

Green, Albert L., to Clover Lamp Co., Inc. Lamp switch combined with an illuminating indicator. 3,113,197, 12–3–63, Cl. 200—167.

Green, Albert P., and A. W. Fridley, to Warner Bros. Pictures, Inc. Preparation of magnetic oxide coatings. 3,114,971, 12–24–63, Cl. 29—566.

Green, Albert W.: *See*—
Brown, Marion L., Jr., and Green. 3,088,919.

Green, Albert W., to Fairchild Camera and Instrument Corp. Analogue-to-digital transducer. 3,113,262, 12–3–63, Cl. 323—75.

Green, Armin H.: *See*—
Schlage, Ernest L., and Green. 3,095,021.

Green, Bertram P., to North American Philips Co., Inc. Linear amplifier for modulated high frequency oscillations. 3,116,461, 12–31–63, Cl. 330—109.

Green, Berry W.: *See*—
Mason, Roy, Jr., and Green. 3,081,799.

Green, Carl: *See*—
Burgwin, Stephen L., and Green. 3,101,424.

Green, Daniel C.: *See*—
Flower, Walter T., and Green. 3,098,435.

Green, David J., to Lear Siegler, Inc. Airborne navigation system for correlating position data from two sources. 3,103,579, 9–10–63, Cl. 235—151.

Green, Edward H. Spray head and guide assembly for aerosols. 3,075,709, 1–29–63, Cl. 239—579.

Green, Edward H. Dispenser valve. 3,095,127, 6–25–63, Cl. 222—394.

Green, Edward H. Spray head for an aerosol dispenser. 3,112,074, 11–26–63, Cl. 239—493.

Green, Elkan. Camping outfit for use with road motor vehicles. 3,111,955, 11–26–63, Cl. 135—1.

Green, Ernest W.: *See*—
Duke, James B., and Green. Re. 25,464.

Green, Frank T., to Noble Mfg. Co., Inc. Bolt action magazine firearm with a cantilever spring for holding cartridges in the magazine. 3,094,803, 6–25–63, Cl. 42—18.

Green, Frank W., to West Virginia Pulp and Paper Co. Glue lap closure. 3,113,713, 12–10–63, Cl. 229—51.

Green, George E., to Haalmer Corp. Method for obtaining more economical extraction of the valuable constituents of those minerals which contain iron at lower states of oxidation than Fe_2O_3 in their molecular structures. 3,105,755, 10–1–63, Cl. 75—1.

Green, George E., to Haalmer Corp. Method of lowering the iron content of chromite ores or concentrates without appreciable lowering of the contained Cr_2O_3. 3,105,756, 10–1–63, Cl. 75—1.

Green, Gourley H. Printing head. 3,108,673, 10–29–63, Cl. 197—1.

Green, Harold A., to Air Products and Chemicals, Inc. Recovery of uranium from lignite. 3,092,445, 6–4–63, Cl. 23—14.5.

Green, Harold H.: *See*—
Bennett, William D., and Green. 3,103,037.

Green, Herman: *See*—
Zimmy, Sidney J., and Green. 3,080,669.

Green, Homer T., to The Parker Pen Co. Hubbed washer overflow ink collector. 3,115,119, 12–24–63, Cl. 120—50.

Green Instrument Co.: *See*—
Dionne, Leonard J. 3,110,226.

Green, J. W., Co.: *See*—
Estabrooks, Roger S., and Gibbons. 3,080,040.
McGill, Thomas A. 3,095,956.

Green, Jack R., to Vickers Research Ltd. Control valves. 3,092,144, 6–4–63, Cl. 137—625.3.

Green, James A.: *See*—
Dobbratz, Ervin C., and Green. 3,098,532.

Green, James R.: *See*—
Bluth, Edward J., and Green. 3,084,210.

Green, James W., Jr., to The Eastern Co. Fire detector device. 3,079,886, 3–5–63, Cl. 116—106.

Green, Joseph, and P. R. Watt, to Vitamins Ltd. Frames for use in two dimensional paper chromatography. 3,086,439, 4–23–63, Cl. 95—100.

Green, Joseph G., R. W. Settles, and M. T. Thorsson, to Fairbanks, Morse & Co. Force measuring system. 3,077,236, 2–12–63, Cl. 177—12.

Green, Julius, to General Foods Corp. Beverage flavors and process for their production. 3,102,817, 9–3–63, Cl. 99—140.

Green, Julius, and P. S. Smith, to General Foods Corp. Sugar-coating process. 3,094,947, 6–25–63, Cl. 107—54.

Green, Julius, R. W. Morse, and D. R. Westfall, to General Foods Corp. Batch-type apparatus for tumble coating discrete particles. 3,095,326, 6–25–63, Cl. 118—11.

Green, Julius, N. A. Vanasse, R. G. Garner, and R. J. Scarpellino, to General Foods Corp. Beverage flavor and process for its production. 3,102,816, 9–3–63, Cl. 99—140.

Green, Larry Q., to E. I. du Pont de Nemours and Co. Wax-like fluorocarbon telomer compositions. 3,103,490, 9–10–63, Cl. 252—15.

Green, Larry Q., and R. W. Moses, to E. I. du Pont de Nemours and Co. Wax-like telomer compositions. 3,102,862, 9–3–63, Cl. 252—28.

Green, Larry Q., and R. W. Moses, to E. I. du Pont de Nemours and Co. Aqueous fluorocarbon telomer dispersion and process of preparing same. 3,105,824, 10–1–63, Cl. 260—29.6.

Green, Lawrence B., to Plastic Age Sales Inc. Method of fabricating a glass fiber reinforced plastic luminaire globe. 3,097,125, 7–9–63, Cl. 156—38.

Green, Louis E., Jr., to Standard Oil Co. Gas analysis device. 3,095,278, 6–25–63, Cl. 23—254.

Green, Lowell J.: *See*—
Bixby, William H., and Green. 3,080,516.

Green, Martin. Venetian blind. 3,079,988, 3–5–63, Cl. 160—168.

Green, Martin, and F. Fishbein. Apparatus for dispensing measured quantities of granular materials. 3,089,620, 5–14–63, Cl. 222—89.

Green, Max L., to Relton Corp. Tile cutter. 3,111,866, 11–26–63, Cl. 77—69.

Green, Melvin E. Rack spacing structure. 3,103,422, 9–10–63, Cl. 34—238.

Green, Milton: *See*—
Blount, Elkan R., Cohen, Green, and Simon. 3,077,402.
Blount, Elkan R., Green, Rogers, and Simon. 3,076,820.

Green, Milton, to Polaroid Corp. Novel photographic products, processes and compositions. 3,108,001, 10–22–63, Cl. 96—29.

Green, Milton, and H. G. Rogers, to Polaroid Corp. Derivatives of nitro and amino aralkylene thiohydroquinone-0,0′ diacetate and preparation thereof. 3,081,339, 3–12–63, Cl. 260—479.

Green, Milton, M. M. Morse, and M. S. Simon, to Polaroid Corp. Photographic products, processes and compositions. 3,091,530, 5–28–63, Cl. 96—29.

Green, Paul R., and F. G. Palcanis, to Esso Research and Engineering Co. System for filling closed containers with volatile liquids. 3,106,071, 10–8–63, Cl. 62—55.

Green-Penny Co.: *See*—
Baybarz, Fred L. 3,096,108.

Green, Philip R., to The English Electric Co. Ltd. Method for making combined plastic and metallic structures. 3,074,116, 1–22–63, Cl. 18—59.

Green, Richard M., to Phillips Petroleum Co. Crystallization method and apparatus. 3,082,211, 3–19–63, Cl. 260—290.

Green, Richard W. Disposable applicator. 3,081,480, 3–19–63, Cl. 15—509.

Green, William G., ½ to Otis Engineering Corp. Oil well service tool assembly. 3,079,999, 3–5–63, Cl. 166—177.

Green, William G., to Aquatron Engineering Corp. Water conditioning apparatus. 3,095,365, 6–25–63, Cl. 204—229.

Green, William G., ½ to D. M. Moody. Method of formation testing in petroleum wells. 3,115,776, 12–31–63, Cl. 73—155.

Green, William J.: *See*—
Andersen, Holger C., Romeo, and Green. 3,098,712.

Greenaway, John F.: *See*—
Marwing, Kenneth G., Greenaway, and Milton. 3,107,271.

Greenaway, John F., D. Halton, K. G. Marwing, and W. A. C. Hemmings, to Automatic Telephone & Electric Co. Ltd. Register translators for use in automatic telephone switching systems. 3,113,182, 12–3–63, Cl. 179—18.

Greenaway, Richard, to L. B. Weber. Combination sound reproducing and slide projecting apparatus. 3,078,762, 2–26–63, Cl. 88—27.

Greenbaum, Maurice. Flood control valve. 3,115,890, 12–31–63, Cl. 137—423.

Greenbaum, William: *See*—
Rosemond, Leland E., Greenbaum, and Hellekjaer. 3,104,290.

Greenbaum, William H.: *See*—
Pearson, Harry A., Herrmann, and Greenbaum. 3,110,868.

Green Bay Foundry and Machine Works: *See*—
Steber, Joseph F. 3,115,915.

Green Bay Packaging Inc.: *See*—
Van Den Berg Joseph A. 3,094,210.

Greenberg, David R., to Burroughs Corp. Computing device for optical landing systems. 3,091,751, 5–28–63, Cl. 340—26.

Greenberg, Elmer H. and W. B. Metal-plate-treating apparatus. 3,103,767, 9–17–63, Cl. 51—14.

Greenberg, Harry, to Channel Master Corp. End fire planar dipole array with line transposition between dipoles and impedance increase towards feed. 3,086,206, 4–16–63, Cl. 343—815.

Greenberg, Jerome S., and M. J. Sajdak, to Amtab Mfg. Co. Folding table construction. 3,072,451, 1–8–63, Cl. 311—87.

Greenberg, Jonnard: *See*—
Chusid, Edward, Greenberg, and Knowles. 3,076,527.

Greenberg, Julius. Ear muff. 3,112,493, 12–3–63, Cl. 2—209.

Greenberg, Leon S., to Raytheon Co. Methods of making rectifying and ohmic junctions. 3,104,992, 9–24–63, Cl. 148—1.5.

Greenberg, Myron L.: *See*—
Starr, Louis, Kaplan, Greenberg, and Cox. 3,100,986.

Greenberg, Samuel M., and J. F. Herndon, Sr., to Smith Kline & French Laboratories. Method with tri-(dialkylaminoalkyl) phosphates of reducing cholesterol levels. 3,073,740, 1–15–63, Cl. 167—55.

Greenberg, Walter H.: *See*—
Church, James M., and Greenberg. 3,095,336.

Greenberg, William B.: *See*—
Greenberg, Elmer H. and W. B. 3,103,767.
Greenblatt, Joseph, to Talb Industries, Inc. Culture dish. 3,073,750, 1–15–63, Cl. 195—139.
Greendale, Allen E.: *See*—
Honma, Minoru, and Greendale. 3,107,981.
Greene, Abbot, and P. Densen. Self sealing container. 3,116,008, 12–31–63, Cl. 229—48.
Greene, Benjamin F., Jr., H. M. Knight, M. L. Ernst, F. F. Slack, E. D. Ostroff, J. B. Cawley, and R. O. McManus, to United States of America, Air Force. Aircraft traffic control. 3,109,170, 10–29–63, Cl. 343—7.3.
Greene, Charles H. Drill pipe float. 3,089,551, 5–14–63, Cl. 175—318.
Greene, Chester W., to United Shoe Machinery Corp. Ammunition handling apparatus. 3,101,647, 8–27–63, Cl. 89—46.
Greene, Earnest J.: *See*—
Millman, William V., and Greene. 3,102,654.
Greene, Earnest J., and W. V. Millman, to American Air Filter Co., Inc. Air filtering apparatus. 3,098,731, 7–23–63, Cl. 55—274.
Greene, Edgeworth. Insertable, self-locking and non-refillable closure for bottles. 3,073,470, 1–15–63, Cl. 215—22.
Greene, Ernest W.: *See*—
Duke, James B., and Greene. 3,080,214.
Greene, Ernest W., J. B. Duke, and J. L. Hunter, to Minerals & Chemicals Philipp Corp. Method of brightening clay by froth flotation of sulfidized clay pulp. 3,072,255, 1–8–63, Cl. 209—166.
Greene, Eugene C. Portable urinal. 3,082,434, 3–26–63, Cl. 4—110.
Greene, George. Structural eaves covering. 3,098,322, 7–23–63, Cl. 50—4.
Greene, George B. Computing and recording apparatus. 3,105,636, 10–1–63, Cl. 235—60.25.
Greene, Harold L. Sleep alarm headpiece. 3,076,186, 1–29–63, Cl. 340—279.
Greene, Harry R.: *See*—
Coffield, Cornelius C., and Greene. 3,071,241.
Greene, Jack E., J. M. Terlato, and B. M. Updike, to International Business Machines Corp. Operation checking system for data storage and processing machines. 3,077,579, 2–12–63, Cl. 340—172.5.
Greene, Janice L., and J. D. Idol, Jr., to The Standard Oil Co. Method of making cyclo-butane-1,2-dicarboxamide. 3,110,729, 11–12–63, Cl. 260—557.
Greene, Joseph L., to General Motors Corp. Electroplating. 3,097,148, 7–9–63, Cl. 204—43.
Greene, Leonard M., to Safe Flight Instrument Corp. Device for measuring lift of the swept back wing of an airplane. 3,092,353, 6–4–63, Cl. 244—1.
Greene, Leonard M., to Safe Flight Instrument Corp. Indicator. 3,106,185, 10–8–63, Cl. 116—129.
Greene, Leonard M., to Safe Flight Instrument Corp. Airplane instruments. 3,112,905, 12–3–63, Cl. 244—77.
Greene, Norman A. Bubble making toy. 3,093,925, 6–18–63, Cl. 46—8.
Greene, Norman A. Toy. 3,094,331, 6–18–63, Cl. 273—101.
Greene, Oren W., R. W. Twitty, and T. L. Richie, to Crompton & Knowles Corp. Photoelectrically controlled apparatus and method for blending fibres. 3,073,402, 1–15–63, Cl. 177—80.
Greene, Percy W., to Barbour Corp. Method of making beaded welting. 3,103,024, 9–10–63, Cl. 12—146.
Greene, Ralph D.: *See*—
Scott, Edward F., and Greene. 3,095,256.
Greene, Ralph L., and C. C. Willwerth, to Owens-Illinois Glass Co. Self-locking tray. 3,073,504, 1–15–63, Cl. 229—34.
Greene, Robert A. Football downs marker. 3,086,307, 4–23–63, Cl. 40—77.
Greene, Robert A. Apparatus for carburetion. 3,086,758, 4–23–63, Cl. 261—44.
Greene, Robert E., to United States of America, Army. Tail holder. 3,103,204, 9–10–63, Cl. 119—103.
Greene, Robert R., and F. T. Rowland, to Rockwell-Standard Corp. Tapered spring leaf. 3,079,139, 2–26–63, Cl. 267—47.
Greene, Samuel. Metal window frame, sash and weather strip therefor. 3,080,950, 3–12–63, Cl. 189—65.
Greene, Tweed & Co.: *See*—
Scannell, John B. 3,071,386.
Greene, Whitney E. Tube coupling. 3,107,108, 10–15–63, Cl. 285—341.
Greene, William J.: *See*—
Anderson, Nelson E., and Greene. 3,071,680.
Greene, William J., to Air Reduction Co., Inc. Electron beam welding. 3,082,316, 3–19–63, Cl. 219—117.
Greene, William J., to Air Reduction Co., Inc. Method and apparatus for transmitting intelligence. 3,084,333, 4–2–63, Cl. 340—172.5.
Greene, William J., to Air Reduction Co., Inc. Analogue-controlled amplifier. 3,114,101, 12–10–63, Cl. 323—66.
Greenewald, Herbert, Jr.: *See*—
Beasley, Jack M., and Greenewald. 3,106,594.
Greenfield, Bill E., to Phillips Petroleum Co. Pipe cleaner. 3,101,499, 8–27–63, Cl. 15—104.7.
Greenfield, Charles. Dehydration of fluid fatty mixtures. Re. 25,322, 1–15–63, Cl. 99—56.
Greenfield, Charles. Dehydration of fluid fatty mixtures above normal coagulation temperature. 3,076,715, 2–5–63, Cl. 99—210.
Greenfield, George L.: *See*—
Koch, Stanley D., and Greenfield. 3,079,363.
Greenfield, Jack R.: *See*—
Tooper, Edward B., and Greenfield. 3,079,937.
Greenhalgh, Colin W., to Ilford Ltd. Pyrazolone color coupler for color photography. 3,110,717, 11–12–63, Cl. 260—310.
Greenhalgh, Frank G.: *See*—
Fawcett, Sydney, and Greenhalgh. 3,088,897.
Long, Everett, Greenhalgh, and Hack. 3,087,884.
Greenhaus, Albert: *See*—
Knoll, David, and Greenhaus. 3,097,287.
Greenhaw, David O. Hydraulic jack. 3,080,147, 3–5–63, Cl. 254—2.
Greenhill, Hy, to Klemp Metal Grating Corp. Traffic lane dividers. 3,084,604, 4–9–63, Cl. 94—1.5.
Greenhouse, Harold, to Aladdin Industries, Inc. Ferrites having rectangular hysteresis loops and method for manufacture of same. 3,072,576, 1–8–63, Cl. 252—62.5.
Greening, John H., and J. F. Horgan, to Micromatic Hone Corp. Stack honing. 3,087,281, 4–30–63, Cl. 51—34.
Greenleaf, Francis D., and R. F. Meyer, to Servo Corp. of America. Pulse separator and repetition-rate discriminator. 3,074,019, 1–15–63, Cl. 328—110.
Greenleaf, Walter J. Cutting tool. 3,104,452, 9–24–63, Cl. 29—96.
Greenleaf, Walter J. Rotary cutting tool. 3,104,453, 9–24–63, Cl. 29—105.
Greenlee Bros. & Co.: *See*—
Carlson, Carl R., Hawkinson, Hedderich, and Jannenga. 3,081,976.
Hedderich, William E., Jannenga, Carlson, and Hawkinson. 3,078,535.
Greenlee, Eligya S. Fish lures. 3,079,722, 3–5–63, Cl. 43—42.06.
Greenlee, Sylvan O., and J. W. Pearce, to S. C. Johnson & Son. Polyepoxide polyesters of tetrahydrophthalic acid and glycols esterified with long-chain saturated aliphatic acids and preparation of same. 3,112,284, 11–26–63, Cl. 260—22.
Greenlee, Sylvan O., and J. W. Pearce, to S. C. Johnson & Sons. Drying compositions comprising polyepoxide polyesters of tetrahydrophthalic acid and aliphatic glycols modified with unsaturated monocarboxylic acid. 3,113,932, 12–10–63, Cl. 260—22.
Greenlees, William D. Electromagnetic radiation proof igniting device. 3,094,932, 6–25–63, Cl. 102—28.
Greenless, James C., Jr.: *See*—
Highberg, George A., Beaney, and Greenless. 3,088,746.
Greenlie, David G.: *See*—
Fazio, Charles P., Greenlie, Nelson, and Nickerson. 3,094,246.
Greeno, John R., and T. J. Dull. Helical wire trimming and forming mechanism. 3,090,417, 5–21–63, Cl. 140—92.7.
Greenough, Edward E. Fish preservation. 3,110,285, 11–12–63, Cl. 119—3.
Greensburg Concrete Block Co.: *See*—
Repasky, Joseph and G. 3,094,225.
Greenspan, Frank P., to FMC Corp. Composition comprising epoxy polybutadiene and limonene diepoxide. 3,073,792, 1–15–63, Cl. 260—29.8.
Greenspan, Frank P., and R. E. Light, Jr., to FMC Corp. Thermoset epoxy resin plasticized with a glycol etherester. 3,073,793, 1–15–63, Cl. 260—314.
Greenstadt, Joseph C., and D. F. Ziers, to Mfg. Specialties Co., Inc. Drapery apparatus. 3,098,520, 7–23–63, Cl. 160—346.
Greenstreet, Bill L., to United States of America, Atomic Energy Commission. Reactor moderator structure. 3,116,214, 12–31–63, Cl. 176—84.
Greenview Mfg. Co.: *See*—
Stemund, Herbert A. 3,074,092.
Greenwald Associates: *See*—
Greenwald, Harry. 3,083,563.
Greenwald, Bertrand W.: *See*—
Kerschner, Paul M., and Greenwald. 3,074,988.
Kerschner, Paul M., and Greenwald. 3,086,044.
Greenwald, Bertrand W., to Cities Service Research and Development Co. Irradiation of wax. 3,092,564, 6–4–63, Cl. 204—162.
Greenwald, Bertrand W., and A. K. Lazarus, to Cities Service Research and Development Co. Irradiation of hydrocarbon oils. 3,094,472, 6–18–63, Cl. 204—162.
Greenwald, H., Co., Inc.: *See*—
Greenwald, Harry. 3,099,341.
Greenwald, Harold A., to The Garrett Corp. Single valve refrigeration control. 3,070,974, 1–1–63, Cl. 62—197.
Greenwald, Harold A., to The Garrett Corp. Seal for refrigerant compressor. 3,094,271, 6–18–63, Cl. 230—116.
Greenwald, Harold L., to Rohm & Haas Co. Process for emulsification and demulsification by surfactants and the recovery thereof. 3,102,100, 8–27–63, Cl. 252—303.
Greenwald, Harold L., to Rohm & Haas Co. Recovery of oil from tar sands and other oil-bearing formations. 3,107,726, 10–22–63, Cl. 166—8.
Greenwald, Harold L., to Rohm & Haas Co. Recovery of oil by strip-mining. 3,108,059, 10–22–63, Cl. 208—11.
Greenwald, Harry, to Greenwald Associates. Theft proof lock assembly for coin operated machines. 3,083,563, 4–2–63, Cl. 70—417.
Greenwald, Harry, to H. Greenwald Co., Inc. Coin controlled timer system. 3,099,341, 7–30–63, Cl. 194—9.

Greenwalt, Elmer J., to Amsted Industries Inc. Railway coupler. 3,075,650, 1–29–63, Cl. 213—133.
Greenwell, Harvey F. Sieve shaker. 3,109,808, 11–5–63, Cl. 209—309.
Greenwell, Robert H., R. G. Kadleck, G. V. Richards, and B. E. Van Dyke, to Container Corp. of America. Carton for packaging frangible articles. 3,082,931, 3–26–63, Cl. 229—37.
Greenwood, Allan, to General Electric Co. Gettering arrangement for a vacuum circuit interrupter. 3,090,852, 5–21–63, Cl. 200—144.
Greenwood, Allan N., and T. H. Lee, to General Electric Co. Vacuum type circuit interrupter. 3,082,307, 3–19–63, Cl. 200—144.
Greenwood, Eugene C.: *See*—
Shaffer, Donald U., and Greenwood. 3,077,931.
Greenwood, Eugene C. Safety joint for oil well drilling string. 3,098,667, 7–23–63, Cl. 285—376.
Greenwood, Ivan A., Jr., to General Precision, Inc. Nuclear gyroscope. 3,103,623, 9–10–63, Cl. 324—.5.
Greenwood, Ivan A., Jr., J. R. Lowdenslager, and J. H. Simpson, Jr., to General Precision, Inc. Nuclear gyroscope. 3,103,624, 9–10–63, Cl. 324—.5.
Greer, Albert H., to Pfaudler Permutit Inc. Process for producing monochloromethyl methyl ether. 3,086,060, 4–16–63, Cl. 260—614.
Greer, Edward M., and J. R. Southland, to Greer Hydraulics, Inc. Gauge calibration unit. 3,077,102, 2–12–63, Cl. 73—4.
Greer Hydraulics, Inc.: *See*—
Greer, Edward M., and Southland. 3,077,102.
Greer, John H., and J. E. Fleming. Transportation unit carrying, loading, and unloading equipment. 3,073,466, 1–15–63, Cl. 214—515.
Greer, Leonard S., to Penn-Union Electric Corp. Electrical stirrup connector. 3,115,540, 12–24–63, Cl. 174—71.
Greer, Robert. Rotary shower brush. 3,085,269, 4–16–63. Cl. 15—21.
Greffe, André, M. Asselin, and F. Grandjacques, to Societe d'Electro-Chimie d'Electro-Metallurgie et des Acieries Electriques d'Ugine. Process for casting ingots in a mold containing slag. 3,096,559, 7–9–63, Cl. 22—209.
Greger, Paul, E. Doring, and R. Sommer, to Voigtlander A. G. Photographic camera with means for setting a diaphragm automatically in accordance with a range setting. 3,073,226, 1–15–63, Cl. 95—10.
Greger, Paul, and O. Fischer, to Voigtlander A.G. Adjustable mechanical scanning device for pointers of indicating meters. 3,087,380, 4–30–63, Cl. 88—23.
Greger, Paul, and E. Doring, to Voigtlander A.G. Camera with exposure meter and auxiliary light source. 3,087,398, 4–30–63, Cl. 95—10.
Gregg, David P., to Winston Research Corp. Scanning with light-conducting rod. 3,112,360, 11–26–63, Cl. 178—5.4.
Gregg, Joseph and W., and J. S. Pyle. Vehicle sub-frame having a caster axle. 3,112,935, 12–3–63, Cl. 280—81.
Gregg, Robert A.: *See*—
Graham, George T. E., and Gregg. 3,105,062.
Gregg, Robert A., and C. V. Tallman, to United States Rubber Co. Elastic polyurethane filamentary material and method of making same. 3,111,369, 11–19–63, Cl. 18—54.
Gregg, Robert Q.: *See*—
Barton, Hugh M., Jr. and Gregg. 3,078,756.
Gregg, William: *See*—
Gregg, Joseph and W., and Pyle. 3,112,935.
Grego, Peter, and R. G. Howell, to Corning Glass Works. Glass staining method and material. 3,079,264, 2–26–63, Cl. 106—34.
Gregoire, Jean A. Stretchers and the like hand-operable conveyances. 3,084,352, 4–9–63, Cl. 5—82.
Gregoire, Stephen E., to The Bendix Corp. Electrical connector. 3,088,089, 4–30–63, Cl. 339—94.
Gregoire, Stephen E., R. J. Davies, and S. A. Schroeder, to The Bendix Corp. High temperature lead assembly. 3,084,303, 4–2–63, Cl. 339—30.
Gregor, Frank J.: *See*—
Read, Robert C., and Gregor. 3,108,533.
Gregor, Wilhelm, to Licentia Patent-Verwaltungs-G.m.b.H. Fluid motor or pump. 3,108,543, 10–29–63, Cl. 103—162.
Gregorian, Razmie S., to W. R. Grace & Co. Blended polyethylene compositions of improved clarity and method of making same. 3,090,770, 5–21–63, Cl. 260—45.5.
Gregory, Benjamin F., to F. N. Maloof. Power transmission assembly. 3,113,471, 12–10–63, Cl. 74—701.
Gregory, Isuck A., deceased; L. Gregory, administratrix of said B. A. Gregory. Peanut digging machine. 3,106,250, 10–8–63, Cl. 171—61.
Gregory, Charles W., to Phillips Petroleum Co. Vehicle frame assembly. 3,098,656, 7–23–63, Cl. 280—106.
Gregory, Derek P.: *See*—
Williams, Keith R., and Gregory. 3,116,170.
Gregory, Gerrett W., and N. H. Tjiema, to Robr Corp. Plastic screw type temporary fastener for anchor type nut plate or the like. 3,102,447, 9–3–63, Cl. 85—1.
Gregory Industries, Inc.: *See*—
Baker, Elbert H., III. 3,110,379.
Flynn, Robert D., and Singleton. 3,094,607.
Mowry, Lorena J., and Jenkins. 3,096,429.
Gregory, James N. Method of underground fluid storage. 3,106,824, 10–15–63, Cl. 61—.5.
Gregory, James W. Playground device. 3,081,083, 3–12–63, Cl. 272—7.
Gregory, John W. G., and R. B. Owen, to United Kingdom Atomic Energy Authority. Apparatus for measuring the amount of uranium contamination on the outer surfaces of fuel elements. 3,085,156, 4–9–63, Cl. 250—83.6.
Gregory, Louie E. Hydraulically operated lazy tongs structure. 3,095,061, 6–25–63, Cl. 182—141.
Gregory, Lucille: *See*—
Gregory, Buck A. 3,106,250.
Gregory, Walter A., and H. L. Klopping, to E. I. du Pont de Nemours and Co. 3-alkyl (sulfonyl and sulfoxyl) acrylic acid esters and nitriles. 3,078,298, 2–19–63, Cl. 260—465.4.
Greif Bros. Cooperage Corp., The: *See*—
Carpenter, Herbert L., and H. L. Carpenter, Jr. 3,116,001.
Carpenter, Herbert L., Sr. 3,104,599.
Gaylord, Paul C. 3,072,517.
Greif, Donald S.: *See*—
Gold, Samuel, and Greif. 3,113,888.
Greif, Martin, to American Cyanamid Co. Prolonged release oral pharmaceutical preparations. 3,078,216, 2–19–63, Cl. 167—82.
Greif, Norman L.: *See*—
Abramson, Bernard, Greif, and Silson. 3,095,355.
Greig, Harold G., to Radio Corp. of America. Electrostatic printing. 3,076,722, 2–5–63, Cl. 117—37.
Greig, Harold G., to Radio Corp. of America. Method of electrophotography employing a heat glossing composition. 3,079,253, 2–26–63, Cl. 96—1.
Greig, Harold G., to Radio Corp. of America. Method of developing an electrostatic image. 3,079,272, 2–26–63, Cl. 117—37.
Greig, John H.: *See*—
Herrick, George Q., Fredrick, and Greig. 3,110,891.
Greil, Gerhart. Mountain cable-way cabins. 3,094,079, 6–18–63, Cl. 105—150.
Greiman, Benjamin F. Washing device. 3,103,226, 9–10–63, Cl. 134—94.
Greiner, Eugen, to Escher Wyss Aktiengesellschaft. Control device for adjusting a variable-pitch marine propeller 3,110,348, 11–12–63, Cl. 170—135.74.
Greiner, Helmut, to Georg Schafer Kugelfischer & Co. Antifriction bearing seals. 3,071,385, 1–1–63, Cl. 277—94.
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York, Douglas H., and Greiner. 3,109,821.
Greiner, Rudolf. Navigational aid. 3,112,874, 12–3–63, Cl. 235—61.
Greisl, Don H., R. E. Thompson, and W. M. Spurgeon, to United States of America, Air Force. Electropolishing of titanium base alloys. 3,087,874, 4–30–63, Cl. 204—140.5
Gremar Mfg. Co., Inc.: *See*—
Somerset, Sherman J. 3,104,145.
Grembecki, Elmer C., and A. J. Nelson. Means for cleaning the cylindrical surface of printing press blanket roller. 3,089,415, 5–14–63, Cl. 101—425.
Gremigni, Giuseppe: *See*—
Marchioli, Giorgio, and Gremigni. 3,099,061.
Gremillet, Jean. Machine for typewriting, stenotyping or teleprinting, enabling the simultaneous operation of several character and space keys, single or multiple. 3,073,427, 1–15–63, Cl. 197—7.
Greminger, George K., Jr., R. W. Swinehart, and M. A. Weaver, to The Dow Chemical Co. Wax-free paint remover. 3,094,491, 6–18–63, Cl. 252—171.
Gremmelmaier, Rolf, to Siemens-Schuckertwerke Aktiengesellschaft. Apparatus for pulling crystals from molten compounds. 3,074,785, 1–22–63, Cl. 23—273.
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Grendelmeier, Werner, to Paliz-Holding A.G. Patterning device for knitting machine. 3,075,373, 1–29–63, Cl. 66—60.
Grenell, Leland H. Roll bonded tubing fittings. 3,086,559, 4–23–63, Cl. 138—157.
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Grenier, Aime J., to Texas Instruments Inc. Electromagnetic switching mechanism. 3,099,725, 7–30–63, Cl. 200—87.
Grenier, Aimé J., to Texas Instruments Inc. Circuit making and breaking apparatus. 3,103,563, 9–10–63, Cl. 200—88.
Grenier, Maurice, to L'Air Liquide Societe Anonyme Pour l'Etude et l'Exploitation des Procedes Georges Claude. Process for degassing an ethylenic liquid. 3,073,129, 1–15–63, Cl. 62—28.
Greninger, Joseph E., and R. A. Lewis, to Henry Heide, Inc. Process of making gelled confections. 3,097,951, 7–16–63, Cl. 99—134.
Grenley, Dallas G.: *See*—
Townsend, Harold J., and Grenley. 3,097,178.
Grenon, Michel, L. Berthod, G. Cohen de Lara, M. Delachanal, and G. Halbronn, to Commissariat a l'Energie Atomique. Nuclear reactors. 3,074,874, 1–22–63, Cl. 204—193.2.
Grenon, William C. Film clipboard. 3,083,427, 4–2–63. Cl. 24—84.
Gres, Marcel E., to United States of America, Navy. Depth charge pistol. 3,115,832, 12–31–63, Cl. 102—7.
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Allen, Gorden S. J., Mawby, and Gresham. 3,096,394.
Allen, Gordon S. J., Mawby, and Gresham. 3,110,761.
Gresham, George S., to Reynolds Metals Co. Extruded snap lock joint cover for interlocking extrusions. 3,111,205, 11–19–63, Cl. 189—34.
Gresham, William F., and N. G. Merckling, to E. I. du Pont de Nemours and Co. Polymerization catalyst and process. 3,085,084, 4–9–63, Cl. 260—94.9.

Gresham, William F., and M. Hunt, to E. I. du Pont de Nemours and Co. Copolymers of olefines containing at least three carbon atoms. 3,093,624, 6–11–63, Cl. 260—88.2.

Gresko, Raymond S., to Bendix-Westinghouse Automotive Air Brake Co. Air starter safety system. 3,087,467, 4–30–63, Cl. 121—37.

Gresko, Stephen J., ½ to D. C. Shady. Shoe scraping device. 3,097,388, 7–16–63, Cl. 15—237.

Gress, Frank. Refuse can holder. 3,080,978, 312–63, Cl. 211—71.

Gressard, Charles F.: *See*—
Payerle, Frank S., and Gressard. 3,091,130.

Gressard, William M. Fish lure. 3,104,486, 9–24–63, Cl. 43—42.17.

Gresser, Herbert D., G. M. Grosof, L. R. Solon, and T. S. Shultz, to TRG, Inc. Photo-cauterizer with coherent light source. 3,096,767, 7–9–63, Cl. 128—395.

Gretag Aktiengesellschaft: *See*—
Ehrat, Kurt. 3,111,579.
Ehrat, Kurt. 3,111,658.

Greten, Ernst, to Bahre Metallwerk Kommanditgesellschaft. Apparatus for controlling the production of chipboards. 3,072,293, 1–8–63, Cl. 222—55.

Greten, Ernst, to Metallwerk Bahre K.G. Apparatus for producing wood particle boards. 3,098,781, 7–23–63, Cl. 156—373.

Greth, Arthur, and J. Reese, to Chemische Werke Albert. Fungicides and their production. 3,081,323, 3–12–63, Cl. 260—429.

Gretler, Albert C., and J. C. Wilcox, to Armour and Co. Sausage preparation and dyeing. 3,081,173, 3–12–63, Cl. 99—109.

Gretler, Albert C., and J. C. Wilcox, to Armour and Co. Method of manufacturing meat products. 3,092,499, 6–4–63, Cl. 99—109.

Grettve, Karl E. L., to Lilla Edets Pappersbruks Aktiebolag. Machine for winding a web into rolls. 3,087,687, 4–30–63, Cl. 242—56.

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Gretz, Charles, to L. H. Mellin, Inc. Rapidly retractable pencil mechanism. 3,106,908, 10–15–63, Cl. 120—18.

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Greuet, Pierre, to North American Philips Co., Inc. High-frequency energy branching circuit. 3,103,638, 9–10–63, Cl. 333—9.

Greunke, Orville V., to United Aircraft Corp. Capacitance sensing circuit. 3,100,879, 8–13–63, Cl. 331—135.

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Regel, Erik, Wegler, Grewe, and Kaspers. 3,097,130.
Wiegand, Christian, and Grewe. 3,097,132.

Grey, Hugh M., Jr., and H. E. Coley. Automatic nailer. 3,104,395, 9–25–63, Cl. 1—6.

Griaznov, Levgueny M.: *See*—
Barke, Vladimir N., Blitstein, Griaznov, Livshits, Mechetner, Polazov, and Yakhimovich. 3,094,814.

Grib, Boris F., to Philmon Laboratories, Inc. Transistorized tuning fork oscillator. 3,116,466, 12–31–63, Cl. 331—116.

Gribben, Bruce D., and W. C. Brown, to General Motors Corp. Vacuum control assembly for distributors. 3,072,758, 1–8–63, Cl. 200—19.

Gribble, Joseph J., to Square D Co. Connector. 3,081,507, 3–19–63, Cl. 24—125.

Gribble, Virgie S. Carriage holder. 3,086,664, 4–23–63, Cl. 214—1.

Griebe, Erwin S. Terminal station and system and method. 3,074,082, 1–22–63 Cl. 9—8.

Griebel, Herbert: *See*—
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Grieco, Angelo M. Children's seat for use in vehicles. 3,103,385, 9–10–63, Cl. 297—253.

Grief Bros. Cooperage Corp., The: *See*—
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Griehl, Wolfgang, to Inventa, A.G. fuer Forschung und Patentverwertung. Process for the production of stabilized polyesters. 3,115,475, 12–24–63, Cl. 260—22.

Griem, Milton E., to Milprint, Inc. Compartmented container arranged to simultaneously heat food in the various sections at differing heat rates. 3,079,912, 3–5–63, Cl. 126—390.

Griem, Milton E., to Milprint, Inc. Breather filter for flexible boil-in and sterilization packages. 3,088,255, 5–7–63, Cl. 53—14.

Griesbach, Fernd: *See*—
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Griesemer, Douglas E., and M. R. Weingarten, to Radio Corp. of America. Apparatus for painting tubular surfaces. 3,108,023, 10–22–63, Cl. 118—215.

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Grieshaber, Emil W., to Minnesota Mining & Mfg. Co. Method of copying. 3,103,881, 9–17–63, Cl. 101—149.2.

Griesmer, James H., and E. G. Wagner, to International Business Machines Corp. Cryogenic adder. 3,079,083, 2–26–63, Cl. 235—176.

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Griff, Louis: *See*—
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Griffen, Ralph R., to Holley Carburetor Co. Fuel supply system including level maintaining float valve means. 3,073,378, 1–15–63, Cl. 158—38.

Griffen, Ralph R., to Holley Carburetor Co. Centrifugal weight assembly. 3,110,186, 11–12–63, Cl. 73—535.

Griffen, Thomas J., to General Motors Corp. Indicator mechanism. 3,084,659, 4–9–63, Cl. 116—124.

Griffin, George O., and E. S. Hanshaw, to Trurun, Inc. Fabrication of wear resistant abrasive cutting blades. 3,092,094, 6–4–63, Cl. 125—15.

Griffin, Harry M., and A. R. Savu, to McDonnell Aircraft Corp. Exothermic heated metal for heat treating and forming. 3,074,828, 1–22–63, Cl. 148—13.1.

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Griffin, Joseph D. 3,103,488.

Griffin Industries, Inc.: *See*—
Van Etten, Arnold T. 3,116,238.

Griffin, Joseph D., to H. E. and S. C. Griffin. Process and apparatus for the treatment of organically polluted waste. 3,103,488, 9–10–63, Cl. 210—6.

Griffin, Lindsay I., Jr., K. E. Draeger, and W. J. Braulick, to Esso Research and Engineering Co. Hydraulic isomerization with moving bed containing aluminum halides. 3,087,977, 4–30–63, Cl. 260—683.7.

Griffin, Roger L., to Swift & Co. Stacking apparatus. 3,081,081, 3–12–63, Cl. 271—64.

Griffin, Searcy F., and S. D. Turner, Jr., to Varo, Inc. Electronic selecting systems. 3,100,819, 8–13–63, Cl. 179—15.

Griffin, Sylvia C.: *See*—
Griffin, Joseph D. 3,103,488.

Griffin, Waldo R. Elevating wheel chair seat. 3,076,678, 2–5–63, Cl. 297—339.

Griffin, William F., to Radio Corp. of America. Electron discharge tube and its method of fabrication. 3,101,428, 8–20–63, Cl. 313—252.

Griffin, William F., and J. F. Miller, to Radio Corp. of America. Method of and apparatus for spraying cathodes with emissive materials. 3,082,115, 3–19–63, Cl. 117—38.

Griffin, William P., Jr.: *See*—
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Griffing, Robert S., to The Garrett Corp. Surge control device for centrifugal compressors. 3,079,121, 2–26–63, Cl. 251—28.

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Griffith, Alan A. Jet lift vertical take-off aircraft. 3,073,549, 1–15–63, Cl. 244—12.

Griffith, Alan A., to Rolls-Royce Ltd. Supersonic aircraft. 3,076,625, 2–5–63, Cl. 244—117.

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Griffith, George L., G. A. Lyte, and F. B. Wells, to Trojan Powder Co. Detonatable cartridges having insensitive explosive cores. 3,082,689, 3–26–63, Cl. 102—24.

Griffith, George L., and F. B. Wells, to Trojan Powder Co. Aqueous nitrostarch explosive slurries. 3,083,127, 3–26–63, Cl. 149—59.

Griffith, George L., and G. A. Lyte, to Trojan Powder Co. Pentolite-dipped cap wells in seismic cans. 3,097,601, 7–16–63, Cl. 102—23.

Griffith, George L., Jr. Expansible explosive unit for use in wet boreholes. 3,087,425, 4–30–63, Cl. 102—24.

Griffith, James R. Alkoxide catalysts for urethane formation. 3,077,494, 2–12–63, Cl. 260—471.

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Buxton, Jarvis C. 3,095,944.

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Griffiths, Frank, K. C. Waldron, and R. Rajan, to The Austin Motor Co. Ltd. Production of cushioned seats. 3,112,987, 12–3–63, Cl. 18—59.

Griffiths, Jack, and W. G. Harland, to The Cotton Silk and Man-Made Fibres Research Assn. Apparatus for flash aging printed fabrics. 3,104,954, 9–24–63, Cl. 34—85.

Griffiths, Kenneth F., ½ to J. L. Kerby. Method and apparatus for treating solid particles with liquid. 3,083,126, 3–26–63, Cl. 134—25.

Griffiths, Kenneth F. Method for producing the refractory metals hafnium, titanium, vanadium, silicon, zirconium, thorium, columbium and chromium. 3,085,871, 4–16–63, Cl. 75—84.1.

Griffiths, Kenneth F. Method for producing the refractory metals hafnium, titanium, vanadium, silicon, zirconium, thorium, columbium and chromium. 3,085,872, 4–16–63, Cl. 75—84.1.

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Griggs, John O., W. L. Ross, and A. R. Fraser, to Carb-Rite Co. Refractory composition and process of making same. 3,086,876, 4–23–63, Cl. 106—61.

Griggs, William H., and R. D. Zaffrann, to Eastman Kodak Co. Method of manufacturing paper from partially esterified cellulose fibers. 3,096,231, 7–2–63, Cl. 162—157.

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Kerrigan, James E., and Grikis. 3,097,772.

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Grimes, William W., to The Standard Oil Co. Catalytic reformer gas handling system. 3,085,851, 4–16–63, Cl. 23—2.

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Grimm, Otto, to Rohm & Haas G.m.b.H. Method of unhairing skins and hides. 3,103,469, 9–10–63, Cl. 195—6.

Grimmeiss, Hermann G.: *See*—
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Grimmeiss, Hermann G., and H. Koelmans, to North American Philips Co., Inc. Blocking-layer photo-electric cell. 3,092,725, 6–4–63, Cl. 250—212.

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Grimmer, George G., and H. B. Schramm, deceased (by J. Schramm, executrix), to Otis Engineering Corp. Well tools. 3,100,452, 8–13–63, Cl. 103—232.

Grimsey, Charles F., Jr., to United Aircraft Corp. Zero thermal expansion device. 3,077,958, 2–19–63, Cl. 189—34.

Grimshaw, Charles, to General Electric Co. Thermally responsive switch. 3,100,827, 8–13–63, Cl. 200—113.

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Grintz, Joseph J. Mixing and dispensing apparatus. 3,102,004, 8–27–63, Cl. 23—252.

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Bourquin, Jean-Pierre, Brack, Schenker, Griot, and Steffen. 3,100,175.

Griot, Rudolf, and T. Wagner-Jauregg, to Siegfried Aktiengesellschaft. Process for preparing novel cyclic amines. 3,094,534, 6–18–63, Cl. 260—313.

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Grise, Frederick G. J., 50% to L. Grise, Jr., trustee, and 50% to N. S. Blodgett. Earth mover load applied to facilitate gear shifting. 3,097,441, 7–16–63, Cl. 37—129.

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Grise, Frederick G. J. 3,097,441.

Grisel, Denis W.: *See*—
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Griset, Ernest J., T. L. Reissmann, and J. Nichols, to Ethicon, Inc. Method of producing a collagen strand. 3,114,593, 12–17–63, Cl. 18—54.

Griset, Ernest J., Jr., to Ethicon, Inc. Method of forming a round collagen strand. 3,114,235, 12–17–63, Cl. 57—157.

Griset, Ernest J., Jr., T. L. Reissmann, and J. Nichols, to Ethicon, Inc. Collagenous article and the manufacture thereof. 3,114,372, 12–17–63, Cl. 128—335.5.

Grishman, Simon, to William Glukin & Co., Inc. Girdles. 3,108,600, 10–29–63, Cl. 128—548.

Grishman, Simon, to William Glukin & Co., Inc. Girdle with relatively movable front waistband panels. 3,112,751, 12–3–63, Cl. 128—521.

Grisier, Carl A., Jr., to General Electric Co. Auxiliary unit drive mechanism. 3,071,227, 1–1–63, Cl. 192—101.

Grisley, Daniel W., Jr., to Monsanto Chemical Co. Methods for preparing salicylic acid esters. 3,076,017, 1–29–63, Cl. 260—474.

Griss, Charles H., and M. F. Brillhart, to Libbey-Owens-Ford Glass Co. Method and apparatus for optical inspection of glass sheets. 3,081,665, 3–19–63, Cl. 88—14.

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Griswold, Augustus W.: *See*—
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Griswold, Charles J., Jr., and W. H. West, to General Motors Corp. Door hinge assembly. 3,080,602, 312–63, Cl. 16—146.

Griswold, David E., to D. G. Griswold. Differential pressure control system for centrifugal pumps. 3,087,430, 4–30–63, Cl. 103—11.

Griswold, Donald G.: *See*—
Griswold, David E. 3,087,430.

Griswold, Frank B., and W. K. Banister. Safety shoe and instep guard therefor. 3,102,347, 9–3–63, Cl. 36—72.

Griswold, Hector W., to Johnson & Johnson. Method of producing apertured nonwoven fabric. 3,081,512, 3–19–63, Cl. 28—72.

Griswold, Hector W., to Johnson & Johnson. Foraminous nonwoven fabric. 3,081,514, 3–19–63, Cl. 28—78.

Griswold, Hector W., and G. W. Pearce, to Johnson & Johnson. Method and apparatus for producing apertured nonwoven fabric. 3,081,500, 3–19–63, Cl. 19—161.

Griswold, Hector W., and G. W. Pearce, to Johnson & Johnson. Foraminous nonwoven fabric. 3,081,515, 3–19–63, Cl. 28—78.

Griswold, Nelson D., to The Dow Chemical Co. Variable volume pumping apparatus. 3,102,484, 9–3–63, Cl. 103—38.

Griswold, Nelson D., to The Dow Chemical Co. Variable output pumping apparatus. 3,102,485, 9–3–63, Cl. 103—38.

Griswold, Nelson D., to The Dow Chemical Co. Variable volume pumping means. 3,102,486, 9–3–63, Cl. 103—38.

Griswold, Nelson D., to The Dow Chemical Co. Pumping apparatus. 3,102,487, 9–3–63, Cl. 103—38.

Griswold, Nelson D., to The Dow Chemical Co. Variable volume pumping apparatus. 3,103,173, 9–10–63, Cl. 103—38.

Griswold, Nelson D., to The Dow Chemical Co. Variable output pumping means. 3,103,890, 9–17–63, Cl. 103—38.

Griswold, Roger W., II. Sweptwing jet flow control means. 3,100,094, 8–6–63, Cl. 244—42.

Griswold, Roger W., II. Airfoil jet reaction control means. 3,102,704, 9–3–63, Cl. 244—42.

Griswold, Stanley M., to United Shoe Machinery Corp. Methods of making flocked solvent activatable stiffening and shoe lining materials. 3,073,715, 1–15–63, Cl. 117—25.
Griswold, Stanley M., to United Shoe Machinery Corp. Sheet material comprising fibers and plastic particles. 3,102,836, 9–3–63, Cl. 162—108.
Griswold, Stanley M., to United Shoe Machinery Corp. Stiffener material for shoes. 3,102,837, 9–3–63, Cl. 162—108.
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Grob, Cyril, and O. Schler, to Ciba Corp. New cyclic diamines and process for their manufacture. 3,093,631, 6–11–63, Cl. 260—239.
Grob, Cyril, and E. F. Jenny, to Ciba Corp. Unsaturated aliphatic amino-diols. 3,098,097, 7–16–63, Cl. 260—584.
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Grobe, Ralph E., and C. B. Allen, to Kimberly-Clark Corp. Papermaking machine. 3,077,629, 2–19–63, Cl. 15—256.5.
Groce, Arlie L. Minnow traps. 3,082,564, 3–26–63, Cl. 43—102.
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Groenewegen, Johannes B., to Consolidated Electrodynamics Corp. Switchable drive system. 3,079,056, 2–26–63, Cl. 226—178.
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Groff, Emory L., to Poor & Co. Rail joint. 3,111,264, 11–19–63, Cl. 238—14.5.
Groff, Harold M. Waste container. 3,115,986, 12–31–63, Cl. 220—63.
Groff, James C., to Astro Science Corp. Refrigeration system with controls. 3,090,210, 5–21–63, Cl. 62—197.
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Groh, Edward F., to United States of America, Atomic Energy Commission. Fastener for an assembly of plates. 3,101,309, 8–20–63, Cl. 204—193.2.
Groh, Edward F., and D. H. Lennox, United States of America, Atomic Energy Commission. Assembly of parallel plates. 3,086,935, 4–23–63, Cl. 204—193.2.
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Wolfe, Roger W., and Grohe. 3,112,423.
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Gromacki, Richard E., and K. C. Frisch, to Wyandotte Chemicals Corp. Polyurethane foams and process for preparing same. 3,112,281, 11–26–63, Cl. 260—2.5.
Gromme, Carl F. Internal combustion engine. 3,071,123, 1–1–63, Cl. 123—79.
Grondahl, Vincent J., and F. W. Johnson, to Collins Radio Co. Balanced control cam for a driven vacuum variable capacitor. 3,101,622, 8–27–63, Cl. 74—89.
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Gronvold, George B. Gas turbine engines. 3,109,286, 11–5–63, Cl. 60—39.34.
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Groot, John K., to Wilson Athletic Goods Mfg. Co., Inc. Upper arm pad. 3,088,115, 5–7–63, Cl. 2—2.
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Stolar, Gerard, Gropp, and Higley. 3,095,537.
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Gross, David R., to F. L. Rahal. Food flavor recovery. 3,071,474, 1–1–63, Cl. 99—105.
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Gross, Franz, to Siemens and Halske Aktiengesellschaft. Delay line for traveling wave tubes. 3,099,767, 7–30–63, Cl. 315—3.6.
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Gross, George E. Method for diminishing wave heights. 3,103,788, 9–17–63, Cl. 61—6.
Gross, George E. Apparatus for conditioning inhalant gases and vapors. 3,107,669, 10–22–63, Cl. 128—142.
Gross, George E. Fluid handling device. 3,108,146, 10–22–63, Cl. 261—24.
Gross, George E., to Perma-Pur, Inc. Oscillating and aerating ice and water control. 3,109,288, 11–5–63, Cl. 61—1.
Gross, Helmut, and K. Kleemann, to G. M. Pfaff, AG. Cutting knife control mechanism for sewing machines and the like. 3,074,303, 1–22–63, Cl. 112—125.
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Gross, John. Portable tool for resurfacing valve seats. 3,110,137, 11–12–63, Cl. 51—190.
Gross, Lawrence R. Humidifier spray unit for furnace. 3,102,531, 9–3–63, Cl. 126—113.
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Gross, Richard, H. Hertel, R. Mohr, and W. Staab, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Complex metal compounds and water-insoluble azo-dyestuffs and a process for their manufacture. 3,071,571, 1–1–63 Cl. 260—151.
Gross, Richard, H. Hertel, R. Mohr, and K. Schilling, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning. Complex metal compounds of water-insoluble azodyestuffs. 3,073,813, 1–15–63, Cl. 260—146.
Gross, Richard, H. Hertel, W. Kirst, R. Mohr, and W. Staab, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning. Water-insoluble metalliferous azo-dyestuffs and process for preparing them. 3,084,151, 4–2–63, Cl. 260—146.

Gross, Richard, H. Hertel, R. Mohr, and W. Staab, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Complex metal compounds of water-insoluble azo-dyestuffs. 3,086,004, 4–16–63, Cl. 260—151.
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Gross, Richard, H. Hertel, R. Mohr, and W. Staab, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning. Water-insoluble metalliferous azo-dyestuffs and a process for their manufacture. 3,116,276, 12–31–63, Cl. 260—146.
Gross, Richard, H. Hertel, W. Kirst, R. Mohr, and W. Staab, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning. Water-insoluble azo-dyes produced from 2-aminoarylbenztriazole-1-oxide diazo components. 3,116,277, 12–31–63, Cl. 260—146.
Gross, Richard, H. Hertel, and R. Mohr, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning. Water-insoluble azo-dyestuffs. 3,116,278, 12–31–63, Cl. 260—146.
Gross, Robert D. Game involving manipulation of a suspended object by bodily movements of cooperating players. 3,104,877, 9–24–63, Cl. 273—95.
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Grosskopf, Karl, to O. H. Drager. Process for detecting nitrogen dioxide in gases. 3,106,458, 10–8–63, Cl. 23—232.
Grosskopf, Karl, to O. H. Drager. Reagent for detection of arsenic hydride or phosphorus hydride. 3,112,998, 12–3–63, Cl. 23—254.
Grosskopf, Karl, to O. H. Dräger. Carbon monoxide detecting device. 3,112,999, 12–3–63, Cl. 23—254.
Grossman, Aaron, and F. Transport, to Donrico Inc. Shockproof or cushioned carton. 3,073,683, 1–29–63, Cl. 229—14.
Grossman, Abraham. Dual movable sash window. 3,106,754, 10–15–63, Cl. 20—52.
Grossman, Abraham. Fixed and movable sash window construction. 3,111,726, 11–26–63, Cl. 20—52.
Grossman, Harold, to Hassenfeld Bros., Inc. Lead pencil and method of manufacture. 3,086,903, 4–23–63, Cl. 156—273.
Grossman, Harold. Door and casing for shower stall or the like. 3,111,208, 11–19–63, Cl. 189—46.
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Grossmann, Samuel W., to Allied Chemical Corp. Production of urea from ammonia and CO_2. 3,072,721, 1–8–63, Cl. 260—555.
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Grossmann, Ugo C., to Sulzer Freres, S.A. Method for purifying gases. 3,083,545, 4–2–63, Cl. 62—34.
Grossmann, Walter G., to Autokaple A-G. Apparatus for optically printing photographic negatives. 3,102,450, 9–3–63, Cl. 88—24.
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Grove, Herbert D., Jr., and B. L. Satterley, to Monsanto Chemical Co. Gauze catalyst support. 3,073,685, 1–15–63, Cl. 23—288.
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Grove, Marvin H. Gate valve construction. 3,085,782, 4–16–63, Cl. 251—124.
Grove, Marvin H. Method for the manufacture of valve bodies. 3,089,224, 5–14–63, Cl. 29—157.1.
Grove, Marvin H. Valve construction. 3,089,678, 5–14–63, Cl. 251—327.
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Growald, Martin C., 15% to A. C. Nolte, Jr. Self-rupturing container. 3,091,053, 5–28–63, Cl. 46—116.
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Goldman, Marvin. 3,095,852.
Growich, John A., Jr., and N. Deduck, to American Cyanamid Co. Tetracycline fermentation. 3,092,556, 6–4–63, Cl. 195—80.
Grow-Rite Corp.: *See*—
De Vos, Marcel O. 3,089,709.
De Vos, Marcel O. 3,097,885.
De Vos, Marcel O. 3,111,342.
Grubb, Gunnar A., to Electrolux, Aktiebolaget. Absorption refrigeration. 3,080,729, 3–12–63, Cl. 62—497.
Grubb, Gunnar A., to Electrolux, Aktiebolaget. Absorption refrigeration apparatus. 3,093,978, 6–18–63, Cl. 62—236.

Grubb, Henry M.: *See*—
Ehrhardt, Charles H., Moeller, and Grubb. 3,103,277.

Grubb, Kenneth W., to The Originators Engineering and Development Co. Compensated key slot building construction. 3,082,492, 3–26–63, Cl. 20—92.

Grube, Wilhelm. Suspension railway. 3,101,678, 8–27–63, Cl. 104—95.

Grube, Wolfgang O.: *See*—
Rossetto, Louis, Squassoni, and Grube. 3,106,880.

Grubelic, Nicholas. Moistening device for envelopes, stamps and the like. 3,080,848, 3–12–63, Cl. 118—249.

Grubelich, Matthew J., to Bell Telephone Laboratories, Inc. Continuity device. 3,074,520, 1–22–63, Cl. 189—36.

Gruber, Bernard A., to Monsanto Chemical Co. Process for the production of metal borides. 3,096,149, 7–2–63, Cl. 23—14.

Gruber, Bernard A., R. A. Ruehrwein, and F. V. Williams, to Monsanto Chemical Co. Boron phosphide articles and coatings. 3,090,703, 5–21–63, Cl. 117—127.

Gruber, Emil: *See*—
Pinkwart, Dieter, Schneider, Strittmatter, and Gruber. 3,090,732.

Gruber, Francis E., C. A. Johnson, and A. D. Verlo, to Standard Packaging Corp. Cigarette lighters. 3,088,301, 5–7–63, Cl. 67—7.1.

Gruber, Josef, and K. Wintersberger, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Process for the production of acicular gamma-iron (II) oxide. 3,075,919, 1–29–63, Cl. 252—62.5.

Gruber, Leslie G. Casket adjustment means. 3,083,436, 4–2–63, Cl. 27—12.

Gruber, Thomas J., to Eaton Mfg. Co. Broken discharge line indicator. 3,088,500, 7–23–63, Cl. 137—456.

Gruber, Warren M., to Tinius Olsen Testing Machine Co. Materials testing equipment. 3,076,603, 2–5–63, Cl. 235—179.

Gruber, Wilhelm, to Stahlgruber Otto Gruber & Co. Tire patch. 3,101,764, 8–27–63, Cl. 152—367.

Gruber, Wilhelm. Instrument for repairing tubeless tires. 3,111,048, 11–19–63, Cl. 81—15.2.

Grubitsch, Heribert, to FMC Corp. Process for storage of chlorine dioxide. 3,084,995, 4–9–63, Cl. 23—152.

Grudoski, Daniel A., to Blazon, Inc. Play swing. 3,088,734, 5–7–63, Cl. 272—85.

Gruen, Harold: *See*—
Zechter, Sol, Gruen, and Golden. 3,111,622.

Gruen, Henry. Airplane construction embodying reduced aerodynamic drag and isolated fuel compartments. 3,082,981, 3–26–63, Cl. 244—130.

Gruenewaelder, Lou A. Face masks. 3,101,709, 8–27–63, Cl. 128—146.

Gruenewald, Frederick P. Charging device for charging pressurized containers. 3,106,946, 10–15–63, Cl. 141—20.

Gruenhagen, Richard H., to The Dow Chemical Co. Method of control of fungal organisms with phenoxathiin-10-oxide compounds. 3,071,506, 1–1–63, Cl. 167—33.

Gruenz, Otto O., Jr., to Bell Telephone Laboratories, Inc. Number comparison and display circuits. 3,090,942, 5–21–63, Cl. 340—146.2.

Gruere, Charles. Large diameter earth drill. 3,092,190, 6–4–63, Cl. 175—173.

Gruetjen, Frederick A., to A. O. Smith Corp. Brazing fixture. 3,094,958, 6–25–63, Cl. 113—133.

Gruetzman, Stanley A. Wood core sample cutter. 3,110,184, 11–12–63, Cl. 73—425.

Grumman Aircraft Engineering Corp.: *See*—
Albertson, Charles P., and Strittmatter. 3,093,998.
Boccaccio, Anthony A., and Kolodzeski. 3,114,201.
Bradshaw, Robert W., Fitzpatrick, and Tenfel. 3,083,995.
Coleman, William J., and De Santo. 3,071,705.
Erlandsen, Oscar. 3,080,176.
Erlandsen, Oscar. 3,097,877.

Grumann, Felix J. Memory drum for coin operated record player. 3,103,824, 9–17–63, Cl. 74—116.

Grün, Gustav. Method and apparatus for mixing pulverulent or fine-grain material. 3,097,828, 7–16–63, Cl. 259—4.

Grun, Hans-Hellmut: *See*—
Köhler, Rudolf, Grun, and Koeche. 3,092,619.

Grünbaum, Heinrich. Arrangement for the automatic coaxial clamping of a sleeve over a shaft. 3,073,632, 1–15–63, Cl. 287—52.09.

Grundel, Willy, to G. Wagner. Method of producing an endless typewriter ribbon. 3,111,441, 11–19–63, Cl. 156—157.

Grundig, Max: *See*—
Mayer, Walter. 3,086,077.
Sinkewitsch, Leonid. 3,111,281.
Wunderlich, Gerhard, and Sippel. 3,096,432.

Grundmann, Christoph J.: *See*—
Ottmann, Gerhard F., and Grundmann. 3,088,933.

Grundmark, Bengt, to Allmänna Svenska Elektriska Aktiebolaget. Lightning arrester with resilient sealing lid. 3,096,461, 7–2–63, Cl. 315—36.

Grundon, John L. Turntable structure. 3,075,614, 1–29–63, Cl. 184—6.

Grundvig, Reubin G.: *See*—
Heller, Leon A., and Grundvig. 3,072,433.

Grüneberg, Gerhard, M. Jung, and H. Spengler, to Accumulatoren-Fabrik Aktiengesellschaft, and Siemens-Schuckert-Werke Aktiengesellschaft. Process for operating fuel cells. 3,082,282, 3–19–63, Cl. 136—86.

Gruner, Edward C.: *See*—
Maher, James B., and Gruner. 3,078,686.

Gruner, Heinz E. R., to Bausch & Lomb Inc. Light sensing method and apparatus therefor. 3,114,283, 12–17–63, Cl. 88—24.

Grunert, Erhard, to Pechiney, Compagnie de Produits Chimiques et Electrometallurgiques. Process for eliminating titanium for products obtained by the carbothermic reduction of aluminum ores. 3,083,093, 3–26–63, Cl. 75—63.

Grunewald, Heinz, to E.F.-Textilien- & Apparate-Bau- & Vertriebsgesellschaft, Ellers & Witt K.G. Washing apparatus. 3,071,954, 1–8–63, Cl. 68—27.

Grünke, Erich: *See*—
Forster, Jakob, and Grünke. 3,089,444.

Grunning, Sven E. Device for indicating the bisector of an angle. 3,087,249, 4–30–63, Cl. 33—91.

Grunsweig & Hartmann A.G.: *See*—
Eberle, Hans. 3,114,671.

Grunvogel, Vinzenz A., to Muller & Co. K.G. Utensil washing machine with washing equipment placed in the bottom of the receptacle, especially tumble spray apparatus. 3,108,606, 10–29–63, Cl. 134—57.

Grunwald, John J., to MacDermid, Inc. Method of and composition for producing electroless black nickel coatings. 3,097,117, 7–9–63, Cl. 148—6.14.

Grunwald, Wolfgang: *See*—
Balli, Heinz, Leuchs, Hehl, Grunwald, and Schmidt. 3,082,114.
Mard, Roland I. E., and Grunwald. 3,074,110.
Stilz, Walter, Pommer, Gehm, Schmidt, Mertens, Hehl, and Grunwald. 3,076,020.

Grunwaldt, Gottfried: *See*—
Rusche, Georg, and Grunwaldt. 3,092,777.

Grunwaldt, Gottfried, to North American Philips Co., Inc. Transistor-battery supply for gas-discharge tubes. 3,084,283, 4–2–63, Cl. 315—205.

Grunzke, Marvin E., to United States of America, Air Force. Liquid dispensing device. 3,089,463, 5–14–63, Cl. 119—71.

Gruodis, Algirdas J., to International Business Machines Corp. Esaki diode memory with diode coupled readout. 3,107,345, 10–15–63, Cl. 340—173.

Grupp, Edward L. Lawn edging and trimming tool. 3,087,295, 4–30–63, Cl. 56—25.4.

Grupp, Heinrich, to Otra Ringlaufer G.m.b.H. Portable apparatus for applying travelers to the ring of a spinning or twisting frame. 3,106,770, 10–15–63, Cl. 29—207.

Gruss, George A., L. E. McKean, and D. L. Zelters, to American Machine & Foundry Co. Bowling ball handling mechanism. 3,098,653, 7–23–63, Cl. 273—43.

Grust, Gerhard, and R. Kaiser, to Telefunken G.m.b.H. Method of producing low-capacitance barrier layers in semiconductor bodies. 3,116,174, 12–31–63, Cl. 148—1.5.

Gruter, Bernhard. Spiral pipe welding machine. 3,090,336, 5–21–63, Cl. 113—35.

Grutsch, James F.: *See*—
Austin, Robert J., Grutsch, and Mallatt. 3,101,321.

Gruver, Jerry T.: *See*—
Kraus, Gerard, and Gruver. 3,084,141.

Gruver, Jerry T., to Phillips Petroleum Co. Method of curing polymeric materials and product thereof. 3,097,193, 7–9–63, Cl. 260—85.1.

Gruver, John H., to Addressograph-Multigraph Corp. Printing machines. 3,092,021, 6–4–63, Cl. 101—216.

Gruver, Walter E., Jr.: *See*—
Moore, William H., and Gruver. 3,095,300.

Gryctko, Carl E., and K. Ball, to I-T-E Circuit Breaker Co. Thermal magnetic current by-pass. 3,096,413, 7–2–63, Cl. 200—88.

Gryk, Leon, to Royal McBee Corp. Matrix encoders. 3,088,103, 4–30–63, Cl. 340—347.

Grzegorczyk, Daniel E., to General Motors Corp. Potting mechanism. 3,081,492, 3–19–63, Cl. 18—30.

Gsching, Wilhelm, to J. M. Voith, G.m.b.H. Maschinenfabrik. Drive with variable prime mover and fluid transmission with continuously filled fluid circuit. 3,070,353, 2–5–63, Cl. 74—645.

Gschwind, Charles L.: *See*—
Dever, Lewis A., and Gschwind. 3,084,899.

Guala, Angelo. Valved bottle closure. 3,084,822, 4–9–63, Cl. 215—21.

Guala, Angelo. Bottle closure. 3,115,264, 12–24–63, Cl. 215—76.

Guanche, Guarino D. Safety clasp. 3,092,885, 6–11–63, Cl. 24—230.

Guanella, Gustav, to Patelhold Patentverwertungs- & Elektro-Holding A.-G. Apparatus for camouflaging communication signals. 3,077,518, 2–12–63, Cl. 179—1.5.

Guanella, Gustav, to Brown, Boveri & Cie. Aktiengesellschaft. Device for producing an impulse sequence in dependence on the variation of a primary current. 3,085,161, 4–9–63, Cl. 307—88.

Guardian Electric Mfg. Co.: *See*—
Wright, William W. 3,085,139.

Guarino, Louis S.: *See*—
Beck, Cyrus, and Guarino. 3,077,575.
Corson, Alan S., Beck, and Guarino. 3,091,962.

Guarino, Louis S., and P. G. Holt, to United States of America, Navy. Vertical display. 3,094,971, 6–25–63, Cl. 116—129.

Guarino, Russell S.: *See*—
Harvel, Loyd F., and Guarino. 3,079,724.

Guarnaschelli, Stephen, to Atlas Corp. Electrical distribution system. 3,098,115, 7–16–63, Cl. 174—102.

Guarnaschelli, Stephen, to Atlas Corp. Rotary swivel fluid coupling. 3,107,107, 10–15–63, Cl. 285—275.

Guarnaschelli, Vincent. Means for increasing fuel efficiency in internal combustion engines. 3,112,741, 12–3–63, Cl. 123—122.

Guarnaschelli, Vincent, and E. F. Rauch. Fuel pump adjusters. 3,080,825, 3–12–63, Cl. 103—150.

Guarraia, Charles, to Combustion Engineering, Inc. Water-cooled panels for rear pass enclosure. 3,103,207, 9–10–63, Cl. 122—477.

Guastavino, Antonio. Process and apparatus for controlling register on rotogravure printing machines. 3,084,621, 4–9–63, Cl. 101—181.

Gubbels, Christoph. Hook fastener. 3,095,626, 7–2–63, Cl. 24—225.

Gubbiotti, Lino, to Società Variatori Gubbiotti S.r.L. Mechanically operating continuous speed variator. 3,097,538, 7–16–63, Cl. 74—112.

Gubela, Hans: *See*—
Nier, Erich-Arthur. 3,100,172.

Gubelmann, William S., deceased, by W. S. Gubelmann, executor, to Realty & Industrial Corp. Key controls for calculating machines. 3,115,300, 12–24–63, Cl. 235—63.

Gubelmann, Walter S.: *See*—
Gubelmann, William S. 3,098,609.
Gubelmann, William S. 3,100,603.
Gubelmann, William S. 3,115,300.
Gubelmann, William S. and Walter S. 3,090,553.

Gubelmann, William S., to Realty and Industrial Corp. Register decimal markers. 3,082,944, 3–26–63, Cl. 235—61.

Gubelmann, William S., deceased (Walter S. Gubelmann, executor); said Walter S. Gubelmann assor. to Realty and Industrial Corp. Carriage shifting and tabulating mechanisms. 3,090,553, 5–21–63, Cl. 235—63.

Gubelmann, William S., deceased; by Walter S. Gubelmann, executor; said William S. Gubelmann, assor. to Realty and Industrial Corp. Calculating machine driving mechanism and the like. 3,098,609, 7–23–63, Cl. 235—62.

Gubelmann, William S., deceased, by Walter S. Gubelmann, executor, to Realty & Industrial Corp. Multiplier-quotient register control mechanisms. 3,100,603, 8–13–63, Cl. 235—63.

Guckel, Gerhart A.: *See*—
Stewart, Aubrey P., Jr., and Guckel. 3,083,943.

Guckel, Henry: *See*—
Jarosik, Norman A., and Guckel. 3,109,106.

Gudebrod Brothers Silk Co., Inc.: *See*—
Krupp, Frederick W. 3,094,209.
Saylor, Harry D. 3,079,665.

Gudermuth, Clyde S., to Missouri Wood Heel Co. Locking means for top lift and pin combination. 3,074,186, 1–22–63, Cl. 36—34.

Gudiksen, Ingvard, to T. J. Mulroy. Baby lift. 3,090,917, 7–9–63, Cl. 224—6.

Gudmundsen, Austin, and R. F. Davis, to McCulloch Corp. Fluted-cutter sharpener. 3,098,325, 7–23–63, Cl. 51—95.

Guelfi, James V. Portable whirlpool device. 3,099,986, 8–6–63, Cl. 128—66.

Guenon, Leon C., to M. R. Burris. Edger attachment. 3,077,230, 2–12–63, Cl. 172—13.

Guenst, William, to Master Etching Machine Co. Etching machine. 3,078,857, 2–26–63, Cl. 134—46.

Guenther, Emmerich, to Phillips Petroleum Co. Fluid-actuated toroidal-ring valve. 3,085,440, 4–16–63, Cl. 73—421.5.

Guenther, Herman G.: *See*—
Doerer, Richard P., and Guenther. 3,110,427.

Guenther, John M. Box making machine. 3,088,114, 5–7–63, Cl. 1—111.

Guenther, Paul E. Tally card with shiftable leaf for selective indicia viewing. 3,113,779, 12–10–63, Cl. 273—148.

Guenther, Walter F.: *See*—
Noreen, Donald H., and Guenther. 3,099,826.

Guentner, Robert L.: *See*—
Thomas, Eugene P., Guentner, and Vaughn. 3,099,747.

Guentner, Robert L., and E. F. Moran, to Westinghouse Electric Corp. Teletherapy device. 3,073,960, 1–15–63, Cl. 250—108.

Guerne, William, to Brevets Aero-Mecaniques S.A. Centrifugally armed fuse for rotating projectile. 3,076,410, 2–5–63, Cl. 102—79.

Guerra, Alberto: *See*—
Taramasso, Marco, and Guerra. 3,094,155.

Guerra, Edmundo R. Protective garment for carrying parcels. 3,079,610, 3–5–63, Cl. 2—16.

Guerrant, Edmonds L. Circular mortise hinge. 3,081,482, 3–19–63, Cl. 16—128.

Guerrant, Edmonds L., to Camp'otel Corp. Combined carrier and tent for automobile. 3,102,546, 9–3–63, Cl. 135—1.

Guerrero, John J. Melon and fruit cutting template. 3,071,171, 1–1–63, Cl. 146—150.

Guerrieri, Giorgio: *See*—
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Guerrieri, Salvatore A., and M. Wolf, to The Lummus Co. Chemical recovery of waste liquors. 3,105,738, 10–1–63, Cl. 23—131.

Guerry, Davenport, to Monsanto Chemical Co. Preventing self-heating. 3,109,034, 10–29–63, Cl. 260—647.

Guerth, Fritz A. Servosystem and pulse type amplifier. 3,079,539, 2–26–63, Cl. 318—28.

Guertin, Clifford D., to American Bank Note Co. Safety inks and documents. 3,088,841, 5–7–63, Cl. 117—1.

Guest, Howard R.: *See*—
Stansbury, Harry A., Jr., and Guest. 3,090,803.

Guest, Howard R., and B. W. Kiff, to Union Carbide Corp. Process for the production of 1,3-cyclohexadiene. 3,085,121, 4–9–63, Cl. 260—666.

Guest, Howard R., B. W. Kiff, and C. B. Halstead, to Union Carbide Corp. Modified acrolein-pentaerythritol resins. 3,087,918, 4–30–63, Cl. 260—88.3.

Guest, Howard R., and B. W. Kiff, to Union Carbide Corp. Oxidation of polyethers. 3,088,970, 5–7–63, Cl. 260—496.

Guest, Howard R., B. W. Kiff, and C. B. Halstead, to Union Carbide Corp. Flameresistant spirobi(metadioxane) polymers. 3,110,703, 11–12–63, Cl. 260—88.3.

Guest, Howard R., and B. W. Kiff, to Union Carbide Corp. Dehydrogenation of hydrocarbons. 3,116,338, 12–31–63, Cl. 260—666.

Guest, Lawrence V., to BSR Ltd. Tape recorder drive. 3,073,540, 1–15–63, Cl. 242—55.12.

Guest, Lawrence V., to Birmingham Sound Reproducers Ltd. Magnetic tape recorder and reproducer. 3,085,759, 4–16–63, Cl. 242—55.12.

Guestaux, Claude L., and J. Léauté, to Eastman Kodak Co. Antistatic photographic films. 3,082,087, 3–19–63, Cl. 96—87.

Guetersloh, Donald G.: *See*—
Flatt, James H., and Guetersloh. 3,081,793.

Guetersloh, Donald G., to General Motors Corp. Electrical condenser container closure. 3,109,127, 10–29–63, Cl. 317—260.

Guex, Waldemar: *See*—
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Erlemann, Gustav, Guex, Ruegg, and Schaeren. 3,098,879.

Guex, Waldemar, R. Marbet, and M. Montavon, to Hoffmann-La Roche Inc. Process and intermediates for cyclic ketones. 3,109,861, 11–5–63, Cl. 260—587.

Guex, Waldemar, O. Isler, R. Ruegg, and G. Ryser, to Hoffmann-La Roche Inc. 7-carbo-lower-alkoxy-3-methyl-2,4,6-octatrien-1-yildene-triphenylphosphorane. 3,113,961, 12–10–63, Cl. 260—469.

Guffan, Samuel. Window shade cleaner. 3,110,343, 11–12–63, Cl. 160—11.

Guffra, Joseph A. Atomizing device for carburetors. 3,077,391, 2–12–63, Cl. 48—180.

Guggemos, Ralph B. Control system for loading and weighing assembly. 3,074,654, 1–22–63, Cl. 241—34.

Guggenheim, S Frederic. Method and apparatus for molding. 3,071,814, 1–8–63, Cl. 18—42.

Guggenheim, S. Frederic, and H. Wormser. Ganged potentiometer structure. 3,112,465, 11–26–63, Cl. 338—132.

Guglielmi, Vito. Hydraulically operated over-bed table. 3,080,835, 3–12–63, Cl. 108—116.

Guglielmo, Richard J., Sr., 50% to A. L. Barber, Jr. Method of coating foraminous materials and resultant article. 3,072,497, 1–8–63, Cl. 117—47.

Guhl, August. Room air conditioning apparatus. 3,070,976, 1–1–63, Cl. 62—264.

Guhl & Scheibler A. G.: *See*—
Huber, Fritz. 3,094,925.

Guibert, Bertrand R. G., to Commissariat a l'Energie Atomique. Devices for securing fuel elements in tubular metal casings for use in nuclear reactors. 3,110,658, 11–12–63, Cl. 204—193.2.

Guichard, Raymond A. E. Suspended files. 3,093,140, 6–11–63, Cl. 129—16.7.

Guida, Frank C. Self-extinguishing cigarette. 3,091,243, 5–28–63, Cl. 131—4.

Guida, Frank C. Electric welding torch. 3,097,290, 7–9–63, Cl. 219—75.

Guide, Anthony. Spiral stitching attachment for sewing machines. 3,073,266, 1–15–63, Cl. 112—2.

Guidi, Eugen, to Sulzer Freres, S.A. Manipulators for replacing fuel units in a nuclear reactor. 3,098,811, 7–23–63, Cl. 204—193.2.

Guiducci, Mariano A.: *See*—
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Fried, Josef, and Guiducci. 3,089,880.

Guier, William. Swingable practice club with pivoted sound-producing member. 3,113,781, 12–10–63, Cl. 273—186.

Guier, William. Swingable practice club with magnetically retained slidable sounding device. 3,113,782, 12–10–63, Cl. 273—186.

Guignard, Boris, to Compagnie Financiere pour le Developpement Industriel C.O.F.I.D.I. Societe Anonyme. Method and apparatus for forming containers. 3,109,198, 11–5–63, Cl. 18—30.

Guilbert, Jean M.: *See*—
Ber, Esther, Dvolaitzky, and Guilbert. 3,079,441.

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Davidson, Emil. 3,109,427.

Guiles, Glen A., to Corning Glass Works. Coated optical screens and their production. 3,114,668, 12–17–63, Cl. 161—116.

Guilfoyle, Thomas M., to Continental Can Co., Inc. Reclosable bag. 3,107,842, 10–22–63, Cl. 229—62.

Guillemette, Gerard, to R. Carrier. Snow blower. 3,085,832, 4–16–63, Cl. 302—37.

Guillet, James E., and H. W. Coover, Jr., to Eastman Kodak Co. Hydrocarbon wax coatings and their process of preparation. 3,106,485, 10–8–63, Cl. 117—119.2.

Guillon, Henri G., to Commissariat a l'Energie Atomique. Sequential switching device. 3,116,608, 12–24–63, Cl. 328—105.

Guillory, Paul, Sr. Multi-stage centrifugal pump. 3,076,411, 2–5–63, Cl. 103—102.

Guillou-Keredan, Raymond P. P., to Societe d'Etudes et de Construction de Chaudieres en Acier. Boiler. 3,081,747, 3–19–63, Cl. 122—225.

Guillow, Paul K., Inc.: *See*—
Andrews, Louis J. 3,076,626.

Guindon, Bertrand E., to Draper Corp. Filling carrier for shuttleless looms. 3,088,497, 5–7–63, Cl. 139—122.

Guiness, Arthur, Son and Co. (Park Royal) Ltd.: *See*—
Ash, Michael E. 3,084,718.

Guinet, Paul: *See*—
Prevot, Pierre, and Guinet. 3,085,905.

Guiney, Edwin W. Pneumatic splint. 3,074,398, 1–22–63, Cl. 128—87.

Guingand, Jean R., to Heurtey, Societe Anonyme. Forced convection, removable bell type furnaces. 3,113,766, 12–10–63, Cl. 263—40.

Guinness Hop Farms Ltd.: *See*—
Armitage, Philip G., and Brookes. 3,088,418.

Gulon, Thomas H., to Monsanto Chemical Co. Process for union dyeing of acrylonitrile polymers and basic nitrogenous fiber blends. 3,098,690, 1–23–63, Cl. 8—21.

Guiot, Maurice, to R.E.T.E.M. Recherches et Etudes Electroniques et Mecaniques. Devices for measuring torques. 3,104,544, 9–24–63, Cl. 73—136.

Guise, Arthur B., and C. Forrester, to Aneul Chemical Co. Fire extinguisher. 3,092,183, 6–4–63, Cl. 169—31.

Guitton, Jean, and C. Lallemant, to Commissariat a l'Energie Atomique. Geophysical prospecting device for identifying radioactive elements. 3,105,149, 9–24–63, Cl. 250—71.5.

Gulajan, Vartan A.: *See*—
Birchfield, John R., and Gulajan. 3,072,086.

Gulbrandsen, Richard E., to Raytheon Co. Electron discharge device having improved pin connections. 3,082,350, 3–19–63, Cl. 313—318.

Guldager, Clinton H., deceased; R. L. Saxton, P. J. Simmons, and A. A. Andersen, co-executors, to Likit Windows, Inc. Deformation resisting sliding closure assembly. 3,106,753, 10–15–63, Cl. 20—19.

Gulden, Ernest V.: *See*—
Close, Patrick B., Coulter, Ditmer, Fahrenbruck, Goldammer, Goodrick, Gulden, Holloran, Jenkins, Kilheffer, Kinker, Lyons, Manor, Marvin, Miller, O'Brian, Randall, Garner, Sather, Yost, and Braden. 3,112,394.

Güldner, Harry: *See*—
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Guldner-Motoren-Werke Asschaffenburg: *See*—
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Gulick, William K., to United States of America, Air Force. Flow limiting valve. 3,103,950, 9–17–63, Cl. 137—494.

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Guntert, Ronald M., and W. F. Earley, to Guntert & Zimmerman Const. Div., Inc. Header assembly for concrete laying machines. 3,098,414, 7–23–63, Cl. 94—46.

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Gustafson, Carl A., to Dennison Mfg. Co. Multi-section tags. 3,087,267, 4–30–63, Cl. 40—2.

Gustafson, Carl L., 50% to W. H. Roeber. Nut harvesting and separating machine. 3,107,475, 10–22–63, Cl. 56—328.

Gustafson, Carl L. Method and apparatus for separating nuts. 3,110,665, 11–12–63, Cl. 209—35.

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Gustafson, William O. Manipulatable toy. 3,081,089, 3–12–63, Cl. 273—156.

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Gutbier, Ernst A., to Western Electric Co. Inc. Method of soldering wiring assemblies. 3,079,482, 2–26–63, Cl. 219—9.5.

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Gutbier, Ernst A., to Western Electric Co., Inc. Mass stream soldering machine. 3,100,471, 8–13–63, Cl. 113—126.

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Guth, Edwin F., Jr. 3,093,323.

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Guth, Lauren W., to General Electric Co. Rack system for dishwashing machine. 3,087,769, 4–30–63, Cl. 312—269.

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Gutmann, Hugo, and P. Zeller, to Hoffmann-La Roche Inc. N₁-cycloalkanoyl and N₁-[alpha-tri-alkyl]-alkanoyl-hydrazides and derivatives thereof. 3,072,726, 1–8–63, Cl. 260—562.

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Gutridge, Jack E., and J. W. Borger, to Pullman Inc. Container transfer system and transfer devices. 3,094,226, 6–18–63, Cl. 214—38.

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Gutter, Ernst, and H. Querchfeld, to C. Zeiss. Method and apparatus for the marking for identification of the photographs in charge carrier beam apparatus. 3,105,904, 10–1–63, Cl. 250—67.

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Guzman, George G. Inflated play horse. 3,098,317, 7–23–63, Cl. 46—87.

Gvozdjak, John, and R. M. Onischak, to General Electric Co. Food broiling device. 3,095,495, 6–25–63, Cl. 219—35.

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Gwinn, Joseph M., Jr., to Gar Wood Industries, Inc. Dump truck body. 3,094,351 6–18–63, Cl. 296—28.

Gwinn, M. Benjamin. Baggage check. 3,077,684, 2–19–63, Cl. 40—21.

Gwyn, Childress B., Jr., and N. S. Hoyer, to Gibson Electric Co. Method for attaching silver-cadmium oxide bodies to a supporting member. 3,078,562, 2–26–63, Cl. 29—473.1.

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Gwynn, Bernard H., and A. C. Whitaker, to Gulf Research & Development Co. Process for preparation of primary and secondary amines. 3,080,424, 3–5–63, Cl. 260—585.

Gwynn, Bernard H., and R. W. Smyth, to Gulf Research & Development Co. Oxo process for the production of alcohols. 3,092,670, 6–4–63, Cl. 260—638.

Gwyther, Val M. Fish sorting method. 3,096,600, 7–9–63, Cl. 43—100.

Gwyther, Val M. Water quality control means. 3,098,360, 7–23–63, Cl. 61—28.

Gydelite Ltd.: *See*—
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Ammerman, Charles R. 3,093,824.
Ammerman, Charles R., Schneider, and Oblinger. 3,111,634.
Diamant, Henri B. 3,092,817.
Harris, David E. 3,105,950.
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Nearhoof, Harold J., Woodbridge, and Harris. 3,089,383.
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Haack, Erich, A. Hagedorn, H. Ruschig, and G. Korger to C. F. Boehringer & Soehne G.m.b.H. N₁-(p-toluene sulfonyl)-N₂-(a-tetrahydrofuryl methyl) urea. 3,100,208, 8–6–63, Cl. 260—347.2.

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Haagensen, Duane B., to Raytheon Co. Diathermy applicators. 3,095,880, 7–2–63, Cl. 128—418.

Haagensen, Duane B., to Raytheon Co. Sub-surface heating system. 3,104,711, 9–24–63, Cl. 166—60.

Haagensen, Duane B., to Raytheon Co. Microwave device for testing formations surrounding a borehole having means for measuring the standing wave ration of energy incident to and reflected from the formations. 3,114,875, 12–17–63, Cl. 324—1.

Haagman, Joseph F., and J. L. Reuss, to International Minerals & Chemical Corp. Wet beneficiating of phosphate ores. 3,088,590, 5–7–63, Cl. 209—12.

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Haalck, Fritz, to Continental Elektroindustrie A.G., Askaniawerke. Apparatus for recording geophysical data. 3,103,820, 9–17–63, Cl. 73—382.

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Green, George E. 3,105,756.

Haanen, William A. Double squeegee. 3,086,237, 4–23–63, Cl. 15—245.

Haarmann, Arnold. Shiftable mine prop arrangement and process for shifting mine props. 3,077,741, 2–19–63, Cl. 61—45.

Haas, Charles W., Jr., to Bell Telephone Laboratories, Inc. Constant-width rectangular pulse generator utilizing transformer having two primary windings in regenerative feedback circuit. 3,104,329, 9–17–63, Cl. 307—88.5.

Haas, Edgar, to Herman Schwabe, Inc. Shoe machine for sole and heel breast flap laying. 3,092,860, 6–11–63, Cl. 12—16.2.

Haas, Frank C., to Phillips Petroleum Co. Catalyzing the oxidative leaching of uranium with nickel ammonium sulfate. 3,081,149, 3–12–63, Cl. 23—14.5.

Haas, Justin, to Kenner Products Co. Aqueous polyvinyl alcohol coating composition containing aluminum glitter pigment. 3,111,497, 11–19–63, Cl. 260—29.6.

Haas, Nelson W. Stethoscope. 3,086,610, 4–23–63, Cl. 181—24.

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Haase, Ludwig W. Method of producing carbon dioxide ice and product thereof. 3,098,361, 7–23–63, Cl. 62—1.

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Haase, Rex, L.: *See*—
Chewning, Arthur W., Haase, and Stephens. 3,073,890.

Haase, Wilbert W., Co.: *See*—
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Haass, Walter P., to Westinghouse Electric Corp. Reactional vessel. 3,075,909, 1–29–63, Cl. 204—193.2.

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Haba, Vincent, to Radio Corp. of America. Thermoelectric devices and methods of making same. 3,076,051, 1–29–63, Cl. 136—4.

Haba, Vincent, to Radio Corp. of America. Method and materials for obtaining low resistance bonds to bismuth telluride. 3,079,455, 2–26–63, Cl. 136—5.

Haban, Frank, to Hamilton Mfg Co. Means for reducing cross talk noise. 3,073,041, 1–15–63, Cl. 35—35.

Habedank, Gustav J., and L. J. Kuhar, to The Singer Mfg. Co. Rotary hook for sewing machines. 3,074,367, 1–22–63, Cl. 112—228.

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Haber, Hyman, to Allied Textile Printers, Inc. Color-printed flocked fabrics. 3,099,514, 7–30–63, Cl. 8—66.

Haber, Norman, to Dynamos Co. Grinder-blenders. 3,089,652, 5–14–63, Cl. 241—79.

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Habereder, Hans, to Beckman Instruments, Inc. Miniature potentiometer. 3,099,810, 7–30–63, Cl. 338—162.

Habereder, Hans. Miniature potentiometer with stop mechanism. 3,115,614, 12–24–63, Cl. 338—174.

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Haberkorn, Erich, to Bolkow-Entwicklungen Kommanditgesellschaft. Flying body construction. 3,107,882, 10–22–63, Cl. 244—15.

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Habib, Emile E., to Deering Milliken Research Corp. Textile sizing. 3,086,887, 4–23–63, Cl. 117—139.5.

Habicht, Ernst, to Cilag-Chemie Ltd. New derivatives of 2-aryl-ethanoic acids and a process for the production thereof. 3,080,415, 3–5–63, Cl. 260—470.

Habicht, Ernst, and G. Meimas. Material handling system. 3,082,855, 3–26–63, Cl. 198—19.

Habicht, Helmut, to Mite Corp. Roller clutch. 3,108,670, 10–29–63, Cl. 192—27.

Habostad, Arne. Paint roller cleaner. 3,075,534, 1–29–63, Cl. 134—138.

Hablutzel, Charles E., to United States of America, Navy. Sabot retainer. 3,100,448, 8–13–63, Cl. 102—93.

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Hach, Clifford C., to Hach Chemical Co. Composition for analysis of iron. 3,095,382, 6–25–63, Cl. 252—408.

Hachey, Joseph A. Fruit picking device. 3,109,276, 11–5–63, Cl. 56—332.

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Hachmeister, Ernest G., and T. J. Holden, to Industrial Engineering & Equipment Co. Heat sealing device. 3,116,393, 12–31–63, Cl. 219—19.

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Hack, Heinrich, to Carl Schenck Maschinenfabrik G.m.b.H. Method and machine for determining unbalance of rotating workpieces. 3,079,801, 3–5–63, Cl. 73—462.

Hack, Heinrich, to Carl Schenck Maschinenfabrik G.m.b.H. Balancing machine. 3,106,846, 10–15–63, Cl. 73—463.

Hack, Heinrich, to Carl Schneck Maschinenfabrik G.m.b.H. Means for measuring unbalance in rotating workpieces. 3,107,538, 10–22–63, Cl. 73—468.

Hack, Joseph, to Sir Properties, Inc. Diaper washing composition. 3,101,297, 8–20–63, Cl. 167—30.

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Long, Everett, Greenhalgh, and Hack. 3,087,884.

Hack, Morton and L., and B. W. Colman. Resilient shoe soles. 3,079,707, 3–5–63, Cl. 36—28.

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Hacker, Walter E., to Daimler-Benz Aktiengesellschaft. Hinge construction for vehicles. 3,115,946, 12–31–63, Cl. 180—69.

Hackerman, Norman, and R. R. Annand, to Texas Research Associates Corp. Method of inhibiting corrosion. 3,091,-591, 5–28–63, Cl. 252—148.

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Hackley, Brennie E., Jr., E. J. Poziomek, and G. M. Steinberg, to United States of America, Army. Bis quaternary oximes. 3,093,538, 6–11–63, Cl. 167—65.

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Hackney, Stanley, to United Kingdom Atomic Energy Authority. Nuclear reactors. 3,105,032, 9–24–63, Cl. 204—193.2.

Hackney, Stanley, and P. N. Munn, to The United Kingdom Atomic Energy Authority. Nuclear reactor moderator structures. 3,115,448, 12–24–63, Cl. 204—193.2.

Hadancourt, Alain C., and J. C. J. Poujade, deceased; by A. M. L. Poujade, nee Delmon, legal heir, to Societe Nationale d'Etude et de Construction de Moteurs d'Aviation. Ionization chambers of plasma generators at high temperatures. 3,089,983, 5–14–63, Cl. 315—111.

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Haddad, Mitchell J., and H. T. Adkins, to Curtiss-Wright Corp. Shaft support. 3,071,691, 1–1–63, Cl. 290—52.

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Hadley, David J., and D. G. Stewart, to The Distillers Co. Ltd. Recovery of acrylonitrile. 3,073,753, 1–15–63, Cl. 202—42.

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Hadley, Harlan A. Weighing scale bearing structure. 3,074,-765, 1–22–63, Cl. 308—2.

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Hadley, Richard H. Sanitary feminine hand urinals. 3,114,-916, 12–24–63, Cl. 4—110.

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Hadzeriga, Pablo, to Standard Magnesium Corp., Inc. Ion exchange process for producing potassium sulfate and sulfuric acid. 3,096,153, 7–2–63, Cl. 23—121.

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Haeber, John A., to Shell Oil Co. Well casing hanger with releasable slip means. 3,081,113, 3–12–63, Cl. 285—23.

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Haeber, John A., to Shell Oil Co. Apparatus for installing and retrieving equipment from underwater wells. 3,115,-933, 12–31–63, Cl. 166—66.5.

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Purdy, Burl O. 3,096,862.

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Hafner, Theodore. Suspension and tensioning of successive sections of surface wave transmission lines between supports with coupling between sections at supports. 3,098,-988, 7–23–63, Cl. 333—95.

Hafner, Theodore. Air cushion supported vehicles. 3,108,-546, 10–29–63, Cl. 104—138.

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Haga, Seiko: *See*—
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Hagadorn, Elmore W. Spraying apparatus. 3,084,870, 4–9–63, Cl. 239—305.

Hagan, Albert W., to Roy S. Sanford & Co. Carton. 3,098,-599, 7–23–63, Cl. 229—37.

Hagan, Albert W., and P. F. Simpson, to Roy S. Sanford & Co. Carton. 3,098,600, 7–23–63, Cl. 229—37.

Hagan Chemicals & Controls, Inc.: *See*—
Gill, Joseph. 3,090,916.
Thompson, Ralph N. 3,089,847.

Hagan, Lamont: *See*—
Hendrickson, Thomas C., and Hagan. 3,085,030.

Hagan, Thomas G.: *See*—
Young, Frink M., and Hagan. 3,074,029.

Hagan, Thomas G., and F. M. Young, to Adage, Inc. Reversible counter. 3,076,956, 2–5–63, Cl. 340—172.5.

Haganes, Martin. Cranes, excavators and the like. 3,098,-395, 7–23–63, Cl. 74—105.

Hage, William T., to The Babcock & Wilcox Co. Logic control unit for data collecting, storing, transmitting and computing system. 3,103,001, 9–3–63, Cl. 340—187.

Hagedorn, Adolf: *See*—
Haack, Erich, Hagedorn, Ruschig, and Korger. 3,100,208.

Hagelin, Boris C. W., and O. Sturzinger, to Anstalt Europaische Handelsgesellschaft. Auxiliary apparatus for teletypers. 3,083,263, 3–26–63, Cl. 178—22.

Hagelstein, Emma A.: *See*—
Hagelstein, Harry R. and E. A. 3,093,911.

Hagelstein, Harry R. and E. A. Musical typewriter. 3,093,-911, 6–18–63, Cl. 35—5.

Hageman, George F., to Daystrom, Inc. Thermometer. 3,089,-340, 5–14–63, Cl. 73—363.9.

Hageman, Howard A., and J. A. Riddell, to United States Rubber Co. Fungicides. 3,081,222, 3–12–63, Cl. 167—33.

Hagemeyer, Hugh J., Jr.: *See*—
Hull, David C., Hagemeyer, and Edwards. 3,091,605.
Hull, David C., Hagemeyer, and Wilder. 3,096,317.

Hagemeyer, Hugh J., Jr., and M. B. Edwards, to Eastman Kodak Co. Ethylene polymerization with high temperature catalysts. 3,072,632, 1–8–63, Cl. 260—94.9.

Hagemeyer, Hugh J., Jr., and H. N. Wright, Jr., to Eastman Kodak Co. Preparation of esters by aldehyde condensation. 3,081,344, 3–12–63, Cl. 260—494.

Hagemeyer, Hugh J., Jr., and H. N. Wright, Jr., to Eastman Kodak Co. Process for the production of glycol monoesters from aldehydes. 3,091,632, 5–28–63, Cl. 260—476.

Hagemeyer, Hugh J., Jr., and H. N. Wright, Jr., to Eastman Kodak Co. Process for the production of esters by alcoholysis. 3,098,093, 7–16–63, Cl. 260—491.

Hagen, Carl, to Davenport Machine and Foundry Co., a division of Middle States Corp. Grain drier-cooler. 3,076,269, 2–5–63, Cl. 34—63.

Hagen, Glenn E., and J. A. Beek, Jr., to Alwac International. Computer memory section selection system. 3,080,548, 3–5–63, Cl. 340—172.5.

Hagen, Glenn E., C. R. Williams, A. Y. Baker, and R. E. Jackson, to Alwac International Inc. Computer system with high capacity random access memory. 3,089,124, 5–7–63, Cl. 340—172.5.

Hagen, Lawrence M., and W. F. Leverton, to United States of America, Navy. Preparation of high purity silicon by decomposition of silicon nitride powder having a graphite target buried therein. 3,101,257, 8–20–63, Cl. 23—223.5.

Hagen, Marcus W. Fluid seal for rotor. 3,112,868, 12–3–63, Cl. 230—145.

Hagen, Marcus W., and D. S. Strader, to The Frank G. Hough Co. Multiple control mechanism. 3,101,624, 8–27–63, Cl. 74—471.

Hagenah, Hans G.: *See*—
Knopfle, Walter J., and Hagenah. 3,081,094.

Hagendoorn, Willem J., to American Air Filter Co., Inc. Unit air filter latch. 3,093,401, 6–11–63, Cl. 292—207.

Hagendoorn, Willem J., and T. R. Smith, to American Air Filter Co., Inc. Pocket-type filters. 3,099,547, 7–30–63, Cl. 55—341.

Hager, Bror O. Preserving agent stabilized with carbon dioxide. 3,089,810, 5–14–63, Cl. 167—38.5.

Hager, Gerald L.: *See*—
Cybriwsky, Alexander, and Hager. 3,099,610.

Hager, Harvey L., Jr. to H. L. Hager, Jr. Check protector. 3,104,610, 9–24–63, Cl. 101—24.

Hager, Harvey L., Jr.: *See*—
Hager, Harvey L. 3,104,610.

Hager, Richard E., and E. R. Lowrey, to The Procter & Gamble Co. Cake mixes and method of preparing the same. 3,071,472, 1–1–63, Cl. 99—94.

Hager, Robert E.: *See*—
Cliff, George J., Parshall, Braun, Feldkamp, and Hager. 3,095,678.
Hall, Marchand B., Staron, and Hager. 3,101,663.

Hager, Robert R.: *See*—
Price, Earl R., Hoover, Hager, and Pfeifer. 3,083,698.

Hager, Robert R., to The Bendix Corp. Tandem master cylinder. 3,074,235, 1–22–63, Cl. 60—54.6.

Hager, Robert R., to The Bendix Corp. By-pass valve for low input hydrovac. 3,076,315, 2–5–63, Cl. 60—54.5.

Hager, Robert R., to The Bendix Corp. Power operated master cylinder. 3,103,786, 9–17–63, Cl. 60—54.6.

Hager, Robert R., to The Bendix Corp. Hydraulic reaction type control valve for hydrovacs and air-paks. 3,114,241, 12–17–63, Cl. 60—54.5.

Hager, Robert R., and D. S. Wahlstrom, to The Bendix Corp. Multi-diaphragm fluid pressure motor construction. 3,103,-855, 9–17–63, Cl. 137—791.

Hager, Robert R., and D. J. Gardner, to The Bendix Corp. Fastening means for ball-ended members. 3,107,111, 10–15–63, Cl. 287—126.

Hagerty, Andrew T., C. A. Bailey, and T. F. Brenneman, to The Adlake Co. Window construction. 3,076,535, 2–5–63, Cl. 189—64.

Hagerty, John P. Ignition system for solid fuel charges. 3,101,590, 8–27–63, Cl. 60—35.6.

Hagerty, John P. Nose cooling means for missiles. 3,106,-162, 10–8–63, Cl. 102—92.5.

Hagg, Don R., and O. G. Grove, to National Dairy Farm Equipment, Inc. Milking apparatus. 3,077,180, 2–12–63, Cl. 119—14.1.

Haggar, Alfred S. Matrix for determining cuts on pattern cams. 3,089,248, 5–14–63, Cl. 33—174.

Haggard, John M.: *See*—
McMurray, Paul H., and Haggard. 3,084,668.

Haggerty, John P.: *See*—
Barton, Daniel M., and Haggerty. 3,108,137.

Haggerty, William A., to The Cincinnati Milling Machine Co. Drill grinding method. 3,109,270, 11–5–63, Cl. 51—288.

Hagglund, Kjell H., E. G. Westerlund, and U. A. Peuron, to Telefonaktiebolaget L M Ericsson. Device for suppressing fundamental and subharmonic ferromagnetic oscillations in alternating current circuits. 3,106,651, 10–8–63, Cl. 307—105.

Hagglund & Soner, Aktiebolaget: *See*—
Mals, Adolf R. 3,105,890.

Hägglund, Sven E., to Borsig Aktiengesellschaft, and Svensk Toroforadling, Aktiebolaget. Diaphragm filter press. 3,098,429, 7–23–63, Cl. 100—115.

Haggott, John C., and W. J. A. Connor. Automatic fire protection apparatus. 3,113,624, 12–10–63, Cl. 169—5.

Hagler, Norman R., to General Motors Corp. Solenoid operated vacuum regulator. 3,073,345, 1–15–63, Cl. 137—623.

Hagmann, Foster M., H. B. Graham, and R. B. Morris; said Graham and said Morris, assors. of 7½% to said Hagmann, and 7% to W. L. Pratt. Three-dimensional seal. 3,079,651, 3–5–63, Cl. 20—56.5.

Hagmann, Foster M., H. B. Graham, and R. B. Morris. Seal for jar caps. 3,111,237, 11–19–63, Cl. 215—40.

Hagner, Lawrence R., to Western Electric Co., Inc. Apparatus for percussively welding electrical components to circuit boards. 3,100,830, 8–13–63, Cl. 219—79.

Hagner, Lawrence R., and H. M. Larsen, to Western Electric Co., Inc. Mechanism for intermittently advancing and positioning articles. 3,082,859, 3–26–63, Cl. 198—135.

Hagood, Cecil C., Sr. Speech prompter. 3,083,487, 4–2–63, Cl. 40—86.

Hagstrom, Arthur A., to Teletype Corp. Contact assemblage for key controlled printing telegraph apparatus. 3,084,-218, 4–2–63, Cl. 178—17.

Hague, Louise D.: *See*—
Jezl, James L., Khelghatlan, and Hague. 3,100,764.

Hague Mfg. Co.: *See*—
Koss, Adrian. 3,107,504.
Koss, Adrian. 3,107,505.

Hague, Robert Z., H. Karlby, and A. B. Newbury, to Rockwell Mfg. Co. Meter registers and drive mechanisms therefor. 3,093,307, 6–11–63, Cl. 235—94.

Haguet, Raymond, to Commissariat a l'Energie Atomique. Door swinging device which makes it possible to move heavy doors with a reduced effort. 3,086,257, 4–23–63, Cl. 20—16.

Hagy, John T.: *See*—
Bair, Stanley G., and Hagy. 3,080,200.

Hahn, Alfred, Jr.: *See*—
Antonsen, Donald H., and Hahn. 3,090,777.

Hahn, Erich, to VEB Kamera- und Kinowerke Dresden. Photographic cameras. 3,072,032, 1–8–63, Cl. 95—10.

Hahn, Erich, to VEB Kamera- und Kinowerke Dresden. Photographic camera. 3,073,224, 1–15–63, Cl. 95—10.

Hahn, Erich and W., to VEB Kamera- und Kinowerke Dresden. Camera diaphragms and automatic control means therefor. 3,076,398, 2–5–63, Cl. 95—64.

Hahn, Gilbert B., to The Murray Ohio Mfg. Co. Convertible bicycle frame. 3,088,747, 5–7–63, Cl. 280—7.11.

Hahn Harold G.: *See*—
Rausch, Douglas A., and Hahn. 3,072,589.

Hahn, Harold G., to The Dow Chemical Co. Composition of chloroethylenic polymer latex with a chlorate and osmium tetroxide. 3,092,599, 6–4–63, Cl. 260—29.6.

Hahn, Harold G., R. L. Visger, and W. J. Raich, to The Dow Chemical Co. Thermal stabilization of latexes of haloethylene polymers with chlorine dioxide or chlorites. 3,092,598, 6–4–63, Cl. 260—29.6.

Hahn, Harold T.: *See*—
Vander Wall, Eugene M., Bauer, and Hahn. 3,102,849.

Hahn, James H., to Basic Motor Developments, Inc. Printed disc electrical machinery. 3,096,455, 7–2–63, Cl. 310—268.

Hahn, James H., and R. J. Nadhenry, to Schulze and Burch Biscuit Co. Article conveying, separating, and stacking apparatus. 3,071,236, 1–1–63, Cl. 198—32.

Hahn, James H., and R. J. Nadhenry, to Schulze and Burch Biscuit Co. Apparatus for handling bakery articles. 3,093,281, 6–11–63, Cl. 225—97.

Hahn, Johann, and E. Sauer, to Zeiss Ikon Aktiengesellschaft. Single lens mirror reflex cameras. 3,074,333, 1–22–63, Cl. 95—42.

Hahn, Lucille: *See*—
Konrad, Alexander. 3,081,613.
Konrad, Alexander. 3,097,467.

Hahn, Marion. Bridge structures. 3,103,026, 9–10–63, Cl. 14—13.

Hahn, Norman E., and J. Miller. Harvesting device. 3,105,-342, 10–1–63, Cl. 56—328.

Hahn, Oscar W. Boom stabilizing and safety control apparatus. 3,097,749, 7–16–63, Cl. 212—59.

Hahn, Patrick P.: *See*—
Bitterlich, Gordon M., Primas, and Hahn. 3,088,812.
Hahn, Paul T.: *See*—
Cootes, Harold E., and Hahn. 3,074,155.
Hahn, Paul T., and G. C. Sitz, to AMP Inc. Printed circuit edge connector. 3,107,961, 10–22–63, Cl. 339—17.
Hahn, Rea I., W. H. Powers, R. A. Heath, and E. Lentz, to Walker Mfg. Co. Filter. 3,115,873, 12–31–63, Cl. 123—119.
Hahn, Richard H., and H. V. French. Coupling. 3,082,394, 3–19–63, Cl. 339—16.
Hahn, Robert S., to The Heald Machine Co. Grinding machine. 3,089,288, 5–14–63, Cl. 51—50.
Hahn, Volker, to Ed. Zublin, A.G. Device for anchoring tensioning elements. 3,099,109, 7–30–63, Cl. 50—128.
Hahn, Walter J., to Springfield Metallic Casket Co., Inc. Magnetically attached crucifix for caskets. 3,115,434, 12–24–63, Cl. 161—8.
Hahn, Werner: *See*—
Böhn, Siegfried, Hahn, Hennig, Hintze, and Weise. 3,072,031.
Hahn, Erich, and W. 3,076,398.
Loose, Erhard, Kromer, and Hahn. 3,095,793.
Hahn, Werner, and R. Noack, to VEB Kamera- und Kinowerke Dresden. Photographic cameras. 3,072,033, 1–8–63, Cl. 95—10.
Hahn, Werner, and R. Noack, to VER Kamera- und Kinowerke Dresden. Differential gearing for setting light values. 3,099,192, 7–30–63, Cl. 95—10.
Hahn, William C., to General Electric Co. Impulse systems. 3,103,661, 9–10–63, Cl. 343—7.3.
Haibt, Luther H., to International Business Machines Corp. Memory system. 3,104,380, 9–17–63, Cl. 340—174.
Haidasch, Ingo, and J. Voss, to Kalle Aktiengesellschaft. Polymerizable mixed allyl carboxymethyl cellulose esters and salts thereof. 3,071,572, 1–1–63, Cl. 260—231.
Haig, Arthur N.: *See*—
Varga, Henry J., Haig, and Kirch. 3,088,031.
Haig, James, Inc.: *See*—
Sunukjian, Haig. 3,076,246.
Haigh, Daniel H.: *See*—
Roberts, Carleton W., and Haigh. 3,105,087.
Haigh, John M.: *See*—
Gottwald, Bruce C., and Haigh. 3,110,612.
Haigh, Richard W., to Joseph Lucas (Industries) Ltd. Fuel supply control for gas turbine engines. 3,076,312, 2–5–63, Cl. 60—39.28.
Haight, Elbert E.: *See*—
Boylan, Henry W., and Haight. 3,103,155.
Haigler, Edmund D.: *See*—
Brewer, Nathaniel, Haigler, and Woodring. 3,098,498.
Haigler, Henry E., Jr., and H. B. Dowell, Jr., to Monsanto Chemical Co. Discharge chute for stuffer crimpers. 3,108,352, 10–29–63, Cl. 28—1.
Hailes, William D., to General Railway Signal Co. Remote control system for vehicles. 3,072,785, 1–8–63, Cl. 246—177.
Hailes, William D., to General Signal Corp. Magnetic stick type relay. 3,109,126, 10–29–63, Cl. 317—172.
Hailes, William D., to General Signal Corp. Centralized traffic control system for railroads. 3,109,160, 10–29–63, Cl. 340—163.
Hailes, William D., to General Signal Corp. Automatic recorder for centralized traffic controlling system. 3,109,616, 11–5–63, Cl. 246—107.
Hailes, William D., to General Signal Corp. Centralized zone control system. 3,112,908, 12–3–63, Cl. 246—23.
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Haimbaugh, Richard E. and O. L. 3,083,285.
Haimbaugh, Richard E. and O. L., to Induction Heating and Engineering Corp. Apparatus for heat treating the ends of work pieces. 3,083,285, 3–26–63, Cl. 219—10.69.
Haine, Walter A.: *See*—
Heuser, Rhoda C. K., and Haine. 3,077,428.
Hainer, Raymond M.: *See*—
Bilotti, Anthony G., and Hainer. 3,075,884.
Hainer, Raymond M., M. Berdick, and H. Morawetz, to Warner-Lambert Pharmaceutical Co. Deodorant composition comprising the copper complex of the copolymer of allylamine and methacrylic acid. 3,104,205, 9–17–63, Cl. 167—93.
Haines, Clifford L. Adjustable work support. 3,083,806, 4–2–63, Cl. 193—42.
Haines, Harry W., Jr.: *See*—
Eads, David K., and Haines. 3,102,792.
Haines, Mervyn V. T. Fastener adapter. 3,088,205, 5–7–63, Cl. 63—20.
Haines, Norman R., to Canomac Corp. Vehicle washer. 3,088,472, 5–7–63, Cl. 134—57.
Hainlin, Albert W.: *See*—
Hunt, Nathan C., Hainlin, and Lockwood. 3,075,552.
Hair, Benjamin F., to Ford Motor Co. Fifth wheel control device. 3,092,399, 6–4–63, Cl. 280—438.
Hair, Benjamin F., to Ford Motor Co. Low energy load leveling vehicle suspension. 3,095,213, 6–25–63, Cl. 280—124.
Hairston, Festus. Display device. 3,071,965, 1–8–63, Cl. 73—190.
Hait, James M., to FMC Corp. Peach pitter. 3,093,173, 6–11–63, Cl. 146—28.
Hait, James M., to FMC Corp. Method of pitting peaches. 3,102,568, 9–3–63, Cl. 146—238.
Hait, James M., to FMC Corp. Earth moving vehicle. 3,105,311, 10–1–63, Cl. 37—4.
Haith, William J. Rock drilling bit. 3,094,180, 6–18–63, Cl. 175—401.
Halvala, William S. Concrete working tool. 3,082,460, 3–26–63, Cl. 15—235.4.
Hajek, Ernest E., to Henry J. Kaiser Co. Control mechanism for swingable booms. 3,473,456, 1–15–63, Cl. 212—66.
Hajek, William F. Alternating seating faucet valve. 3,075,541, 1–29–63, Cl. 137—329.01.
Hajos, Eugene, to Hydraxtor Co. Towel stacking system. 3,081,996, 3–19–63, Cl. 271—74.
Hajos, Eugene, to The Hydraxtor Co. Apparatus for processing sheet materials. 3,103,755, 9–17–63, Cl. 38—143.
Hak, Louis. Manufacture of fur garments. 3,074,073, 1–22–63, Cl. 2—65.
Hake, Andreas, to O. Ruthner. Method of regenerating the free and the used hydrochloric acid from aluminum etching baths. 3,081,996, 4–9–63, Cl. 23—154.
Hake, Richard, to Joh. Friedrich Ohler Maschinenfabrik, Fa. Overloading protection device for cold circular saws. 3,110,206, 11–12–63, Cl. 83—62.
Hakimoglu, Ayhan, to International Business Machines Corp. Magnetic multivibrator amplifier power supply. 3,072,837, 1–8–63, Cl. 321—18.
Hakogi, Ichiro. Printing machine. 3,115,091, 12–24–63, Cl. 101—40.
Halacsy, Andrew A. Method of applying insulating incapsulation. 3,089,199, 5–14–63, Cl. 18—59.
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Brunner, Walter H., and Halasz. 3,088,878.
Brunner, Walter H., and Halasz. 3,088,978.
Halbach, Klaus, W. R. Baker, and D. Veron, to United States of America, Atomic Energy Commission. Counterrotating plasma device. 3,096,269, 7–2–63, Cl. 204—193.2.
Halbach, Ralph H., to Dorr-Oliver Inc. Centrifuge machine. 3,080,109, 3–5–63, Cl. 233—28.
Halbach, Ralph H., to Dorr-Oliver Inc. Centrifuge machine. 3,111,490, 11–19–63, Cl. 233—14.
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Grenon, Michel, Berthod, Cohen de Lara, Delachanal, and Halbronn. 3,074,874.
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Colton, John W., Lidov, and Schaffel. 3,115,531.
Fox, Sherwood N., and Colton. 3,109,864.
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Lidov, Rex E., and Riedeman. 3,109,860.
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Haldeman, Donald F., and C. A. Stone. Letter opener. 3,102,335, 9–3–63, Cl. 30—294.
Haldeman, Robert G., L. T. Morin, and K. Matsuda, to American Cyanamid Co. Unsymmetrically substituted oxamidines and method of preparation. 3,075,013, 1–22–63, Cl. 260—564.
Haldeman, Robert G., and G. Castellion, to American Cyanamid Co. Process for the dealkylation of alkyl naphthalene. 3,102,151, 8–27–63, Cl. 260—672.
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Hale, Andrew, to Blaw-Knox Co. Method and apparatus for milling rubber and like material. 3,075,238, 1–29–63, Cl. 18—2.
Hale, Anthony P.: *See*—
Prestige, Harry T., Ende, Hale, Lee, Lovelock, Smith, and Teacher. 3,093,887.
Hale, Clifford W.: *See*—
Florey, Howard W., Abraham, Newton, Burton, Kelly, Hale, and Miller. 3,094,527.
Hale, Denver. Gamma radiation dosimeter. 3,073,955, 1–15–63, Cl. 250—83.
Hale, Everett W., and H. B. Landenslager, Jr., to Blackstone Corp. Process for the production of cast iron. 3,080,228, 3–5–63, Cl. 75—130.
Hale, John D., to Fairbanks, Morse & Co. Scale suspension system. 3,103,390, 9–10–63, Cl. 308—2.
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Reed, Edwin E., Hale, and Hamlin. 3,097,516.
Hale, Murray E.: *See*—
Fuller, Harrison W., Hale, and McCormack. 3,106,606.
Hale, Myron T. and N. S. Surgical instrument for performing a tracheotomy. 3,104,666, 9–24–63, Cl. 128—305.
Hale, Nathan S.: *See*—
Hale, Myron T. and N. S. 3,104,666.
Halenar, Simeon L., and W. A. Kaepernik, to Ethicon, Inc. Filament-handling device and method. 3,079,078, 2–26–63, Cl. 235—132.
Hales, Ralph A., J. W. Le Maistre, and G. O. Orth, Jr., to Atlas Chemical Industries, Inc. Preparation of hydroxymethyl furfural. 3,071,599, 1–1–63, Cl. 260—347.8.
Haley, Alfred J.: *See*—
Andersen, Holger C., and Haley. 3,079,232.
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Haley, Floyd C., to E. I. du Pont de Nemours and Co. Extrusion coating under reduced pressure. 3,082,144, 3–19–63, Cl. 156—244.
Haley, Harold A., to American Viscose Corp. Differential wind-up apparatus. 3,085,764, 4–16–63, Cl. 242—75.53.
Haley, Kenneth M., B. L. Arntz, and R. L. Reed, to Reserve Mining Co. Air draft for pelletizing furnace. 3,088,723, 5–7–63, Cl. 266—21.
Haley, Richard M.: *See*—
Butler, Jacob C., and Haley. 3,103,217.
Halford, Edward J. Method of producing artistic castings. 3,094,375, 6–18–63, Cl. 18—58.
Halford, Wilfrid C. J. Block and tackle apparatus with rope brake means. 3,112,816, 12–3–63, Cl. 188—65.2.
Haliburton Co.: *See*—
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De See, Peter G. 3,108,610.
Hall, Anthony P., and S. R. Gillanders, to Imperial Chemical Industries Ltd. Production of staple fibers from waste material. 3,107,412, 10–22–63, Cl. 28—72.
Hall, Archie A., and J. R. Sabbia, to United States of America, Navy. Supinating pilot's seat. 3,098,631, 7–23–63, Cl. 244—122.
Hall, Bennie, Jr., and R. H. Indorf, to H & I Tool Development Co., Inc. Tool for removing auto body dents and the like. 3,113,478, 12–10–63, Cl. 81—15.
Hall, Bertie R. Phone holder. 3,091,670, 5–28–63, Cl. 179—156.
Hall, C. M., Lamp Co.: *See*—
Worden, Norbert P. 3,105,642.
Hall, Calvin H.: *See*—
Melill, Joseph, Happe, Smithhart, Hall, and Myers. 3,110,961.
Hall, Dewey J., Jr., to International Minerals & Chemical Corp. Process for beneficiating ores. 3,113,922, 12–10–63, Cl. 209—166.
Hall, Dick S., to Phillips Petroleum Co. Recovery of polymers from solution. 3,076,795, 2–5–63, Cl. 260—94.7.
Hall, Edward N., to Avir Research Corp. Utilization of promoters in effecting reactions. 3,086,354, 4–23–63, Cl. 60—35.4.
Hall, Elmer D. Hydraulic method and apparatus for flexing stuck pipe in well bores. 3,096,822, 7–9–63, Cl. 166—35.
Hall, Emery L., to Skil Corp. Combination polisher handle and polish dispenser. 3,104,783, 9–24–63, Cl. 222—181.
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Nordin, Obert L., and Hall. 3,104,121.
Hall, George H.: *See*—
Doggett, Roger H., Hall, Montgomery, and Robinson. 3,112,518.
Hall, Gloria E., and F. H. Jenkins. Bathing chair for children. 3,086,222, 4–23–63, Cl. 4—185.
Hall, Harlow H.: *See*—
Ciegler, Alex, Nelson, and Hall. 3,079,380.
Hall, Harry D.: *See*—
Downing, Kenneth D., Hall, and Poston. 3,115,401.
Hall, Harry H., and R. P. Gutterman. Acoustical doppler firing device. 3,115,833, 12–31–63, Cl. 102—18.
Hall, Henry J. Device for freezing and releasing ice cubes. 3,075,365, 1–29–63, Cl. 62—355.
Hall, Horace N.: *See*—
Samuel, Donald G., Heck, and Hall. 3,086,327.
Hall, Horace N., to E. J. Lavino and Co. Tuyere block and reinforcing insert therefor. 3,088,725, 5–7–63, Cl. 266—41.
Hall, Hugh E., Jr.: *See*—
Allen, Joseph C., and Hall. 3,100,259.
Hall, Hugh E., Jr., to Texaco Inc. Radioactivity well logging. 3,072,791, 1–8–63, Cl. 250—83.3.
Hall, Hugh E., Jr., to Texaco Inc. Radioactivity well logging. 3,072,793, 1–8–63, Cl. 250—83.6.
Hall, Hugh E., Jr., and R. W. Pitts, Jr., to Texaco Inc. Collar locating system. 3,088,068, 4–30–63, Cl. 324—34.
Hall, Hugh E., Jr., and A. S. McKay, to Texaco Inc. Radioactivity well logging for carbon determination. 3,115,579, 12–24–63, Cl. 250—83.3.
Hall, Hugh J., to Varian Associates. Tuning means for flexible wall of resonant cavity of klystron amplifier. 3,082,386, 3–19–63, Cl. 333—83.
Hall, James A.: *See*—
Thomas, Jesse B., and Hall. 3,098,290.
Hall, James I., and C. S. Forde, to Kaiser Aluminum & Chemical Corp. Writer for recording rotation vertical variations of an apparatus. 3,112,153, 11–26–63, Cl. 346—113.
Hall, James R.: *See*—
Cole, Judson C., and Hall. 3,088,090.
Cole, Judson C., and Hall. 3,089,114.
Hall, James R., and W. F. Hennessey, Jr., to The Bendix Corp. Electrical connector. 3,090,028, 5–14–63, Cl. 339—174.
Hall, Jesse E., Sr., to Trojan, Inc. Rotary scratcher. 3,111,170, 11–19–63, Cl. 166—173.
Hall, Jesse E., Sr., and L. A. Bailey, to Abastecedora Jefe, S.A. Close tolerance scratchers. 3,071,191, 1–1–63, Cl. 166—173.
Hall, Joseph M., to American Can Co. Protective cover. 3,081,018, 3–12–63, Cl. 229—40.
Hall, Joseph P., Jr., J. F. Hardy, and M. E. Jordan, to Cabot Corp. Newsinks having excellent rub-off characteristics. 3,075,844, 1–29–63, Cl. 106—27.
Hall, Kenneth M.: *See*—
Eckert, George W., and Hall. 3,095,263.
Hall, Laurence S., to United States of America, Atomic Energy Commission. Method for exchanging energy with a plasma by magnetic pumping. 3,116,209, 12–31–63, Cl. 176—3.
Hall, Lawrence G., L. G. Cole, and C. E. Berry, to Consolidated Electrodynamics Corp. Electrode structure. 3,081,250, 3–12–63, Cl. 204—195.
Hall, Leslie B. Solid bullet lubricant. 3,097,169, 7–9–63, Cl. 252—23.
Hall, Lewis D., to Ultek Corp. Single cell vacuum apparatus. 3,107,844, 10–22–63, Cl. 230—69.
Hall, Lewis D., and J. W. Sugg, to Ultek Corp. Modular electronic ultrahigh vacuum pump. 3,112,864, 12–3–63, Cl. 230—69.
Hall, Lewis W., Jr., to Sun Oil Co. Preparation of methyl pentenes. 3,094,573, 6–18–63, Cl. 260—683.15.
Hall, Llewellyn J. Mobile weed and brush cutter. 3,113,411, 12–10–63, Cl. 56—25
Hall, Marchand B.: *See*—
Knoebel, Alfred J., and Hall. 3,080,148.
Hall, Marchand B., E. Staron, and R. E. Hager, to Acme Steel Co. Automatic box strapping machine. 3,101,663, 8–27–63, Cl. 100—30.
Hall, Marcus A.: *See*—
Daggett, Frederick K., Hall, and Roush. 3,107,697.
Hall, Matthew, & Co. Ltd.: *See*—
Allen, George, and Venison. 3,098,527.
Hall, Michael A., to Beckman Instruments, Inc. High resolution digital position transducer including a magnetic switch. 3,114,020, 12–10–63, Cl. 200—87.
Hall, Michael M. J., to British Dielectric Research Ltd. Capacitors. 3,090,895, 5–21–63, Cl. 317—260.
Hall, Mitchell A. Timer. 3,075,055, 1–22–63, Cl. 200—35.
Hall, Mitchell A. Cost wheel. 3,075,056, 1–22–63, Cl. 200—38.
Hall, Mitchell A. Timer mechanism. 3,090,843, 5–21–63, Cl. 200—38.
Hall Mitchell A. Adapter for coin slide. 3,106,278, 10–8–63, Cl. 194—92.
Hall, Mitchell A. Escutcheon for coin slides. 3,111,213, 11–19–63, Cl. 194—1.
Hall, Norris R.: *See*—
Eno, Wilber S., and Hall. 3,116,013.
Hall, Preston M.: *See*—
Pihl, Paul E., and Hall. 3,094,706.
Hall, Raymond L., to Ski-Dek Corp. Ski binding. 3,101,201, 8–20–63, Cl. 280—11.35.
Hall, Richard C., and R. E. Wien, to Westinghouse Electric Corp. Rolling silicon-iron. 3,099,176, 7–30–63, Cl. 80—60.
Hall, Richard H., to Xerox Corp. Method for formation of electrostatic image. 3,084,061. 4–2–63, Cl. 117—17.5.
Hall, Richard H., to United States of America, Army. Stepping motor. 3,087,077, 4–23–63, Cl. 310—37.
Hall, Richard H. Means responsive to sewing-machine presser-foot operation for work-control positioning of needle bar. 3,092,055, 6–4–63, Cl. 112—221.
Hall, Richard H., to Xerox Corp. Xerographic apparatus with magnetic conveyor. 3,113,042, 12–3–63, Cl. 118—637.
Hall, Richard W., to Barnes Engineering Co. Reflectometer. 3,091,154, 5–28–63, Cl. 88—14.
Hall, Robert D., and R. W. Johnston, to Sylvania Electric Products Inc. Pneumatic abrasive cutting apparatus. 3,084,484, 4–9–63, Cl. 51—8.
Hall, Robert E., to Dean L. Burdick Associates, Inc. Device for applying creams and the like to the skin. 3,088,470, 5–7–63, Cl. 132—79.
Hall, Robert H.: *See*—
Tait, Robert, Hall, and MacFarlane. 3,077,361.
Hall, Robert M.: *See*—
Anderson, Douglas O., and Hall. 3,081,813.
Hall, Roger N.: *See*—
Thonemann, Peter C., Robson, and Hall. 3,105,031.
Hall, Ronald H., to Aplin & Barrett Ld. Production of nisin. 3,093,551, 6–11–63, Cl. 195—96.
Hall, Russell E.: *See*—
Cavert, Clyde F., Hall, and Schabo. 3,098,191.
Hall, Russell V. Power lawn mower. 3,091,906, 6–4–63, Cl. 56—25.4.
Hall, Thomas R., to McCabe-Powers Body Co. Single-boom derricks. 3,096,886, 7–9–63, Cl. 212—35.
Hall-Toledo, Inc.: *See*—
Gray, Milo C., and Pope. 3,106,804.
Hall, Trevor W., to Panel Engineering Corp. Precast panel construction. 3,100,952, 8–20–63, Cl. 50—413.
Hall, Victor C., to Snyder Tool & Engineering Co. Capsule handling machine. 3,108,712, 10–29–63, Cl. 221—172.
Hall, Victor C., to Merck & Co., Inc. Disposable ampul. 3,114,369, 12–17–63, Cl. 128—216.
Hall, Wade E., and A. C. Poshkus, to Armstrong Cork Co. Preparation of expandable polystyrene particles. 3,088,925, 5–7–63, Cl. 260—2.5.
Hall, William F.: *See*—
Stello, Phyllis E., Hall, and Nestor. 3,103,428.

Hall, William G.: *See*—
Damen, Theodore C., and Hall. 3,103,629.
Hall, William G., to Bell Telephone Laboratories, Inc. Unanimity memory circuit utilizing transistor resistor logic means. 3,081,407, 3–12–63, Cl. 307—88.5.
Hall, William M., to Raytheon Co. Radar navigational display apparatus with a plurality of sweep voltages. 3,114,908, 12–17–63, Cl. 343—10.
Hall, William O.: *See*—
Phillips, Wallace G., Hall, and Overstreet. 3,084,641.
Hall, William R. Filtering systems. 3,100,747, 8–13–63, Cl. 210—167.
Hall, William R. Adjustable multiple V-belt pulley control mechanism with removable pulley sections. 3,108,485, 10–29–63, Cl. 74—230.17.
Hallam, Henry A., to Partridge's Models Ltd. Ski bindings. 3,095,210, 6–25–63, Cl. 280—11.35.
Hallas, Harry H., to The Chase-Shawmut Co. Method for manufacturing fuse links. 3,092,715, 6–4–63, Cl. 219—117.
Hallbauer, Dankmar, to General Electric Co. Cover latch for meter socket. 3,112,839, 12–3–63, Cl. 220—3.8.
Hallberg, Frederick C.: *See*—
Hovey, John M., and Hallberg. 3,081,405.
Hallberg, Irving H., to Borg-Warner Corp. Unthrottled internal combustion engine. 3,079,901, 3–5–63, Cl. 123—32.
Hallberg, Leif Y. G., to Hassle Apotekare Paul Nordstroms Fabriken, Aktiebolaget. Pharmaceutical iron preparations. 3,076,747, 2–5–63, Cl. 167—68.
Hallden, Carl E., Jr., to E. I. du Pont de Nemours and Co. Yarn fluid treatment apparatus. 3,084,413, 4–9–63, Cl. 28—1.
Halle, Kurt, to Siemens-Schuckertwerke Aktiengesellschaft. Regulating system for steam power plants with forced-flow boilers. 3,089,308, 5–14–63, Cl. 60—106.
Halle, Roger J. Connection of structural elements in the art of building. 3,097,730, 7–16–63, Cl. 189—36.
Hallenbeck, Emerson J. Rotary lawn mower. 3,112,594, 12–3–63, Cl. 56—25.4.
Hallenbeck, Virgil R., to General Motors Corp. Vehicle body. 3,096,117, 7–2–63, Cl. 296—107.
Haller, Augustine C., ½ to A. C. and P. T. Blakely. Process for preserving perishable products by refrigeration. 3,082,097, 3–19–63, Cl. 99—192.
Haller, John. Self-aligning spherical bearing. 3,115,375, 12–24–63, Cl. 308—72.
Haller, John F., and R. D. Twelves, to Olin Mathieson Chemical Corp. Process for the adsorption and desorption of diborane. 3,116,132, 12–31–63, Cl. 55—58.
Haller, Martin N., and C. J. Owen, to United States of America, Air Force. Printed circuit on a ceramic base and method of making same. 3,079,282, 2–26–63, Cl. 117—212.
Haller, Reinhold, and L. Scheffner, to W. Kauffmann. Vertical turning mill. 3,107,561, 10–22–63, Cl. 82—2.
Haller, Wolfgang K., to Mycalex Corp. of America. Method and apparatus for making reconstituted synthetic mica sheet. 3,087,482, 4–30–63, Cl. 125—24.
Hallerberg, Don M. Illuminated warning device with switch-operating mechanism. 3,090,949, 5–21–63, Cl. 340—366.
Hallerberg, Theodore W.: *See*—
Culbertson, George T. 3,084,311.
Hallett, Henry A., to Cheltenham Auto Controls Ltd. Position indicators. 3,094,863, 6–25–63, Cl. 73—37.5.
Hallett, Henry A., and R. W. Young, to Cheltenham Auto Controls Ltd. Gas filtration plant. 3,073,097, 1–15–63, Cl. 55—283.
Hallett, James T.: *See*—
Price, Glenn R., Walsh, and Hallett. 3,083,135.
Price, Glenn R., Walsh, and Hallett. 3,094,406.
Price, Glenn R., Walsh, and Hallett. 3,094,548.
Price, Glenn R., Walsh, and Hallett. 3,109,770.
Price, Glenn R., Walsh, and Hallett. 3,114,761.
Walsh, Edward N., and Hallett. 3,105,003.
Halley, Angus M., to James Halley & Sons Ltd. Apparatus for joining a fresh web to an exhausting web continuously feeding processing machinery. 3,093,337, 6–11–63, Cl. 242—58.2.
Halley, Angus M., to James Halley & Sons, Ltd. Apparatus for coating a moving web. 3,116,166, 12–31–63, Cl. 118—68.
Halley, Angus M., and L. E. Stapleford, to James Halley & Sons Ltd. Apparatus for drying printed webs of material. 3,079,702, 3–5–63, Cl. 34—86.
Halley, James, & Sons Ltd.: *See*—
Halley, Angus M. 3,093,337.
Halley, Angus M. 3,116,166.
Halley, Angus M., and Stapleford. 3,079,702.
Hallford, Ben R., and W. B. Davis, to Collins Radio Co. Temperature regulated chamber. 3,088,673, 5–7–63, Cl. 236—49.
Hallgren, Carl T. M., and A. G. L. Alden, to International Harvester Co. Marker shifting device for an agricultural implement. 3,101,787, 8–27–63, Cl. 172—127.
Halliburton Co.: *See*—
Adamson, Bliss, Jr. 3,075,462.
Ayres, Hugh J., and Chisholm. 3,103,811.
Bravenec, Frank R. 3,092,719.
Bravenec, Frank R., and Huddleston. 3,094,658.
Briggs, George E., Jr. 3,090,436.
Buckner, Guy O., Jr. 3,086,168.
Buckner, Guy O., Jr. 3,112,443.
Blydorp, Abraham A. 3,079,997.
Caldwell, Blake M., and Owen. 3,107,611.
Chisholm, Pat. T. W. 3,105,553.
Halliburton Co.: *See*—Continued
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Copland, George V., and Groner. 3,090,439.
Copland, George V., and Love. 3,084,548.
Dill, Walter R. 3,076,762.
Evans, George W., and Lan. 3,091,294.
Herndon, Luther J., Jr., Evans, and Land. 3,100,534.
Hower, Wayne F. 3,082,823.
Huddleston, Richard H., Jr. 3,076,955.
Huddleston, Richard H., Jr. 3,085,436.
Huddleston, Richard H., Jr. 3,109,137.
Huddleston, Richard H., Jr., Bravenec, and Eszlinger. 3,079,550.
Hyde, Walter E. 3,111,169.
Knight, John E. 3,103,389.
Knox, John A., Featherston, and Lasater. 3,076,757.
McGuire, Jack C., and Speegle. 3,095,929.
Poulter, Thomas C. 3,100,445.
Poulter, Thomas C., and Poncelet. 3,076,408.
Slate, Ralph L. 3,096,284.
Villalon, Severo L., Jr. 3,105,555.
Villalon, Severo L., Jr., and Richardson. 3,083,770.
Hallicrafters Co., The: *See*—
Orwin, Robert J. 3,107,333.
Halliday, William. Flaw-detection and like systems using sonic or ultrasonic waves. 3,086,195, 4–16–63, Cl. 340—15.
Hallidy, William M., to The Leece-Neville Co. Generating system regulation. 3,082,370, 3–19–63, Cl. 322—25.
Hallinan, Francis J., E. J. Czarnetzky, and A. I. Coombes, to Wilson & Co., Inc. Pet foods and method of packaging same. 3,115,409, 12–24–63, Cl. 99—7.
Halliwell, Carl W.: *See*—
Hurst, Norman R., and Halliwell. 3,113,760.
Halliwell, Ronald H., to E. I. du Pont de Nemours and Co. Low pressure tetrafluoroethylene polymerization process. 3,110,704, 11–12–63, Cl. 260—92.1.
Hallmark Cards, Inc.: *See*—
Campbell, Ernest C., Jr. 3,088,641.
Hawk, Gary D. 3,108,726.
Mathews, William K., and Wrob. 3,075,435.
Hallmark, Clyde E., to Thompson Ramo Wooldridge Inc Machine tool control system having feedrate control. 3,109,974, 11–5–63, Cl. 318—163.
Hallock, Edward C. Louver assembly. 3,070,855, 1–1–63, Cl. 20—62.
Hallock, Robert L., to Elastic Stop Nut Corp. of America. Deformable tubular fastener with external tapping threads. 3,085,463, 4–16–63, Cl. 85—40
Hallock, Robert L. Driven fastener. 3,088,361, 5–7–63, Cl. 85—28.
Hallock, Robert L. Driven fastener having penetrating point for attaching objects to metal. 3,095,777, 7–2–63, Cl. 85—31.
Hallonquist, Earland G., to MacMillan & Bloedel Ltd. Wood patching composition containing acrylic ester polymer and method of use. 3,098,053, 7–16–63, Cl. 260—31.2.
Hallowell, Dennis F., Jr., to Richfield Oil Corp. Oil and grease lubricating compositions and additive therefor. 3,106,533, 10–8–63, Cl. 252—34.7.
Hallows, Leonard B.: *See*—
Roth, Philip B., and Hallows. 3,072,534.
Halls, Lawrence M., to Sperry Rand Corp. Reciprocating mower drive. 3,113,412, 12–10–63, Cl. 56—296.
Halls, Lawrence M., and L. M. Bunim, to Sperry Rand Corp. Hay conditioner. 3,100,367, 8–13–63, Cl. 56—1.
Hallstrom, Bengt H.: *See*—
Falkenblad, Nils T., and Hallstrom. 3,099,519.
Hallstrom, Bengt H., to Separator, Aktiebolaget. Method and apparatus for preventing infection of heat exchange chambers. 3,099,520, 7–30–63, Cl. 21—2.
Hallstrom, Bengt H., to Separator, Aktiebolaget. Apparatus for heat treatment of liquids, such as milk, fruit juices and the like. 3,101,041, 8–20–63, Cl. 99—251.
Hallsworth, Arnold, to Steels Engineering Products Ltd. Remote control of Ward Leonard drive by generator speed variation. 3,099,779, 7–30–63, Cl. 318—157.
Halm Instrument Co., Inc.: *See*—
Lyon, Floyd A. 3,087,723.
Halpern, Alfred, to Synergistics, Inc. Colchicine glycyrrhetinate. 3,076,027, 1–29–63, Cl. 260—559.
Halpern, Alfred, to Synergistics, Inc. N-morpholine-beta-ethyl hydrazine and acid addition salts thereof. 3,086,975, 4–23–63, Cl. 260—247.5.
Halpern, Alfred, to Synergistics, Inc. Novel [nitric acid ester] derivatives of nicotinic acid. 3,092,634, 6–4–63, Cl. 260—295.5.
Halpern, Alfred, to Synergistics Inc. Gamma-aminobutyryl nicotinate. 3,108,113, 10–22–63, Cl. 260—295.5.
Halpern, Benjamin D.: *See*—
Dickstein, Jack, and Halpern. 3,112,293.
Halpern, Bernard R., to E. I. du Pont de Nemours and Co. Process for preparing photographic negatives. 3,072,496, 1–8–63, Cl. 117—5.5.
Halpern, Bernard R., and J. P. McNutt, III., to E. I. du Pont de Nemours and Co. Machine for obtaining images. 3,113,342, 12–10–63, Cl. 18—1.
Halpern, John W. Message transmission plants. 3,082,974, 3–26–63, Cl. 243—16.
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Ringold, Howard J., and Halpern. 3,071,579.
Zderic, John A., Bowers, and Halpern. 3,080,390.

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Zderic, John A., Halpern, and Iriarte. 3,071,581.
Zderic, John A., Halpern, and Iriarte. 3,071,582.
Zderic, John A., Halpern, and Iriarte. 3,071,603.
Zderic, John A., Halpern, and Iriarte. 3,074,936.
Zderic, John A., Halpern, and Iriarte. 3,074,976.
Zderic, John A., Halpern, and Iriarte. 3,076,803.
Zderic, John A., Halpern, and Iriarte. 3,099,655–7.
Halpern, Otto, to Syntex Corp. Steroidal lactones. 3,102,117, 8–27–63, Cl. 260—239.57.
Halpern, Otto, and H. J. Ringold, to Syntex Corp. Sterold hydrazones and hydrazides. 3,105,830, 10–1–63, Cl. 260—239.5.
Halpern, William, to Beckman Instrument, Inc. System for continuous blood pressure determination. 3,104,661, 9–24–63, Cl. 128—2.05.
Halstead, Calvert B.: *See*—
Guest, Howard R., Kiff, and Halstead. 3,087,918.
Guest, Howard R., Kiff, and Halstead. 3,110,703.
Halstead, John S. Resilient fairing strip for use in connection with resilient landing gears of aircraft and the like. 3,075,730, 1–29–63, Cl. 244—104.
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Calfee, Virgil T. 3,080,799.
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Halter, Howard M., and J. V. Fiore to American Machine & Foundry Co. Tobacco manufacture. 3,106,212, 10–8–63, Cl. 131—17.
Haltner, Arthur J., and C. S. Oliver, to General Electric Co. Method of providing a bearing surface. 3,075,279, 1–29–63, Cl. 29—149.5.
Halton, Donald: *See*—
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Haluska, Loren A., to Dow Corning Corp. Acyloxysilcarbosiloxanes and their uses. 3,109,013, 10–29–63, Cl. 260—448.2.
Halvorsen, Harold W., to United States of America, Navy. Position indicator and coincidence circuit. 3,075,300, 1–29–63, Cl. 35—12.
Halvorsen, Harry W. Can piercer. 3,070,882, 1–1–63, Cl. 30—16.
Halvorsen, Henry J.: *See*—
Reed, John W., and Halvorsen. 3,073,017.
Halvorsen, Roy A., and W. S. Russell, to Hooker Chemical Corp. Method of pickling and coating with vitreous enamel. 3,082,116, 3–19–63, Cl. 117—50.
Halvorsen, Trygve, and A. Cozza, to Combustion Engineering, Inc. Shell and tube type vapor generating unit. 3,103,206, 9–10–63, Cl. 122—34.
Halverson, Emmett H. Slingshot arrangement. 3,099,256, 7–30–63, Cl. 124—20.
Halverson, Ernest N., and F. P. C. Coker, to Canadian Industries Ltd. Pelletizing apparatus with a tangential flow entry. 3,103,700, 9–17–63, Cl. 18—12.
Halverson, Merlin L. Sports equipment carrying cart. 3,100,048, 8–6–63, Cl. 211—2.
Halverson, Milton A., and G. V. Olson. Rivet guns. 3,100,578, 8–13–63, Cl. 218—42.
Ham, Donald M., to General Electric Co. Mechanism for resetting rotatable shafts. 3,075,392, 1–29–63, Cl. 74—1.
Ham, Donald M., to General Electric Co. Gear assemblies with phased tooth displacement. 3,075,399, 1–29–63, Cl. 74—412.
Ham, Donald M., to General Electric Co. Indicating demand meter. 3,092,318, 6–4–63, Cl. 235—104.
Ham, Edward J., to Westinghouse Electric Corp. Electroluminescent device with integral arc-suppressing means. 3,103,608, 9–10–63, Cl. 313—108.
Ham, George E., to The Dow Chemical Co. Mixed ketals. 3,071,626, 1–1–63, Cl. 260—611.
Ham, George E., to J. T. Baker Chemical Co. Hard resilient copolymers of alpha-alkylstyrene with alkyl methacrylate and process for the preparation thereof. 3,072,622, 1–8–63, Cl. 260—86.7.
Ham, George E., to Monsanto Chemical Co. Diamine-urea-thiourea copolymer. 3,080,343, 3–5–63, Cl. 260—77.5.
Ham, John L.: *See*—
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Han, John L., and M. L. Torti, Jr., to National Research Corp. Purification of tantalum metal by reduction of the oxygen content by means of carbon. 3,107,165, 10–15–63, Cl. 75—10.
Hanac-Hanseln Aktiengesellschaft: *See*—
Thürlings, Hermann. 3,113,409.
Hamada, Kazuio: *See*—
Morimoto, Saichi, Ishihara, Yamamoto, Hamada, Imai, and Otsuka. 3,104,154.
Hamada, Yoshitsugu, to Yasuhito Yamaoka. Cooling system for internal-combustion engines. 3,078,831, 2–26–63, Cl. 123—41.52.
Hamaker, John C., Jr., to Vanadium-Alloys Steel Co. Anti-friction bearings and alloy steels used therein. 3,105,723, 10–1–63, Cl. 308—3.
Hamberg, Holger J. E., to Aktieselskabet Gavereklame. Cigarette dispensing apparatuses. 3,112,843, 12–3–63, Cl. 221—185.
Hamblin, Henry J., and H. J. Nation, to National Research Development Corp. Hydraulic power transmission systems. 3,085,403, 4–16–63, Cl. 60—97.
Hamblin, Robert J. J.: *See*—
Brown, Kenneth M., and Hamblin. 3,110,300.
Hamblin, Robert J. J., to Universal Oil Products Co. Apparatus for injecting secondary air into engine exhaust gases and for other uses. 3,082,597, 3–26–63, Cl. 60—30.
Hambling, James K.: *See*—
Yeo, Alan A., Hambling, and Alderson. 3,084,206.
Hamburgen, Arthur: *See*—
Greanias, Evon C., and Hamburgen. 3,072,886.
Greanias, Evon C., and Hamburgen. 3,105,956.
Hamburger Flugzeugbau G.m.b.H.: *See*—
Fricke, Wilhelm. 3,099,425.
Hamel, Denis M. H., to Pneumatiques et Caoutchour Manufacture Kleber Colombes. Expansion and compression joints for road surface layers. 3,106,879, 10–15–63, Cl. 94—18.
Hamel, Jacob S.: *See*—
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Hamel, William W. Electrical connectors. 3,112,975, 12–3–63, Cl. 339—89.
Hamelink, William B., to Minneapolis-Honeywell Regulator Co. Burner control apparatus. 3,082,813, 3–26–63, Cl. 158—28.
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White, William V., Hamell, and Danielczik. 3,092,498.
Hamer, Leland S., to FMC Corp. Rotary valve having segmental seat inserts and a resilient retaining sleeve. 3,072,379, 1–8–63, Cl. 251—171.
Hamer, Martin, and R. H. Brown, to Standard Oil Co. Motor fuel composition. 3,098,727, 7–23–63, Cl. 44—56.
Hamermesh, Charles L., to Interchemical Corp. Thermosetting coating compositions comprising amine resins and triacrylic-hexahydro-s-triazine adducts. 3,084,139, 4–2–63, Cl. 260—47.
Hamermesh, Charles L., and N. G. Gaylord, to Interchemical Corp. Phosphorus containing monomers. 3,076,011, 1–29–63, Cl. 260—461.
Hamermesh, Charles L., R. Bolstad, and G. J. Del Franco, to Interchemical Corp. New vinyl latex adhesives and laminates made therefrom. 3,077,427, 2–12–63, Cl. 154—46.
Hamernik, Edward L.: *See*—
Simko, Edward G., and Hamernik. 3,107,068.
Hamerstrand, George E.: *See*—
Hofrelter, Bernard T., Hamerstrand, and Mehltretter. 3,087,852.
Hames, William A., Jr., L. J. Jungemann, and G. W. Sisk, Jr., to Whirlpool Corp. Reverse air cycle air conditioner. 3,084,522, 4–9–63, Cl. 62—262.
Hamill, Gordon B.: *See*—
Hewett, Charles M., and Hamill. 3,096,640.
Hamill, James J.: *See*—
Kolaczewski, Mitchell S., Hobson, and Hamill. 3,080,334.
Hamill, Thomas M. Heat exchanger. 3,080,915, 3–12–63, Cl. 165—72.
Hamilton, Alan R., to Koehring-Waterous Ltd. Cylinder mold. 3,081,821, 3–19–63, Cl. 162—357.
Hamilton, Alvah H. Liquid applicator for livestock. 3,071,111, 1–1–63, Cl. 119—157.
Hamilton, Billy H., to Bell Telephone Laboratories, Inc. Regulator protection circuits. 3,106,674, 10–8–63, Cl. 323—22.
Hamilton, Charles W. F. Hydraulic jet propulsion apparatus for water-borne craft. 3,083,529, 4–2–63, Cl. 60—35.54.
Hamilton, Charles W. F. Hydraulic jet propulsion apparatus for water-borne craft. 3,097,623, 7–16–63, Cl. 115—12.
Hamilton Clamp & Stampings Ltd.: *See*—
Hinder, Gordon H. A. 3,089,175.
Hinder, Gordon H. A. 3,104,412.
Hamilton, Clark H. Syringe. 3,101,084, 8–20–63, Cl. 128—218.
Hamilton Cosco, Inc.: *See*—
Hamilton, Earl F. 3,114,578.
Hamilton, Donald A.: *See*—
Goldberg, Allan M., Hamilton, and James. 3,115,152.
Hamilton, Douglas J., to General Electric Co. Clock pulse distribution system for synchronously driving a plurality of flip-flops. 3,104,330, 9–17–63, Cl. 307—88.5.
Hamilton, Earl F., to Hamilton Cosco, Inc. Back rest. 3,114,578, 12–17–63, Cl. 297—460.
Hamilton, Francis E., G. V. Hawkins, R. E. Lawhead, Jr., and E. S. Hughes, Jr., to International Business Machines Corp. Digital computer. Re. 25,482, 11–26–63, Cl. 235—159.
Hamilton, Francis W., to Chrysler Corp. Air filter to carburetor attaching means. 3,115,402, 12–24–63, Cl. 55—505.
Hamilton, Gene E., A. B. Metzner, and J. E. Ehrreich. Process for the preparation of alkylene glycols. 3,091,647, 5–28–63, Cl. 260—635.
Hamilton, George A., to The Weatherhead Co. Adjustable valve head. 3,087,705, 4–30–63, Cl. 251—356.
Hamilton, George A., and R. N. Iversen, to The Weatherhead Co. Hose clamp with screw connected pivotally mounted clamping segments. 3,087,746, 4–30–63, Cl. 285—243.
Hamilton, Gerald P., to FMC Corp. Snipping cutter mounting assembly. 3,102,567, 9–3–63, Cl. 146—86.
Hamilton, Herbert D.: *See*—
Schneider, Charles H., Arledge, Hamilton, and Cassill. 3,104,182.
Hamilton, James, R. L. Lundberg, and P. E. Schoening, to General Electric Co. Coil for electromagnetic apparatus. 3,076,919, 2–5–63, Cl. 317—158.
Hamilton, James D.: *See*—
Firth, Donald, and Hamilton. 3,092,969.
Firth, Donald, and Hamilton. 3,115,066.
Hamilton, James M., M. Szkolnik, and E. Sondheimer. Systemic fungicides. 3,086,913, 4–23–63, Cl. 167—65.

Hamilton, James P., to American Vitrified Products Co. Bell and spigot tile and seal joint therefor. 3,073,609, 1-15-63, Cl. 277—168.

Hamilton, Joel A., to Polaroid Corp. Photographic apparatus. 3,080,805, 3-12-63, Cl. 95—13.

Hamilton, Joseph C.: *See*—
Cooke, Charles C., and Hamilton. 3,075,371.

Hamilton, Joseph P., to Crown Zellerbach Corp. Shipper dispenser. 3,095,968, 7-2-63, Cl. 206—52.

Hamilton, Joseph P., to American Box Corp. Strawberry tray. 3,102,674, 9-3-63, Cl. 229—15.

Hamilton, Joseph P., and G. C. Burkhardt, to Zellerbach Paper Co. Strapping and shearing tool. 3,114,399, 12-17-63, Cl. 140—93.2.

Hamilton, Kenneth, to Mohasco Industries, Inc. Paper yarn apparatus. 3,091,075, 5-28-63, Cl. 57—32.

Hamilton Kent Mfg. Co.: *See*—
Nathan, Tracy D. 3,107,377.
Nathan, Tracy D. 3,107,922.

Hamilton Mfg. Co.: *See*—
Haban, Frank. 3,073,041.
Hiers, Victor H. 3,075,447.
Kanitz, Roy E. 3,112,954
Kanzelberger, Claude G. 3,101,062.
Kanzelberger, Claude G., and Kanitz. 3,101,064

Hamilton, Matthew E., to J. I. Case Co. Agricultural implement. 3,077,231, 2-12-63, Cl. 172—421.

Hamilton, Noble E., to Clevite Corp. Apparatus for fabricating semiconductor devices. 3,070,859, 1-1-63, Cl. 22—116.

Hamilton, Noble E., to Clevite Corp. Pull and rotation mechanism for crystal growing apparatus. 3,094,006, 6-18-63, Cl. 74—22.

Hamilton, Paul M., to Monsanto Chemical Co. Production of single crystals of ferrites. 3,115,469, 12-24-63, Cl. 252—62.5.

Hamilton, Paul M., and G. B. Kistiakowsky, to Monsanto Chemical Co. Composition of metal oxides and carbon black. 3,094,428, 6-18-63, Cl. 106—307.

Hamilton, R. E. Harris, and C. A. Bryant, to Cabin Crafts, Inc. Tufting machine. 3,112,717, 12-3-63, Cl. 112—79.

Hamilton Research Associates, Inc.: *See*—
Godcharles, Charles A., Blyth, Jacobson, and Gabrielson. 3,100,942.

Hamilton, Robert M., to General Mills, Inc. Wheat starch treatment. 3,087,839, 4-30-63, Cl. 127—38.

Hamilton, Robert S., and R. J. Curle, to The Corrugated Container Co. Disposable-type dispensing container package. 3,090,526, 5-21-62, Cl. 222—105.

Hamilton, Russell, to The Celastic Corp. Stiffening shoe counters. 3,113,906, 12-10-63, Cl. 161—165.

Hamilton, Russell W., to St. Regis Paper Co. Extensible paper product and process. Re. 25,335, 2-19-63, Cl. 162—113.

Hamilton, Thomas E. Decorative attachment for spoke wheels. 3,082,041, 3-19-63, Cl. 301—37.

Hamilton, Thomas E., 47%, to J. T. Davis, and 6%, to W. Akin. Splint. 3,110,307, 11-12-63, Cl. 128—89.

Hamilton, Thomas W. Weighing machines. 3,108,649, 10-29-63, Cl. 177—208.

Hamilton Tool Co., The: *See*—
Huffman, Harold W. 3,084,449.
Huffman, Harold W. 3,096,949.
Huffman, Harold W. 3,106,859.
Yost, Kenneth J., and De Lapo. 3,105,982.

Hamilton, Wallace, to Pneumo Dynamics Corp. Hatch cover system. 3,113,613, 12-10-63, Cl. 160—188.

Hamilton Watch Co., The: *See*—
Bly, Donald A. 3,113,417.
Detwiler, Harry S., Reese, and Serlemitsos. Re. 25,328.
Epperlein, Helmut. 3,095,690.
Jackson, Roderick M. 3,098,185.
Jensen, Kaj H. 3,090,193.
Le Blanc, Robert E. 3,114,238.
Reber, John, Jr. 3,090,245.
Reber, John, Jr., Bly, and Fritsch. 3,071,920.
Reese, James H., and Serlemitsos. 3,091,914.
Swarr, John H., and Hurwitz. 3,097,980.
Torres, Joseph. 3,105,328.
Van Horn, John A. 3,091,916.
Van Zyl, Bernard. 3,114,808.

Hamilton, William F., to Lockheed Aircraft Corp. Re-circulating toilet sump foaming compositions and method for producing the foam under toilet operation conditions. 3,107,216, 10-15-63, Cl. 210—60.

Hamilton, William F., M. Levine, and E. Simon, to Lockheed Aircraft Corp. Chemical smog control. 3,084,024, 4-2-63, Cl. 23—4.

Hamilton, William L., to Allis-Chalmers Mfg. Co. Fuel control for engines. 3,107,483, 10-22-63, Cl. 60—13.

Hamilton, William L.: *See*—
Lovell, James A., and Hamilton. 3,082,356.

Hamilton, William L., to Thompson Ramo Wooldridge, Inc. Injector chamber construction. 3,077,078, 2-12-63, Cl. 60—39.48.

Hamilton, William L., to Thompson Ramo Wooldridge Inc. Injector chamber construction. 3,105,356, 10-1-63, Cl. 60—39.48.

Hamilton, William P.: *See*—
Fichter, Harry L., Jr., and Hamilton. 3,102,029.
Sprague, Robert H., Fichter, and Hamilton. 3,095,303.
Sprague, Robert H., Fichter, and Hamilton. 3,100,703.
Sprague, Robert H., Fichter, and Hamilton. 3,102,810.
Sprague, Robert H., Fichter, and Hamilton. 3,104,973.

Hamiter, William L., and J. M. Collins, to United Merchants and Manufacturers, Inc. Process for coloring glass fabrics. 3,108,897, 10-29-63, Cl. 117—37.

Hamlin, Charles E., and T. J. Dorse, to North American Aviation, Inc. Pipe coupling having a static seal. 3,106,413, 10-8-63, Cl. 285—212.

Hamlin, Chauncey J., Jr., to North American Aviation, Inc. Rocket engine starting method. 3,085,393, 4-16-63, Cl. 60—35.3.

Hamlin, Frank S.: *See*—
Reed, Edwin E., Hale, and Hamlin. 3,097,516.

Hamlin, George H., Jr., S. K. Hart, A. J. Kreisman, J. L. Marsh, Jr., and C. H. Snyder, to Aero Service Corp. Information dissemination apparatus. 3,086,298, 4-23-63, Cl. 35—41.

Hamlin, Humphrey A. S.: *See*—
Horner, Henry L., and Hamlin. 3,091,365.

Hamlin, James S., to E. I. du Pont de Nemours and Co. Heat dissipating photographic apparatus. 3,087,402, 4-30-63, Cl. 95—73.

Hamlin, Jerry F.: *See*—
Lindstaedt, Frank F., Hamlin, and Call. 3,082,578.
Lindstaedt, Frank F., Hamlin, and Call. 3,085,037.

Hamlin, William E.: *See*
Clayborne, Norman F., Kerns, and Hamlin. 3,074,562.

Hamlyn, Peter M., J. E. Snelling, and B. G. Horstmann, Marine propulsion units. 3,085,544, 4-16-63, Cl. 115—41.

Hamm, Acey B.: *See*—
Hamm, Alton B. 3,089,156

Hamm, Alton B., ½ to Acey B. Hamm. Marking buoy. 3,089,156, 5-14-63, Cl. 9—9

Hamm, Frank A., and R. L. Wellner, to Minnesota Mining and Mfg. Co. Electrosensitive recording process and sheets. 3,087,869, 4-30-63, Cl. 204—2.

Hamm, Franklin A., and R. L. Wellner, to Minnesota Mining and Mfg. Co. Novel developer and process for the use thereof in electrolytic image reproduction. 3,085,051, 4-9-63, Cl. 204—18.

Hamm, Heinrich: *See*—
Neidecker, Rudolf, and Hamm. 3,086,190.

Hamm, Phillip J.: *See*—
Russell, William M. 3,113,567.

Hamm, Thomas H. Heat dissipating tube shield. 3,106,601, 10-8-63, Cl. 174—35.

Hammack, Jerome B.: *See*—
Faget, Maxime A., Meyer, Chilton, Blanchard, Kehlet, Hammack, and Johnson. 3,093,346.

Hamman, Denver C., to Illinois Tool Works, Inc. Sheet metal nut having regular polygonal opening with helically deflected edges. 3,086,421, 4-23-63, Cl. 85—32.

Hamman, Lyle J., to Eaton Stamping Co. Spring starter. 3,081,760, 3-19-63, Cl. 123—179.

Hamman, Lyle J., to Eaton Stamping Co. Spring starter. 3,099,255, 7-30-63, Cl. 123—179.

Hammann, John W. Motor control. 3,090,897, 5-21-63, Cl. 318—138.

Hammann, Paul E., K. J. Nelson, and R. L. Wagner, to The Trane Co. Centrifugal fan. 3,093,299, 6-11-63, Cl. 230—127.

Hammann, William C.: *See*—
Blake, Edward S., Edwards, and Hamann. 3,080,321.

Hammar, Martin, to North American Philips Co., Inc. Photoelectric device for indicating spots on a surface. 3,091,699, 5-28-63, Cl. 250—219.

Hammel, David R.: *See*—
Fischer, Wilbur F., and Hammel. 3,073,797.
Phelan, Richard R., Hammel, Meyer, and Dunkel. 3,112,285.

Hammel, David R., and C. J. Jankowski, to Esso Research and Engineering Co. Method of vulcanizing butyl rubber, halosulfonated polyethylene, and N-methyl-N-nitro-P-nitrosoaniline composition and resulting vulcanizate. 3,081,279, 3-12-63, Cl. 260—45.5.

Hammel, Siegfried, and K. Herzig, to Brown, Boveri & Cie., Aktiengesellschaft, and Beteiligungsl- und Patentverwaltungsgesellschaft mit beschrankter Haftung. Field spacer for electric bunch conductors. 3,113,994, 12-10-63, Cl. 174—40.

Hammel, Wallace W., Jr., to Singer-Cobble, Inc. Photocell controlled pattern attachment for tufting machines. 3,103,187, 9-10-63, Cl. 112—79.

Hammell, Kemper M., to Aircraft Marine Products, Inc. Electrical connections. 3,112,150, 11-26-63, Cl. 339—276.

Hammell, Kemper M., and H. E. Stine, Jr., to AMP Inc. Tool for applying electrical connectors. 3,107,560, 10-22-63, Cl. 81—15.

Hammer, Alexander: *See*—
Falcone, James F., and Hammer. 3,078,765.

Hammer, Elmer G., Jr., and G. A. Rynders, to McGraw-Edison Co. Electrical capacitor. 3,098,956, 7-23-63, Cl. 317—243.

Hammer, Ervin J. and O. H. Transfer mechanism for beet harvester. 3,103,979, 9-17-63, Cl. 171—58.

Hammer, Frank E.: *See*—
Scott, Don, and Hammer. 3,095,307.

Hammer, Jacobus A., to Internationale Navigatie Apparaten N.V. Logarithmic amplifier using common cathode positive compensating feedback. 3,090,011, 5-14-63, Cl. 328—145.

Hammer, Oliver S., to United Electronics Laboratories, Inc. Film gate and associated front end assembly of camera. 3,102,448, 9-3-63, Cl. 88—17.

Hammer, Orrin H.: *See*—
Hammer, Ervin J. and O. H. 3,103,979.

Hammer, Otto, to Dresser Industries, Inc. Drill bit with improved core destroying means. 3,091,300, 5-28-63, Cl. 175—333.

Hammer, Steffen. Method for production of reinforced bags, tobacco, pouches, etc., of synthetic foil. 3,105,417, 10-1-63, Cl. 93—35.

Hammer, Waldemar. Face-frame press. 3,112,925, 12-3-63, Cl. 269—25.

Hammerand, Donald J., to Admiral Corp. Knob assembly for guided link. 3,082,642, 3-26-63, Cl. 74—543.

Hammerand, Donald J. Spindle adapter. 3,092,391, 6-4-63, Cl. 274—10.

Hammerberg, Edgar S., to Armour and Co. Preparation of aluminum alcoholates from non-anhydrous lower alcohols. 3,083,218, 3-26-63, Cl. 260—448.

Hammerberg, Edgar S., and R. Cheesrown, to Armour and Co. Catalytic decarboxylation of fatty acids to produce ketones. 3,075,016, 1-22-63, Cl. 260—595.

Hammerly, Herman J., and R. A. Salomone, to General Electric Co. Circuit breaker panel assembly. 3,111,354, 11-19-63, Cl. 339—75.

Hammermueller, Ernst: *See*—
Tochner, Irving A., Zelenko, and Hammermueller. 3,084,387.

Hammes, Josef J., to Lowell Mfg. Co. Integral loud speaker baffle. 3,108,654, 10-29-63, Cl. 181—31.

Hammett, Robert S.: *See*—
Illiger, Harry B., and Hammett. 3,092,120.

Hammitt, Andrew H., and H. L. Birum, Jr.; said Birum assor. to said Hammitt. Partition assembly. 3,075,253, 1-29-63, Cl. 20—4.

Hammond, Charles F.: *See*—
Hudgens, Bernard C., Hammond, and Kohlitz. 3,081,644.

Hammond, Cleon, and E. Davidson, to Ethicon, Inc. Suture and holder. 3,112,825, 12-3-63, Cl. 206—63.3.

Hammond, Gerald T. Article grouping and stacking apparatus. 3,112,136, 11-26-63, Cl. 294—107.

Hammond, Gilbert P.: *See*—
Short, Robert J., Hammond, and Joyce. 3,108,853.

Hammond, James W.: *See*—
Gearhart, Walter S., and Hammond. 3,101,101.
Gearhart, Walter S., and Hammond. 3,101,102.

Hammond, John E., to National Distillers and Chemical Corp. Packaging films and package produced therefrom. 3,099,350, 7-30-63, Cl. 206—46.

Hammond, John H., Jr.: *See*—
Chaffee, Emory L. 3,110,023.

Hammond, John S. Pilot operated valve. 3,076,630, 2-5-63, Cl. 251—30.

Hammond, Laurens, to Hammond Organ Co. Capacity tuned oscillator. 3,077,136, 2-12-63, Cl. 84—1.1.

Hammond Lead Products, Inc.: *See*—
Wilke, William P., III, Nordyke, and Johnstone. 3,080,248.

Hammond, Lee C., to Hammond Machinery Builders, Inc. Table support structure. 3,114,223, 12-17-63, Cl. 51—55.

Hammond Machinery Builders, Inc.: *See*—
Bell, Ramsay M. 3,099,904.
Bell, Ramsay M., and Jepson. 3,099,849.
Hammond, Lee C. 3,114,223.
Robischung, Philip J., and Sutton. 3,115,454.
Sutton, Donald E. 3,107,461.

Hammond Organ Co.: *See*—
Hammond, Laurens. 3,077,136.
Hanert, John M. 3,109,878.
Hanert, John M. 3,116,358.
Haviland, Lyman J. 3,099,930.
Young, Alan C. 3,093,702.
Young, Alan C. 3,106,610.

Hammond, Richard F., and H. C. Spicer, to General Electric Co. Electrode and method of preparing the same for electron discharge devices. 3,080,498, 3-5-63, Cl. 313—178.

Hammond, Wardlaw M., Jr., to Martin-Marietta Corp. Guided missile training and simulation device. 3,091,869, 6-4-63, Cl. 35—25.

Hammond, Wayne S., D. H. Defries, and R. E. Kenyon. Wire solder dispensing device. 3,101,689, 8-27-63, Cl. 113—94.

Hammond, William F., III: *See*—
Traksel, Johan, and Hammond. 3,106,179.

Hamner, Glen P.: *See*—
Corbett, Luke W., Adams, and Hamner. 3,087,887.
Guttner, George, Mason, and Hamner. 3,090,748.

Hamontre, Hugh C., to United States of America, Navy. Self damping shock and vibration mount. 3,102,722, 9-3-63, Cl. 267—1.

Hampden Specialty Products Corp.: *See*—
Lockshin, Samuel D. 3,089,541.

Hampshire Chemical Corp.: *See*—
Singer, John J., and Weisberg. 3,115,511.

Hampshire, David W. H.: *See*—
Coady-Farley, James T., and Hampshire. 3,080,511.
Coady-Farley, James T., Hampshire, and Walker. 3,084,315.
Williamson, David T. N., Walker, Shepherd, and Hampshire. 3,098,186.

Hampshire, William J., to Goodyear Aircraft Corp. Nozzle for spraying a mixture of fibers and resin. 3,073,534, 1-15-63, Cl. 239—422.

Hampton, C. & J., Ltd.: *See*—
Laycock, Alfred H., and Lees. 3,085,456.

Hampton, Edward L., to Middletown Mfg. Co. Swiveled rocking chair. 3,101,971, 8-27-63, Cl. 297—259.

Hampton, Lucian W. Load-carrying attachments for bicycles and similar vehicles. 3,094,257, 6-18-63, Cl. 224—42.

Hampton, William C., to American Instrument Co., Inc. Penetrometer and filling device therefor for porosimeters. 3,073,357, 1-15-63, Cl. 141—31.

Hampton, William C., to American Instrument Co., Inc. Thermal conductivity bridge circuit. 3,091,957, 6-4-63, Cl. 73—27.

Hampton, William J.: *See*—
Brugge, Walter J., Hueber, and Hampton. 3,077,828.

Hamreus, Robert G.: *See*—
Frey, Max, Hamreus, and Smith. 3,071,296.

Hamrick, James C.: *See*—
Weltzel, Edward W., and Hamrick. 3,102,715.

Hamrick, Joseph T.: *See*—
Robertson, Anthony E., and Hamrick. 3,101,592.

Hamrick, Joseph T., to Thompson Ramo Wooldridge Inc. Liquid fluorine seal. 3,081,095, 3-12-63, Cl. 277—1.

Hamrick, Joseph T., and L. C. Rose, to Thompson Ramo Wooldridge Inc. Method of igniting rocket fuels. 3,101,589, 8-27-63, Cl. 60—35.4.

Hamsag, Ernest: *See*—
Hamsag-Garshanin, Xenia, and Hamsag. 3,107,511.

Hamsag-Garshanin, Xenia, and E. Hamsag. Colored flame candle. 3,107,511, 10-22-63, Cl. 67—22.

Hamson, Frank C. Pipe coating machine. 3,102,319, 9-3-63, Cl. 25—38.

Hanak, Richard J. Electrical systems. 3,082,405, 3-19-63, Cl. 340—171.

Hanau Engineering Co., Inc.: *See*—
Beu, Richard A. 3,089,941.

Hanawai Mfg. Co., Ltd.: *See*—
Lent, Ralph C. 3,099,393.
Lent, Ralph C. 3,099,462.

Hanbury, John C. Automatic lumber sorter. 3,080,052, 3-5-63, Cl. 209—75.

Hanbury, John C. Automatic lumber sorter. 3,085,686, 4-16-63, Cl. 209—82.

Hance, Charles R.: *See*—
Rauch, Emil B., and Hance. 3,079,259.

Hance, Richard J., to Leeds and Northrup Co. Rotary kiln shell temperature scanning system. 3,101,618, 8-27-63, Cl. 73—351.

Hancock, Charles L., ½ to G. Miller. Fishing line float. 3,106,797, 10-15-63, Cl. 43—43.11.

Hancock, James E. Two-wheeled scraper. 3,090,139, 5-21-63, Cl. 37—8.

Hancock, James L., and L. J. Lakes, to General Motors Corp. Method of cold welding aluminum members. 3,100,933, 8-20-63, Cl. 29—470.1.

Hancock, John H.: *See*—
Stubblefield, Thomas A. 3,090,431.

Hancock, Kenneth G., to Electro-Hydraulics Ltd. Hydraulic systems. 3,073,340, 1-15-63, Cl. 137—565.

Hancock, Robert D., to Pacific Semiconductors, Inc. Process of etching semiconductors and etchant solutions used therefor. 3,107,188, 10-15-63, Cl. 156—17.

Hancock, Roger H. Y.: *See*—
Firth, Donald, and Hancock. 3,089,427.

Handcraft Co., Inc.: *See*—
Hiestand, Preston E., and Mills. 3,093,916.

Handel, George J., Jr., to AMP Inc. Terminal applicator construction. Re. 25,423, 7-23-63, Cl. 1—177.

Handel, Neil E., to Industrial Nucleonics Corp. Density measuring apparatus providing a substantially pure beam of radiation from composite sources. 3,094,622, 6-18-63, Cl. 250—83.3.

Handelman, Eileen T., to Bell Telephone Laboratories, Inc. Fabrication of semiconductor devices. 3,085,033, 4-9-63, Cl. 148—1.5.

Handler, Milton E., to S. A. Hirsh Mfg. Co. Floor protector. 3,099,891, 8-6-63, Cl. 45—137.

Handler, Milton E., and R. J. Bellon, to S. A. Hirsh Mfg. Co. Tray shelving. 3,097,746, 7-16-63, Cl. 211—126.

Händler, Wolfgang: *See*—
Volgt, Heinz E., and Händler. 3,098,219.

Handley Brown Heater Co.: *See*—
Handley, Harold E. 3,085,323.

Handley, Harold E., to Handley Brown Heater Co. Method of making an enclosure. 3,085,323, 4-16-63, Cl. 29—416.

Handley, Harold E., to McGraw-Edison Co. Box beam. 3,103,262, 9-10-63, Cl. 189—37.

Handley, Harold E., R. L. Whitman, and L. J. Sparkia, to McGraw-Edison Co. Method of making structural members. 3,104,454, 9-24-63, Cl. 29—155.

Handley Industries, Inc.: *See*—
Whitman, Robert L. 3,111,030.
Whitman, Robert L. 3,115,267.

Handley, John R., to Calpat Products, Inc. Street hose for pneumatically actuated parking meter. 3,090,401, 5-21-63, Cl. 137—778.

Handley, Lawrence M., to United Aircraft Corp. Rocket propellant injector. 3,085,394, 4-16-63, Cl. 60—35.6.

Handley, Melvin F., and K. G. Seymour, to The Dow Chemical Co. Method for improving plant growth using synthetic ion exchange resins and the product thereof. 3,082,074, 3-19-63, Cl. 71—1.

Handling Devices Co., Inc.: *See*—
Sherman, John F., Jr. 3,089,178.

Handwerk, Erwin C., G. J. Gunzburger, and J. S. Lapides, to Wyandotte Chemicals Corp. Process for densifying soda ash. 3,104,942, 9–24–63, Cl. 23—63.

Handwerk, Glenn E., to Stearns-Roger Mfg. Co. Gas purification system. 3,079,238, 2–26–63, Cl. 23—226.

Handwerk, Otto T.: *See*—
Kushmuk, Walter P., and Handwerk. 3,075,412.

Handwerk, William B.: *See*—
Goekler, Robert G., and Handwerke. 3,095,501.

Handwerk, William B., and Ira L. Pangborn, to Crose Perrault Equipment Corp. Pipe supporting and turning assembly. 3,090,513, 5–21–63, Cl. 214—340.

Handy & Harman: *See*—
Sistare, George H., and Coxe. 3,114,631.

Handy-Clean Co., Inc.: *See*—
Helt, Glenn K. 3,076,468.

Handy-Hannah Products Corp.: *See*—
Fay, Robert B. 3,073,037.

Hanebuth, Paul N., to Stewart-Warner Corp. Flexible shaft assembly. 3,083,406, 4–16–63, Cl. 64—2.

Haneda, Seisaku, and M. Ariga, to O-M Ltd. Slivers magnitude uniforming apparatus in drawing machines. 3,074,120, 1–22–63, Cl. 19—241.

Haneda, Seisaku, and M. Ariga, to O-M Co., Ltd. and Nitto Boseki Co., Ltd., jointly. Sliver let off device of a carding machine. 3,102,305, 9–3–63, Cl. 19—157.

Hanegraaf, Johannes A.: *See*—
Szpilfogel, Stefan A., Hanegraaf, and van Dijck. 3,112,328.

Haner, Lambert, and D. J. Dolan, to Avtron Mfg., Inc. Count rate and trend monitoring system. 3,108,207, 10–22–63, Cl. 317—149.

Hanert, John M., to Hammond Organ Co. Percussion tone monophonic electrical musical instrument. 3,109,878, 11–5–63, Cl. 84—1.12.

Hanert, John M., to Hammond Organ Co. Expression pedal control system providing reverberation and having latch means. 3,116,358, 12–331–63, Cl. 84—1.25.

Hanes Hosiery Mills Co.: *See*—
Sizemore, Walter R. 3,100,010.

Hanes, Lewis F., to Phillips Petroleum Co. Conveyor package lifter assembly. 3,102,628, 9–3–63, Cl. 198—25.

Hanes, P. H., Knitting Co., The: *See*—
Cantrell, William W. 3,092,839.

Hanes, Robert H., and R. J. Younquist, to Minnesota Mining and Mfg. Co. Transducing apparatus and cartridge therefor having duplicate coaxial reels. 3,107,279, 10–15–63, Cl. 179—100.2.

Hanes, Vaughan D., to Aerojet-General Corp. Downhole actuator for well tools. 3,113,188, 12–3–63, Cl. 200—61.53.

Haneswerth, Stanley D., Jr.: *See*—
Hearne, Richard A., and Haneswerth. 3,081,880.

Hanewinkel, Lorenz, to Zuse KG. Information storage device. 3,083,354, 3–26–63, Cl. 340—174.

Haney, Stanley C., and J. A. Verdol, to Sinclair Research Inc. Fuel oil. 3,088,815, 5–7–63, Cl. 44—71.

Hanganutiu, Marius, and D. Tanasescu, to Ministerul Industriei Petrolului Si Chimiei. Static reactor and plant for electric-arc cracking of hydrocarbons. 3,113,919, 12–10–63, Cl. 204—328.

Hanggi, George J., D. W. McCulloch, and F. H. Meyer. Method and apparatus for low temperature analysis. 3,071,686, 1–1–63, Cl. 250—51.

Hanggi, George J., and C. C. Smith, to Continental Oil Co. Method and apparatus for fatigue testing tubular products and the like. 3,102,415, 9–3–63, Cl. 73—37.

Hanhart, Walter, to Ciba Ltd. Polyazo-dyestuffs. 3,078,266, 2–19–63, Cl. 260—146.

Hanington, Charles A., to The Scholl Mfg. Co., Inc. Mechanism for and method of producing surgical pads. 3,088,353, 5–7–63, Cl. 83—24.

Hanink, Dean K., and E. L. Bolin, to General Motors Corp. Vapor blasting nickel plated steel. 3,080,643, 3–12–63, Cl. 29—156.8.

Hanislan, John, and E. H. Lightcap, to The M. W. Kellogg Co. Recovery of hydrocarbons. 3,096,273, 7–2–63, Cl. 208—101.

Hank, Emil J., and J. D. Gayer, to Good Roads Machinery Corp. Automated leaf collector. 3,087,187, 4–30–63, Cl. 15—340.

Hanke, Clarence F. Exercising apparatus with crankshaft operable selectively by foot pedals or hand levers. 3,112,108, 11–26–63, Cl. 272—58.

Hanke, Merlin S. Mechanical interlock union. 3,105,709, 10–1–63, Cl. 287—20.

Hanken, Albert F. G.: *See*—
Chope, Henry R., and Hanken. 3,082,323.

Hanken, George H., to Eastman Kodak Co. Self-threading motion picture projector. 3,081,925, 3–19–63, Cl. 226—91.

Hankes, Elmer J.: *See*—
Procter, Samuel A. 3,089,966.

Hankes, Elmer J. Load gauging apparatus. 3,076,333, 2–5–63, Cl. 73—141.

Hankes, Elmer J., J. D. Firehammer, and R. F. Lambert, said Firehammer and said Lambert assors. to said Hankes. Data processing system. 3,076,957, 2–5–63, Cl. 340—173

Hankey, Ernest H.: *See*—
Baer, Massimo, and Hankey. 3,085,082.

Hankison, Paul M.: *See*—
Sexton, John L. 3,086,591.

Hanko, Emma M. and W. B. Women's boot heel insert. 3,077,679, 2–19–63, Cl. 36—7.3.

Hanko, William B.: *See*—
Hanko, Emma M. and W. B. 3,077,679.

Hanks, Charles W., to Stauffer Chemical Co. Electron-beam furnace with magnetic guidance and flux concentrator. 3,080,626, 3–12–63, Cl. 22—57.2.

Hanks, Charles W., to Stauffer Chemical Co. Electron beam furnace with magnetically guided axial and transverse beams. 3,101,515, 8–27–63, Cl. 22—57.2.

Hanks, Charles W., to Stauffer Chemical Co. Electron-beam furnace with double-coil magnetic beam guidance. 3,105,275, 10–1–63, Cl. 22—57.2.

Hanks, Charles W., to Temescal Metallurgical Corp. Wide angle viewing apparatus for high vacuum systems. 3,114,790, 12–17–63, Cl. 88—1.

Hanks, Charles W., C. D. A. Hunt, and D. A. Vance, to Stauffer Chemical Co. Method and apparatus for controlling electrical discharges. 3,078,388, 2–19–63, Cl. 315—107.

Hanks, Gale S., and R. W. Keil, to United States of America, Atomic Energy Commission. Method of brazing beryllium. 3,090,117, 5–21–63, Cl. 29—494.

Hanks, Homer C., to United States Steel Corp. Thickness gage for conical articles. 3,105,304, 10–1–63, Cl. 33—143.

Hanks, Hugh C., Jr., to Martin-Marietta Corp. Electronic waveguide switch. 3,092,788, 6–4–63, Cl. 333—1.1.

Hanks, Raymond J. Timing apparatus. 3,103,099, 9–10–63, Cl. 58—144.

Hanksemft Co.: *See*—
Mykiebust, Paal. 3,110,748.

Hänle, Eugen. Annular spring. 3,073,585, 1–15–63, Cl. 267—9.

Hänlein, Walter, to Siemens-Schuckertwerke Aktiengesellschaft. Method of manufacturing a peltier thermopile. 3,071,495, 1–1–63, Cl. 117—212.

Hanlein, Wilfred F., to Forstner, Inc. Two layer expansion bracelet having resilient connectors. 3,073,133, 1–15–63, Cl. 63—5.

Haniet, Jacques M. N., to Electro Radiation, Inc. Solid state camera apparatus and system. 3,083,262, 3–26–63, Cl. 178—7.1.

Hanley, Bernard C.: *See*—
Adkins, Archibald W., and Hanley. 3,102,655.

Hanley, George P., to General Motors Corp. Engine timing and balancing mechanism. 3,106,195, 10–8–63, Cl. 123—90.

Hanley, George P., to General Motors Corp. Countershaft driving system for internal combustion engine and the like. 3,110,195, 11–12–63, Cl. 74—604.

Hanley, George P., and C. E. Sloan to General Motors Corp. Variable speed governor. 3,106,097, 10–8–63, Cl. 73—454.1.

Hanley, William G., to Rockwell-Standard Corp. Brake camshaft mounting. 3,076,683, 2–5–63, Cl. 308—36.1.

Hanley, William G, and F. H. Fisher, to Rockwell-Standard Corp. Brake actuating mechanism. 3,076,531, 2–5–63, Cl. 188—205.

Hanley, William M., to FMC Corp. Strainer. 3,074,567, 1–22–63, Cl. 210—299.

Hanlon, Joseph F., to American Cyanamid Co. Applicator. 3,081,479, 3–19–63, Cl. 15—506.

Hanlon, Patrick G. Cleaning device and method of making same. 3,094,735, 6–25–63, Cl. 15—506.

Hann, Douglas G.: *See*—
Geil, Philip A. M., and Hann. 3,080,737.

Hann, Douglas G., and R. F. Ramsay, to Elemelt Ltd. Furnace for melting or refining glass electrically. 3,098,111, 7–16–63, Cl. 13—6.

Hann, Paul D.: *See*—
Van Pool, Joe, and Hann. 3,078,321.

Hann, Paul D., to Phillips Petroleum Co. Fluidized bed coating process, article, and composition. 3,078,177, 2–19–63, Cl. 117—21.

Hann, Paul D., to Phillips Petroleum Co. Automatic process for prevention of gas hydrate formation. 3,096,383, 7–2–63, Cl. 260—676.

Hanna, Arthur W. Method of manufacturing female electrical sockets. 3,081,528, 3–19–63, Cl. 29—155.55.

Hanna, Clinton R., to Westinghouse Electric Corp. Fluid power apparatus. 3,085,818, 4–16–63, Cl. 280—124.

Hanna, Clinton R., and L. B. Lynn, to Westinghouse Electric Corp. Fluid power apparatus. 3,095,214, 6–25–63, Cl. 280—124.

Hanna, Delbert L., and A. J. Rudnitski, to Velsicol Chemical Corp. Halogenation process. 3,073,869, 1–15–63, Cl. 260—648.

Hanna, Edward C., to Landis Machine Co. Apparatus for handling elongated workpieces. 3,095,983, 7–2–63, Cl. 214—1.

Hanna, Edward C., to Landis Machine Co. Rolling machine. 3,112,662, 12–3–63, Cl. 80—56.

Hanna, Fares K.: *See*—
Crawford, William B., W. C. Crawford, Sr., W. C. Crawford, Jr., Timmerman, Pekor, and Hanna. 3,113,699.
Pekor, Charles B., and Hanna. 3,098,246.

Hanna, Fred M.: *See*—
Hobrough, Gilbert L., and Hanna. 3,097,855.

Hanna, John W., 75% to R. C. Ray. Portable pump with interchangeable drive unit. 3,074,350, 1–22–63, Cl. 103—117.

Hanna, Ralph T., to United States Steel Corp. Apparatus for handling and wetting dust. 3,081,784, 3–19–63, Cl. 134—199.

Hannah, Robert W.: *See*—
Remer, Robert K. 3,081,206.

Hannen, Llewellyn O. L. Web beam structures. 3,106,752, 10–15–63, Cl. 20—5.

Hanner, Arthur B., Sr. Low pressure packer mandrel. 3,082,825, 3–26–63, Cl. 166—185.

Hanner, James L.: *See*—
Davis, Richmond L., Williams, and Hanner. 3,073,431.

Hanner, Thomas E., and D. M. Turnbull to Pullman Inc. Electrical wiring connector. 3,115,541, 12–24–63, Cl. 174—92.

Hanni, Frederick E.: *See*—
Twaddell, Russell W., Davies, and Hanni. 3,086,070.

Hannibal, Billy B., to Tecumseh Products Co. Structure for supporting a motor-compressor unit in a housing. 3,089,639, 5–14–63, Cl. 230—235.

Hannigan, William D.: *See*—
Fundinger, Paul F., and Hannigan. 3,109,264.

Hannon, Bruce M.: *See*—
Palmer, William H., and Hannon. 3,114,169.

Hannon, Gilbert H., to H. G. Weber and Co., Inc. Rotary forming head for converting machinery. 3,108,034, 10–22–63, Cl. 156—582.

Hannon, William F., to The Fafnir Bearing Co. Honing stone retainer. 3,094,820, 6–25–63, Cl. 51—184.1.

Hannoosh, Mitchell M.: *See*—
Farnsworth, Lee P., King, and Hannoosh. 3,088,559.

Hannum, Charles M., to National Cleveland Corp. Method of sharpening gear cutting tools. 3,098,333, 7–23–63, Cl. 51—288.

Hanny, Jost, to Sulzer Freres, Societe Anonyme. Expansion turbine having a gas bearing. 3,105,631, 10–1–63, Cl. 230—116.

Hanotier, Jacques D. Y.: *See*—
De Radzitzky d'Ostrowick, Pierre M. J. G., and Hanotier. 3,076,005.

Hanover, Kenneth A., to Chemetron Corp. Resolution of DL-menthol. 3,109,018, 10–29–63, Cl. 260—475.

Hanrahan, Edward M., Jr. Kite. 3,074,672, 1–22–63, Cl. 244—153.

Hanrath, Hans: *See*—
Renoux, Pierre E., Hanrath, and Blättry. 3,081,103.

Hansard, Virgil L. Rotatable ball runway toy device. 3,080,167, 3–5–63, Cl. 273—109.

Hanschar, Walter. Holder for bladed implements. 3,071,252, 1–1–63, Cl. 211—60.

Hanscom, Frank E. Camera supports. 3,074,338, 1–22–63, Cl. 95—86.

Hanscom, Frank E. Brushes with means for neutralizing static charges. 3,083,318, 3–26–63, Cl. 317—2.

Hanscom, H. F., & Co., Inc.: *See*—
Hanscom, Harris F. 3,077,133.

Hanscom, Harris F., to H. F. Hanscom & Co., Inc. Tape dispensing apparatus wherein oscillation of the cutter assembly causes reciprocation of the cutting blade. 3,077,133, 2–12–63, Cl. 83—308.

Hanseatische Motoren-Gesellschaft m.b.H.: *See*—
Werner, Gunther. 3,112,083.

Hänsel, Otto, Jr., and H. Lesch, to Otto Hansel, Junior, G.m.b.H. Method and apparatus for wrapping candy or the like. 3,112,665, 12–3–63, Cl. 83—36.

Hansel, Otto, Junior, G.m.b.H.: *See*—
Hänsel, Otto, Jr., and Lesch. 3,112,665.

Hansel, Paul G., to Servo Corp. of America. Radio direction finder receiver. 3,104,391, 9–17–63, Cl. 343—113.

Hansel, Paul G., to Servo Corp. of America. Reference modulation phase stabilizer. 3,110,027, 11–5–63, Cl. 343—106.

Hansel, Richard A. Convertible ram-jet pulse-jet engine. 3,078,660, 2–26–63, Cl. 60—35.6.

Hansen, Andre M., G. C. Norman, and O. H. Brannstrom, to Chrysler Corp. Apparatus for preparing polyurethane foam compositions and the like. 3,111,389, 11–19–63, Cl. 23—252.

Hansen, Andre M., and J. N. Epel; said Hansen assor. to Chrysler Corp. Molding composition comprising unsaturated monomer modified polyester and filler. 3,112,283, 11–26–63, Cl. 260—17.4.

Hansen, Chris K. Plant husbandry and apparatus therefor. 3,079,190, 2–26–63, Cl. 294—50.7.

Hansen, Donald J., W. J. West, and J. G. Farmer, to Union Carbide Corp. Process for producing ductile vanadium. 3,098,021, 7–16–63, Cl. 204—64.

Hansen, Earl N., to Laboratory For Electronics, Inc. Signal analyzing circuit. 3,093,799, 6–11–63, Cl. 328—115.

Hansen, Erik H., to Plastica Inc. Insulated container and closure therefor. 3,096,897, 7–9–63, Cl. 215—13.

Hansen, Erling, and B. W. Hotten, to California Research Corp. Isotactic polymers of 4-methyl-1-pentene as grease thickeners. 3,076,764, 2–5–63, Cl. 252—59.

Hansen, Erwin G., to Midland-Ross Corp. Heating and cooling system. 3,109,486, 11–5–63, Cl. 165—1.

Hansen, Fred L., and A. Smith. Rotary gang mower. 3,085,385, 4–16–63, Cl. 56—7.

Hansen, Friedrich. Continuous drying apparatus including a vibrating helical conveyor. 3,084,450, 4–9–63, Cl. 34—164.

Hansen, George E.: *See*—
Bredtschneider, Kurt B., De Craene, Hansen, and Cotterman. 3,094,136.

Hansen, George E., to Crane Co. Ball valve with removable cartridge unit. 3,081,792, 3–19–63, Cl. 137—454.2.

Hansen, George E., and C. R. Stone, to Crane Co. Removable head and seat ball valve construction. 3,100,501, 8–13–63, Cl. 137—454.6.

Hansen, George R., to The Carborundum Co. Method and apparatus for handling molten, non-ferrous metals. 3,093,087, 6–11–63, Cl. 103—153.

Hansen, Hans C. Mechanisms for supporting and relensing records having oversize center holes. 3,073,603, 1–15–63, Cl. 274—10.

Hansen, Hans C. Center spindles for magazine phonographs. 3,083,022, 3–26–63, Cl. 274—10.

Hansen, Hans C. Magazine phonographs. 3,090,624, 5–21–63, Cl. 274—10.

Hansen, Hans C. Phonographic apparatuses. 3,090,625, 5–21–63, Cl. 274—15.

Hansen, Hans C. Shaft structure for electrical motor. 3,102,966, 9–3–63, Cl. 310—261.

Hansen, Hans C. Phonographs. 3,110,500, 11–12–63, Cl. 274—10.

Hansen, Hans R. A.: *See*—
Wilkerson, Alan W., and Hansen. 3,084,268.

Hansen, Hans R. A., to The Louis Allis Co. Speed regulating system. 3,092,766, 6–4–63, Cl. 318—341.

Hansen, Hans R. A., to The Louis Allis Co. Electric clutch reel drive arrangement. 3,114,850, 12–17–63, Cl. 310—94.

Hansen, Hans R. A., and J. H. Karlson, to The Louis Allis Co. D.C. adjustable speed hoist drive with motor field control. 3,093,779, 6–11–63, Cl. 318—143.

Hansen, Harold H., Jr.: *See*—
Pistole, Harry, and Hansen. 3,095,053.

Hansen, Harold M., to American Can Co. Attachment for cutting a collapsible tube and dispensing material therefrom. 3,104,032, 9–17–63, Cl. 222—91.

Hansen, Harold V.: *See*—
Oehler, William P., and Hansen. 3,079,174.

Hansen, Harold V., and C. W. Odendahl, to Deere & Co. Hitch facilitating means for a planter or the like. 3,075,790, 1–29–63, Cl. 280—475.

Hansen, Harry G., to The Warner Brothers Co. Display package. 3,104,759, 9–24–63, Cl. 206—78.

Hansen, Kai H., to General Motors Corp. Selector control. 3,106,198, 10–8–63, Cl. 123—179.

Hansen, Leon C., and M. F. Browne, to Gustin-Bacon Mfg. Co. Method of making embossed face acoustical insulation panel. 3,083,133, 3–26–63, Cl. 156—246.

Hansen, Lewis C., to W. A. Sheaffer Pen Co. Writing implement. 3,077,185, 2–12–63, Cl. 120—42.3.

Hansen, Maurice H, to Atlantic Electronics Corp. Transistor test socket. 3,107,963, 10–22–63, Cl. 339—191.

Hansen, Odd A.: *See*—
Reynolds, Martin M., Gottzmann, Hansen, Proctor, and Riede. 3,082,690.

Hansen, Oscar C., to Ferro Stamping Co. Elevator for outboard motor. 3,091,211, 5–8–63, Cl. 115—41.

Hansen, Quinten A., to R. H. and R. N. Stearns. Actuator self-adjusting as to range. 3,095,068, 6–25–63, Cl. 188—171.

Hansen, Quinten A. Controlled torque, self-energizing wrap spring clutch or brake. 3,111,822, 11–26–63, Cl. 64—28.

Hansen, Ralph C., and G. A. Thwaites, to Libbey-Owens-Ford Glass Co. Equipment for transporting sheet materials. 3,079,874, 3–5–63, Cl. 105—367.

Hansen, Richard O.: *See*—
Tretheway, Donald G., and Hansen. 3,089,409.

Hansen, Robert B., to Radio Corp. of America. Remote control receiver. 3,075,171, 1–22–63, Cl. 340—15.

Hansen, Rolf K.: *See*—
Pike, Sele S., and Hansen. 3,114,214.

Hansen, Waldemar H., to Socony Mobil Oil Co., Inc. Catalytic hydration of olefins. 3,076,036, 1–29–63, Cl. 260—641.

Hansen, William L.: *See*—
Goulding, Frederick S., and Hansen. 3,113,220.

Hansford, David L., and E. W. Raabe, to United States of America, Atomic Energy Commission. Recovery and separation of lithium values from salvage solutions. 3,101,246, 8–20–63, Cl. 23—25.

Hansford, Rowland C., to Union Oil Co. of California. Hydrocracking process and catalysts. 3,088,908, 5–7–63, Cl. 208—109.

Hanshaw, Ellsworth S.: *See*—
Griffin, George O., and Hanshaw. 3,092,094.

Hansjosten, Nikolaus. Shoe with vulcanized on sole structure. 3,074,185, 1–22–63, Cl. 36—14.

Hansjosten, Nikolaus. Shoe having an outsole of rubber and the like and a stylish heel. 3,082,551, 3–26–63, Cl. 36—14.

Hansley, Virgil L.: *See*—
Schott, Stuart, and Hansley. 3,086,847.

Hanslip, Richard E.: *See*—
Dullabaun, Paul W., and Hanslip. 3,092,397.

Hansom-Van Winkle-Munning Co.: *See*—
Harper, Willard J., and Hauck. 3,108,605.

Hanson, Alden W., to The Dow Chemical Co. Communication between wells. 3,103,975, 9–17–63, Cl. 166—42.

Hanson, Arthur. Display device. 3,077,687, 2–19–63, Cl. 40—140.

Hanson, Berger G., 50% to T. C. Sulkoske. Spade drill. 3,106,112, 10–8–63, Cl. 77—67.

Hanson, Donald. Jack rod support. 3,100,033, 8–6–63, Cl. 189—36.

Hanson, Elco E., deceased (L. C. Davis, administrator), to The Firestone Tire & Rubber Co. Method of forming an endless tire tread and sidewall portion on a carcass band and product thereof. Re. 25,349, 3–12–63, Cl. 156—130.

Hanson, Gordon B.: *See*—
Smith, Edward H. 3,099,993.

Hanson, Herbert G., and R. E. Poethig, to The Bastian-Blessing Co. Pressure filler control. 3,091,849, 6–25–63, Cl. 62—51.
Hanson, J. T. Brush. 3,099,029, 7–30–63, Cl. 15—160.
Hanson, John H.: *See*—
Bridwell, Robert A., and Hanson. 3,073,172.
Hanson, Leroy C., to Ferro Corp. Electric heater. 3,073,942, 1–15–63, Cl. 219—37.
Hanson, Leroy C., to Ferro Corp. Heating unit. 3,087,042, 4–23–63, Cl. 219—37.
Hanson, Mary M.: *See*—
Sullivan, Edward J. 3,104,720.
Hanson, Robert S., to General Motors Corp. Refrigerator with meat storage receptacle. 3,108,455, 10–29–63, Cl. 62—382.
Hanson Scale Co.: *See*—
Hanssen, Stan B. 3,077,941.
Hanson, Theodore L., and S. L. Black, to The Vendo Co. Fluid pumping mechanism. 3,092,029, 6–4–63, Cl. 103—11.
Hanson, Thomas P. Apparatus and method of debarking pulp wood utilizing liquified gasses. 3,101,757, 8–27–63, Cl. 144—311.
Hanson-Van Winkle-Munning Co.: *See*—
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Hanson, Victor G., to International Cigar Machinery Co. Cigar machine paster. 3,099,581, 7–30–63, Cl. 118—243.
Hanson, Walter J., to Pitney-Bowes, Inc. Document misregistration correcting means. 3,084,931, 4–9–63, Cl. 271—52.
Hanson, Warren A., W. G. Winkler, and D. F. Swanson, to Whirlpool Corp. Two temperature forced air refrigerator systems. 3,084,519, 4–9–63, Cl. 62—155.
Hanson, William H. Water ski device. 3,090,978, 5–28–63, Cl. 9—310.
Hanssen, Albert J., to Black, Sivalls & Bryson, Inc. Liquid level control apparatus. 3,088,485, 5–7–63, Cl. 137—413.
Hanssen, Stan B., to Hanson Scale Co. Weighing scale. 3,077,941, 2–19–63, Cl. 177—230.
Hansson, Elof, Inc.: *See*—
Kodaras, Michael J. 3,103,868.
Hanstein, Walter, Jr., and W. W. Deighton, to Burroughs Corp. Accumulator for accounting machines. 3,074,629, 1–22–63, Cl. 235—61.
Hanstock, Raymond F., N. F. Godwin, R. F. Lumb, and M. A. Williams, to United Kingdom Atomic Energy Authority. Ultrasonic inspection apparatus. 3,091,959, 6–4–63, Cl. 73—67.8.
Hanus, Edward J.: *See*—
Siegel, Sheldon, Hanus, and Reiner. 3,116,204.
Hanusch, Hugo, to Climex Trust. Process and apparatus for the production of parts from synthetic materials of any kind reinforced with fibres. 3,107,057, 10–15–63, Cl. 239—836.
Hanysz, Eugene A.: *See*—
Bockemuehl, Robert R., and Hanysz. 3,073,522.
Hanysz, Eugene A., to General Motors Corp. Unidirectional triggering system for highway communications. 3,105,120, 9–24–63, Cl. 179—82.
Hanzel, Richard W., to Sunbeam Corp. Method of making a cooking vessel. 3,090,118, 5–21–63, Cl. 29—527.
Haoya, Einar: *See*—
Christiansen, Christian, and Haoya. 3,071,163.
Christiansen, Christian, and Häoya. 3,076,482.
Hap, Heinz: *See*—
Ormanns, Gottfried, and Hap. 3,103,883.
Happ, Leo P. Pick-up device. 3,105,715, 10–1–63, Cl. 294—61.
Happe, Ralph A.: *See*—
Melilli, Joseph, Happe, Smithhart, Hall, and Myers. 3,110,961.
Happe, Reynold, and J. P. Yelpo, to Diehl Mfg. Co. Built-in switch for insulated portable electric tools. 3,072,768, 1–8–63, Cl. 200—157.
Happe, Reynold, N. H. Sailer, and J. P. Lubas, to The Singer Co. Indicating lamp and lens assembly for portable electric tools. 3,109,164, 10–29–63, Cl. 340—252.
Happich G.m.b.H., Gebr.: *See*—
Herr, Gerhard, and Czlotschirsch. 3,071,023
Herr, Gerhard, and Czlptschirsch. 3,106,853.
Happich, William F.: *See*—
Windus, Wallace, Filachione, and Happich. 3,104,151.
Hara, Kunio, to Yoshida Kogyo K.K. Interlocking device for releasably interconnecting the tapes of a slide fastener. 3,110,946, 11–19–63, Cl. 24—205.11.
Hara, Shuichiro: *See*—
Watanabe, Koichi, Asano, and Hara. 3,100,322.
Haracz, Edward F. Tooth brush. 3,091,789, 6–4–63, Cl. 15—27.
Haracz, Edward F. Process and apparatus for applying silver films. 3,098,756, 7–23–63, Cl. 117—35.
Harada, Henry H.: *See*—
Brenner, John B., Force, McMurray, McDougal, and Harada. 3,088,538.
McMurray, Eugene C., and Harada. 3,087,340.
Harada, Henry H., to General Motors Corp. Multible wheel counting device. 3,097,792, 7–16–63, Cl. 235—117.
Harada, Kaoru: *See*—
Fox, Sidney W., and Harada. 3,076,790.
Harada, Kyoei: *See*—
Lockheed, Robert, Yamane, Harada, and Nishimatsu. 3,109,837.
Haraden, William J., to Signode Steel Strapping Co. Crimping tool. 3,089,366, 5–14–63, Cl. 81—9.1.
Haramija, Emric G. Mechanism for holding and tensioning a printing plate on a printing cylinder. 3,107,609, 10–22–63, Cl. 101—378.
Harasym, George W.: *See*—
Roters, Herbert C., Kropp, and Harasym. 3,092,762.
Harb, Mitchell A. Crash seats for passenger planes. 3,095,170, 6–25–63, Cl. 244—122.
Harbage, Robert P., L. E. Vaughan, and R. E. Crown, to Avco Corp. Belt driven rake. 3,103,777, 9–17–63, Cl. 56—377.
Harbaugh, Watson D.: *See*—
Schwaneke, Fred C. and Sheehan. 3,099,976.
Harben, Grover S., Jr., and A. W. Whitmire, to Southern Equipment & Supply Co., Inc. Poultry gizzard splitting and washing apparatus. 3,076,998, 2–12–63, Cl. 17—11.
Harbers, Henry C., and D. R. Merchant, to Challenge Cook Bros., Inc. Dump truck. Re. 25,315, 1–1–63, Cl. 298—22.
Harbers, Henry C., and D. R. Merchant, to Challenge Cook Bros., Inc. Tilting dumping vehicle plural gate latch operating mechanism. 3,111,346, 11–19–63, Cl. 298—8.
Harberts, Eugene M. Ball projecting toy. 3,091,462, 5–8–63, Cl. 273—96.
Harbison-Walker Refractories Co.: *See*—
Davies, Ben, and Renkey. 3,075,848.
Davies, Ben, and Weaver. 3,106,475.
Davies, Ben, and Wiken. 3,108,860.
Dolph, James L. 3,078,173.
Herron, Henry R. 3,094,759.
Leatham, Earl, and Pack. 3,091,511.
Lelak, John W. 3,085,523.
McGill, Alfred. 3,072,993.
Myers, William H., and Schob. 3,082,503.
Platt, Richard O., and Lloyd. 3,085,458.
Shonkwiler, Francis P. 3,073,067.
Smoot, Thomas W., and Stock. 3,091,014.
Wicken, Oscar M. 3,112,921.
Harbison, Wallace F.: *See*—
Hollar, Travis B., and Harbison. 3,090,225.
Harbit, Keith B., to Smith Kline & French Laboratories. Method of preparing high dosage sustained release tablet and product of this method. 3,108,046, 10–22–63, Cl. 167—82.
Harbor Boat Building Co.: *See*—
Steidley, Roy B. 3,083,665.
Harbor, William H., and A. R. Burge, to The National Cash Register Co. Record material feeding mechanism. 3,115,963, 12–31–63, Cl. 197—127.
Harcum, William M., to Aircraft Products Co. Automatic pilot. 3,071,337, 1–1–63, Cl. 244—78.
Hard, Robert A.: *See*—
Hines, Eugene W., and Hard. 3,081,139.
Hardcastle, Philip P. Check valve. 3,109,450, 11–5–63, Cl. 137—514.
Hardel Laboratories: *See*—
De Lancey, Warren H. 3,081,932.
De Lancey, Warren H. 3,082,335.
Harder, Fritz A.: *See*—
Hinrichsen, Ejner C., and Harder. 3,074,156.
Harder, John E., and G. L. Miller, to Westinghouse Electric Corp. Electrical switches. 3,114,022, 12–10–63, Cl. 200—114.
Harder, John R.: *See*—
Mahaffy Reid A., and Harder. 3,093,206.
Hardesty, Edwin C., to Western Electric Co., Inc. Strand-guiding and operation-terminating device. 3,076,227, 2–5–63, Cl. 18—19.
Hardesty, Ethridge E., ½ to R. E. Lazarus as trustee. Method and apparatus for forming a pre-stressed hollow lined pressure vessel. 3,100,171, 8–6–63, Cl. 156—165.
Hardfalk, Klas H. Shotgun firing mechanism with thumb-operated cocking piece. 3,102,354, 9–3–63, Cl. 42—41.
Hardgrove, Ralph M., to The Babcock & Wilcox Co. Method of and apparatus for burning low heat content fuel. 3,105,540, 10–1–63, Cl. 158—1.
Hardie, Harry. Laminated fabric construction. 3,112,494, 12–3–63, Cl. 2—237.
Hardie, James H., to The Robert Mitchell Co., Ltd. Combination journal stop and seal for railway cars. 3,072,445, 1–8–63, Cl. 308—38.
Hardie, Le Bron. Snap acting mechanism. 3,094,008, 6–18–63, Cl. 74—97.
Hardigan, Blanche. Talking dolls. 3,080,679, 3–12–63, Cl. 46—232.
Hardigan, Robert, to Sperry Rand Corp., Ford Instrument Co. Division. Pre-spinning of aircraft landing wheels. 3,096,052, 7–2–63, Cl. 244—103.
Harding, Arthur J. I., to Deering Milliken Research Corp. Detergent composition. 3,083,166, 3–26–63, Cl. 252—142.
Harding, Denys F., R. E. Campbell and J. Baker, to British Ropes Ltd. Roof bolt with a flexible tension member and cup-shaped expansible securing means. 3,077,809, 2–19–63, Cl. 85—2.4.
Harding, Douglas C.: *See*—
Dryer, Peter J., and Harding. 3,076,067.
Harding, Emmit B. Steplock rocker jaw parallel clamp. 3,071,365, 1–1–63, Cl. 269—215.
Harding, Jonathan, J. J. Mellon, Jr., and P. J. Rubilotta, to United States of America, Navy. Inflatable assault life preservers. 3,103,022, 9–10–63, Cl. 9—338.
Harding, Leonard. Printing presses. 3,087,422, 4–30–63, Cl. 101—269.

Hardinge Brothers, Inc.: *See*—
Laux, Daniel R. 3,089,707.
MacIlane James, Sr. 3,074,566.
Parsons, Hubert J. 3,077,353.
Hardinge Co., Inc.: *See*—
Ferguson, Leroy C., Mathews, and Hardinge. 3,078,076.
Hardinge, Harlowe. 3,078,049.
Russell, Robert J., and Hardinge. 3,078,048.
Hardinge, Harlowe: *See*—
Ferguson, Leroy C., Mathews, and Hardinge. 3,078,076.
Russell, Robert J., and Hardinge. 3,078,048.
Hardinge, Harlowe, to Hardinge Co., Inc. Mill and process for autogenous grinding of friable material. 3,078,049. 2–19–63, Cl. 241—26.
Hardinge, Harlowe. Autogenous grinding process and mill systems to perform the same. 3,078,050, 2–19–63, Cl. 241—26.
Hardinger, Kermit E., and P. W. Boesch. Low altitude F.M. altimeter. 3,109,172, 10–29–63, Cl. 343—14.
Hardison, Leslie C., to Universal Oil Products Co. Method of heat control in a fluidized catalyst system. 3,114,699, 12–17–63, Cl. 208—159.
Hardison, Manley K.: *See*—
Broman, Cyrus R., and Hardison. 3,110,497.
Hardison, Wilbur T.: *See*—
Ferrell, Robert L., and Hardison. 3,105,217.
Hardison, Wilbur T. Variable resistor device. 3,093,812, 7–30–63, Cl. 338—183.
Hardman, Albert F. to The Goodyear Tire & Rubber Co. Manufacture of amine thiazole disulfides. 3,086,018, 4–16–63, Cl. 260—247.1.
Hardman, Harley F.: *See*—
Doyle, Philip C., Hook, and Hardman. 3,094,427.
Hardman, James A. Three wheel-axis suspension system. 3,105,700, 10–1–63, Cl. 280—104.5.
Hardman, Kenneth V., to IPR, Inc. Two part package. 3,088,586, 5–7–63, Cl. 206—47.
Hardman Tool & Engineering Co.: *See*—
Hodgekin, Charles R. 3,074,760.
Smittle, Darrell G. 3,089,564.
Hardt, Paul E., to Klockner-Werke AG. Process for refining of pig iron in other than round vessels. 3,098,740, 7–23–63, Cl. 75—60.
Hardtmuth, L. & C., Inc.: *See*—
Riepe, Helmuth. 3,089,246.
Hardway, Edward V., Jr., and E. E. Crump, to Beckman Instruments, Inc. Method for precise volume determination. 3,113,448, 12–10–63, Cl. 73—1.
Hardwick Stove Co.: *See*—
Koltun, Solon M. 3,114,363.
Hardwick, William A.: *See*—
Sumner, Robert J., Hardwick, Seeley, and Ziegler. 3,089,774.
Hardy, Albert L., D. S. Cushing, and T. E. Jenkins, to General Electric Co. Pumping mechanism and pump inlet cover for use therein. 3,084,701, 4–9–63, Cl. 134—115.
Hardy, Alexander, to General Motors Corp. Transmission. 3,106,107, 10–8–63, Cl. 74—688.
Hardy, Allen W., to Farr Co. Filter. 3,071,915, 1–8–63, Cl. 55—324.
Hardy, Clint S., Sr. Pneumatic impact tool. 3,071,114, 1–1–63, Cl. 121—21.
Hardy, Denis G.: *See*—
Stern, Edward S., Watt, and Hardy. 3,108,111.
Hardy, Edgar E.: *See*—
Cleveland, Thomas H., Chadwick, and Hardy. 3,089,889.
Hardy, Edgar E., to Mobay Chemical Co. Preparation of cellular polyurethane plastics. 3,085,983, 4–16–63, Cl. 260—2.5.
Hardy, Henry, to International Vulcanizing Corp. Injection molding apparatus for making footwear. 3,109,199, 11–5–63, Cl. 18—30.
Hardy, Henry, to International Vulcanizing Corp. Injection molding apparatus. 3,110,061, 11–12–63, Cl. 18—30.
Hardy, Herbert L., J. V. Harrington, R. D. Collier, and A. C. Summers, to General Dynamics Corp. Rotating machine dynamic balancing apparatus. 3,102,429, 9–3–63, Cl. 73—462.
Hardy, Howard C., to Stanray Corp. Acoustical barrier fence. 3,090,847, 7–9–63, Cl. 181—33.
Hardy, James A.: *See*—
Woodlenweber, William E., Jr., Hardy, and Paul. 3,096,126.
Hardy, John F.: *See*—
Goulston, Philip B., and Hardy. 3,075,845.
Hall, Joseph P., Jr., Hardy, and Jordan. 3,075,844.
Templer, Charles E., Hardy, and Lainchbury. 3,093,974.
Hardy, John L., to The Dow Chemical Co. Organo-tin and organo-sulphur parasiticides. 3,105,000, 9–24–63, Cl. 167—22.
Hardy, Maurice E., to Zenith Radio Corp. Record players. 3,096,093, 7–2–63, Cl. 274—10.
Hardy, Maurice E., to Zenith Radio Corp. Phonograph. 3,107,098, 10–15–63, Cl. 274—10.
Hardy, Maurice E., E. J. Polley, and R. L. Rost, to Zenith Radio Corp. Tape recorder. 3,107,835, 10–22–63, Cl. 226—179.
Hardy, Peter S., to Peerless Aluminum Foundry Co., Inc. Indexing attachment for layout work on lathes. 3,074,298, 1–22–63, Cl. 74—815.
Hardy, Peter S., to Peerless Aluminum Foundry Co., Inc. Abrasive finishing disk. 3,086,277, 4–23–63, Cl. 29—78.
Hardy, Peter S., to Peerless Aluminum Foundry Co., Inc. Spatula. 3,092,411, 6–4–63, Cl. 294—7.
Hardy, Robert A., Jr.: *See*—
Semb, Joseph, Bonvicino, and Hardy. 3,072,649.
Wright, William B., Jr., and Hardy. 3,072,701.
Hardy, Vaughn H.: *See*—
Courtant, Peter R., Hardy, and Reese. 3,097,389.
Hardy, Walter L.: *See*—
Odenwald, William, Appleman, and Hardy. 3,080,285.
Hardy, William B.: *See*—
Furman, Frank M., Hardy, and Thelin. 3,109,027.
Millonis, Jerry P., and Hardy. 3,072,585.
Hardy, Woodrow, to The Fairfield Engineering Co. Waste material converter and method of digesting waste. 3,114,622, 12–17–63, Cl. 71—9.
Hare, Terence G. Faucet valve with multiple seals. 3,084,902, 4–9–63, Cl. 251—88.
Hare, Terence G. Car top carrier. 3,109,569, 11–5–63, Cl. 224—42.1.
Hare, Lloyd E.: *See*—
Morelli, Joseph L., Brignole, and Hare. 3,095,079.
Harel, Abraham, to Radio Corp. of America. Binary adder employing minority logic. 3,088,668, 5–7–63, Cl. 235—176.
Harel, Abraham, to Radio Corp. of America. Binary adder. 3,113,206, 12–3–63, Cl. 235—176.
Harges, Michael T., to Empire Devices Products Corp. Remotely operated microwave attenuator having automatic plug-in connectors for coupling to step attenuators on multiposition turret. 3,107,334, 10–15–63, Cl. 333—81.
Hargrave, Melvin R.: *See*—
Cobb, Phara L., Jr., and Hargrave. 3,079,930.
Cobb, Phara L., Jr., and Hargrave. 3,079,978.
Cobb, Phara L., Jr., and Hargrave. 3,106,501.
Hargreaves, James, to Wickman Ltd. Cutting tools for use in lathes or other machines. 3,113,372, 12–10–63, Cl. 29—96.
Harig Mfg. Corp.: *See*—
Eckert, Theodore. 3,094,821.
Haring, Eugene M.: *See*—
Haring, Horace E., and Taylor. 3,093,883.
Haring, Harry, to Universal Boning Co. Covered boning. 3,115,642, 12–31–63, Cl. 2—256.
Haring, Horace E., deceased (by E. M. Haring, executor), and R. L. Taylor, to Bell Telephone Laboratories, Inc. Manufacture of solid electrolytic capacitors. 3,093,883, 6–18–63, Cl. 29—25.42.
Hariu, Oscar H.: *See*—
Fowle, Merrill J., Hariu, and Masologites. 3,085,070.
Hariu, Oscar H., to The Atlantic Refining Co. Control of hydrogen concentration in recycle hydrogen streams in the hydrodealkylation process. 3,101,380, 8–20–63, Cl. 260—672.
Harkema, Walter F. Condensation vaporizer for heater. 3,083,703, 4–2–63, Cl. 126—85.
Harkenrider, Robert J., to Miller Lubricator Co. Journal box lubricator. 3,076,685, 2–5–63, Cl. 308—243.
Harkenrider, Robert J. Apparatus for continuous extrusion of metal. 3,113,676, 12–10–63, Cl. 207—2.
Harker, John H., R. W. Janetz, and J. Keyes, to Bell & Gossett Co. Method and apparatus for maintaining rotating pump seals. 3,076,412, 2–5–63, Cl. 103—111.
Harker, Robert J., to Commercial Solvents Corp. Non-corrosive lubricating compositions. 3,108,071, 10–22–63, Cl. 252—47.5.
Harker, Wesley H.: *See*—
Imhoff, Donald H., and Harker. 3,113,082.
Harkes, Pieter D.: *See*—
Lardelli, Guido, Begemann, Harkes, and Van der Zijden. 3,075,998.
Harkey, Paul W. Body supported work holding device. 3,106,037, 10–8–63, Cl. 45—59.
Harkins, Allen A., to The United States Stoneware Co. Protective cover. 3,100,568, 8–13–63, Cl. 206—2.
Harkins, Carlyle M. Tire. 3,097,681, 7–16–63, Cl. 152—352.
Harkins, Carlyle M. Tire filler valve. 3,097,682, 7–16–63, Cl. 152—429.
Harkins, Jack, to Professional Golf Co. Steel power-center golf ball. Re. 25,427, 7–30–63, Cl. 373—230.
Harkness, Joseph R., to Briggs & Stratton Corp. Thermo-electrodynamic prime movers. 3,090,875, 5–21–63, Cl. 310—4.
Harks, Walter M. Self-propelled attachment for golf-bag carts. 3,087,562, 4–30–63, Cl. 180—11.
Harlan, Don L., to Texaco Inc. Method for closing down an injection well during thermal recovery operations. 3,080,919, 3–12–63, Cl. 166—39.
Harland, William G.: *See*—
Griffiths, Jack, and Harland. 3,104,954.
Harlander, Leslie A., and K. F. Dewing, to Matson Navigation Co. Lifting beam. 3,078,115, 2–19–63, Cl. 294—67.
Harlander, Leslie A., and H. Kozlowski, to Matson Navigation Co. Cargo container securing means and system. 3,083,670, 4–2–63, Cl. 114—75.
Harle, Harold P., to General Electric Co. Semi-automatic ice maker for household refrigerators. 3,089,312, 5–14–63, Cl. 62—135.
Harley-Davidson Motor Co.: *See*—
Banzhaf, Donald H. 3,116,089.
Harley, Earl K., Jr.: *See*—
Dolan, Thomas I., and Harley. 3,111,818.
Harley, Earl K., Jr., to Hupp Corp. Refrigerators. 3,103,797, 9–17–63, Cl. 62—419.

Harley, Frank B., ½ to Harley Patents (International) Ltd. Buckles. 3,091,830, 6–4–63, Cl. 24—170.
Harley Patents (International) Ltd.: *See*—
Harley, Frank B. 3,091,830.
Harley, Robert S., C. L. Miller, and C. E. North, to Remington Arms Co., Inc. Powder measuring device. 3,091,368, 5–28–63, Cl. 222—56.
Harling, Donald W., to McGraw-Edison Co. Luminaire. 3,072,783, 1–8–63, Cl. 240—25.
Harling, Donald W., to McGraw-Edison Co. Fluorescent Luminaire. 3,087,981, 4–30–63, Cl. 174—52.
Harling, Donald W., to McGraw-Edison Co. Mast arm. 3,094,220, 6–18–63, Cl. 211—111.
Harling, Donald W., to McGraw-Edison Co. Post top mounted lighting unit. 3,094,286, 6–18–63, Cl. 240—25.
Harling, Donald W., to McGraw-Edison Co. Fluorescent luminaire. 3,096,028, 7–2–63, Cl. 240—25.
Harling, Donald W., to McGraw-Edison Co. Luminaire for directional lighting. 3,096,030, 7–2–63, Cl. 240—25.
Harling, Donald W., and P. B. Clark, to McGraw-Edison Co. Fluorescent luminaire. 3,092,336, 6–4–63, Cl. 240—25.
Harling, Walter J., to M. M. Bartkus. Adjustable clamp. 3,076,646, 2–5–63, Cl. 269—221.
Harlow, George R.: *See*—
Spreadbury, Walter G., Oslund, and Harlow. 3,109,261.
Harlow, Willis E., and V. C. Rice, to Borg-Warner Corp. Lint filter agitator screen. 3,085,419, 4–16–63, Cl. 68—18.
Harm, Alson R., and W. D. Wagner, to Westinghouse Electric Corp. Counting mechanism for line sectionalizers. 3,114,021, 12–10–63, Cl. 200—89.
Harman, Cameron G., and L. Abraham, to The Univis Lens Co. Polishing material. 3,071,455, 1–1–63, Cl. 51—308.
Harman, Denham: *See*—
Whetstone, Richard, and Harman. 3,116,201.
Harman, Hal W., ⅓ each to W. H. F. Schmieding, and P. Fultz. Method of building or repairing a crank shaft. 3,103,066, 9–10–63, Cl. 29—471.1.
Harman, Marion W., to Monsanto Chemical Co. Sulfur vulcanization of rubbers with a 2-(3,5-dimethyl-4-morpholinylmercapto)-benzothiazole accelerator. 3,078,258, 2–19–63, Cl. 260—79.5.
Harman, Marion W., and J. J. D'Amico, to Monsanto Chemical Co. Esters of N-furfuryldithiocarbamic acids and vegetation control. 3,074,970, 1–22–63, Cl. 260—347.2.
Harman, Marion W., and J. J. D'Amico, to Monsanto Chemical Co. Controlling vegetation with hydrocarbon mononitrogen heterocyclic aminocarbodithioates. 3,078,153, 2–19–63, Cl. 71—2.5.
Harman, Marion W., and J. J. D'Amico, to Monsanto Chemical Co. Cyclohexenyl dithiocarbamates. 3,078,273, 2–19–63, Cl. 260—293.4.
Harman, Marion W., and J. J. D'Amico, to Monsanto Chemical Co. Benzyl heterocyclicaminoacarbothiolates. 3,109,006, 10–29–63, Cl. 260—326.5.
Harmer, Harold M., to Miranda Corp. Catalytic devices for electric accumulators. 3,102,059, 8–27–63, Cl. 136—181.
Harmer, Harold M., to Miranda Corp. Secondary battery catalyst device with temperature responsive means. 3,102,220, 8–27–63, Cl. 320—36.
Harmer, Harold M., to Miranda Corp. Regulation of the charging of secondary cells using a temperature sensitive element in heat exchange relationship with a catalytic device. 3,102,221, 8–27–63, Cl. 320—36.
Harmer, Harold M., to Miranda Corp. Regulation of the charging of secondary batteries using a means responsive to the temperature of a catalytic device. 3,102,222, 8–27–63, Cl. 320—36.
Harmon, Albert D., W. H. Drake, and J. C. Petren, to Sperry Rand Corp. Self correcting weighing machine and method. 3,108,647, 10–29–63, Cl. 177—1.
Harmon, Carlyle, to Chicopee Mfg. Corp. Apparatus and method for producing nonwoven fabrics. 3,077,017, 2–12–63, Cl. 28—1.
Harmon, Carlyle, to Johnson & Johnson. Sanitary napkins. 3,088,463, 5–7–63, Cl. 128—290.
Harmon, Carlyle, to Johnson & Johnson. Sanitary napkins. 3,088,464, 5–7–63, Cl. 128—290.
Harmon, Carlyle, and R. M. Smith, to Johnson & Johnson. Reinforced paper. 3,085,906, 4–16–63, Cl. 117—122.
Harmon, Delbert K.: *See*—
Reddick, Leonard J., Fort, Baldi, Harmon, and Ziegelbein. 3,113,046.
Harmon, Hubert N., to Minneapolis-Honeywell Regulator Co. Sphere lapping machine. 3,111,789, 11–26–63, Cl. 51—73.
Harmon, James R., Jr. Electric test clamp. 3,094,366, 6–18–63, Cl. 339—97.
Harmon, Kenneth B., to General Motors Corp. Transmission. 3,073,182, 1–15–63, Cl. 74—677.
Harmon, Leon D., to Bell Telephone Laboratories, Inc. Method and apparatus for reading cursive script. 3,111,646, 11–19–63, Cl. 340—146.3.
Harmon, Leon D., and C. F. Mattke, to Bell Telephone Laboratories, Inc. Fabrication of printed circuit apparatus. 3,109,226, 11–5–63, Cl. 29—155.5.
Harmon, Robert W.: *See*—
Lantz, Alpha D., and Harmon. 3,076,863.
Lantz, Alpha D., and Harmon. 3,076,864.
Harmon, Robert W., to The Ohio Brass Co. Conductor spacers. 3,091,658, 5–28–63, Cl. 174—128.
Harmon, William C., and T. W. Judd, to Republic Steel Corp. Apparatus for measuring surface roughness. 3,112,642, 12–3–63, Cl. 73—105.
Harmonic Gears (Proprietary) Ltd.: *See*—
Friedmann, Eric H., and Cancrinus. 3,082,646.
Harms, August F., to Koninklijke Pharmaceutische Fabrieken v/h Brocades-Stheeman & Pharmacia, N.V. 2-trifluoromethyldiphenylcarbinol. 3,106,587, 10–8–63, Cl. 260—618.
Harms, Clarence L.: *See*—
Doerfer, Richard E., Harms, and Beard. 3,106,273.
Harms, Kenneth W., 52% to H. D. Gatling. Tape and mud dispenser. 3,112,225, 11–26–63, Cl. 118—43.
Harms, Victor, and J. H. Schwartz. System and apparatus for programmed control of oil wells and the like. 3,096,507, 7–2–63, Cl. 340—147.
Harmuth, Charles M., to E. I. du Pont de Nemours and Co. Ingrain dyeing with nitroso/amine condensates. 3,081,141, 3–12–63, Cl. 8—45.
Harnau, Haus-Dieter, and H. Renner, to Rheinmetall G.m.b.H., Firma. Electrical projectile priming device. 3,106,160, 10–8–63, Cl. 102—70.2.
Harned, Roger L., to Commercial Solvent Corp. Process for the production of cycloserine. 3,090,730, 5–21–63, Cl. 195—80.
Harnett, Charles R., to Charge-A-Vision International Ltd. Variable rate metering devices and system for use therewith. 3,109,883, 11–5–63, Cl. 178—5.1.
Harnett, John S., Jr. Bookmark. 3,090,347, 5–21–63, Cl. 116—119.
Harnik, Marcel, to Chemetron Corp. 21-fluoroacetylallopregnane-3β-ol-20-one and derivatives thereof. 3,076,824, 2–5–63, Cl. 260—397.4.
Harnik, Marcel, to Chemetron Corp. Fluorinated pyrazole steroid compounds. 3,096,327, 7–2–63, Cl. 260—239.5.
Harnik, Marcel, to Chemetron Corp. Androstene compounds containing trifluoro aliphatic substituents in the 2-position. 3,096,352, 7–2–63, Cl. 260—397.4.
Harnik, Marcel, to Chemetron Corp. 2-fluoroacetyl-5-androstenolone compounds. 3,096,354, 7–2–63, Cl. 260—397.5.
Harnik, Marcel, to Chemetron Corp. 16-trifluoroacetyl derivatives of 5-androsten-3 β-ol-17-one. 3,107,256, 10–15–63, Cl. 260—397.4.
Harnischfeger Corp.: *See*—
Bunch, Warren E. 3,110,522.
Jacobs, Henry S. 3,113,229.
Wieschel, John E. 3,073,458.
Harnish, James R., to Borg-Warner Corp. Refrigerating systems. 3,109,298, 11–5–63, Cl. 62—324.
Harnsberger, McWhite. Recipe cabinet. 3,091,504, 5–28–63, Cl. 312—231.
Harold, Arthur E., and C. S. Smith, to The General Electric Co. Ltd. Machines for mounting electrical components on base members. 3,078,466, 2–26–63, Cl. 1—323.
Haroldsen, Grant O.: *See*—
McElroy, William N., and Haroldsen. 3,098,810.
Harp, Alonzo M.: *See*—
Hull, Richard L., and Harp. 3,094,273.
Harper, Allyn E., to E. J. Longyear Co. Wire line core barrel. 3,103,981, 9–17–63, Cl. 175—236.
Harper, Billy G.: *See*—
Bashaw, Robert N., and Harper. 3,090,736.
Harper, Chester H.: *See*—
Allen, Kenneth M., and Harper. 3,080,961.
Harper, Elton F. N., to Well Surveys, Inc. Analog computer for determining confidence limits of measurement. 3,072,335, 1–8–63, Cl. 235—193.
Harper, Ernest A., to Phillips Petroleum Co. Low temperature absorption of gasoline constituents from natural gas. 3,099,619, 7–30–63, Cl. 208—341.
Harper Hosiery Mills, Inc.: *See*—
Chaney, Clifford R. 3,071,950.
Harper, James G., to Texas Instruments Inc. Method of purifying gallium by recrystallization. 3,088,853, 5–7–63, Cl. 148—1.6.
Harper, James L.: *See*—
Fisher, Earl E., and Harper. 3,103,508.
Harper, John D., to Powered Pipe, Inc. Fluid transfer apparatus. 3,114,392, 12–17–63, Cl. 137—615.
Harper, John D., Jr., and A. G. Loughead. Synchro rotation malfunction transistor. 3,111,613, 11–19–63, Cl. 318—24.
Harper, John W.: *See*—
Fujioka, Richard T., and Harper. 3,111,341.
Hulverson, Adrian F., and Harper. 3,082,020.
Harper, Kenneth A., to Phillips Petroleum Co. Catalytic conversion process and apparatus. 3,094,478, 6–18–63, Cl. 208—153.
Harper, Lee R., to E. I. du Pont de Nemours and Co. Polyurethane resin coating composition and containing carbamyl chloride stabilizer. 3,074,911, 1–22–63, Cl. 260—45.85.
Harper, Leonard R., to International Business Machines Corp. Pulse generator with two different alternate sequences. 3,102,986, 9–3–63, Cl. 331—57.
Harper, Leonard R., to International Business Machines Corp. Magnetic core adder. 3,105,144, 9–24–63, Cl. 235—176.
Harper, Raymond, and R. J. Y. Snell; said Harper assor. to British Oxygen Co. Ltd. and The English Electric Aviation Ltd. Cold gas supply system. 3,106,070, 10–8–63, Cl. 62—48.
Harper, Richard G. Fragmentation projectile. 3,097,603, 7–16–63, Cl. 102—91.
Harper, Robert, and R. M. Unger, to Raytheon Co. Electron discharge device with getter. 3,073,987, 1–15–63, Cl. 315—3.6.
Harper, Robert J.: *See*—
Diaz, Edmundo M. 3,112,754.

Harper, Robert J., to Ethyl Corp. Aromatic iron carbonyls. 3,073,855, 1–15–63, Cl. 260—439.
Harper, Samuel D., to Minneapolis-Honeywell Regulator Co. Electrical digital coding apparatus. 3,091,700, 5–28–63, Cl. 307—88.
Harper, Samuel D., to Minneapolis-Honeywell Regulator Co. Checking circuitry for information handling apparatus. 3,091,753, 5–28–63, Cl. 340—146.1.
Harper, Toby B. Knotter mechanism. 3,108,831, 10–29–63, Cl. 280—12.
Harper, Toby B. Knotter mechanisms. 3,108,832, 10–29–63, Cl. 289—12.
Harper, Walter J.: *See*—
Hushley, Walter J. 3,089,956.
Harper, Walter R., Jr.: *See*—
Mawney, Robert G., and Harper. 3,112,978.
Harper, Will M. Rotary lawn mower sharpening hatch. 3,085,387, 4–16–63, Cl. 56—25.4.
Harper, Willard J., and P. A. Hauck, to Hansom-Van Winkle-Munning Co. Apparatus for treating hollow articles having one closed end. 3,108,605, 10–29–63, Cl. 134—44.
Harper-Wyman Co.: *See*—
Lamar, Charles C. 3,073,526.
Harple, Kenneth G.: *See*—
Jakacki, Wallace B., and Harple. 3,091,726.
Harpman, Fred. Color film process. 3,115,809, 12–31–63, Cl. 88—24.
Harpster, Warren T.: *See*—
Johnson, Anton M., and Harpster. 3,116,486.
Harr, John A.: *See*—
Cirone, Frank P., Harr, Lowry, and Ridinger. 3,114,007.
Harr, John A., and T. N. Lowry, Bell Telephone Laboratories, Inc. Line concentrator system. 3,097,717, 7–30–63, Cl. 179—18.
Harr, John A., T. N. Lowry, I. D. Nehama, and P. G. Ridinger, to Bell Telephone Laboratories, Inc. Two-stage line concentrator system. 3,116,375, 12–31–63, Cl. 179—18.
Harrawood, Leo: *See*—
Trotter, Gerald F. 3,113,599.
Harrel, Chastain G.: *See*—
Rozsa, Tibor A., Harrel, and Manning. 3,077,407.
Rozsa, Tibor A., Harrel, Manning, Ward, and Gracza. 3,077,408.
Harrell, Bob R., deceased, by S. S. Harrell, to The Dow Chemical Co. Removal of impurities from caustic soda solutions. 3,104,948, 9–24–63, Cl. 23—184.
Harrell, Shirley S.: *See*—
Harrell, Bob R. 3,104,948.
Harren, Richard E., and B. B. Kine, to Rohm & Haas Co. Coated articles and process of preparing them. 3,106,486, 10–8–63, Cl. 117—123.
Harrer, Paul H., to Allis-Chalmers Mfg. Co. Tractor mower. 3,091,072, 5–28–63, Cl. 56—25.
Harrer, Paul H. and W. H. Shannon, to Allis-Chalmers Mfg. Co. Hay conditioner. 3,115,737, 12–31–63, Cl. 56—1.
Harrett, Ernest F. Method and apparatus for removing fruit from trees. 3,084,967, 4–9–63, Cl. 294—86.
Harrick, Nicolas J., to North American Philips Co., Inc. Semiconductor stepping switch. Re. 25,389, 5–28–63, Cl. 307—88.5.
Harries Electronics Corp. Ltd.: *See*—
Harries, John H. O. 3,086,076.
Harries, John H. O., to Harries Electronics Corp. Ltd. Color index tube projection system. 3,086,076, 4–16–63, Cl. 178—5.4.
Harries, John H. O. Evacuation of vacuum and gas-filled envelopes. 3,108,621, 10–29–63, Cl. 141—8.
Harries, Robert M.: *See*—
Bleiler, Richard, Harries, Jeckel, and Lanport. 3,095,017.
Harries, Wynford L., to International Telephone and Telegraph Corp. Semiconductor multiplanar rectifying junction diode. 3,094,633, 6–18–63, Cl. 307—88.5.
Harriman, Cy. Control units for fire protective signaling systems. 3,099,825, 7–30–63, Cl. 340—213.
Harriman, Emanuel. Split sprocket. 3,106,101, 10–8–63, Cl. 74—243.
Harriman, Louis A.: *See*—
Alexander, Frank J., and Harriman. 3,093,489.
Harriman, Raymond E., to Ryan Aeronautical Co. Alternating current silicon controlled rectifier switch. 3,097,314, 7–9–63, Cl. 307—88.5.
Harrington, Alan L., to Pacific Semiconductors, Inc. Manufacture of semiconductor devices. 3,084,079, 4–2–63, Cl. 148—1.5.
Harrington, Dean B., and P. A. Becker, to General Electric Co. Cooling arrangement for the stator teeth of a dynamoelectric machine. 3,116,429, 12–31–63, Cl. 310—64.
Harrington, James V.: *See*—
Hardy, Herbert L., Harrington, Collier, and Summers. 3,102,429.
Sheets, Herman E., and Harrington. 3,100,006.
Harrington, George F., to Hygrade Food Products Corp. Sequentially operated timing mechanism. 3,110,775, 11–12–63, Cl. 200—24.
Harrington, Joseph J., J. D. Mitchell, and B. L. Jordan. Peanut vine feed control device. 3,098,340, 7–23–63, Cl. 56—345.
Harrington, Lester B.: *See*—
Chaffee, Walter C., and Harrington. 3,113,700.
Harrington, Louis-Philippe A.: *See*—
Edwards, James D., Harrington, and Shapter. 3,114,252.
Harrington, Richard H.: *See*—
Anderson, Theodore H., and Harrington. 3,092,380.
Harrington, Robert C., Jr., and J. L. Smith, to Eastman Kodak Co. Stabilized yarn. 3,082,110, 3–19–63, Cl. 106—194.
Harrington, Robert C., Jr., J. L. Smith, and J. H. Bond, to Eastman Kodak Co. Method of producing a fibrous product from extruded organic thermoplastic filaments. 3,110,642, 11–12–63, Cl. 156—28.
Harriott, Billie L., to Deere & Co. Discharge elevator. 3,098,555, 7–23–63, Cl. 198—122.
Harris, Abraham. Briefcase closure. 3,105,534, 10–1–63, Cl. 150—4.
Harris, Alan J., to Span Tendons Ltd. Cables for prestressing concrete. 3,114,987, 12–24–63, Cl. 50—135.
Harris, Arch W., to United States Steel Corp. Method of and apparatus for hot-dip coating strands. 3,082,119, 3–19–63, Cl. 117—114.
Harris, Arvel R., to Ranco Inc. Control apparatus. 3,091,674, 5–28–63, Cl. 200—61.06.
Harris, Ben A.: *See*—
Berch, William H., and Harris. 3,094,700.
Harris, Ben A., to General Dynamics Corp. Toll ticketing adapter circuit. 3,087,020, 4–23–63, Cl. 179—18.
Harris, Bernard L.: *See*—
Denton, Gene W., and Harris. 3,103,598.
Harris, Bradford F., and F. A. MacConnell, to Worthington Corp. Air conditioning control. 3,105,365, 10–1–63, Cl. 62—159.
Harris, Carl B.: *See*—
Tape, Robert L. 3,106,020.
Harris, Charles R., to Pneumafil Corp. Method of waste collection from textile frames. 3,084,077, 4–2–63, Cl. 134—37.
Harris, Charles W.: *See*—
Kinsell, Earl, and Harris. 3,112,028.
Harris, Clevite, Products, Inc.: *See*—
Drake, Robert T. 3,107,946.
Harris, Clinton H., to Argus Inc. Automatic slide centering. 3,114,285, 12–17–63, Cl. 88—28.
Harris, Darrel M.: *See*—
Henderson, Courtland M., and Harris. 3,081,361.
Henderson, Courtland M., and Harris. 3,081,362.
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Henderson, Courtland M., and Harris. 3,081,364.
Henderson, Courtland M., and Harris. 3,081,365.
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Harris, David A., to Imperial Chemical Industries Ltd. Spray attachment. 3,109,592, 11–5–63, Cl. 239—165.
Harris, David E.: *See*—
Nearhoff, Harold J., Woodbridge, and Harris. 3,089,383.
Harris, David E., to HRB-Singer, Inc. Bandwidth compression system. 3,105,950, 10–1–63, Cl. 340—1.
Harris, Donald A.: *See*—
Olson, John E., and Harris. 3,110,517.
Harris, Donald A., to Hyster Co. Minimum close carton clamp. 3,092,274, 6–4–63, Cl. 214—620.
Harris, Donald B. Automatically controlled torpedo. 3,105,452, 10–1–63, Cl. 114—23.
Harris, Donald E., to General Motors Corp. Friction facing and process of manufacture. 3,104,174, 9–17–63, Cl. 117—4.
Harris, Earl L. Tire and tube repair fixture. 3,088,348, 5–7–63, Cl. 81—15.2.
Harris, Edward E., to Olin Mathieson Chemical Corp. Condensation polymers of chloromethyl aromatics. 3,105,054, 9–24–63, Cl. 260—2.
Harris, Edward H., to Acrometal Products, Inc. Filament accumulator. 3,078,055, 2–19–63, Cl. 242—47.12.
Harris, Edward H., to Acrometal Products, Inc. Curing oven for enameled wire. 3,106,386, 10–8–63, Cl. 263—3.
Harris Edward J.: *See*—
Frohlich, Adolf, and Harris. 3,113,344.
Frohlich, Adolf H., and Harris. 3,093,531.
Harris, Edward P.: *See*—
Beck, George W., Harris, Millhouse, and Moorman. 3,110,938.
Harris, Edward P., to General Motors Corp. Cushion and method of manufacture. 3,090,154, 5–21–63, Cl. 45—138.
Harris, Everett E., Jr., to United-Carr Fastener Corp. Bulb holder carried by plug button. 3,110,539, 11–12–63, Cl. 339—188.
Harris, Francis S., to Microwave Associates, Inc. Reactance or parametric amplifier. 3,111,629, 11–19–63, Cl. 330—4.9.
Harris, Frederick J., and G. E. Boughey, to Scottish Agricultural Industries Ltd. Rotary reaction kiln. 3,097,833, 7–16–63, Cl. 263—32.
Harris, Geoffrey T., and H. C. Child, to The Birmingham Small Arms Co. Ltd. Composite metal products. 3,109,235, 11–5–63, Cl. 29—528.
Harris, George C., to Hercules Powder Co. Cereal starches and process. 3,102,054, 8–27–63, Cl. 127—69.
Harris, George N., to AMP Inc. Method and apparatus for producing an electrical connection with insulated wires. 3,111,554, 11–19–63, Cl. 174—84.
Harris, Guy H., and E. C. Fischback, to The Dow Chemical Co. Production and crystallization of 3,5-dinitro-O-toluic acid from nitric and sulfuric acid. 3,100,797, 8–13–63, Cl. 260—515.
Harris, Harlan N. Compass. 3,098,304, 7–23–63, Cl. 33—154.
Harris, Harold D., to Harris and Thrush Mfg. Co., Inc. Vehicle suspension. 3,076,665, 2–5–63, Cl. 280—112.
Harris, Harold D., and T. O. L. Thrush. Gas carburetor. 3,073,686, 1–15–63, Cl. 48—180.

Harris, Harry J., and A. F. Lichtenfeld, deceased (by H. Lichtenfeld, executrix). Automatic lapping machines. 3,111,791, 11–26–63, Cl. 51—129.

Harris, Howard G., and C. F. Phillips, to Elliott Brothers (London) Ltd. Bearings for relatively rotating members. 3,075,816, 1–29–63, Cl. 308—135.

Harris, Ida M. and J. J. Art needlework frame. 3,098,280, 7–23–63, Cl. 28—15.

Harris-Intertype Corp.: *See*—
Bulk, Robert A. 3,091,146.
Doty, Joseph C., and Buchwalder. 3,081,079.
Haywood, Russell I., and Cochran. 3,078,750.
O'Brien, Richard C. 3,099,945.
Roberts, Webster C. 3,094,065.
Seel, Howard J. 3,112,695.
Taylor, Norman W. 3,076,848.
Watts, Sherman S., and Kastelic. 3,104,100.
Weidman, William H. 3,086,799.
Wojciechowski, Walter J., and Brandt. 3,096,710.

Harris, Israel T. Balancing stick. 3,081,999, 3–19–63, Cl. 273—1

Harris, Jack: *See*—
Baratoff, Paul, and Harris. 3,110,464.

Harris, Jack J.: *See*—
Harris, Ida M., and J. J. 3,098,280.

Harris, James J.: *See*—
Rudner, Bernard, and Harris. 3,100,791.

Harris, James O., to Monsanto Chemical Co. Aminoaryl tetrahydroquinolines. 3,083,181, 3–26–63, Cl. 260—45.8.

Harris, Jay: *See*—
McGow, Thomas C., MacRae, and Harris. 3,077,959.

Harris, Jerome R., to Art Color Printing. Etching machine. 3,092,123, 6–4–63, Cl. 134—61.

Harris, Jesse. Dental articulator for bridgework and crowns. 3,097,431, 7–16–63, Cl. 32—32.

Harris, John E.: *See*—
Olds, Geoffrey C. E., and Harris. 3,072,478.

Harris, John E., and C. N. Matthews, to Monsanto Research Corp. Synthesis of methylenebis (phosphonium bromides). 3,098,878, 7–23–63, Cl. 260—606.5.

Harris, John F., Jr., to E. I. du Pont de Nemours and Co. Ethylenically-unsaturated fluorinated thiols. 3,086,058, 4–16–63, Cl. 260—609.

Harris, John F., Jr., to E. I. du Pont de Nemours and Co. Preparation of highly fluorinated alkyl chlorides by irradiation with ultraviolet light of fluoroacyl chlorides alone or admixed with fluoroolefins. 3,089,833, 5–14–63, Cl. 204—158.

Harris, John P., to International Business Machines Corp. Driving means for magnetic tape. 3,091,380, 5–28–63, Cl 226—50.

Harris, John W. Information correlating and indicating device. 3,071,322, 1–1–63, Cl. 235—88.

Harris, John W., to Timsons Ltd. Rotary printing machines. 3,095,810, 7–2–63, Cl. 101—351.

Harris, Kate T.: *See*—
Harris, Marlin J., Jr. 3,099,898.

Harris, Kenneth D.: *See*—
Barrett, Walter R. C., and Harris. 3,108,173.

Harris, Lee T. Variable displacement hydraulic assembly. 3,095,708, 7–2–63, Cl. 60—53.

Harris, Lewis P., to The Sherwin-Williams Co. Method of making granular calcium arsenate. 3,090,668, 5–21–63, Cl. 23—53.

Harris, Lucile R., and J. A. Mease, Jr. Hypodermic projectile. 3,093,077, 6–11–63, Cl. 102—92.

Harris, Marlin J., Jr., deceased: K. T. Harris, administratrix. Agricultural process and apparatus for carrying out the same. 3,099,898, 8–6–63, Cl. 47—58.

Harris, Philip H., to American Cement Corp. Cement product. 3,097,955, 7–16–63, Cl. 106—95.

Harris, Ralph A., to Texas Instruments Inc. Balanced drive for semiconductor diode attenuator in automatic gain controlled amplifier. 3,115,601, 12–24–63, Cl. 323—66.

Harris, Raymond C.: *See*—
Straley, James M., Fisher, and Harris. 3,096,318.
Straley, James M., Fisher, and Harris. 3,099,652.
Straley, James M., and Harris. 3,079,373.
Straley, James M., and Harris. 3,079,374.
Straley, James M., and Harris. 3,079,375.
Straley, James M., and Harris. 3,096,322.
Straley, James M., and Harris. 3,099,653.

Harris, Raymond N., and J. C. Walker, to Armour and Co. Pickle injecting apparatus. 3,080,809, 3–12–63, Cl. 99—257.

Harris, Richard A., and C. D. Spainhour, to Western Electric Co., Inc. One-piece oil pump. 3,100,027, 8–6–63, Cl. 184—6.

Harris, Richard C., to Corn Products Co. Animal feeding block and process for preparing the same. 3,087,819, 4–30–63, Cl. 99—2.

Harris, Richard V.: *See*—
Nissen, George P., and Harris. 3,085,357.

Harris, Richard W., and D. H. Youngman, to Molins Machine Co. Ltd. Packing machines. 3,113,902, 12–10–63, Cl 156—484.

Harris, Robert E., to H. H. Robertson Co. Longitudinally reciprocating measuring means and strip treating apparatus. 3,081,657, 3–19–63, Cl. 83—294.

Harris, Robert W., to William Melish Harris, Associates. Collapsible floor display stand. 3,099,357, 7–30–63, Cl. 211—133.

Harris, Ronald C.: *See*—
Pennington, Wilfrid A., Harris, and Sharples. 3,104,522.

Harris, Royal C.: *See*—
Keen, William R., Harris, Morton, and Satterfield. 3,086,347.

Harris, Samuel C., Jr., and L. W. Langley, to General Electric Co. Weighing control system. 3,089,555, 5–14–63, Cl. 177—81.

Harris, Samuel W.: *See*—
Altwicker, Elmar R., Wellmuenster, Garrett, and Harris. 3,109,030.

Harris, Thomas, to Structural Fibers, Inc. Tool handle. 3,115,912, 12–31–63, Cl. 145—61.

Harris, Thomas J., and L. A. Brown. Portable router. 3,114,292, 12–17–63, Cl. 90—13.

Harris and Thrush Mfg. Co., Inc.: *See*—
Harris, Harold D. 3,076,665.

Harris Transducer Corp., The: *See*—
Harris, Wilbur T. 3,091,708.
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Harris, Wilbur T. 3,109,973.

Harris, Velma C. Method of re-refining. 3,098,031, 7–16–63, Cl. 208—183.

Harris, Walter: *See*—
Blyth, Reginald A. 3,090,595.

Harris, Walter. Cigarette filter. 3,103,221, 9–10–63, Cl. 131—10.

Harris, Walter D., to United States Rubber Co. Plant growth regulants. 3,072,473, 1–8–63, Cl. 71—2.6.

Harris, Warren B. Dobby chain bar and linkage. 3,110,328, 11–12–63, Cl. 139—334.

Harris, Wilbur T., to The Harris Transducer Corp. Circuit element transducer. 3,091,708, 5–28–63, Cl. 310—8.2.

Harris, Wilbur T. Hollow conical electromechanical transducer for use in air. 3,104,336, 9–17–63, Cl. 310—8.8.

Harris, Wilbur T. Hollow conical electromechanical transducer in sealed housing. 3,105,161, 9–24–63, Cl. 310—8.4.

Harris, Wilbur T., to The Harris Transducer Corp. Depth-compensated transducer. 3,108,247, 10–22–63, Cl. 340—8.

Harris, Wilbur T., to The Harris Transducer Corp. Differential magnetostrictive actuator. 3,109,973, 11–5–63, Cl. 318—118.

Harris, William, to W. T. Voit Rubber Corp. Control system for ball winding machine. 3,101,179, 8–20–63, Cl. 242—3.

Harris, William B., Jr., and E. B. Champion. Glare shield for windshield wiper. 3,105,990, 10–8–63, Cl. 15—250.35.

Harris, William C., and L. T. Childers, to National Biscuit Co. Depositor. 3,106,173, 10–8–63, Cl. 107—29.

Harris, William E., and R. M. Soden. Rotating fluid spray apparatus for washing paper machine head boxes. 3,101,730, 8–27–63, Cl. 134—167.

Harris, William Melish, Associates: *See*—
Harris, Robert W. 3,099,357.

Harrison, Albert K.: *See*—
Emblem, Harold G., and Harrison. 3,079,656.

Harrison, Anthony W., to Girling Ltd. Shoe drum brakes having automatic adjusting means. 3,111,199, 11–19–63, Cl. 188—78.

Harrison, Benjamin C., and E. H. Tompkins, to International Business Machines Corp. Method of preparing indium antimonide films. 3,101,280, 8–20–63, Cl. 117—201.

Harrison, Charles E. Air-distribution system. 3,099,200, 7–30–63, Cl. 98—40.

Harrison, Charles W.: *See*—
Darbie, Arthur M., Harrison, and Tighe. 3,101,442.

Harrison, Charles W., to Hewlett Packard Co. All transistor regulated power supply having a protection circuit. 3,105,188, 9–24–63, Cl. 323—22.

Harrison, Davie A.: *See*—
Christie, Cleve F. 3,107,123.

Harrison, Dewey L., to Versatile Press. Cylinder change means for printing machine. 3,108,536, 10–29–63, Cl. 101—218.

Harrison, Donald A.: *See*—
Averyt, Robert W., Gardner, and Harrison. 3,079,511.

Harrison, Henry. Bolt stress indicator. 3,104,645, 9–24–63, Cl. 116—114.

Harrison, Henry C. Cleaning device. 3,098,253, 7–23–63, Cl. 15—118.

Harrison, Henry M.: *See*—
Dain, Charles S. R., and Harrison. 3,071,332.

Harrison, Hugh T., and R. D. Oakes, to The Dow Chemical Co. Corrosion inhibitor composition. 3,107,221, 10–15–63, Cl. 252—148.

Harrison, James B.: *See*—
Magell, Orville L., and Harrison. 3,082,236.
Magell, Orville L., and Harrison. 3,086,966.

Harrison, John E. R., to General Dynamics Corp. Absolute temperature control. 3,102,183, 8–27–63, Cl. 219—20.

Harrison, John W.: *See*—
Dayden, William R., Harrison, and Keller. 3,081,571.
Kirkpatrick, Wylie C., Harrison, and Lowry. 3,113,408.
Lowry, Robert D., Kirkpatrick, and Harrison. 3,076,542.

Harrison, John W., to W. R. Grace & Co. Packages. 3,071,819, 1–8–63, Cl. 18—59.

Harrison, John W., to W. R. Grace & Co. Mounting plastic covering material. 3,075,248, 1–29–63, Cl. 18—48.

Harrison, John W., to W. R. Grace & Co. Nestable container wrapping. 3,085,375, 4–16–63, Cl. 53—30.

Harrison, John W., to W. R. Grace & Co. Multiple can carrier and sanitary seal. 3,085,683, 4–16–63, Cl. 206—65.

Harrison, John W., to W. R. Grace & Co. Method for producing a reinforced edge aperture in heat shrinkable material. 3,092,439, 6–4–63, Cl. 18—48.

Harrison, John W., to W. R. Grace & Co. Closure for containers. 3,095,103, 6–25–63, Cl. 215—38.

Harrison, John W., to W. R. Grace & Co. Shrink cover machine for raised products. 3,115,735, 12–31–63, Cl. 53—184.

Harrison, John W., and R. D. Lowry, to W. R. Grace & Co. Package. 3,092,246, 6–4–63, Cl. 206—45.33.

Harrison, John W., R. D. Lowry, W. G. Baird, Jr., and R. G. Shaver, to W. R. Grace & Co. Method of making preforms or blanks from polyethylene. 3,106,441, 10–8–63, Cl. 18—47.5.

Harrison, Kenneth W. Locking T-square or like article. 3,086,291, 4–23–63, Cl. 3—80.

Harrison, Lester E. Constant speed keeper for automobiles. 3,092,202, 6–4–63, Cl. 180—82.1.

Harrison, McGregor & Guest Ltd.: *See*—
Williams, Frederick, and Bowditch. 3,107,921.

Harrison, Norman A., to Johnson & Johnson. Sanitary napkin. 3,076,459, 2–5–63, Cl. 128—290.

Harrison, Norman A., to Johnson & Johnson. Sanitary napkin. 3,076,460, 2–5–63, Cl. 128—290.

Harrison, Randolph P.: *See*—
Childress, Owen W. 3,114,183.

Harrison, Robert D., to Tidewater Oil Co. Non-phytocidal spray oil. 3,098,000, 7–16–63, Cl. 167—27.

Harrison, Robert R., and C. R. Broman, to Baxter Laboratories, Inc. Parenteral solution equipment and method. 3,079,919, 3–5–63, Cl. 128—272.

Harrison, Roy C., to Phillips Petroleum Co. Method and apparatus for coating the interior of a pipe. 3,074,808, 1–22–63, Cl. 117—18.

Harrison, Stuart A., K. E. McCaleb, and W. J. Ward, to General Mills Inc. Dimeric fatty quaternary ammonium salts. 3,073,864, 1–15–63, Cl. 260—567.6.

Harrison, Wayne T., and R. J. Carrigan, to Bigelow-Sanford, Inc. Axminster type carpet and method for making the same. 3,077,906, 2–19–63, Cl. 139—399.

Harrison, William H. Golf teaching device. 3,097,437, 7–16–63, Cl. 35—29.

Harrison, William M., to Tidewater Oil Co. Bacterial treatment of media containing hydrocarbons and sulfides. 3,105,014, 9–24–63, Cl. 195—3.

Harrold, Marshall C.: *See*—
Billings, Charles K., Alexander, and Harrold. 3,078,700.

Harruff, Ray W.: *See*—
Clemens, John E., Harruff, Johnstone, Ray, Sobottke, and Weeks. 3,080,836.

Harry, Gordon W., to General Motors Corp. Level indicator and filling device in an engine cooling system. 3,096,748, 7–9–63, Cl. 123—41.15.

Harry, Gordon W., to General Motors Corp. Altitude compensated pressure supply mechanism. 3,106,104, 10–8–63, Cl. 74—472.

Harry, Gordon W., to General Motors Corp. Pressure testing apparatus. 3,115,031, 12–24–63, Cl. 73—40.

Harry, Robert J., to The Alliance Machine Co. Coil handling crane. 3,104,016, 9–17–63, Cl. 212—129.

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Heckett, Eric H. 3,081,955.
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Hart, Albert J., and A. M. Henke, to Gulf Research & Development Co. Lubricating composition having a reduced coking tendency. 3,095,377, 6–25–63, Cl. 252—45.

Hart, Albert S. Disk cutter. 3,091,855, 6–4–63, Cl. 30—359

Hart, Benjamin F., to General Electric Co. Method and apparatus for severing a moving helical strip. 3,095,774, 7–2–63, Cl. 83—37.

Hart, Charles R., Jr. Method and apparatus for testing gearing. 3,094,867, 6–25–63, Cl. 73—162.

Hart, Diane, to Hearts Delight Ltd. Foundation garments for women. 3,087,495, 4–30–63, Cl. 128—528.

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Hart, James L.: *See*—
Hillyer, John C., and Hart. 3,081,148.

Hart, James L., to Phillips Petroleum Co. Removal of silica from uranium-containing solution. 3,105,734, 10–1–63, Cl. 23—14.5.

Hart, James L., and R. E. Reusser, to Phillips Petroleum Co. Method for prevention of plugging of aeration tubes in the leaching of uranium ores. 3,086,841, 4–23–63, Cl. 23—14.5.

Hart, James L., and R. A. Koble, to Phillips Petroleum Co. Process for precipitation of uranium from solution. 3,104,941, 9–24–63, Cl. 23—14.5.

Hart, John C.: *See*—
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Hart, Kenneth G., and R. E. Leadon, to General Dynamics Corp. Hydrofoil craft stabilising device. 3,110,280, 11–12–63, Cl. 114—66.5.

Hart, Linton, and H. W. D. Hunter, to Raymond International Inc. Method of installing piles for resisting upward soil movements. 3,087,308, 4–30–63, Cl. 61—53.52.

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Hart, Robert H.: *See*—
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Hart, Robert K. Package. 3,093,239, 6–11–63, Cl. 206—42.

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Hart, Theari C., to Chicago Lock Co. Lock-type keeper mechanism for a slide fastener. 3,070,986, 1–1–63, Cl. 70—68.

Hart, William F. Fire training structures. 3,071,872, 1–8–63, Cl. 35—8.

Hartel, Erwin H., to Cleveland Pneumatic Industries, Inc. Aircraft landing gear. 3,073,586, 1–15–63, Cl. 267—64.

Hartel, Erwin H., to The Cleveland Pneumatic Tool Co. Retractable landing gear. 3,086,733, 4–23–63, Cl. 244—102.

Hartel, Erwin H., to Cleveland Pneumatic Industries, Inc. Marine fenders. 3,109,404, 11–5–63, Cl. 114—219.

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Hartle, Glenn A., to Farrington Sanford Corp. Food processing tray. 3,085,352, 4–16–63, Cl. 34—238.

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Hartley, Maurice S., to National Mfg. Corp. Web-fed printing and sealing apparatus. 3,112,055, 11–26–63, Cl. 226—117.

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Hartman, Lyle M. String damper assembly for musical instruments. 3,101,640, 8–27–63, Cl. 84—255.

Hartman, Paul F., to United States Rubber Co. Trinitroalkyl ethers and process. 3,084,201, 4–2–63, Cl. 260—611.
Hartman, William F., to The Bunting Co., Inc. Separator means for webbing. 3,094,358, 6–18–63, Cl. 297—454.
Hartman, William W. Multiple-action loaf slicing machine. 3,077,910, 2–19–63, Cl. 146—88.
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Hartmann, Philip, G. W. Brand, S. Bowman, and E. C. Brekelbaum, to Hartmann Mfg. Co. Hydrodynamic unit. 3,112,677, 12–3–63, Cl. 91—51.
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Hartung, Harold A., and E. Barkis, to The Atlantic Refining Co. Lubricating oil compositions and fire-resistant lubricating emulsions produced therefrom. 3,108,070, 10–22–63, Cl. 252—32.7.
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Hass, Henry B., G. B. Bachman, H. Feuer, and K. S. Warren, to Purdue Research Foundation. Nitro acetal propellants. 3,071,598, 1–1–63, Cl. 260—247.8.
Hass, Martin A., and D. L. Hill; said Hill assor. to B. M. Hass. Dental balancing method and apparatus. 3,084,435, 4–9–63, Cl. 32—1.
Hass, Walter, to Miwag Mikrowellen A.G. Magnetron type amplifier. 3,113,239, 12–3–63, Cl. 315—39.77.
Hass, Zygmunt K., to Marsland Engineering Ltd. Electronic circuits for comparing an A.C. voltage to a D.C. voltage. 3,093,783, 6–11–63, Cl. 318—327.
Hassa, Richard, to G. Kromschroder Aktiengesellschaft. Gas burner safety and regulator control valve system. 3,091,285, 5–28–63 Cl. 158—131.
Hassage, Charles. Automatic window washer. 3,080,592, 3–12–63, Cl. 15—50.
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Hastings, Russell, Jr., to Clark Equipment Co. Industrial truck brake control system. 3,080,019, 3–5–63, Cl. 187—9.

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Hastings, Warren W., and W. D. Huston, to American Radiator & Standard Sanitary Corp. Pressure-responsive device. 3,072,150, 1–8–63, Cl. 137—788.

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Hatch, Melvin J., and E. L. McMaster, to The Dow Chemical Co. Vinylbenzylsulfonium monomers and polymers. 3,078,259, 2–19–63, Cl. 260—79.7.

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Hawkes, Richard H., to Sheller Mfg. Corp. Pre-heat process for molding cork blocks. 3,101,243, 8–20–63, Cl. 18—48.

Hawkes, Sidney, to Fred Hawkes (N.Y. Engineers) Ltd. Last removing machine. 3,091,787, 6–4–63, Cl. 12—15.1.
Hawkins, Daryl W., to General Electric Co. Resilient getter supporting arrangement. 3,082,346, 3–19–63, Cl. 313—180.
Hawkins, Eugene S., to International Telephone and Telegraph Corp. System for large-area display of pictorial and alpha-numeric information. 3,074,056, 1–15–63, Cl. 340—324.
Hawkins, Floyd L. Rail connector. 3,085,788, 4–16–63, Cl. 256—65.
Hawkins, Floyd L. Prefabricated stair. 3,099,336, 7–30–63, Cl. 189—43.
Hawkins, George S.: *See*—
Kuzell, Charles R., Fowler, Klein, and Hawkins. 3,081,163.
Hawkins, George V.: *See*—
Hamilton, Francis E., Hawkins, Lawhead, and Hughes. Re. 25,482.
Hawkins, James E.: *See*—
Crossland, Edward J., Ragan, and Hawkins. 3,095,142.
Hawkins, James E., to Seismograph Service Corp. Seismic reproducing and recording device. Re. 25,377, 4–30–63, Cl. 340—15.5.
Hawkins, Ralph G.: *See*—
Buffington, John R., and Hawkins. 3,072,853.
Hawkins, Robert D., to Sperry Rand Corp. Vibration and shock mount assembly. 3,072,393, 1–8–63, Cl. 267—1.
Hawkins, Robert D., and H. Southworth, Jr., to Sperry Rand Corp. Vibration attenuating coupling. 3,093,367, 6–11–63, Cl. 267—1.
Hawkins, Robert M. Scraper attachment for floor brush. 3,084,369, 4–9–63, Cl. 15—236.
Hawkins, Royal R.: *See*—
Fillmore, Robert L., and Hawkins. 3,079,540.
Hawkins, Wallace G., to C.I.C. Engineering Ltd. Fluid control valves. 3,082,478, 3–26–63, Cl. 18—17.
Hawkins, Wallace G., to C.I.C. Engineering Ltd. Apparatus for conforming shoe uppers. 3,097,379, 7–16–63, Cl. 12—10.1.
Hawkins, Wallace H., to Red Arrow Tow Bar Mfg., Inc. Apparatus for removing bearings from axles and the like. 3,103,064, 9–10–63, Cl. 29—252.
Hawkins, William R., to Newcomb Electronics Corp. Electric phonograph structure. 3,090,661, 5–21–63, Cl. 312—8.
Hawkinson, Donald E.: *See*—
Carlson, Carl R., Hawkinson, Hedderich, and Jannenga. 3,081,976.
Hedderich, William E., Jannenga, Carlson, and Hawkinson. 3,078,535.
Hawkinson, Paul E., Co.: *See*—
Sornsen, Wallace V. Re. 25,339.
Hawks, Clarence L. Newspaper vending machine. 3,082,912, 3–26–63, Cl. 221—213.
Hawksford, George F. Pouring device. 3,074,444, 1–22–63, Cl. 141—353.
Hawley, Edwin L. Slide fasteners. 3,074,137, 1–22–63, Cl. 24—201.
Hawley, Edwin L., to E.P.S., (Research & Development) Ltd. Method and means of packing and preserving corrodible objects or components. 3,084,791, 4–9–63, Cl. 206—46.
Hawley, Edwin L., to E.P.S. Research & Development Ltd. Slide fasteners and protective containers. 3,103,049, 9–10–63, Cl. 24—201.
Hawley, Edwin L., and D. Gonda, to E.P.S. (Research & Development) Ltd. Protective containers. 3,101,109, 8–20–63, Cl. 150—52.
Hawley, Harold K., and T. B. Laycock, Jr., to The Procter & Gamble Co. Deodorant compositions and the methods of use. 3,102,101, 8–27–63, Cl. 252—305.
Hawley, Harry R., to Solo Cup Co. Combination lid and stand for paper cups. 3,095,132, 6–25–63, Cl. 229—1.5.
Hawley, John B., to Akron Spool and Mfg. Co. Slubber bobbin. 3,074,666, 1–22–63, Cl. 242—118.6.
Hawley, Melville S.: *See*—
Andregg, Ernest R., Hawley, and Pferd. 3,116,370.
Hawley Products Co.: *See*—
Mayne, Charles. 3,090,432.
Hawn, Walter M., D. Chann, R. J. Besal, and D. V. Vesely, to The Pyle-National Co. Junction box for recessed wall installation. 3,098,114, 7–16–63, Cl. 174—58.
Haworth, Daniel T.: *See*—
Huff, James R., and Haworth. 3,107,978.
Hawrylak, Roman A.: *See*—
Verba, John W., and Hawrylak. 3,100,263.
Haws, Claude C., Jr., to United States of America, Atomic Energy Commission. Preparation of refractory oxide microspheres. 3,105,052, 9–24–63, Cl. 252—301.1.
Hawthorne, John O., and E. L. Mihelic, Sr., to United States Steel Corp. 5-hydroxy-5H-dibenz[C,E]azepine, derivatives thereof and method for their manufacture. 3,075,966, 1–29–63, Cl. 260—239.
Hawthorne, John O., and E. L. Mihelic, Sr., to United States Steel Corp. Method of making 2,2'-biphenyl lactone. 3,106,567, 10–8–63, Cl. 260—343.2.
Hawthorne Knitting Mills, Inc.: *See*—
Rinehart, Arthur H. 3,103,111.
Haxo, Henry E., Jr., to United States Rubber Co. Latex masterbatching of silica with vinyl pyridine rubbers. 3,098,837, 7–23–63, Cl. 260—41.5.
Hay, Alexander L., to MacMillan Bloedel and Powell River Ltd. Removable core tip. 3,113,743, 12–10–63, Cl. 242—68.6.
Hay, Allan S., to General Electric Co. Process for preparing tetraalkyl substituted benzoquinones. 3,078,283, 2–19–63, Cl. 260—396.
Hay, Allan S., to General Electric Co. Process of oxidizing hydrogen sulfide to elemental sulfur. 3,087,793, 4–30–63, Cl. 23—225.
Hay, Allan S., to General Electric Co. Process for oxidizing hydrogen substituted organosilicon compounds. 3,099,640, 7–30–63, Cl. 260—46.5.
Hay, Arthur D., to McLean Engineering Laboratories. Ventilating apparatus. 3,080,695, 3–12–63, Cl. 55—470.
Hay, Charles N., to General Motors Corp. Antifriction bearing and lubrication therefor. 3,096,129, 7–2–63, Cl. 308—187.
Hay, Claude H., to Baldwin Instrument Co. Ltd. Fluid pressure operated apparatus. 3,083,730, 4–2–63, Cl. 137—620.
Hay, Jessie E., to T. & H. Smith, Ltd. Quaternary salts as denaturants for organic substances. 3,080,327, 3–5–63, Cl. 252—366.
Hay, Raymond E., to Rehco Corp. Door hinge construction. 3,109,194, 11–5–63, Cl. 16—75.
Hay, Russell G., and S. M. Hazen, to Gulf Research & Development Co. Process for alkylating aromatics in the presence of a heavy metal hallide, an organic halide and an organic aluminum hallide. 3,094,568, 6–18–63, Cl. 260—671.
Hay, Wayne W., to Air Reduction Co., Inc. Carbon dioxide absorber. 3,088,810, 5–7–63, Cl. 23—252.
Hay, Wayne W., and H. L. May, to Air Reduction Co., Inc. Aviation quick release valve. 3,073,301, 1–15–63, Cl. 128—142.
Hay, William J., and D. L. Larson, to Joy Mfg. Co. Nozzle. 3,085,755, 4–16–63, Cl. 239—565.
Hay, William J., Jr., to Pittsburgh Plate Glass Co. Supporting glass sheets. 3,089,727, 5–14–63, Cl. 294—118.
Hayahara, Takuro: *See*—
Fujita, Yoshimasa, and Hayahara. 3,111,366.
Hayama, Fumitada: *See*—
Nobuoka, Soichiro, Ando, and Hayama. 3,081,264.
Hayao, Shin: *See*—
Fancher, Otis E., and Hayao. 3,072,658.
Hayasaka, Toshio, K. Masuzawa, R. Araki, and K. Tajima, to Nippon Telegraph and Telephone Public Corp. Electromagnetic receiver. 3,092,693, 6–4–63, Cl. 179—115.
Hayashi, Chikara, and H. Kumagai, to Nihon Shinku Gijutsu Kabushiki Kaisha (Japan Vacuum Engineering Co., Ltd.). Vacuum pump. 3,071,310, 1–1–63, Cl. 230—69.
Hayashi, Izumi, R. Iwanaga, and J. Kato, to Ajinomoto Co., Inc. Process for producing stable aqueous solutions of ammonium cyanide. 3,112,993, 12–3–63, Cl. 23—79.
Hayashi, Kumataro, to Daito Boshoku Kabushiki Kaisha (known as Daito Woolen Spinning & Weaving Co. Ltd.). Process for the chlorination of wool. 3,076,690, 2–5–63, Cl. 8—128.
Hayashi, Shiro, to Dai-Ichi Yakuhin Sangyo Kabushiki Kaisha. Process for preparation of lodized lecithin. 3,072,689, 1–8–63, Cl. 260—403.
Hayashi, Sigeo: *See*—
Ozawa, Toshio. 3,092,600.
Hayashi, Tadao, and M. Ando, to Nihon Mishin Seizo Kabushiki Kaisha. Sewing machine. 3,090,334, 5–21–63, Cl. 112—158.
Hayashi, Yutaka, to Shin-Mitsubishi Jukogyo Kabushiki Kaisha. Method for increasing tonnage of ship by utilizing dock. 3,111,925, 11–26–63, Cl. 114—77.
Hayashida, Tatsutaka. Washing apparatus for filtering fibers. 3,074,262, 1–22–63, Cl. 68—18.
Hayball, George D.: *See*—
Johnson, Thomas H., and Hayball. 3,103,585.
Haydel, Chester H.: *See*—
Sloan, Julia M., Weller, and Haydel. 3,094,866.
Hayden, Arthur H., to Aurora Corp. of Illinois. Solenoid armature rod means and striker means for pianos. 3,088,360, 5–7–63, Cl. 84—246.
Hayden, Ernest A. Chain saw attachment for sawing round logs. 3,092,156, 6–4–63, Cl. 143—32.
Hayden-Nilos Ltd.: *See*—
Neale, Lealie A. 3,101,481.
Hayden, Ronald E. Step down transmission mechanisms. 3,105,397, 10–1–63, Cl. 77—34.4.
Hayden, Stanley P., and C. B. Sheets, to Allis-Chalmers Mfg. Co. Rod-type material screening device. 3,105,816, 10–1–63, Cl. 209—331.
Haydn, Hildegurd, G. Schaun, and E. Weyde, to Agfa Aktiengesellschaft. Process for the production of printing forms. 3,079,858, 3–5–63, Cl. 101—129.
Haydn, Hildegard, A. von Konig, and E. Weyde, to Agfa Aktiengesellschaft. Photographic stratum transfer process and element therefor. 3,080,230, 3–5–63, Cl. 96—27.
Haydon, Arthur W., to Consolidated Electronics Industries Corp. Fastening device. 3,073,107, 1–15–63, Cl. 58—53.
Haydon, Arthur W., to Consolidated Electronics Industries Corp. Motor for electric clocks. 3,096,452, 7–2–63, Cl. 310—46.
Haydon, Arthur W., to Consolidated Electronics Industries Corp. Cam actuated switch. 3,106,620, 10–8–63, Cl. 200—38.
Haydon, Arthur W., R. J. Kavanaugh, and R. W. Reder, to Consolidated Electronics Industries Corp. Hysteresis type synchronous motor. 3,113,231, 12–3–63, Cl. 310—163.

Haydon Switch, Inc.: *See*—
Korsgren, Theodore Y., Sr. 3,089,009.
Korsgren, Theodore Y., Sr., and T. Y. Koresgren, Jr. 3,105,887.
Haydu, Andrew G., to Westinghouse Air Brake Co. Guide foot for brake beam. 3,092,215, 6–4–63, Cl. 188—219.1.
Hayek, Arthur: *See*—
Lindholm, Ralph, and Hayek. 3,077,671.
Hayek, Arthur F., to General Precision, Inc. Differential type wheel setting means in signal controlled platen press. 3,111,085, 11–19–63, Cl. 101—93.
Hayes, Charles M., and A. Gaydasch, to Universal Oil Products Co. Process for the preparation of thiuramdisulfides. 3,116,329, 12–31–63, Cl. 260—567.
Hayes Corp., The: *See*—
Brown, Howard C. 3,088,693.
Hayes, Eddie J., to Northrop Corp. Vacuum tube mounts. 3,087,982, 4–30–63, Cl. 174—52.
Hayes, Edward F.: *See*—
Hayes, Frank C. 3,102,320.
Hayes Engineers (Leeds) Ltd.: *See*—
Hayes, George. 3,071,418.
Hayes, Frank A.: *See*—
Crockford, Jack A., Hayes, Feurt, Jenkins, and Palmer. 3,087,196.
Hayes, Frank A., G. J. Abel, and J. A. Herr, to The Singer Mfg. Co. Automatic sewing machines. 3,084,640, 4–9–63, Cl. 112—2.
Hayes, Frank C., to E. F. Hayes. Bristle teaseling device. 3,102,320, 9–3–63, Cl. 26—31.
Hayes, George, to Hayes Engineers (Leeds) Ltd. Guide track means. 3,071,418, 1–1–63, Cl. 308—6.
Hayes, Jerry. Row crop cultivator gauge. 3,104,476, 9–24–63, Cl. 33—185.
Hayes, John C.: *See*—
Ziegler, George E., Hayes, and Gaudin. 3,076,546.
Hayes, John C., to Universal Oil Products Co. Method for producing alumina free from alkaline earth metal impurities. 3,104,944, 9–24–63, Cl. 23—143.
Hayes, John C., to Universal Oil Products Co. Method for producing alumina free from alkaline earth metal impurities. 3,105,739, 10–1–63, Cl. 23—143.
Hayes, John C., to Universal Oil Products Co. Alumina from impure aluminum salts. 3,111,382, 11–19–63, Cl. 23—143.
Hayes, John D., to Bausch & Lomb Inc. Focus indicating mechanism for focusable photographic objectives. 3,101,658, 8–27–63, Cl. 95—44.
Hayes, Louie W., Sr., to Monsanto Chemical Co. Bobbin stripper. 3,092,889, 6–11–63, Cl. 28—19.
Hayes, Louie W., Sr., to Monsanto Chemical Co. Bobbin stripper. 3,108,354, 10–29–63, Cl. 28—19.
Hayes, Peter R., to Aluminum Co. of America. Closure device for sealed packages. 3,073,471, 1–15–63, Cl. 215—46.
Hayes, Richard L.: *See*—
Fulwiler, Edward R., Hayes, Masucci, and Wilson. 3,115,552.
Hayes, Richmond S., Jr., to Carrier Corp. Apparatus for treating air. 3,073,096, 1–15–63, Cl. 55—257.
Hayes, Robert A., to The Firestone Tire & Rubber Co. Cure of elastomers containing alkyl alkacrylates. 3,078,260, 2–19–63, Cl. 260—83.5.
Hayes, Robert A., to Union Special Machine Co. Machine for producing safety stitch. 3,101,686, 8–27–63, Cl. 112—162.
Hayes, Robert M., and A. M. Nelson, to Magnavox Co. Card processing apparatus. 3,100,481, 8–13–63, Cl. 95—73.
Hayes Spray Gun Co.: *See*—
Hayes, Stanley A. 3,104,823.
Hayes, Stanley A. 3,104,825.
Hayes, Stanley A. 3,106,347.
Hayes, Stanley A., to Hayes Spray Gun Co. Mixing apparatus. 3,104,823, 9–24–63, Cl. 239—304.
Hayes, Stanley A., to Hayes Spray Gun Co. Mixing apparatus. 3,104,825, 9–24–63, Cl. 239—407.
Hayes, Stanley A., to Hayes Spray Gun Co. Adjustable deflector for a spray nozzle. 3,106,347, 10–8–63, Cl. 239—505.
Hayes, Stanley W., to Hayes Track Appliance Co. Wheel stop. 3,094,945, 6–25–63, Cl. 104—259.
Hayes, Stanley W., to Hayes Track Appliance Co. Wheel stop. 3,097,611, 7–16–63, Cl. 104—258.
Hayes Track Appliance Co.: *See*—
Hayes, Stanley W. 3,094,945.
Hayes, Stanley W. 3,097,611.
Hayes, Vernon H., to Sperry Rand Corp. Carriage translating device. 3,101,623, 8–27–63, Cl. 74—424.8.
Hayes, William J., to Shell Oil Co. Ship control system. 3,105,453, 10–1–63, Cl. 114—144.
Hayes, William J., to Shell Oil Co. Position selector device for wells. 3,111,990, 11–26–63, Cl. 166—64.
Hayes, William R. Model structure. 3,079,706, 3–5–63, Cl. 35—16.
Hayeshaw Ltd.: *See*—
Roscoe, Samuel. 3,073,169.
Hayhurst, Lewis J., to National Dairy Products Corp. Dispensing carton. 3,061,927, 3–19–63, Cl. 229—17.
Hayman, Edgar S., Jr.: *See*—
Gardner, George S., Manson, and Hayman. 3,094,490.
Hayman, Max, and E. G. Hellenga, to Pilot Distributing Co. Automobile tow bar. 3,083,040, 3–26–63, Cl. 280—498.
Hayner, Paul F., to Sanders Associates, Inc. Hydraulic transducer. 3,096,690, 7–9–63, Cl. 91—461.
Haynes, Aurbon H., and A. L. Hicks, deceased, by M. M. Hicks, administratrix. Dumping machine. 3,084,818, 4–9–63, Cl. 214—308.
Haynes, Carl J., to Eastman Kodak Co. Method and apparatus for making rug yarn. 3,099,064, 7–30–63, Cl. 28—1.
Haynes, James W.: *See*—
Haynes, John R. and J. W. 3,100,586.
Haynes, John A., to Jet Research Center, Inc. Submarine vessel. 3,107,641, 10–22–63, Cl. 114—16.7.
Haynes, John R. and J. W.; said James assor. to said John. Valved opener for sealed containers. 3,100,586, 8–13–63, Cl. 222—90.
Haynes, Munro K., to International Business Machines Corp. Magnetic core matrix. Re. 25,340, 2–26–63, Cl. 235—160.
Haynes, Munro K., and N. F. Lockhart, to International Business Machines Corp. Magnetic shift register. 3,106,702, 10–8–63, Cl. 340—174.
Haynes, Ronald, to Babcock & Wilcox Ltd. Nuclear fuel units. 3,111,474, 11–19–63, Cl. 204—193.2.
Haynes, William D., Jr., to General Motors Corp. Refrigerator door sealing. 3,078,134, 2–19–63, Cl. 312—296.
Haynes, William F., Jr., and F. E. Pittman. String for marking internal bleeding and method of making same. 3,097,636, 7–16–63, Cl. 128—2.
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Haynie, Robert N.: *See*—
Peickil, Vasalie L., Seemann, and Haynie. 3,077,637.
Haynie, Robert N., and A. M. Scott, to Federal-Mogul-Bower Bearings, Inc. Projectiou welded unitized seals. 3,108,815, 10–29–63, Cl. 277—37.
Hays, Edwin E.: *See*—
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Hays, Edwin E., and B. A. Becker, to Wallace & Tiernan Inc. Appetite suppressant mixture having decreased side effects. 3,081,231, 3–12–63, Cl. 167—65.
Hays, Edwin E., and B. V. Shetty, to Wallace & Tiernan Inc. Therapeutic amine-resin complex composition and method of using same. 3,084,099, 4–2–63, Cl. 167—55.
Hays, Edwin E., and J. G. Swift, to Wallace & Tiernan Inc. Synergistic antihistamine mixture. 3,096,241, 7–2–63, Cl. 167—65.
Hays, George, and K. R. Cantwell, to Phillips Petroleum Co. Method of precipitation of sodium diuranate. 3,097,919, 7–16–63, Cl. 23—14.5.
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De Butts, Edward H., Hays, and Young. 3,107,265.
Hays, John T., and H. L. Young, to Hercules Powder Co. Process for production of p-nitroso-N-substituted anilines. 3,107,264, 10–15–63, Cl. 260—576.
Hays, Kenneth S., to AMP Inc. Locking pin. 3,080,184, 3–5–63, Cl. 287—100.
Hays, Leroy D. Separator for removing oil and water from compressed air system. 3,075,336, 1–29–63, Cl. 55—442.
Hays, Lloyd J. Wall bracket device. 3,089,439, 5–14–63, Cl. 108—152.
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Bradbury, James G. 3,079,675.
Hays, Robert F., Jr., to Specialties Inc. Damped synchronous repeater. 3,076,921, 2–5–63, Cl. 318—24.
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Haysllp, Homer C., ½ to J. Scheuer. Collar support. 3,108,724, 10–29–63, Cl. 223—83.
Hayter, Charles E., to Rotax Ltd. Electromagnetically-actuated electric switches. 3,108,208, 10–22–63, Cl. 317—155.5.
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Chatt, Joseph, and Hayter. 3,084,179.
Hayward, Benjamin R.: *See*—
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Hayward, Gamon B.: *See*—
Brower, David F., and Hayward. 3,114,585.
Hayward, Gilbert O. Harpoon guns. 3,109,419, 11–5–63, Cl. 124—13.
Hayward, Walter S., Jr., to Bell Telephone Laboratories, Inc. Electrical switching array. 3,110,772, 11–12–63, Cl. 179—18.
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Hazel, Ernest, Jr. 3,099,465.
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Biggs, Albert J., and Ribchester. 3,073,895.
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Farber, Richard J. 3,108,727.
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Tschannen, Robert F. 3,084,216.
Tschannen, Robert F. 3,115,547.
Wilhelmsen, Carl R. 3,073,701.
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Meyer, Ludwig J. 3,098,614.

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Hazen, George G., and D. W. Rosenburg, to Merck & Co., Inc. Preparation of 9(11)-anhydro steroids from 11-hydroxy steroids. 3,094,543, 6–18–63, Cl. 260—397.45.

Hazen, Gretzolon L., to Rockwood & Co. Silage handling apparatus. 3,075,657, 1–29–63, Cl. 214—17.

Hazen, Norval F., and R. E. Thompson. Adjustable hydraulic trip release. 3,087,559, 4–30–63, Cl. 175—297.

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Hazzard, Noel D., and J. A. Cunningham, to Combustion Engineering, Inc. Ceramic rotor fabrication. 3,101,778, 8–27–63, Cl. 165—10.

Heacock, Amos E. Packaging panel. 3,073,476, 1–15–63, Cl. 220—4.

Heacock, Frederick H., to Clayton Dewandre Co. Ltd. Power assisted steering gear for vehicles. 3,078,828, 2–26–63, Cl. 121—41.

Heacock, William J., Jr., to United States of America, Navy. Memory circuit with positive and negative limiters. 3,104,358, 9–17–63, Cl. 328—175.

Head, Howard. Ski. 3,095,207, 6–25–63, Cl. 280—11.13.

Head, James R.: *See*—
Johnson, Paul H. 3,105,443.

Head, Victor P., to Fischer & Porter Co. Means for effecting instrument phase adjustment. 3,091,117, 5–28–63, Cl. 73—194.

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Headrick, Richard T. and E. E. 3,085,537.
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Headrick, Richard T. Apparatus for transporting fluids. 3,111,968, 11–26–63, Cl. 141—21.

Headrick, Richard T. and E. E. Hydrofoil apparatus. 3,085,537, 4–16–63, Cl. 114—66.5.

Headrick, Richard T. and E. E., to E & R Hydrofoil Co. Hydrofoil apparatus. 3,114,343, 12–17–63, Cl. 114—66.5.

Heal, Eugene: *See*—
Johnston, Verle S., Maples, and Heal. 3,107,849.

Heald Machine Co., The: *See*—
Hahn, Robert S. 3,089,288.
Humes, Norman S., and Hohler. 3,089,291.
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Healy, Donald V., to The Bendix Corp. Dry type hydraulic servo valve. 3,095,002, 6–25–63, Cl. 137—85.

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Healy, Francis P., C. C. Stewart, and F. F. Groll, to Universal American Corp. Grinding machine. 3,080,686, 3–12–63, Cl. 51—103.

Healy, James W. Mud pump pistons. 3,094,904, 6–25–63, Cl. 92—241.

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Healy, William J.: *See*—
Patterson, Charles R., and Healy. 3,103,354.

Heaphy, William G. Power conveying drive means. 3,076,513, 2–5–63, Cl. 175—55.

Hearn, John E. Saw horse. 3,110,360, 11–12–63, Cl. 182—155.

Hearn, Robert T., to Symington Wayne Corp. Automatic shutoff device. 3,077,212, 2–12–63, Cl. 141—225.

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Heckett, Eric H., to Harsco Corp. Rotatable double screened classifier for recovering reusable metallics from steel making slag and refuse. 3,081,955, 3–19–63, Cl. 241—79.

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Saidel, William R., and Heigl. 3,100,598.

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Heil, Oskar, to Eitel-McCullough, Inc. Velocity modulation tube. 3,116,435, 12-31-63, Cl. 315—5.51.

Heilig, Harland E., and E. S. Brown, to Olin Mathieson Chemical Corp. Veneer coated tablets. 3,116,205, 12-31-63, Cl. 167—82.

Heilig, Theodore, to General Aerosol Corp. Self-propelling medicinal ointment composition containing polyethylene and method of application. 3,079,299, 2-26-63, Cl. 167—58.

Heiligmann, Randall G., to W. R. Grace & Co. Process of preparing a polyethylene catalyst. 3,115,473, 12-24-63, Cl. 252—441.

Heilman, George P., and V. A. Zike, to International Staple and Machine Co. Pneumatic driver. 3,099,837, 8-6-63, Cl. 1—44.4.

Heilman, Raymond R.: *See*—
Schwartz, Norman J., Lisnay, and Heilman. 3,079,479.

Heilman, William O.: *See*—
Skarstrom, Charles W., Crowley, and Heilman. 3,102,-853.
Skarstrom, Charles W., and Heilman. 3,086,339.

Heilmann, Max, W. Jessien, and W. Stracke, to Agfa Aktiengesellschaft. Process for maintaining the clarity of photographic silver halide emulsions at relatively high developer temperatures. 3,032,088, 5-1-62, Cl. 96—109.

Heim, Lewis R., to SKF Industries, Inc. Method for making antifriction bearings. 3,088,190, 5-7-63, Cl. 29—148.4.

Heim, Lewis R., to Universal Bearing Corp. Apparatus for furnishing telescoped bearings. 3,093,884, 6-18-63, Cl. 29—90.

Heim, Richard. Thread tensioning means for textile machines. 3,087,689, 4-30-63, Cl. 242—154.

Heiman, Jordan L. Balanced draft space heater. 3,082,758, 3-26-63, Cl. 126—110.

Heimaster, John W., F. W. Jenkins, and L. J. Rogers, to Union Carbide Corp. Automatic mining apparatus. 3,108,789, 10-29-63, Cl. 262—26.

Heimerl, Anthony F., to Statham Instruments, Inc. Tapping or drilling machine power transmission. 3,101,630, 8-27-63, Cl. 77—34.4.

Heimers, Friedreich O.: *See*—
Heimers, Rudolph H., F. O. and S. I. 3,090,621.

Heimers, Rudolph H., F. O. and S. I. Carrier means for attaching apparatus to the human body. 3,090,621, 5-21-63, Cl. 273—95.

Heimers, Siegfried I.: *See*—
Heimers, Rudolph H., F. O., and S. I. 3,090,621.

Heimos, Milton J.: *See*—
Williams, Russell J., and Heimos. 3,094,044.

Heimsch, Robert A., and W. E. Weesner, to Monsanto Chemical Co. Oxo process for the production of higher molecular weight oxo products using a combination catalyst. 3,085,-114, 4-9-63, Cl. 260—638.

Heimsch, Robert A., W. E. Weesner, and J. W. Andersen, to Monsanto Chemical Co. Oxo process with continuously increasing temperature in a continuous reactor. 3,113,974, 12-10-63, Cl. 260—632.

Hein, Allyn J., and J. A. Junck, to Caterpillar Tractor Co. Hydraulic circuit for tractor drawn scrapers and the like. 3,115,716, 12-31-63, Cl. 37—129.

Hein, Ewald: *See*—
Schulte, Erich, and Hein. 3,110,204.

Hein, George N., to Becton, Dickinson and Co. Container for blood and machine for separating precipitates from liquid blood constituents. 3,096,283, 7-2-63, Cl. 233—20.

Hein, Hans: *See*—
Rappold, Armin, and Hein. 3,076,154.

Hein, Helmut: *See*—
Bolz, Karl, and Hein. 3,073,742.

Hein, Henry W.: *See*—
De Marco, Robert F., and Hein. 3,099,332.

Hein, Matthew E., to American Can Co. Dispensing container for viscous products. 3,099,370, 7-30-63, Cl. 222—386.5.

Hein, Matthew E., to American Can Co. Aerosol can package. 3,112,846, 12-3-63, Cl. 222—394.

Hein, Matthew E., and W. A. Fourier, to American Can Co. Package. 3,087,823, 4-30-63, Cl. 99—174.

Hein, Rolf. Devices for producing bubbles. 3,109,255, 11-5-63, Cl. 46—7.

Hein, Rowland F.: *See*—
Gradishar, Frederick J., and Hein. 3,098,716.

Hein, William J., and I. Wolfson. Device for producing windowed packages. 3,112,680, 12-3-63, Cl. 93—36.

Heine, Antony E., and C. M. Wagner. Scraper attachment for electric drill. 3,082,452, 3-26-63, Cl. 15—93.

Heine-Geldern, Robert, to Engelhard Hanovia, Inc. Fan. 3,086,696, 4-23-63, Cl. 230—42.

Heine, Richard F., to Minnesota Mining and Mfg. Co. Fluorocarbon vinyl ethers and polymers and aqueous dispersions containing same. 3,078,245, 2-19-63, Cl. 260—29.6.

Heine, Richard F., to Minnesota Mining and Mfg. Co. Fluorocarbon vinyl benzenes and their polymers. 3,081,274, 3-12-63, Cl. 260—29.6.

Heine, Richard F., to Minnesota Mining and Mfg. Co. Perfluoroalkylsulfonamidoalkyl esters of phosphorus acids 3,094,547, 6-18-63, Cl. 260—461.

Heinecke, Klaus, W. Holle, and W. Wiese, to Ernst Leitz, G.m.b.H. Apparatus for indicating the numerical measured values of ununumbered scales. 3,103,651, 9-10-63, Cl. 340—203.

Heineken's Brouwerijen Nederland N.V.: *See*—
Dijkema, Leendert F. W. 3,077,765.

Heineman, Harold H.: *See*—
Rogers, Thomas H., Jr., and Heineman. 3,102,825.
Rogers, Thomas H., Jr., Heineman, and Howard. 3,107,-224.

Heinemann, Burdet, to Producers Creamery Co. Process and composition for growing mushroom mycelium by submerged fermentation. 3,086,320, 4-23-63, Cl. 47—1.1.

Heinemann, Burdet, to Producers Creamery Co. Preparation of an improved blue cheese dressing. 3,108,879, 10-29-63, Cl. 99—116.

Heinemann Electric Co.: *See*—
Lisnay, Albert D. 3,106,627.
Schwartz, Norman J. 3,098,910.
Schwartz, Norman J., and Goldblatt. 3,098,911.
Schwartz, Norman J., Lisnay, and Heilman. 3,079,479.
Smith, Benjamin H. 3,081,387.
Smith, Benjamin H. 3,083,359.
Sprague, John M. 3,098,912.

Heinemann, George E., to Heinemann Saw Corp. Saw blade. 3,107,706, 10-22-63, Cl. 143—137.

Heinemann, Heinz: *See*—
Breiter, Samuel, and Heinemann. 3,086,066.

Heinemann Saw Corp.: *See*—
Heinemann, George E. 3,107,706.

Heinen, Harold J.: *See*—
Zadra, John B., Heinen, and Gomes. 3,071,523.

Heines, Francis A. Hobby horse. 3,103,356, 9-10-63, Cl. 272—52.

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Heinicke, Kurt J. 3,083,718.

Heinicke Instruments Co., Inc.: *See*—
Keegan, James E., Jr. 3,083,712.

Heinicke, Kurt J., to Heinicke Instruments Co. Washing machine. 3,083,718, 4-2-63, Cl. 134—111.

Heinig, Johnsie M. Fountain-type power lawn mower scraper. 3,070,823, 1-1-63, Cl. 15—507.

Heinink, Cornelis J.: *See*—
Olson, George G., Long, and Heinink. 3,104,971.

Heinke, Lowell L.: *See*—
Wheeler, Charles J. 3,083,582.

Heinl, Ernst: *See*—
Beierbach, Walter, Heinl, Strien, and Von Sass. 3,099,-485.

Heinle, Albert W., 25% to W. B. Jaspert and 25% to F. P. Cyr. Cruciform structural steel columns. 3,092,222, 6-4-63, Cl. 189—41.

Heinle, Rudolf: *See*—
Binder, Hans, and Heinle. 3,083,222.

Heinmiller, Percival M., and S. Barker, to Utility Trailer Mfg. Co. Transferable containers and handling systems therefor. 3,081,120, 3-12-63, Cl. 294—67.

Heinoo, Lauri. Bearing wear sensor. 3,108,264, 10-22-63, Cl. 340—269.

Heinrich, Chester J., to United States of America, Navy. Flexible wheel-type gravity conveyors. 3,078,977, 2-26-63, Cl. 193—35.

Heinrich, Erwin, F. Derichs, and F. Broich, to Chemische Werke Huls Aktiengesellschaft. Process for the production of copolymers containing hydroxyl groups. 3,076,793, 2-5-63, Cl. 260—80.5.

Heinrich, Helmut G., to Regents of the University of Minnesota. Speed retardation device. 3,114,523, 12-17-63, Cl. 244—113.

Heinrich, Karl: *See*—
Forster, Hans-Joachim M., and Heinrich. 3,093,013.

Heinrich, Walter. Rod weeder. 3,115,940, 12-31-63, Cl. 172—44.

Heins, Willis F.: *See*—
Blomquist, Arthur G., and Heins. 3,093,718.
Blomquist, Arthur G., and Heins. 3,113,303.

Heintz, Charles E.: *See*—
Fink, Carl J., and Heintz. 3,095,671.

Heintz, Karl O., and R. S. Stanley, to Jersey Production Research Co. Seismic recording. 3,088,094, 4-30-63, Cl. 346—74.

Heintz, Milton L., to General Electric Co. Electric circuit breaker having arc-erosion distributing means. 3,114,817, 12-17-63, Cl. 200—164.

Heintz, Ralph M. Stratified charge two-cycle engine. 3,113,-561, 12-10-63, Cl. 123—65.

Heintz, Robert E.: *See*—
Mustonen, Reino H., Heintz, and Jones. 3,103,145.

Heintze, Günther: *See*—
Dürrer, Robert, Heintze, and Jenny. 3,079,247.

Heintzelman, Leo A. Attachment for boat propellers. 3,077,-229, 2-12-63, Cl. 170—160.11.

Heintzelman, Leo A. Sliding attachment for boat propeller. 3,095,043, 6-25-63, Cl. 170—160.11.

Heintzmann, Hans F., and R. Selz, to Bochumer Eisenhutte Heintzmann & Co. Clamp suitable for mine gallery means. 3,076,672, 2-5-63, Cl. 287—103.

Heinz, Adolf, and F. Klasse. Processing waste paper or the like. 3,089,655, 5-14-63, Cl. 241—260.

Heinz, Anton R.: *See*—
Malz, Hugo, Heinz, and Wolff. 3,107,230.
Scriba, Gottfried, and Heinz. 3,115,484.

Heinz, H. J., Co.: *See*—
Dixon, Morris S., Marshall, and Crerar. 3,096,181.

Heinz, H. J., Co. Ltd.: *See*—
Janovtchik, Vlacheslav J. 3,074,473.

Heinz, Jack R., to Kaiser Aluminum & Chemical Corp. Combined merchandising and dispensing carton. 3,079,-054, 2-26-63, Cl. 225—49.

Heinz, Walter E., and A. F. MacLean, to Celanese Corp. of America. Aldol condensation reactions. 3,077,500, 2-12-63, Cl. 260—594.

Heinze, Don M.: *See*—
Kosin, Ruediger E., and Heinze. 3,100,377.

Heinze, Don M., R. E. Kosin, F. B. Sarsar, and Y. L. Yee, to Northrop Corp. Jet propelled aircraft with jet deflecting means. 3,087,303, 4-30-63, Cl. 60—35.55.

Heinze, Marvin C., to FMC Corp. Feed device with fluid activated rippling sheets. 3,099,494, 7-30-63, Cl. 302—31.

Heinze, Robert V., to Submerged Combustion, Inc. Burner-reactor. 3,104,630, 9-24-63, Cl. 110—45.

Heinze, Robert V., and L. H. Reyerson. Process for removing vanadium and other harmful materials from petroleum products. 3,075,916, 1-29-63, Cl. 208—253.

Heinze, Werner, to Precisa A.G. Rechenmaschinenfabrik. Ten key computing machine. 3,099,391, 7-30-63, Cl. 235—60.

Heinze, Werner, and W. Julich, to Precisa A.G. Rechenmaschinenfabrik. Mechanism for printing the decimal mark in a four species computing machine. 3,079,073, 2-26-63, Cl. 235—60.15.

Heinzel, Albert: *See*—
Schaurer, Gustav, and Heinzel. 3,100,138.

Heinzelman, Richard V.: *See*—
Aspergren, Brooke D., and Heinzelman. 3,083,139.
Szmuszkovicz, Jacob, and Heinzelman. 3,109,003.

Heinzelman, Richard V., and B. D. Aspergren, to The Upjohn Co. α-[2-(1-alkyleneimino)ethylamino]-alkanophenones and the corresponding alcohols. 3,092,636, 6-4-63, Cl. 260—326.5.

Heinzmann, Fritz: *See*—
Betz, Hans. 3,074,281.

Heinzmann, John D., to Raymond Engineering Laboratory, Inc. Force balance accelerometer. 3,097,533, 7-16-63, Cl. 73—490.

Heirich, William C. Marquee. 3,107,401, 10-22-63, Cl. 20—57.5.

Heischman, Frederick E., to Ford Motor Co. Resistor compositions and spark plugs having integral resistors. 3,088,-921, 5-7-63, Cl. 252—516.

Heise, Carl H. Mobile mixing machine. 3,072,387, 1-8-63, Cl. 259—150.

Heise, Carl H., to Alfelder Eisenwerke Carl Heise Kommandit-Gesellschaft, vormals Otto Wesselmann & Cie. Sieving and mixing machine for processing and loading building materials. 3,112,099, 11-26-63, Cl. 259—145.

Heise, Howard L., and G. McAllister, to St. Regis Paper Co. Reinforced multi-ply stay tape. 3,089,634, 5-14-63, Cl. 229—49.

Heise, Rudolf, to Dehydag, Deutsche Hydrierwerke G.m.b.H. Process for the production of ether amines. 3,076,819, 2-5-63, Cl. 260—347.7.

Heise, Rudolf, to Dehydag Deutsche Hydrierwerke G.m.b.H. Process for the production of crystalline 1,2,3,4-tetrahydronaphthalene-1-hydroperoxide. 3,102,918, 9-3-63, Cl. 260—610.

Heiser, Albert L., Jr., W. Lowenthal, and R. E. Singiser, to Abbott Laboratories. Method and apparatus for coating particles. 3,112,220, 11-26-63, Cl. 117—100.

Heiser, Joachim: *See*—
Knapp, Heinrich Krauss, and Heiser. 3,091,405.

Heiser, Joachim, to Robert Bosch, G.m.b.H. Injection pump. 3,101,057, 8-20-63, Cl. 103—37.

Heisig, Henry P., to Bill Jack Scientific Instrument Co. Ear pad and ear phone support for helmets. 3,088,002, 4-30-63, Cl. 179—156.

Heisler Co., The: *See*—
Heisler, Robert C. 3,080,574.

Heisler, Raymond A. Holding means for high intensity lamps. 3,103,314, 9-10-63, Cl. 240—1.3.

Heisler, Robert C., to The Heisler Co. Convertible type furniture. 3,080,574, 3-12-63, Cl. 5—21.

Heisler, Robert Y.: *See*—
Ruidisch, Louis E., and Heisler. 3,072,714.

Heisler, Robert Y., and H. V. Hess, to Texaco Inc. Method for preparing trilsobutylene. 3,087,979, 4-30-63, Cl. 260—683.15.

Heisler, Robert Y., H. V. Hess, G. W. Eckert, and M. C. Throckmorton, to Texaco Inc. Preparation of esters from olefins. 3,096,365, 7-2-63, Cl. 260—497.

Heiss, Hans, and D. Osswald, to Azoplate Corp. Process for simultaneously developing and fixing printing plates. 3,110,-596, 11-12-63, Cl. 96—48.

Heiss, Herbert L., to Mobay Chemical Co. Polyurethane resin obtained from coal tar pitch reaction products and process for preparing same. 3,092,594, 6-4-63, Cl. 260—2.5.

Heiss, Herbert L., ½ to Monsanto Chemical Co. and ½ to Mobay Chemical Co. Polyurethane reaction product and method for making same. 3,102,875, 9-3-63, Cl. 260—77.5.

Heiss, Herbert L., to Mobay Chemical Co. Method of dissolving polyurethanes and polyureas using tall oil. 3,109,-824, 11-5-63, Cl. 260—2.3.

Heiss, John H., Jr.: *See*—
Bouton, George M., and Heiss. 3,095,089.

Heisterkamp, Herbert W., and W. S. Ladegaard, to The Dow Chemical Co. Manufacture of tubular thermioplastic film. 3,090,998, 5-28-63, Cl. 18—57.

Heithaus, William C., to Sperry Rand Corp. Internal magnet coaxial line device. 3,072,867, 1-8-63, Cl. 333—24.

Heitkamp, Karl-Heinz: *See*—
Ulrichs, Fritz, Heitkamp, and Kohne. 3,070,872.

Heitmann, Hans-Gunther, and W. Ziehl, to Siemens-Schuckertwerke Aktiengesellschaft. Method of removing rust from iron-containing materials, particularly for the cleaning of boiler plants. 3,085,915, 4-16-63, Cl. 134—22.

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Sjogren, Bertil K. F., Lindvall, Heiwinkel, and Hogberg 3,097,134.

Helzer, Kenneth W., to Sperry Rand Corp. Character reading system. 3,111,647, 11-19-63, Cl. 340—146.3.

Hekkert, Jan W.: *See*—
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Helberger, Johann H., and H. Baumann, to Bohme Fettchemie G.m.b.H. Novel monosulfohalides and a process for their production. 3,075,994, 1-29-63, Cl. 260—327.

Helbig, Fritz, and W. W. Jukkola, to Parr-Oliver Inc. Treatment chamber for material in a fluidized state. 3,089,251, 5-14-63, Cl. 34—57.

Helbig, Walter A., and G. W. Booth, to Radio Corp. of America. Synchronous transistor amplifier employing regeneration 3,075,085, 1-22-63, Cl. 307—88.5.

Helbing, Clarence H., and D. W. Denniston, to Pittsburgh Plate Glass Co. Method for forming glass fibers. 3,077,093, 2-12-63, Cl. 65—7.

Helble, Chalmers L., and F. L. Boyer, to The Babcock & Wilcox Co. Method of and apparatus for correcting tubing eccentricity by drawing. 3,095,083, 6-25-63, Cl. 205—4.

Helbush, H. H.: *See*—
Wallace, Frank C. 3,112,849.

Held, Edward C., Jr., Phillips Petroleum Co. Method and apparatus for vacuum forming hollow articles. 3,099,043, 7-30-63, Cl. 18—19.

Held, Fritz, and W. Maag, to Gesellschaft fur forderung der Forschung an der Eldg. Tech. Hochschule. Method of making an ozonizer electrode unit. 3,081,215, 3-12-63, Cl. 156—286.

Held, Hans J.: *See*—
Leech, Robert R., Weist, and Held. 3,078,646

Held, Herman E. Capacitor. 3,086,150, 4-16-63, Cl. 317—258.

Helda, Robert W.: *See*—
Carlzen, Carl F., Helda, and Lehner. 3,081,885.

Helda, Robert W., to Motorola, Inc. Apparatus for processing electronic components. 3,079,958, 3-5-63, Cl. 140—147.

Helda, Robert W., and N. L. Walker, to Sylvania Electric Products Inc. Electrical component. 3,071,842, 1-8-63, Cl. 29—25.42.

Heldt, Walter Z., to E. I. du Pont de Nemours and Co. Iron isonitrile complexes. 3,085,103, 4-9-63, Cl. 260—439.

Helenburg, John: *See*—
Eilers, Barney A., and Helenberg. 3,101,095.

Helfand, Bernard. Peak recording instrument. 3,071,973, 1-8-63, Cl. 73—492.

Helferich, Fritz, to Prazisions-Apparatebau Aktiengesellschaft. Slide gauge. 3,101,550, 8-27-63, Cl. 33—143.

Helfferich, Friedrich G.: *See*—
Luten, Daniel B., Jr., and Helfferich. 3,077,479.

Helfinstine, Robert F., to Minneapolis-Honeywell Regulator Co. Control apparatus. 3,092,356, 6-4-63, Cl. 244—77.

Helfman, Leroy. Method of making building structures. 3,089,201, 5-14-63, Cl. 20—5.

Helfman, Leroy. Prefabricated building structure. 3,102,-617, 9-3-63, Cl. 189—85.

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Helgery, Ralph O., to General Motors Corp. Magnetically driven instruments. 3,073,978, 1-15-63, Cl. 310—97.

Helgren, Fred J., to Abbott Laboratories. Sweetening agent and process of producing the same. 3,098,749, 7-23-63, Cl. 99—141.

Helguera, Carlos. Drain strainer. 3,110,323, 11-12-63, Cl. 137—625.31.

Heli-Coil Corp.: *See*—
Eddy, Theodore B. 3,093,895.
Eddy, Theodore B. 3,111,751.

Helin, Charles P. Fish lure. 3,090,152, 5-21-63, Cl. 43—42.47.

Helin, Elis E. V., to Elektriska Svetsningsaktiebolaget. Methods of reducing a metal oxide by a carbonaceous material at sub-atmospheric pressures. 3,096,174, 7-2-63, Cl. 75—226.

Helinrich, Helmut G. Parachute. 3,110,459, 11-12-63, Cl. 244—149.

Helipod, Inc.: *See*—
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Sudrow, Lyle K. V. 3,106,370.
Sudrow, Lyle K. V. 3,108,764.

Hell, Dr.-Ing. Rudolf, Kommanditgesellschaft: *See*—
Hell, Rudolf, Koll, and Zeyen. 3,099,706.
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Hell, Hans, to Adox Kamerawerk G.m.b.H. Counter for cameras and the like. 3,090,555, 5-21-63, Cl. 235—91.

Hell, Karl: *See*—
Lintner, Josef M., Petrovicki, and Schaffernak. 3,085,073.

Hell, Rudolf, R. Koll, and F.-O. Zeyen, to Dr.-Ing. Rudolf Hell, Kommanditgesellschaft. Electronic color correction in color copy reproduction. 3,099,706, 7-30-63, Cl. 178—5.2.

Hella, John M., and S. H. Wise, to Wood Conversion Co. Production of fiberboard containing mineral fiber. 3,093,-533, 6-11-63, Cl. 162—145.

Helland, Gilman A., and O. S. Nielsen; said Helland assor to said Nielsen. Overhead material handling conveyor. 3,105,584, 10-1-63, Cl. 198—26.

Helland, Howard M.: *See*—
Bartz, Raymond F., Helland, and Vincent. 3,086,276.

Hellar, Martin W.: *See*—
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Hellekjaer, Kaare: *See*—
Rosemond, Leland E., Greenbaum, and Hellekjaer. 3,104,290.

Hellenga, Ernest G.: *See*—
Hayman, Max, and Hellenga. 3,083,040.

Heller, Chester M. Torsional pipe couplings. 3,082,795, 3-26-63, Cl. 138—121.

Heller, David E. Paper bag dispenser. 3,087,647, 4-30-63, Cl. 221—47.

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Heller, Isaac: *See*—
Robbins, Saul, and Heller. 3,093,929.

Heller, John H., to New England Institute for Medical Research. High-frequency treatment of matter. 3,095,359, 6-25-63, Cl. 195—78.

Heller, Kenneth G., to American Radiator & Standard Sanitary Corp. Angular momentum exchange control device for space vehicles. 3,097,818, 7-16-63, Cl. 244—78.

Heller, László, L. Forgo, and M. Horváth, to Licencia Talalmanyokat Ertekesito Vallalat. Device for preventing the freezing in of air vent valves. 3,091,250, 5-28-63, Cl. 137—202

Heller, Leon A., and R. G. Grundvig, to Jerrylee Mfg. Corp. Folding chair. 3,072,433, 1-8-63, Cl. 297—40.

Heller, Milton, and S. Bernstein, to American Cyanamid Co. New dichloro pregnadienes and method of preparing the same. 3,080,361, 3-5-63, Cl. 260—239.55.

Heller, Milton D.: *See*—
Bernstein, Seymour, and Heller. 3,086,031.

Heller, Oscar, to Bulova Research and Development Laboratories, Inc. Transistorized amplifier. 3,105,199, 9-24-63, Cl. 330—15.

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Heller, Richard V. Bulk feeding apparatus. 3,071,295, 1-1-63, Cl. 222—342.

Heller, Walter E., & Co. (Inc.): *See*—
Bonanno, Joseph L. 3,113,186.
Bonanno, Joseph L. 3,113,258.
Bonanno, Joseph L., and Pettit. 3,103,897.
Tomaro, Patrick M., Jr. 3,115,563.

Hellige, Fritz, & Co. G.m.b.H.: *See*—
Schaeder, Johann A., and Streu. 3,090,663.
Streu, Benno. 3,090,844.
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Hellman, Werner F. Toy tops. 3,082,574, 3-26-63, Cl. 46—243.

Hellman, Werner F. Toy for forming a continuous stream of bubbles. 3,100,947, 8-20-63, Cl. 46—8.

Hellman, Werner F. Toy dart gun. 3,114,362, 12-17-63, Cl. 124—27.

Hellmann, Carl S. Motor winding control and means therefor. 3,109,948, 11-5-63, Cl. 310—68.

Hellmann, Heinrich, H. Piechota, H. Henecka, and H. Timmler, to Farbenfabriken Bayer Aktiengesellschaft. Process for the production of L-amino-B-hydroxycarboxylic acids. 3,094,553, 6-18-63, Cl. 260—471.

Hellner, Karl G., to Transportpatent, AB. Track systems. 3,094,941, 6-25-63, Cl. 104—130.

Hellrich, Tobias. Artificial tree. 3,084,465, 4-9-63, Cl. 41—15.

Hellstern, Vernon: *See*—
Sciuto, Carl C., and Hellstern. 3,106,379.

Hellstern, Vernon, to Stile-Craft Manufacturers, Inc. Quick connect, valved coupling. 3,106,378, 10-8-63, Cl. 251—149.9.

Hellstrom, Axel G., to Gotoverken, Aktiebolaget. Exhaust valves for internal combustion engines. 3,106,199, 10-8-63, Cl. 123—188.

Hellstrom, Borje T., to LKB-Produkter Fabriksaktiebolag. Ultramicrotome with return stroke motion separating means. 3,077,806, 2-19-63, Cl. 83—411.

Hellstrom, Melbourne J., to Westinghouse Electric Corp. Multiplex communication transmitters. 3,087,995, 4-30-63, Cl. 179—15.

Hellstrom, Melbourne J., and C. H. Wood, Jr., to Westinghouse Electric Corp. Deflection circuits. 3,111,602, 11-19-63, Cl. 315—27.

Hellweg, Kurt: *See*—
Ollier, Jacques G. H., Grossbans, Parre, Hellweg, and Carlou. 3,112,060.

Hellweg, Kurt, to Societe Civile pour l'Etude d'Engins a Pistons Libres EPL. Combustion gas generator of the free floating piston type. 3,106,913, 10-15-63, Cl. 123—46.

Hellyer, John T., ½ to R. S. Strom. Hammer rotor construction for material crushers. 3,098,613, 7-23-63, Cl. 241—190.

Helm Accessories, Inc.: *See*—
Smith, Lawrence H. 3,080,673.

Helm, Albert E.: *See*—
Thorson, Arne E., and Helm. 3,107,676.

Helm, Jack D., and F. L. Hopkins, to Bemis Bro. Bag Co. Bag former and shaker. 3,096,081, 7-2-63, Cl. 259—72.

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Nevin, Robert L. 3,096,583.

Helm, Mark W., to The Hoover Co. Carpet shampoo brush. 3,078,488, 2-26-63, Cl. 15—180.

Helm, Mark W., to The Hoover Co. Shampoo attachment for floor polisher. 3,092,293, 6-4-63, Cl. 222—481.

Helm, Vernon L. Rock core drills. 3,106,257, 10-8-63, Cl. 173—32.

Helmbold, Theodor. Transverse flow type blowers. 3,107,-845, 10-22-63, Cl. 230—125.

Helmer, Norman D. Protector for the lips and teeth. 3,082,-765, 3-26-63, Cl. 128—136.

Helmer, Norman D. Cat scratcher. 3,085,551, 4-16-63, Cl. 119—1.

Helmick, Charles G., Jr.: *See*—
Mathias, Gerald E., Helmick, and Egglestone. 3,078,402.

Helmick Foundry-Machines Co.: *See*—
Stanley, Henderson M. 3,090,319.

Helminen, Jerry L.: *See*—
Stewart, Trigg, and Helminen. 3,090,151.

Helminen, Valma I.: *See*—
Stewart, Trigg, and Helminen. 3,090,151.

Helming, Bernd, and W. Breves. Method and apparatus for cooling clinker. 3,079,701, 3-5-63, Cl. 34—57.

Helming, Bernd, and G. Schultz, to Allis-Chalmers Mfg. Co. Shaft cooler. 3,084,878, 4-9-63, Cl. 241—47.

Helming, Bernd H. Apparatus for pre-heating cement powder or similar materials. 3,083,472, 4-2-63, Cl. 34—57.

Helmrath, William G.: *See*—
Bacheler, Albert T., Helmrath, and Cochran. 3,073,996.

Helms, Clifford J., to Sperry Rand Corp. Series magnetic amplifier. 3,095,507, 6-25-63, Cl. 307—88.

Helms, Eugene W., to Texas Instruments Inc. Telemetering keyer circuit. 3,110,819, 11-12-63, Cl. 307—88.5.

Helms, Millard O.: *See*—
Miller, John H., and Helms. 3,094,174.

Helpern, Otto: *See*—
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Helsdon, Peter B., to Marconi's Wireless Telegraph Co. Ltd. Television signal converting apparatus. 3,109,892, 11-5-63, Cl. 178—6.8.

Helton, Clayton O.: *See*—
Eriksen, Monrad E. 3,094,739.

Helton, Dennis M., and J. E. Savolainen, to United States of America, Atomic Energy Commission. Method of dissolving refractory alloys. 3,086,926, 4-23-63, Cl. 204—1.5.

Helvenston, Edward P.: *See*—
Edmonds, Byron P., Dahms, and Helvenston. 3,096,969.

Helvern, James O.: *See*—
Brooks, Frank W., and Helvern. 3,081,744.
Brooks, Frank W., and Helvern. 3,102,453.

Helvern, James O., to General Motors Corp. Power brake booster. 3,094,844, 6-25-63, Cl. 60—54.6.

Helvern, James O., to General Motors Corp. Automatic brake adjuster. 3,114,438, 12-17-63, Cl. 188—79.5.

Helvern, James O., and C. R. Wuellner, to General Motors Corp. Brake booster unit. 3,099,941, 8-6-63, Cl. 91—434.

Helversen, Frederick D., to Crown Zellerbach Corp. Drying of pulp. 3,111,453, 11-19-63, Cl. 162—201.

Helwig, Antonius C., A. Langenberg, and L. M. L. J. Leblans, to North American Philips Co., Inc. Method of manufacturing articles provided with a diamond, in particular gramophone needles. 3,102,729, 9-3-63, Cl. 274—38.

Helwig, William J., to Radio Corp. of America. Method of processing articles or materials in a continuous flow operation. 3,087,289, 4-30-63, Cl. 53—9.

Hely, John F., to Lever Brothers Co. Production of soap tablets. 3,083,432, 4-2-63, Cl. 25—8.

Hembree, Calvin D. Mobile mixing and pumping apparatus. 3,091,438, 5-28-63, Cl. 259—151.

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Hemker, Herman W., to American Viscose Corp. Method of separating a mixture of tetrahydrofuran, toluene and water. 3,074,968, 1-22-63, Cl. 260—346.1.

Hemmeter, George T., to A. E. Tobey. Rasp hub. 3,074,148, 1-22-63, Cl. 29—79.

Hemmeter, George T. Device for slitting tire treads. 3,081,-817, 3-19-63, Cl. 157—13

Hemmeter, George T. Wheel balancer. 3,094,003, 6-18-63, Cl. 73—458.

Hemmeter, George T., to A. E. Tobey. Rasp blade construction. 3,102,325, 9-3-63, Cl. 29—79.

Hemminger, Charles E., to Esso Research and Engineering Co. Iron oxide reduction in stages with varied gas streams. 3,076,702, 2-5-63, Cl. 75—26.

Hemminger, Charles E., to Esso Research and Engineering Co. Aromatic hydrocarbon conversion process. 3,111,546, 11-19-63, Cl. 260—668.

Hemminger, Charles E., to Esso Research and Engineering Co. Process for producing viscous oil. 3,113,620, 12-10-63, Cl. 166—11.

Hemminger, Charles E., to Esso Research and Engineering Co. Halide catalytic cracking. 3,113,844, 12-10-63, Cl. 23—288.

Hemminger, Charles E., to Esso Research and Engineering Co. Combined hydrocarbon conversion and refining process. 3,113,921, 12-10-63, Cl. 208—136.

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Greenaway, John F., Halton, Marwing, and Hemmings. 3,113,182.

Hempel, William C.: *See*—
Solum, James R., and Hempel. 3,100,016.
Solum, James R., and Hempel. 3,114,422.
Solum, James R., Hempel, and C. R. Solum, Jr. 3,074,-483.
Solum, James R., Hempel, and C. R. Solum, Jr. 3,109,491.
Solum, James R., Hempel, and C. R. Solum, Jr. 3,109,492.

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Capes, Tasker L., and Norman. 3,096,634.
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Hemphill, Wesley, Jr. Magnetic dust pan. 3,085,278, 4-16-63, Cl. 15—257.1.

Hemstreet, Harold S., to General Precision, Inc. Method and means for correcting parallax. 3,071,875, 1-8-63, Cl. 35—12.

Hemstreet, Harold S., to General Precision, Inc. Interference goniometer. 3,085,466, 4-16-63, Cl. 88—14.

Hemstreet, Harold S., to General Precision, Inc. Method and means for altering apparent perspective of images. 3,091,-662, 5-28-63, Cl. 178—7.2.

Hemstreet, Harold S., to General Precision Inc. Simulated viewpoint displacement apparatus. 3,101,645, 8-27-63, Cl. 88—24.

Hemstreet, Harold S., to General Precision, Inc. Navigation training system. 3,114,788, 12-17-63, Cl. 35—10.2.

Hemstreet, Harold S., and R. A. Woodson, to General Precision, Inc. Interferometer optical system. 3,072,011, 1-8-63, Cl. 88—14.

Hemwall, John B., to The Dow Chemical Co. Method for improving physical properties of clays and clay-containing soils and compositions resulting therefrom, including quaternary ammonium compounds. 3,073,064, 1-15-63, Cl. 47—58.

Hemwall, John B., to The Dow Chemical Co. Stabilization of clay soils and aggregates. 3,075,851, 1-29-63, Cl. 106—287.

Hemwall, John B., to The Dow Chemical Co. Stabilization of clay soils and aggregates-SO_4-PO_4. 3,077,740, 2-19-63, Cl. 61—36.

Hemwall, John B., to The Dow Chemical Co. Method for increasing the availability of phosphorus to plants. 3,082,-075, 3-19-63, Cl. 71—27.

Hemwall, John B., to The Dow Chemical Co. Method for increasing the availability of phosphorus to plants. 3,082,-076, 3-19-63, Cl. 71—27.

Hemwall, John B., to The Dow Chemical Co. Method for improving physical properties of clays and clay-containing soils and compositions resulting therefrom (6A-3SA-1,3-B). 3,082,112, 3-19-63, Cl. 106—287.

Hemwall, John B., to The Dow Chemical Co. Method for improving physical properties of clays and clay-containing soils and compositions resulting therefrom (SAAOC). 3,082,113, 3-19-63, Cl. 106—287.

Hemwall, John B., to The Dow Chemical Co. Method for improving physical properties of clays and clay-containing soils and compositions resulting therefrom. 3,084,058, 4-2-63, Cl. 106—287.

Hemwall, John B., to The Dow Chemical Co. Method and composition for improving soil. 3,091,522, 5-28-63, Cl. 71—1.
Henchert, John, to Continental Can Co., Inc. Container and method of manufacture. 3,073,478, 1-15-63, Cl. 220—67.
Henchert, John, to Continental Can Co., Inc. Light weight metal double seam having easy opening features. 3,073,480, 1-15-63, Cl. 220—67.
Henchert, John, to Continental Can Co., Inc. Metal band double seamed to metal can for attaching elastic transparent end thereto. 3,079,031, 2-26-63, Cl. 220—27.
Henchert, John, to Continental Can Co., Inc. Container. 3,081,906, 3-19-63, Cl. 220—67.
Henchoz, Henri L., to Fabrique d'horlogerie Chs Tissot & Fils S.A. Fixing device of the inner end of a precision instrument spiral spring. 3,071,365, 1-1-63. Cl. 267—1.
Hencke, William R.: *See*—
Coons, William R., Jr., Hencke, and Bright. 3,079,341.
Hendal, Willem P., and P. Visser, to Shell Oil Co. Process and apparatus for carrying out chemical reactions. 3,081,256, 3-12-63, Cl. 208—125.
Hendee, Charles F., and S. Fine, to North American Philips Co., Inc. X-ray fluorescence analysis of multi-component systems. 3,102,952, 9-3-63, Cl. 250—51.5.
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Thiele, Berthold, Fey, and Hendel. 3,091,928.
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Bromwell, Fred K. 3,084,467.
Hendershot, William F.: *See*—
Benjamin, Chester R., Hendershot, and Hesseltine 3,079,401.
Henderson, Albert, to Cemenstone Corp. Precast reinforced concrete construction. 3,074,209, 1-22-63, Cl. 50—181.
Henderson, Audrey T.: *See*—
Hoffmann, Arthur K., and Henderson. 3,113,973.
Henderson, Charles B., and J. M. Burton, to Atlantic Research Corp. Igniter means for extruded plastic monopropellant. 3,073,120, 1-15-63, Cl. 60—39.47.
Henderson, Charles B., and J. M. Burton, to Atlantic Research Corp. Extrusion device. 3,087,306, 4-30-63, Cl. 60—39.47.
Henderson, Cleophus. Bandanna hat. 3,072,916, 1-15-63, Cl. 2—209.1.
Henderson, Courtland M., and D. M. Harris, to Monsanto Chemical Co. Thermoelectricity. 3,081,361, 3-12-63, Cl. 136—4.
Henderson, Courtland M., and D. M. Harris, to Monsanto Chemical Co. Thermoelectricity. 3,081,362, 3-12-63, Cl. 136—4.
Henderson, Courtland M., and D. M. Harris, to Monsanto Chemical Co. Thermoelectricity. 3,081,363, 3-12-63, Cl. 136—4.
Henderson, Courtland M., and D. M. Harris, to Monsanto Chemical Co. Thermoelectricity. 3,081,364, 3-12-63, Cl. 136—4.
Henderson, Courtland M., and D. M. Harris, to Monsanto Chemical Co. Thermoelectricity. 3,081,365, 3-12-63, Cl. 136—4.
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Henderson, Courtland M., and J. A. Stavrolakis, to United States of America, Atomic Energy Commission. Method of sintering uranium dioxide. 3,087,876, 4-30-63, Cl. 204—154.2.
Henderson, Don A., ¼ to W. Coffee, ¼ to F. C. Henderson, and ¼ to D. Henderson. Paraffin control coupling. 3,085,629, 4-16-63, Cl. 166—324.
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Henderson, Don A. 3,085,629.
Henderson, Eulas W., to Phillips Petroleum Co. Recovery of olefin polymers from solution. 3,073,812, 1-15-63, Cl. 260—94.9.
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Henderson, Homer L., to Strato Drill; Inc. Core drilling apparatus. 3,086,602, 4-23-63, Cl. 175—404.
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Nielson, Garth W., and Henderson. 3,083,775.
Henderson, James D., to Jersey Production Research Co. Automatic sampler. 3,087,339, 4-30-63, Cl. 73—422.
Henderson, James N., and G. A. Rau, to Flambeau Plastics Corp. Plastic picture frame. 3,070,914, 1-1-63, Cl. 40—156.
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Zoeller, Richard J., and Henderson. 3,102,818.
Henderson, John D. Ear canal insert. 3,080,011, 3-5-63, Cl. 181—23.
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Dyke, Walter P., Henderson, and Charbonnier. 3,091,719.
Henderson, Ob. Implement for mechanically gleaning cotton from the ground. 3,108,418, 10-29-63, Cl. 56—28.
Henderson, Paul D., to W. Roth. Gyroscopic mass flowmeter. 3,108,475, 10-29-63, Cl. 73—194.
Henderson, Ray A., 5% to A. H. Tutt, 5% to C. L. Kathol, 5% to J. L. Neill, and 20% to J. A. Willott. Control for automotive exhaust air pollution. 3,088,447, 5-7-63, Cl. 123—119.
Henderson, Ray M. Refrigeration system and apparatus having a heating cycle and a cooling cycle. 3,074,249, 1-22-63, Cl. 62—149.
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Searle, Lloyd V., and Henderson. 3,113,311.
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Snyder, Louis J., and Henderson. 3,071,446.
Henderson, Scott W. Lawn trimming and cutting tool. 3,102,376, 9-3-63, Cl. 56—294.
Henderson, Stanford A., to Gomco Surgical Mfg. Corp. Check valve tester. 3,106,835, 10-15-63, Cl. 73—46.
Henderson, Stanley T., to Thorn Electrical Industries Ltd. Fluorescent lamp particularly suited to illumination of objects containing red. 3,114,067, 12-10-63, Cl. 313—109.
Henderson, Thomas, to Powers Chemco, Inc. Control mechanism for etching machine. 3,106,217, 10-8-63, Cl. 134—58.
Henderson, William B., to Phillips Petroleum Co. Control of polymerization reactions. 3,074,920, 1-22-63, Cl. 260—94.9.
Henderson, William H.: *See*—
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Hendon, Anthony L., to Telomex Ltd. Weighing apparatus. 3,084,753, 4-9-63, Cl. 177—210.
Hendon, Lofton M. Fishing rod holder. Re. 25,387, 5-14-63, Cl. 248—41.
Hendrick, Clinton E. Adjustable clam fork. 3,1155,359, 12-24-63, Cl. 294—53.5.
Hendrick, Melvin L. Display holder. 3,088,236, 5-7-63, Cl. 40—308.
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Hendricks, George D., and G. E. Fleser, to The Gamewell Co. Traffic controllers employing static, logic control elements. 3,072,883, 1-8-63, Cl. 340—40.
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Hendricks, Robert W., to E. I. du Pont de Nemours and Co. Process for grafting polymers to cellulose substrates. 3,101,276, 8-20-63, Cl. 117—56.
Hendrickson, Harold S., and N. R. Richmond, to Kaman Aircraft Corp. Helicopter control mechanism. 3,096,035, 7-2-63, Cl. 244—17.11.
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Hendrickson, Severin B., to Heywood-Wakefield Co. Chair. 3,095,239, 6-25-63, Cl. 297—396.
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Hendrickson, Vergil P.: *See*—
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Henke, Alfred M., and B. J. Lerner, to Gulf Research & Development Co. Process for separating acetylenic compounds from an isoprene mixture. 3,075,025, 1-22-63, Cl. 260—681.5.
Henke, Alfred M., and A. E. Somers, to Gulf Research & Development Co. Preparation of multi-grade lubricating oil by severe hydrogenation and urea adduction. 3,078,222, 2-19-63, Cl. 208—264.
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Raecke, Bernhard, Kohler, and Pietsch. 3,073,804.
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Henne, Hans., K. Ratsch, and G. Budan, to Wintershall Aktiengesellschaft. Process for the production of potassium sulfate. 3,110,561, 11-12-63, Cl. 23—121.
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Hennemann, Raymond G., E. L. Rapplean, and A. C. Korte, to ACF Industries, Inc. Carburetor. 3,089,685, 5-14-63, Cl. 261—64.
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Hall, James R., and Hennessey. 3,090,028.
Hennessey, Walter F., Jr., to The Bendix Corp. Quickly disconnectable electrical connector. 3,097,902, 7-16-63, Cl. 339—45.
Hennessy, James J. Railway journal lubricator structure. 3,077,369, 2-12-63, Cl. 308—243.
Hennessy, James J., Jr., to Hennessy Lubricator Co., Inc. Railway axle box oil and dust seal. 3,096,987, 7-9-63, Cl. 277—175.
Hennessy Lubricator Co., Inc.: *See*—
Hennessy, James J., Jr. 3,096,987.
Hennessy, Thomas F.: *See*—
Baker, Arthur R., and Hennessy. 3,070,987.
Hennig, Fridolin: *See*—
Frost, Paul, and Hennig. 3,112,682.
Kremp, Rudolf, Frost, and Hennig. 3,084,605.
Hennig, Fridolin, to Agfa Aktiengesellschaft. Camera diaphragm. 3,087,397, 4-30-63, Cl. 95—10.
Hennig, Fridolin, and J. V. Albedyll, to Agfa Aktiengesellschaft. Automatic cameras. 3,086,435, 4-23-63, Cl. 95—10.
Hennig, Fritz O., to Dresser Industries, Inc. Stator blade carrier assembly mounting. 3,072,380, 1-8-63, Cl. 253—65.
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Ehrhart, Gustav, Hennig, Lindner, and Ott. 3,096,244.
Ehrhart, Gustav, Hennig, Lindner, and Ott. 3,096,374.
Ehrhart, Gustav, Hennig, Schmitt, Lindner, and Ott. 3,101,367.
Hennig, Karl, G. Lietz, and G. Meinhard, to Dehydag, Deutsche Hydrierwerke G.m.b.H. Mixed esters and process for their preparation. 3,102,128, 8-27-63, Cl. 260—410.6.
Hennig, Walter: *See*—
Böhm, Siegfried, Hahn, Hennig, Hintze, and Weise. 3,072,031.
Wiessner, Manfred, Hennig, and Loose. 3,072,030.
Henning, Frederick E.: *See*—
Boicey, James H., and Henning. 3,100,173.
Henning, Harley A., to Bell Telephone Laboratories, Inc. Data transmission. 3,100,890, 8-13-63, Cl. 340—345.
Henning, James C., and C. A. L. Ruhl, to The New York Air Brake Co. Variable displacement engine. 3,103,893, 9-17-63, Cl. 103—120.
Henning, John, and C. W. Hobgood, to Bendix-Westinghouse Automotive Air Brake Co. Anti-slugging device for motor-compressor units. 3,104,051, 9-17-63, Cl. 230—206.
Henning, Joseph A., to Skinner Engine Co. Locking ring. 3,071,398, 1-1-63, Cl. 287—52.06.
Henning, Robert W., to Olin Mathieson Chemical Corp. Explosive actuated axial impact fastener setting tool. 3,111,673, 11-26-63, Cl. 1—44.5.
Henning, Wolfgang. Method of shelling long-tailed crayfish and the like. 3,084,379, 4-9-63, Cl. 17—45.
Henningsen, Inc.: *See*—
Bergquist, Dwight H. 3,082,098.
Hennion, George F.: *See*—
Easton, Nelson R., and Hennion. 3,079,440.
Hennis, Robert B., and R. H. Larson, to International Business Machines Corp. Character recognition quantizing apparatus. 3,089,123, 5-7-63, Cl. 340—146.3.
Henny, Willi, to Chrysler Corp. Fixed nozzle support for gas turbine engine. 3,074,690, 1-22-63, Cl. 253—78.
Henny, Willi, to Chrysler Corp. Gas turbine nozzle suspension and adjustment. 3,089,679, 5-14-63, Cl. 253—59.
Henny, Willi, and G. F. Savonuzzi, to Chrysler Corp. Outer shroud for gas turbine engine. 3,078,071, 2-19-63, Cl. 253—39.
Henrichsen, Knut, to North American Aviation, Inc. Hydraulic pump or motor. 3,082,696, 3-26-63, Cl. 103—161.
Henrichsen, Knut, to North American Aviation, Inc. Hydraulic pump or motor. 3,084,633, 4-9-63, Cl. 103—161.
Henrichsen, Knut, to North American Aviation, Inc. High temperature variable displacement pump. 3,087,437, 4-30-63, Cl. 103—161.
Henricks, John A., to Devex Corp. Method of coating wires for drawing. 3,082,129, 3-19-63, Cl. 148—624.
Henricks, John A., to The Lubrizol Corp. Phosphate coating of metals. 3,090,709, 5-21-63, Cl. 148—6.15.
Henrickson, Russell M., to Philco Corp. Method of molding a foam plastic having skins on selected surface portions. 3,099,516, 7-30-63, Cl. 18—48.
Henricot, Paul E. E. A. A. Automatic railway couplers. 3,097,751, 7-16-63, Cl. 213—152.
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Erickson, Bruce G., and Henriksen. 3,091,077.
Henriksen, Ernst J. J. Method of making writing tips for ball point pens. 3,099,082, 7-30-63, Cl. 29—523.
Henriksen, Henry. Apparatus for abstract painting. 3,100,063, 8-6-63, Cl. 222—94.
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Birkner, Lars G., and Henriksson. 3,099,508.
Henriques, Harry P., III, to Union Carbide Corp. Compositions of vinyl chloride homopolymers and vinyl chloride-vinyl acetate copolymers. 3,091,597, 5-28-63, Cl. 260—31.4.
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Dadura, James G., Siegart, Odell, and Henry. 3,108,966.
Henry, Donald J., and N. M. Lottridge, Jr., to General Motors Corp. Mold coating. 3,075,847, 1-29-63, Cl. 106—38.22.
Henry, Elliott A., to Sperry Products, Inc. Signal storage display equipment for ultrasonic testing. 3,077,107, 2-12-63, Cl. 73—67.8.

Henry, Elliott A., to Branson Instruments, Inc. Method and apparatus for ultrasonic shearwave inspection. 3,115,771, 12–31–63, Cl. 73—67.9.

Henry, George L., and G. E. Martin, to United States of America, Air Force. Three-pulse canceller for coherent MTI systems. 3,109,171, 10–29–63, Cl. 343—7.7.

Henry, Gilbert A. Automatic inflation unit for flotation devices. 3,077,288, 2–12–63, Cl. 222—5.

Henry, Harold H., and R. McLaughlin. Collapsible anchor. 3,111,107, 11–19–63, Cl. 114—208.

Henry, Howarth P. Brakes for trailer vehicles. 3,073,419, 1–15–63, Cl. 188—112.

Henry, Howarth P. Couplers for connecting trailers to towing vehicles. 3,104,894, 9–24–63, Cl. 280—513.

Henry, Jack L., to Kaiser Aluminum & Chemical Corp. Method of joining. 3,100,338, 8–13–63, Cl. 29—473.1.

Henry, James J., to Conch International Methane Ltd. Cold cargo ship and construction. 3,072,087, 1–8–63, Cl. 114—

Henry, James J., to Conch International Methane Ltd. Ship. 3,072,282, 1–8–63, Cl. 220—15.

Henry, James J., to Conch International Methane Ltd. Ship for the transportation of a liquefied gas. 3,085,538, 4–16–63, Cl. 114—74.

Henry, James J., and A. H. Schwenditner, to Conch International Methane Ltd. Ship's tank with multiple compartments. 3,115,984, 12–31–63, Cl. 220—16.

Henry, James T., to E. I. du Pont de Nemours and Co. Crimping apparatus. 3,111,157, 11–19–63, Cl. 153—1.

Henry, John E., and G. A. Reasor, to Hercules Powder Co. Preparation of carboxyalkyl cellulose ethers. 3,085,087, 4–9–63, Cl. 260—231.

Henry, Nelson R., to McCulloch Corp. Motor control. 3,101,821, 8–27–63, Cl. 192—.096.

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Klose, Alfred J., and Henry. 3,114,381.

Henry, Ronald A., to United States of America, Navy. Polymers and copolymers of 5-vinyltetrazole. 3,096,312, 7–2–63, Cl. 260—78.5.

Henry, Scott L., to A. O. Smith Corp. Method of brazing. 3,091,846, 6–4–63, Cl. 29—471.5.

Henry Valve Co.: *See*—
Jones, Evan. 3,080,977.
Jones, Evan. 3,088,811.
Jones, Evan. 3,100,691.

Henry, W. W., Co., The: *See*—
Du Vall, Wilbur E. 3,084,863.
Du Vall, Wilbur E. 3,088,099.
DuVall, Wilbur E. 3,103,619.

Henry, William P., 50% to D. J. Nash. Fertilizer applying device. 3,091,197, 5–28–63, Cl. 111—7.1.

Henry-Baudot, Jacques, to Printed Motors, Inc. A.C. transducers and variometers. 3,090,933, 5–21–63, Cl. 336—120.

Henry-Baudot, Jacques, to Printed Motors Inc. Printed circuit motor. 3,091,711, 5–28–63, Cl. 310—08.

Henry-Baudot, Jacques, to Printed Motors Inc. Axial airgap rotary machines. 3,091,715, 5–28–63, Cl. 310—268.

Henry-Baudot, Jacques, to Printed Motors Inc. Step motor using printed circuit components. 3,093,762, 6–11–63, Cl 310—49.

Henry-Baudot, Jacques, to Printed Motors Inc. Printed circuit stator for electrical rotating machines. 3,097,319, 7–9–63, Cl. 310—179.

Henry-Baudot, Jacques, to Printed Motors, Inc. Electromechanical energy converter using a flexible loop armature. 3,109,113, 10–29–63, Cl. 310—13.

Henry-Baudot, Jacques, to Printed Motors, Inc. Multiple-winding electrical rotating machines. 3,109,114, 10–29–63 Cl. 310—268.

Henry-Baudot, Jacques, to Printed Motors, Inc. Motor impedance member device. 3,116,431, 12–31–63, Cl. 310—72.

Henry-Bezy, Georges, G. Kantorowicz, and P. Palluel, to Compagnie de Telegraphie Sans Fil. Vacuum tight waveguide transmission window having means guarding window edges from electric stress. 3,101,461, 8–20–63, Cl. 333—98.

Henry-Biabaud, Edmond, to Andre Citroen Societe Anonyme. Cabin for vehicle primarily designed for utility purposes. 3,076,517, 2–5–63, Cl. 180—77.

Henry-Biabaud, Edmond, to Andre Citroen Societe Anonyme. Seat-adjusting device, notably for automotive vehicles. 3,076,629, 2–5–63, Cl. 248—424.

Henry-Biabaud, Edmond, to Andre Citroen, Societe Anonyme. Mounting process for a lining panel, in particular for vehicles. 3,096,601, 7–9–63, Cl. 45—138.

Henry-Biabaud, Edmond, to Andre Citroen Societe Anonyme. Fuel injection engine. 3,113,562, 12–10–63, Cl. 123—140.

Henschel, Joseph W. Cap visor. 3,072,915, 1–15–63, Cl. 2—195.

Hense, Theo, to Olympia Werke AG. High speed printing apparatus with input control network. 3,099,206, 7–30–63, Cl. 101—93.

Hensel, Hans R., H. Baumann, A. Tartter, and H. Weissauer, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. 4,5-dihalogenpyridazones-(6). 3,108,103, 10–22–63, Cl. 260—250.

Hensel, Jack: *See*—
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Hensel, Walter C., to Universal Oil Products Co. Insulated chamber. 3,077,058, 2–12–63, Cl. 50—331.

Hensen, Theo, and H. Burkel, to Vereinigte Glanzstoff-Fabriken A.G. Process for forming thread reserve windings. 3,075,715, 1–29–63, Cl. 242—18.

Hensgen, Bernard T., and O. A. Clemens, to Swift & Co. Method for preparing equal weight slices of product. 3,105,533, 10–1–63, Cl. 146—241.

Henslee, Waldo W., Jr.: *See*—
Fisher, Hiram H., Jr., and Henslee. 3,102,595.

Hensley, Anastasia K. Key and coin lock with disc assembly. 3,076,538, 2–5–63, Cl. 194—84.

Hensley, James L., to Tysaman Machine Co., Inc. Grinding apparatus. 3,081,581, 3–19–63, Cl. 51—99.

Hensley, William L., to American Cyanamid Co. Resin composition and process for preparing the same. 3,114,727, 12–17–63, Cl. 260—45.2.

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Henseldt, M., & Sohne, Optische Werke Aktiengesellschaft: *See*—
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Henson, Douglas R., and S. C. Walmsley, to Dunlop Rubber Co. Ltd. Mechanical belting. 3,105,389, 10–1–63, Cl. 74—231.

Henss, Heinrich, to VDO Tachometer Werke Adolf Schindling G.m.b.H. Windshield washer for automotive vehicles. 3,115,661, 12–31–63, Cl. 15—250.02.

Henyan, Clare A., to Sears, Roebuck and Co. Thermometer support for rotisserie. 3,075,454, 1–29–63, Cl. 99—421.

Henyon, Lewis E., to Clark Equipment Co. Single vane pump. 3,071,079, 1–1–63, Cl. 103—136.

Henzirohs, Leo, to Jura Elektroapparate-Fabriken L. Henzirohs A.G. Steam-pressing electric iron. 3,105,314, 10–1–63, Cl. 38—77.

Henzirohs, Leo, to Jura Elektroapparate-Fabriken L. Henzirohs A.G. Steam-pressing electric iron. 3,115,718, 12–31–63, Cl. 38—77.

Hepher, Martin, to Eastman Kodak Co. Process for electro-development of photographic images. 3,113,910, 12–10–63, Cl. 204—2.

Hepner, Charles, to Motorola, Inc. Automatic soldering machine and method. 3,082,520, 3–26–63, Cl. 29—471.1.

Hepner, Neal, to Burroughs Corp. Eccentric collar locking device. 3,075,403, 1–29–63, Cl. 74—571.

Heppe, Ralph R.: *See*—
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Heppenstall, Charles W. Composite closure. 3,100,067, 8–6–63, Cl. 222—190.

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Heppenstall, Samuel B., Jr. Integral pipe and fittings. 3,083,454, 4–2–63, Cl. 29—556.

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Herbenar, Edward J., to Thompson Ramo Wooldridge, Inc. Sealed loaded joint assembly. 3,086,801, 4–23–63, Cl. 287—90.

Herbenar, Edward J., to Thompson Ramo Wooldridge Inc. Hydrodynamic retarder safety system. 3,101,132, 8–20–63, Cl. 188—90.

Herber, John F., to Monsanto Chemical Co. Nitrate compounds. 3,106,575, 10–8–63, Cl. 260—466.

Herber, Joseph S., to Crawford Door Co. Counterweighted upward acting door. 3,094,163, 6–18–63, Cl. 160—190.

Herbert, Adolf. Vulcanization press for vehicle tyres. 3,071,811, 1–8–63, Cl. 18—17.

Herbert, Danuta. Improvements in reservoirs for internal combustion engines. 3,075,576, 1–29–63, Cl. 158—50.1.

Herbert, Gerald A., to Goodman Mfg. Co. Load cell. 3,095,551, 6–25–63, Cl. 338—5.

Herbert, Gerald A., to Goodman Mfg. Co. Load cell. 3,101,464, 8–20–63, Cl. 338—5.

Herbert, Leonh., Maschinenfabrik, Firma: *See*—
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Herbert, Roland E., to Newspaper Enterprise Association Inc. Multiple lens facsimile scanner. 3,100,242, 8–6–63, Cl. 178—7.1.

Herbert, Stephen A., Jr.: *See*—
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Herbert, Stephen A., Jr., and D. W. Frew, to Shell Oil Co. Extreme pressure lubricating compositions. 3,089,852, 5–14–63, Cl. 252—32.7.

Herbert, Stephen A., Jr., and H. F. Richards, to Shell Oil Co. Lubricating compositions. 3,102,863, 9–3–63, Cl. 252—46.7.

Herbert, Thomas A., Jr., to Rohr Corp. Apparatus and method for making sandwich panels. 3,106,015, 10–8–63, Cl. 29—471.1.

Herbert, Thomas M., to The Budd Co. Railway disk brakes. 3,092,211, 6–4–63, Cl. 188—59.

Herbig, Henry F., and L. Medler, to International Telephone and Telegraph Corp. Party line subscriber identifier. 3,073,905, 1–15–63, Cl. 179—17.

Herbig, James A., and I. O. Salyer, to Monsanto Chemical Co. Ternary blends of polystyrene-polyethylene-chlorosulfonated polyethylene and processes for making the same. 3,092,607, 6–4–63, Cl. 260—45.5.

Herbig, James A., and I. O. Salyer, to Monsanto Chemical Co. Binary blends of polyvinyl formal and ethylene vinylene carbonate copolymer and processes for making the same. 3,114,728, 12–17–63, Cl. 260—45.5.

Herbkersman, Earle C., to The Pipe Machinery Co. Roll-over chuck. 3,083,024, 3–26–63, Cl. 279—5.

Herbkersman, Earle C., to The Pipe Machinery Co. Chuck with detachable gripping jaw. 3,083,025, 3–26–63, Cl. 279—1.22.

Herbold, Robert J., to J. R. Bevington. Soldering iron accessory. 3,103,906, 9–17–63, Cl. 113—98.

Herbon, Leroy J., to American Motors Corp. Air conditioning apparatus for automotive vehicle. 3,090,291, 5–21–63, Cl. 98—2.

Herbst, Clarence A., to Resinold Engineering Corp. Spacer. 3,114,669, 12–17–63, Cl. 161—165.

Herbst, John A., to Rogue Electric Mfg. Co. Leveling device. 3,083,469, 4–2–63, Cl. 33—215.

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Wurzburg, Otto B., Herbst, and Cole. 3,091,567.

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Hercik, Lad L. Eccentric drive means for stock shear. 3,073,200, 1–15–63, Cl. 83—602.

Hercules, Christopher D. Variable-pitch blade propeller. 3,095,932, 7–2–63, Cl. 170—160.43.

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Biszantz, Fred, and Ruth. 3,094,359.
Totaro, Thomas C., and King. 3,071,264.

Hercules Powder Co.: *See*—
Bechtel, Robert J. Re. 25,393.
Boylan, Francis J. 3,076,768.
Boynton, Donald E. 3,099,531.
Breslow, David S. 3,072,601.
Breslow, David S., and Matlack. 3,113,986.
Carosino, Lawrence E. 3,109,772.
Chapman, Charles H. 3,096,232.
Christmann, Donald L. 3,108,993.
Clauss, Karl, and Bestian. 3,104,249.
Dadoly, Georgia, and Finzel. 3,104,150.
De Butts, Edward H., Hays, and Young. 3,107,265.
Dickson, David M., Jr. 3,074,910.
Feild, George B. 3,110,623.
Floyd, John D. 3,085,077.
Geurden, Robert M. 3,077,468.
Grable, Michael A. 3,106,498.
Harris, George C. 3,102,054.
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Hooper, Gilman S., Finzel, and McFarren. 3,101,522.
Larson, Victor J. 3,071,484.
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Lincoln, Dwight C., and Shyluk. 3,095,404.
Matlack, Albert S. 3,074,909.
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Vandenberg, Edwin J. 3,106,549.
Vandenberg, Edwin J. 3,108,973.
Weber, Edward R. 3,110,258.
Wedwick, Don A. 3,110,846.
Young, Richard E. 3,083,864.
Young, Richard E. 3,106,940.
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Herczog, Andrew: *See*—
Allen, Richard E., and Herczog. 3,114,066.

Herczog, Andrew, and R. R. Haberecht, to United States of America, Air Force. Zone melting apparatus. 3,100,250, 8–6–63, Cl. 219—10.49.

Herd, James R.: *See*—
Silver, Robert S., and Herd. 3,105,020.

Herdering, John D., to North American Aviation, Inc. Modular container and retaining means. 3,101,154, 8–20–63, Cl. 220—4.

Herding, Alfred. Air-cushioned upholstery, particularly for the seat member of motor vehicles or the like. 3,110,520, 11–12–63, Cl. 297—452.

Herdman, Charles W. Baby crib bottle holder. 3,082,985, 3–26–63, Cl. 248—103.

Herdman, Charles W. Shoe lace knot protector. 3,106,003, 10–8–63, Cl. 24—119.

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Herfurth, Charles, to The Cincinnati Milling Machine Co. Machine tool drive system control mechanism. 3,089,572, 5–14–63, Cl. 192—3.5.

Hergenhan, Albert R., to Lowe Paper Co. Variable angle feed means for paper cutters. 3,099,181, 7–30–63, Cl. 83—349.

Hergenrother, Rudolf C., to Raytheon Co. Wave retardation lines having periodic tapering pitch. 3,083,443, 4–2–63, Cl. 29—155.5.

Hergenrother, Rudolf C., to Raytheon Co. Low dispersion interdigital delay lines. 3,089,974, 5–14–63, Cl. 315—3.6.

Hergeth K.G. Maschinenfabrik u. Apparatebau: *See*—
Schwab, Bruno. 3,070,847.

Herlder, Elmer A.: *See*—
James, Jimmie, and Herlder. 3,104,911.

Herlder, Elmer A., and P. C. Tabor, to Rockwell-Standard Corp. Automotive seats. 3,114,576, 12–17–63, Cl. 297—354.

Herlford, Russell W. Standing support for paraplegics. 3,107,105, 10–15–63, Cl. 280—211.

Herinckx, Claude, G. R. Offergeld, and J. L. Van Cakenberghe, to Union Carbide Corp. Thermoelectric materials. 3,076,859, 2–5–63, Cl. 136—5.

Hering, Hans, L. Menz, and E. Caffier, to Societe Nationale d'Etudes et de Construction de Moteurs d'Aviation. Combustion chamber with primary and secondary air flows. 3,082,603, 3–26–63, Cl. 60—39.65.

Hering, Harold E., and E. V. Painter, to Johnson & Johnson. Filter assembly. 3,085,689, 4–16–63, Cl. 210—232.

Herion, Erich. Magnetic preliminary control valve. 3,110,468, 11–12–63, Cl. 251—29.

Herion, Erich, and E. Ruchser; said Ruchser assor. to said Herion. Safety control apparatus for operating pressure-actuated devices. 3,084,676, 4–9–63, Cl. 121—38.

Herkes, Daniel J.: *See*—
Rush, Thomas L., Hoober, and Herkes. 3,113,340.

Herlet, Adolf, to Siemens-Schuckertwerke Aktiengesellschaft. Encapsuled electronic semiconductor device of the four-layer junction type, and method of its production. 3,105,926, 10–1–63, Cl. 317—234.

Herman, Albert D.: *See*—
Leighton, Francis, and Herman. 3,115,069.

Hermnn, Bernard, to Stardust, Inc. Ladies' slips. 3,093,138, 6–11–63, Cl. 128—454.

Herman, Daniel F., and R. C. Kollman, to National Lead Co. Polymerization of olefins. 3,078,262, 2–19–63, Cl. 260—93.5.

Herman, Daniel F., D. Simone, and R. M. Weil, to National Lead Co. Aqueous polymerization process incorporating co-catalyst of organometallic compound and halogenated acetic acid. 3,114,737, 12–17–63, Cl. 260—88.7.

Herman, Hartley R., and B. R. Alsobrook, to Rohr Corp. Method for making honeycomb panel. 3,091,845, 6–4–63, Cl. 29—471.1.

Herman, Julius. One-turn loop antenna. 3,078,462, 2–19–63, Cl. 343—744.

Herman, Leslie E. Knockdown box or pallet bin. 3,079,025, 2–26–63, Cl. 217—12.

Herman, Martin A. Simultaneous multi-check point gage. 3,102,344, 9–3–63, Cl. 33—174.

Herman, Maynard, to General Electric Co. Self-lubricating sleeve bearing. 3,110,530, 11–12–63, Cl. 308—238.

Herman, Melvin L.: *See*—
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Johnston, Loyal L. 3,110,940.

Herman, Ralph R.: *See*—
Cattermole, Kenneth W., Herman, Bezdel, and Darton. 3,073,903.

Herman, Raymond, to Richmond Research Corp. Motion picture projector drive mechanism. 3,074,662, 1–22–63, Cl. 242—55.12.

Herman, Robert F., and R. H. Moehlmann, to General Dynamics Corp. Radio telephone system. 3,094,661, 6–18–63, Cl. 325—55.

Herman, Stedman C., to Shawinigan Resins Corp. Vinyl ester polymer emulsions containing polyvinyl alcohol. 3,094,500, 6–18–63, Cl. 260—29.6.

Herman, William P., to North American Philips Co., Inc. Contact plug assembly apparatus. 3,090,111, 5–21–63, Cl. 29—206.

Hermanet, Marvin J., to Eastman Kodak Co. Automatic trimming and scraping device. 3,089,369, 5–14–63, Cl. 83—3.

Hermann, Adolf L. Flat cables and corresponding connector. 3,114,587, 12–17–63, Cl. 339—75.

Hermann, Hans: *See*—
Zimmermann, Heinrich, and Hermann. 3,111,323.

Hermann, Joseph R.: *See*—
Plummer, Lloyd F., and Hermann. 3,106,505.

Hermann, Lawrence, and B. I. Reisman. Fountain attachment for faucets. 3,079,088, 2–26–63, Cl. 239—25.

Hermann, Ludwig: *See*—
Pasche, Heinz, and Hermann. 3,072,229.

Hermann, Otto, to The R. K. LeBlond Machine Tool Co. Zero speed switch. 3,094,595, 6-18-63, Cl. 200—80.

Hermann, Otto, to The R. K. Le Blond Machine Tool Co. Zero speed switch. 3,098,906, 7-23-63, Cl. 200—80.

Hermann, Willy, and H. Sager, to Hoffmann-La Roche Inc. Stabilization of heparin preparations. 3,112,246, 11-26-63, **Cl. 167—74.**

Hermanni, Eugen, to Ernst Leitz G.m.b.H., Optische Werke. Four member objective lens. 3,108,152, 10-22-63, Cl. 88—57.

Hermanns, Otto E., to The B. F. Goodrich Co. Tire piercing apparatus. 3,107,565, 10-22-63, Cl. 83—2.

Hermanny, Heinrich, to Radio Corp. of America. Tube cage orienting and positioning apparatus. 3,098,553, 7-23-63, Cl. 198—33.

Hermans, Fernand V. F. Tunnel kiln for firing ceramic and like products. 3,108,351, 10-29-63, Cl. 25—142.

Hermans, Marie E. A., and T. van der Plas, to Stichting Reactor Centrum Nederland. Process for the preparation of granular uraniferous material of uniform particle size. 3,097,062, 7-9-63, Cl. 23—14.5.

Hermanson, Harry M., to Minneapolis-Honeywell Regulator Co. Fluid level sensing apparatus. 3,079,797, 3-5-63, Cl. 73—304.

Hermelin, Victor M. Timed release pharmaceutical preparations and method of making the same. 3,115,441, 12-24-63, Cl. 167—82.

Hermes, Wilhelm: *See*—
Gebald, Gregor, and Hermes. 3,110,511.

Hermes, Willem, to North American Philips Co., Inc. Automatic gain control amplifier system. 3,105,942, 10-1-63, Cl. 330—28.

Hermeyer, Robert. Liquid contact switch. 3,102,179, 8-27-63, Cl. 200—122.

Hermiz, Ramiz Y.: *See*—
Duke, Edward D., and Hermiz. 3,079,176.

Hermorion Ltd.: *See*—
Berglund, Erik E. 3,090,175.
Jarund, Harry S. V. 3,071,907.
Rausing, Gad A., and Tuma. 3,086,336.

Hermsdorf Fixture Mfg. Co., Inc.: *See*—
Schirmer, Maximilian. 3,070,830.
Schirmer, Maximilian. 3,074,083.

Hernandez, Miguel A. Beer and malt beverage concentrates and process for producing same. 3,113,029, 12-3-63, Cl. 99—78.

Herndon, John F., Sr.: *See*—
Greenberg, Samuel M. and Herndon. 3,073,740

Herndon, Luther J., Jr., G. W. Evans, and J. R. Land, to Halliburton Co. Plug for use in conduits. 3,100,534, 8-13-63, Cl. 166—153.

Herndon, Richard A.: *See*—
Carter, Robert C., and Herndon. 3,079,601.

Herndon, William B., Jr., and H. L. Tillman, to Whirlpool Corp. Air circuit means for combined freezer and refrigerator apparatus. 3,107,502, 10-22-63, Cl. 62—180.

Herne, William L. Balancing game. 3,092,384, 6-4-63, Cl. 273—1

Hernley, Kenneth P., to Philbrick-Strickland Laminates, Inc. Machine tool. 3,075,320, 1-29-63, Cl. 51—35.

Herold, Alfred F., to Hewitt-Robins Inc. Method of making a chain side bar having finished pivot holes. 3,084,502, 4-9-63, Cl. 59—8.

Herold, Paul G., and R. A. Nolan, to Radio Corp. of America. Electroluminescent device. 3,089,973, 5-14-63, Cl. 313—108.

Herold, Rodolphe A., to Societe des Accumulateurs Fixes et de Traction (Societe Anonyme). Process for making electrodes or electrode elements for alkaline storage batteries and articles thus obtained. 3,108,910, 10-29-63, Cl. 136—29.

Heron, Claude. Calf and lamb feeder. 3,081,738, 3-19-63, Cl. 119—71.

Heron, David H., to Shell Oil Co. Shut-off valve for dual completion upper packer. 3,098,526, 7-23-63, Cl. 166—128.

Herpich, William A.: *See*—
Dempster, George R., and Herpich. 3,078,121.
Dempster, George R., and Herpich. 3,085,703.
Dempster, George R., and Herpich. 3,090,512.
Dempster, George R., and Herpich. 3,094,227.
Dempster, George R., and Herpich. 3,094,231.
Dempster, George R., and Herpich. 3,107,021.
Dempster, George R., Herpich, and Harvey. 3,107,020.
Dempster, George R., Herpich, and Wender. 3,078,000.

Herr, Charles H., Jr., to Allis-Chalmers Mfg. Co. Positive lock and interlock for shift rods. 3,104,558, 9-24-63, Cl 74—477.

Herr Equipment Corp., The: *See*—
Herr, Richard F. 3,072,001.
Herr, Richard W. 3,083,926.
Herr, Richard W. 3,113,741.

Herr, Gerhard, and K. Cziptschirsch, to Happich G.m.b.H., Gebr. Non-injurious resilient actuating knobs for use in automotive vehicles and the like. 3,071,023, 1-1-63, Cl. 74—545.

Herr, Gerhard, and K. Cziptschirsch, to Happich G.m.b.H., Gebr. Crank handles for window actuating mechanisms in automotive vehicles and the like. 3,106,853, 10-15-63, Cl. 74—545.

Herr, John A.: *See*—
Hayes, Frank A., Abel, and Herr. 3,084,640.
Reid, Orland B., Herr, Turner, and Abel. 3,097,617.

Herr, John A., and O. B. Reid, to The Singer Mfg. Co. Automatic sewing machines. 3,089,441, 5-14-63, Cl. 112—2.

Herr, Joseph R., to Sylvania Electric Products Inc. Time delay circuit. 3,098,953, 7-23-63, Cl. 317—148.5.

Herr, Lewis E., to General Motors Corp. Vehicle power transmission unit mounting. 3,101,126, 8-20-63, Cl. 180—64.

Herr Mfg. Co., Inc.: *See*—
Atwood, Hyatt B. 3,112,603.

Herr, Richard F., to The Herr Equipment Corp. Methods of and apparatus for cutting strip material. 3,072,001, 1-8-63, Cl. 83—147.

Herr, Richard F., to Rio Algom Mines Ltd. Winding apparatus. 3,100,092, 8-6-63, Cl. 242—158.4.

Herr, Richard W., to The Herr Equipment Corp. Strip handling. 3,083,926, 4-2-63, Cl. 242—56.8.

Herr, Richard W., to Rio Algom Mines Ltd. Apparatus for storing moving strip material. 3,109,572, 11-5-63, Cl. 226—189.

Herr, Richard W., to The Herr Equipment Corp. Strip handling. 3,113,741, 12-10-63, Cl. 242—56.8.

Herr, Ross R.: *See*—
Berry, Malcolm E., Herr, and Mason. 3,086,912.

Herrera, Dan B. Safety brake. 3,101,219, 8-20-63, Cl. 303—6.

Herrera, Lula M.: *See*—
Prophet, Charlotte M., and Herrera. 3,076,972.

Herrero, Leonidas G. D. G. Water level control system. 3,084,708, 4-9-63, Cl. 137—392.

Herrero Rodrigo, Manuel. Soap holder. 3,094,806, 6-25-63, Cl. 45—28.

Herrick, Carlyle S., and T. L. Etherington, to General Electric Co. Method and apparatus for storing and recovering heat. 3,079,087, 2-26-63, Cl. 237—1.

Herrick, Clifford E., Jr.: *See*—
Woltach, Peter T., Jr., and Herrick. 3,086,861.

Herrick, Clifford E., Jr., to General Aniline & Film Corp. Diazotype printing and developing apparatus. 3,087,403, 4-30-63, Cl. 95—75.

Herrick, Franklin W., to Rayonier Inc. Water-soluble sulfited lignin-phenolic-formaldehyde complex. 3,095,392, 6-25-63, Cl. 260—17.5.

Herrick, George Q., A. H. Fredrick, and J. H. Greig, to Thompson Ramo Wooldridge, Inc. Security fence alarm system. 3,110,891, 11-12-63, Cl. 340—258.

Herrick, Wallace D., to The Coleman Co., Inc. Food and beverage cooler. 3,111,014, 11-19-63, Cl. 62—462.

Herridge, William G., Jr.: *See*—
Schultz, Werner F., and Herridge. 3,110,780.

Herrin, Garold R.: *See*—
Pfeiffer, Robert W., and Herrin. 3,104,227.

Herring, Lilles G., to Phillips Petroleum Co. Nitropolyurethane compositions. 3,079,355, 2-26-63, Cl. 260—18.

Herring, Richard W.: *See*—
Yonkers, Robert A., Herring, and Anderson. 3,079,626.

Herrington, Charley W., and G. G. Simpson, to Masonite Corp. Hardboard and method of manufacture. 3,083,128, 3-26-63, Cl. 154—45.9.

Herrle, Karl: *See*—
Hartmark, Bjarne, Schuster, and Herrle. 3,096,142.

Herrling, Robert F. Apparatus for separating postage stamps and the like from their backings and for washing the same. 3,083,719, 4-2-63, Cl. 134—157.

Herrmann, Adolf L.: *See*—
Haenssermann, Walter, and Herrmann. 3,092,918.

Herrmann, Edgar R., to Breeze Corporations, Inc. Capstan for faired cable. 3,116,050, 12-31-63, Cl. 254—175.7.

Herrmann, Erwin: *See*—
Zerweck, Werner, Ritter, and Herrmann. 3,116,295.

Herrmann, Frank A.: *See*—
Pearson, Harry A., Herrmann, and Greenbaum. 3,110,868.

Herrmann, Frank A., to Sonotone Corp. Transistor amplifier stage with high input impedance. 3,082,380, 3-19-63, Cl. 330—18.

Herrmann, Fred L., and L. Safranek. Duplicator stand with router. 3,111,148, 11-19-63, Cl. 144—136.

Herrmann, Gunter, and R. Goerlich, to Protona Produktionsgesellschaft fuer elektroakustiche Geraete m.b.H. Sound recording and reproducing apparatus driving mechanism. 3,085,758, 4-16-63, Cl. 242—55.12.

Herrmann, Helmut, to Gewerkschaft Eisenhütte Westfalia. Piston impact motor and control therefor. 3,072,103, 1-8-63, Cl. 121—22.

Herrmann, Helmut, to Gewerkschaft Eisenhutte Westfalia. Piston impact motor. 3,077,188, 2-12-63, Cl. 123—46.

Herrmann, Julius, to Gewerkschaft Eisenhutte Westfalia. Apparatus for the production of coal by shaving techniques. 3,071,353, 1-1-63, Cl. 262—8.

Herrmann, Julius, to Gewerkschaft Eisenhutte Westfalia. Mining machine having a reciprocating cutter. 3,113,762, 12-10-63, Cl. 262—18.

Herrmann, Karl-Heinz, to Siemens & Halske Aktiengesellschaft. Electron microscope diaphragm arrangement with auxiliary device for X-ray spectroscopy of irradiated specimen. 3,086,114, 4-16-63, Cl. 250—51.5.

Herrmann, Otto, H. Müller, and M. Selbel, to Keuffel & Esser Co. Linear polyester films having surfaces suitable for writing thereon. 3,100,722, 8-13-63, Cl. 117—138.8.

Herrmann, Richard C., and P. A. Clavier, to Zenith Radio Corp. Computer and a method of computing. 3,073,893, 1-15-63, Cl. 178—5.1.

Herrmann, William E., to Hewitt Robins Inc. Clamp for conveyor idler assembly. 3,103,726, 9-17-63, Cl. 24—125.

Herrod, J. T. Combination transmission and differential. 3,095,759, 7-2-63, Cl. 74—701.

Herron, Henry R., to Harbison-Walker Refractories Co. Tunnel kiln car top. 3,094,759, 6-25-63, Cl. 25—142.

Herrwerth, Peter: *See*—
Moesta, Hasso, and Herrwerth. 3,071,968.

Herschdorf, Arthur. Replaceable heel and outsole structure for shoes. 3,083,476, 4-2-63, Cl. 36—15.

Herschel, R., Mfg. Co.: *See*—
Sehm, Martin R. 3,098,339.

Hersey, Carl D.: *See*—
Way, Robert B., and Hersey. 3,089,499.
Way, Robert B., and Hersey. 3,102,053.
Way, Robert B., and Hersey. 3,107,183.
Way, Robert B., and Hersey. 3,108,537.

Hersey, Kenneth J. Apparatus for producing addressed labels. 3,110,248, 11-12-63, Cl. 101—65.

Hersey, Ralph E., to Bell Telephone Laboratories, Inc. Telephone system. 3,113,184, 12-3-63, Cl. 179—18.

Hersey-Sparling Meter Co.: *See*—
Farrow, William H. 3,074,429.

Hersh, Arthur. Aerosol container control mechanism fitted with applicator. 3,093,857, 6-18-63, Cl. 15—552.

Hersh, Seymour L.: *See*—
Burner, Willard C., Hersh, and Lucas. 3,093,052.

Hersh, Seymour L., to United States of America, Army. Photographic printing apparatus. 3,104,602, 9-24-63, Cl. 95—77.5.

Hershberg, Emanuel B., and D. H. Gould, to Schering Corp. Sulfocarboxylic acid esters of hydroxylated steroids. 3,089,-881, 5-14-63, Cl. 260—397.45.

Hershberger, Olin C., and D. B. Morin. Convertible furniture for infants. 3,115,365, 12-24-63, Cl. 297—133.

Hershel California Fruit Products Co., Inc.: *See*—
Morici, Alfred A. 3,093,175.

Hershey, Alan U., H. S. Zack, and K. A. Worrall, to McCloskey Varnish Co. of the West. Aqueous emulsion of a water insoluble, drying oil modified polyester resin and a water soluble, drying oil modified polyester resin. 3,077,450, 2-12-63, Cl. 260—22.

Hershey, Harold J.: *See*—
Babb, James G., and Hershey. 3,105,122.

Hershey, Harold J., to Bell Telephone Laboratories, Inc. Centrifugal governor. 3,080,020, 3-5-63, Cl. 188—184.

Hershey, Harold J., and R. A. Spencer, to Bell Telephone Laboratories, Inc. Gong. 3,102,510, 9-3-63, Cl. 116—148.

Hershman, Gordon L., and C. W. Doering, to International Harvester Co. Three point implement hitch quick attaching device. 3,116,075, 12-31-63, Cl. 280—479.

Hertel, Hasso: *See*—
Gross, Richard, Hertel, Kirst, and Mohr. 3,099,651.
Gross, Richard, Hertel, Kirst, Mohr, and Staab. 3,084,-151.
Gross, Richard, Hertel, Kirst, Mohr, and Staab. 3,116,-277.
Gross, Richard, Hertel, and Mohr. 3,116,278.
Gross, Richard, Hertel, Mohr, and Schilling. 3,073,813.
Gross, Richard, Hertel, Mohr, and Staab. 3,071,571.
Gross, Richard, Hertel, Mohr, and Staab. 3,086,004.
Gross, Richard, Hertel, Mohr, and Staab. 3,116,276.

Hertel, Heinrich, to Focke-Wulf Gesellschaft mit beschraenkter Haftung. VTOL aircraft. 3,084,888, 4-9-63, Cl. 244—23.

Hertel, Wilhelm, to Siemens-Electrogerate Aktiengesellschaft. Dishwasher. 3,095,885, 7-2-63, Cl. 134—58.

Hertelendy, Nicholas: *See*—
Lehde, John W., Jr., and Hertelendy. 3,092,859.

Hertlerich, Oskar, and E. Huttner, to Klockner-Humboldt-Deutz A.G. Ladder device. 3,083,789, 4-2-63, Cl. 182—212.

Herter's, Inc.: *See*—
Mittelstaedt, Glenn L. 3,087,372

Hertling, Gale B. Hydraulic adjustable peripheral hub and wheel combination 3,087,349, 4-30-63, Cl. 74—230.18.

Hertl, Albert: *See*—
Petsch, Ernst, and Hertl. 3,082,809.

Hertner Electric Co., The: *See*—
Petrigalla, Andrew. 3,073,999.

Hertwig, Henry F., to Swift & Co. Porcupine roll for slicing machines. 3,115,917, 12-31-63, Cl. 146—95.

Hertz, Michael. Erasing instrument. 3,099,251, 7-30-63, Cl. 120—38.

Hertz, Michael. Cathode ray tube using replaceable cathode. 3,099,762, 7-30-63, Cl. 313—74.

Hertzberg, Samuel. Electrically-powered dry shaver convertible to manual power having reinforced shearing means and debris collecting means. 3,079,684, 3-5-63, Cl. 30—34.

Hertzer, Carl J.: *See*—
Easterling, Herbert W., and Hertzer. 3,110,496.

Hertzig, Frank S.: *See*—
Shattuck, Owen M. 3,114,906.

Hertzke, Frank H. Hinged plate-like unit and interlocking hinge. 3,087,192, 4-30-63, Cl. 16—128.

Hertzog, Heber T., to The Garrett Corp. Engine starting apparatus. 3,087,305, 4-30-63, Cl. 60—39.14.

Hervert, George L., and H. S. Bloch, to Universal Oil Products Co. Manufacture of alumina hydrogel. 3,071,436, 1-1-63, Cl. 23—143.

Hervert, George L., and C. B. Linn, to Universal Oil Products Co. Production of diaryl alkenes. 3,071,630, 1-1-63, Cl. 260—668.

Hervert, George L., and C. B. Linn, to Universal Oil Products Co. Selective alkylation of aromatic hydrocarbons. 3,086,998, 4-23-63, Cl. 260—671.

Hervert, George L., and C. B. Linn, to Universal Oil Products Co. Process for shifting the double bond in an olefinic hydrocarbon. 3,114,785, 12-17-63, Cl. 260—683.2.

Hervey, Laurence R. B.: *See*—
Doggett, Roger H., Hervey, and Lanyon. 3,100,143.

Hervey, Laurence R. B., to John A. Manning Paper Co., Inc. Fiber treatment and resulting product. 3,102,838, 9-3-63, Cl. 162—152.

Hervig, Harold C., and E. W. Bollmeier, to Minnesota Mining and Mfg. Co. Nozzle. 3,111,269, 11-19-63, Cl. 239—309.

Herz, Josef E.: *See*—
Stork, Gilbert, Herz, and Wendt. 3,080,393.

Herz, Josef E., and J. Fried, to Olin Mathieson Chemical Corp. 11β,12β-epoxypregnane-3,20-dione. 3,075,969, 1-29-63, Cl. 260—239.55.

Herz, Joseph H.: *See*—
Romig, John R., and Herz. 3,091,442.

Herz, Joseph H., and J. R. Romig, to California Portland Cement Co. Kiln automatic control method and apparatus. 3,091,443, 5-28-63, Cl. 263—32.

Herzberg, Cecile. Scarf. 3,105,970, 10-8-63, Cl. 2—91.

Herzfeld, Valerius E.: *See*—
Fritze, Curtis W., and Herzfeld. 3,071,753.

Herzig, Karlheinz: *See*—
Hammel, Siegfried, and Herzig. 3,113,994.

Herzl, Peter J., to Sperry Gyroscope Co. of Canada, Ltd. Positional control system and pickoff therefor. 3,086,151, 4-16-63, Cl. 318—28.

Herzog, Alfred. Wash basin. 3,108,288, 10-29-63, Cl. 4—159.

Herzog, Gerald B., to Radio Corp. of America. Square wave generator comprising negative resistance diode and mismatched delay line producing steep edge pulses. 3,096,445, 7-2-63, Cl. 307—88.5.

Herzog, Gerald B., to Radio Corp. of America. Demodulator using the monostable characteristic of a negative resistance diode. 3,108,229, 10-22-63, Cl. 329—105.

Herzog, Gerhard: *See*—
Savage, Kerry D., Mazzagatti, and Herzog. 3,102,992.

Herzog, Hans: *See*—
Kibisch, Gerhard, and Herzog. 3,098,714.

Herzog, Hans. Fountain with movable nozzles. 3,077,306, 2-12-63, Cl. 239—227.

Herzog, Herschel L.: *See*—
Gould, David H., and Herzog. 3,079,301.

Herzog, Stephen H.: *See*—
Vetter, Ronald F., Miller, and Herzog. 3,103,784.

Heseltine, Donald W., and L. L. Lincoln, to Eastman Kodak Co. Silver halide emulsions containing cationic oxonol and benzylidene dyes. 3,094,418, 6-18-63, Cl. 96—84.

Heselwood, James C., to AMP Inc. Solderless electrical connectors. 3,071,750, 1-1-63, Cl. 339—97.

Hesketh, James A., and H. Rubin; said Hesketh assor. to said Rubin. Baby carriage convertible to cradle. 3,090,-034, 5-21-63, Cl. 280—31.

Hesky, Hans, to Zimmer Verfahrenstecknik, H.J. Process and apparatus for producing unsaturated hydrocarbons. 3,071,633, 1-1-63, Cl. 260—683.

Heslop, John R. W.: *See*—
Bradford, Bernard W., Heslop, Lord, and Bloom. 3,085,-870.

Heslop, Robert N., to Imperial Chemical Industries Ltd. Azo anthraquinone dyestuffs containing a triazine. 3,074,925, 1-22-63, Cl. 260—153.

Hespenheide, Wilbur G., to Burroughs Corp. Data display device. 3,096,271, 7-2-63, Cl. 204—267.

Hess, Charles: *See*—
Loertscher, Waldemar, Hess, Orsoni, and Fabris. 3,070,-837.

Hess, Earl B. Device for forming cuffs on trousers. 3,097,-364, 7-16-63, Cl. 2—232.

Hess, Frederic O., to Selas Corp. of America. Furnace. 3,081,988, 3-19-63, Cl. 266—4.

Hess, Hans, to Olympia Werke A.G. Coding arrangement. 3,112,821, 12-3-63, Cl. 197—1.5.

Hess, Hans-Jurgen E., to Chas. Pfizer & Co., Inc. Process for the interconversion of epimeric 21-methyl steroids. 3,072,-688, 1-8-63, Cl. 260—397.45.

Hess, Hans-Jurgen E., S. K. Figdor, G. M. K. Hughes, and W. T. Moreland, to Chas. Pfizer & Co., Inc. Process and intermediates for preparing 6α-fluoro-21-methyl compounds. 3,081,319, 3-12-63, Cl. 260—397.47.

Hess, Howard V.: *See*—
Eckert, George W., and Hess. 3,074,787.
Eckert, George W., Hess, and Towne. 3,097,171.
Heisler, Robert Y., and Hess. 3,087,979.
Heisler, Robert Y., Hess, Eckert, and Throckmorton. 3,096,365.

Hess, Howard V., and E. R. Christensen, to Texaco Inc. Method of treating a petroleum fraction using molecular sieve aluminosilicate selective adsorbents. 3,081,255, 3-12-63, Cl. 208—88.

Hess, Howard V., and G. W. Eckert, to Texaco Inc. Method for selectively removing isobutylene from a hydrocarbon stream by means of a chloro carboxylic acid. 3,085,122, 4-9-63, Cl. 260—677.

Hess, Joan T.: *See*—
Hess, John J., Jr. 3,071,964.

Hess, John J., Jr., deceased; J. T. Hess, executrix, and The Franklin National Bank of Long Island, executor, to Sperry Rand Corp. Air speed sensor. 3,071,964, 1–8–63, Cl. 73—189.

Hess, Kenneth A., Sr.: *See*—
Benda, Theodore R., and Hess. 3,110,214.

Hess, Loyal H.: *See*—
Moore, Lawrence A., Crist, and Hess. 3,116,031.

Hess, Paul J., and D. R. Seyler, to General Electric Co. VTO fan modulating structure. 3,094,298, 6–18–63, Cl. 244—23.

Hess, Robert L.: *See*—
Easley, Gilbert J., Hess, and Telford. 3,114,815.

Hess, Robert L. B. Fountain supplied sponge cleaning implement. 3,089,181, 5–14–63, Cl. 15—526.

Hess, Robert W.: *See*—
Hegman, Robert L., Hess, and Weber. 3,094,153.

Hess, Robert W., to Georgia-Pacific Corp. Spliced structural products and method of splicing. 3,094,747, 6–25–63, Cl. 20—92.

Hess, Walter, and R. Schneider, to Continuous Metalcast Co., Inc. Cradle for slugs cast by a vertical continuous casting operation. 3,112,537, 12–3–63, Cl. 22—57.2.

Hessel, Frederick A.: *See*—
Werner, Jesse, and Hessel. 3,097,087.

Hessel, Frederick A., to General Aniline & Film Corp. Method for controlling soil nematodes. 3,086,907, 4–23–63, Cl. 167—33.

Hesseltine, Clifford W.: *See*—
Benjamin, Chester R., Hendershot, and Hesseltine. 3,079,101.

Hesser, Fr. Maschinenfabrik-Aktiengesellschaft, Firma: *See*—
Bauder, Ulrich. 3,100,584.
Bauder, Ulrich. 3,107,181.
Bauder, Ulrich, and Braun. 3,073,400.
Braustner, Rudolf. 3,115,967.
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Jungmayr, Theodor. 3,112,679.
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Reinhardt, Fritz, and Gräfinghoit. 3,091,902

Stambera, Adolf. 3,112,806.

Hesser, Werner: *See*—
Vollmert, Bruno, and Hesser. 3,110,706.

Hessinger, Philip S., and T. W. Weber, to Mycalex Corp. of America. Method of making synthetic mica. 3,087,785, 4–30–63, Cl. 23—110.

Hessinger, Philip S., and T. W. Weber, to Mycalex Corp. of America. Method of making synthetic mica. 3,090,669, 5–21–63, Cl. 23—110.

Hessler, Frank F., and H. C. Stricker, Jr., to Highway Trailer Industries, Inc. Hydraulic cable reel trailer. 3,082,891, 3–26–63, Cl. 214—394.

Hesson, James C., and R. S. Frost, to Marmon-Harrington Co., Inc. Device for breaking down coal and the like. 3,105,437, 10–1–63, Cl. 102—25.

Hesston Mfg. Co., Inc.: *See*—
Adee, Raymond A., and White. 3,085,384.

Hester, Dwight H. Container closures. 3,074,578, 1–22–63, Cl. 215—41.

Hester, Dwight H. Siphoning liquid dispenser. 3,081,008, 3–12–63, Cl. 222—416.

Hester, Eugene E., to National Rubber Machinery Co. Adjustable choke extruder and drive therefor. 3,113,343, 12–10–63, Cl. 18—12.

Hester, Frank, to Weather-Bloc Co., Inc. Stand for supporting a container in adjusted positions. 3,090,590, 5–21–63, Cl. 248—346.

Hester, Frank J., to United States of America, Interior. Bathkymograph. 3,104,928, 9–24–63, Cl. 346—72.

Hester, Jack G.: *See*—
Shmidl, Albert J., and Hester. 3,109,037.

Heston, Eugene E., to National Rubber Machinery Co. Extruder. 3,101,511, 8–27–63, Cl. 18—12.

Heterochemical Corp.: *See*—
Berruti, Raymond. 3,079,261.

Heth, Edwin M., to Premier Gear & Machine Works, Inc. Lathe with log-supporting mechanism. 3,078,887, 2–26–63, Cl. 144—209.

Heth, Edwin M., and W. J. Lofstedt, to Premier Gear & Machine Works, Inc. Mounting for lathe spindles. 3,110,330, 11–12–63, Cl. 144—209.

Heth, Sherman C., S. C. Akgulian, and K. H. Hoffmeyer, to Jacobsen Mfg. Co. Vehicle tranamission. 3,099,165, 7–30–63, Cl. 74—342.

Heth, Sherman C., and S. C. Akgulian, to Jacobsen Mfg. Co. Powered gang lawn mower. 3,106,811, 10–15–63, Cl. 56—7.

Heth, Sherman C., W. H. Price, and A. A. Wridt, Jr., to Jacobsen Mfg. Co. Rotary power mower and bagging attachment therefor. 3,112,597, 12–3–63, Cl. 56—202.

Heth, Sherman C., and W. H. Price, to Jacobsen Mfg. Co. Support means for rotary mower bagging attachment. 3,112,598, 12–3–63, Cl. 56—202.

Hetherington & Berner, Inc.: *See*—
Clay, Arthur T. 3,115,099.

Hetherington, Robert D., to Electro-Optical Systems, Inc. Mechanical bonding lock. 3,091,578, 5–28–63, Cl. 204—16.

Hetherington, Roy, Jr.: *See*—
Gulya, John A., and Hetherington. 3,110,586.

Hetland, Philip R. Water roller. 3,088,732, 5–7–63, Cl. 272—1.

Hetman, Frank W., to De Vac, Inc. Window sash construction. 3,099,050, 7–30–63, Cl. 20—52.2.

Hetman, Frank W. Thermal barrier and connector member for inner and outer window frames. 3,099,337, 7–30–63, Cl. 189—75.

Hett, John H., to American Cystoscope Makers, Inc. Flexible optical surgical instrument. 3,081,767, 3–19–63, Cl. 128—6.

Hett, John H., to American Cystoscope Makers, Inc. Flexible optical instrument particularly for carrying out surgical procedures. 3,089,484, 5–14–63, Cl. 128—6.

Hett, John H., to American Cystoscope Makers, Inc. Flexible optical surgical instrument. 3,100,482, 8–13–63, Cl. 128—6.

Hettich, Bernhard: *See*—
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Hettinger, William P., Jr., to Nalco Chemical Co. Method of preparing tertiary phosphines. 3,079,311, 2–26–63, Cl. 204—59.

Hettinger, William P., Jr., C. D. Keith, and W. F. Lorenz, to Engelhard Industries, Inc. Isomerization process. 3,092,676, 6–4–63, Cl. 260—683.66.

Hetz, Heinz K.: *See*—
Browne, Robert J., and Hetz. 3,073,256.

Hetzel, Mathew H.: *See*—
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Hetzel, Max, to Bulova Watch Co., Inc. Frequency-adjustable tuning fork type vibrator for an electrically energized timepiece. 3,070,951, 1–1–63, Cl. 58—23.

Hetzler, John C., Jr.: *See*—
Hill, Robert H., and Hetzler. 3,073,927.

Hetzler, Lewis R.: *See*—
Bertsche, Ralph H., Jr., Carlson, Hetzler, and Raver. 3,078,409.

Hetzler, Lewis R., to General Motors Corp. Transistor regulator for generators. 3,098,964, 7–23–63, Cl. 322—28.

Hetzler, Lewis R., D. J. Hartman, and G. O. Huntzinger, to General Motors Corp. Magnetic amplifier system. 3,072,838, 1–8–63, Cl. 321—25.

Heubusch, Henry P., to Bell Aerospace Corp. Polymeric salts and preparation thereof. 3,099,629, 7–30–63, Cl. 260—2.

Heuck, Claus, F. Rochlitz, H. Schmidt, H. Vilcsek, and J. Winter, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Modified, phosphorus-containing polyester resins and process for preparing same. 3,097,184, 7–9–63, Cl. 260—45.4.

Heuck, Claus, F. Rochlitz, O. Mauz, J. Winter, and F. Schulde, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Monoolefin polymer stabilized with combination of a phenolic condensate and a phosphorous amid, and process for preparing the same. 3,100,197, 8–6–63, Cl. 260—43.

Heuck, Claus, E. Stark, and W. Doppler, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Zinc oxide-sulfur stabilizer for polyolefin compositions. 3,111,499, 11–19–63, Cl. 260—41.

Heuer, Charles A., to Olin Mathieson Chemical Corp. Method of fabricating a heat exchanger. 3,089,225, 5–14–63, Cl. 29—157.3.

Heuer, Charles H., and J. L. Rennick, to Zenith Radio Corp. Synchronizing a signal generator by utilizing variable filter in control circuit. 3,078,421, 2–19–63, Cl. 331—17.

Heuer, Hans, to Olympia Werke A.G. Actuating arrangement for business machines. 3,088,663, 5–7–63, Cl. 235—61.

Heuer, Hans, to Olympia Werke AG. Arrangement for series-transmission of coded signals. 3,099,004, 7–23–63, Cl. 340—347.

Heuer, Hans, to Olympia Werke A.G. Multiple switch device for connection with an electrical business machine. 3,100,077, 8–6–63, Cl. 235—60.

Heuer, Hans H. A. Portable plant protector. 3,100,950, 8–20–63, Cl. 50—51.

Heuer, Hans H. A. Crop and plant protecting structure. 3,103,764, 9–17–63, Cl. 47—29.

Heuer, Russell P., to The General Refractories Co. Basic refractory brick and method. 3,089,284, 5–14–63, Cl. 50—416.

Heuer, Russell P., to General Refractories Co. Ribbed basic refractory roof. 3,094,952, 6–25–63, Cl. 110—99.

Heuer, Russell P., to General Refractories Co. Process of making refractory brick containing calcined magnesia. 3,108,007, 10–22–63, Cl. 106—59.

Heurtey, Societe Anonyme: *See*—
Guingand, Jean R. 3,113,766.

Heuse, Otto, W. Fischer, F. Horn, and R. Wimmer, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Process and apparatus for carrying out chemical reactions at high temperatures. 3,098,883, 7–23–63, Cl. 260—683.

Heuser, Helmut C., to Boksm Tool Co., Inc. Tool holder. 3,076,355, 2–5–63, Cl. 77—58.

Heuser, Rhoda C. K., and W. A. Haine, to Union Carbide Corp. Heat sealable polyethylene laminate and method of making same. 3,077,428, 2–12–63, Cl. 154—50.

Heusler, Karl: *See*—
Jeger, Oskar, Arigoni, Wettstein, Anner, Heusler, Meystre, Wieland, and Kalvoda. 3,092,625.
Meystre, Charles, Wettstein, Anner, Heusler, and Wieland. 3,098,070.
Wettstein, Albert, Anner, Heusler, Kalvoda, and Ueberwasser. 3,077,482.

Heusler, Karl: *See*—Continued
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Wettstein, Albert, Heusler, Meystre, Tarkoey, and Wieland. 3,072,687.
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Wettstein, Albert, Heusler, and Wieland. 3,072,645.
Wettstein, Albert, Heusler, and Wieland. 3,072,647.
Wettstein, Albert, Heusler, and Wieland. 3,072,685.
Wettstein, Albert, Heusler, and Wieland. 3,085,089.
Wettstein, Albert, Heusler, and Wieland. 3,092,626.

Heuzé, René, to Pneumatiques et Caoutchouc Manufacture Kleber-Colombes. Tire building drum. 3,097,685, 7–16–63, Cl. 156—416.

Hewes, Warren J.: *See*—
Well, Lester L., and Hewes. 3,074,831.

Hewett, Charles M., and G. B. Hamill, to Standard Oil Co. Simple apparatus for the detection of low boiling hydrocarbons by spark-gap method. 3,096,640, 7–9–63, Cl. 73—36.

Hewett, William A., to Shell Oil Co. Lubricating compositions. 3,105,818, 10–1–63, Cl. 252—47.5.

Hewit, William D.: *See*—
Thompson, Theodore F. 3,078,807.

Hewitt, Ellis E., to Westinghouse Air Brake Co. Diaphragm double check valve device. 3,092,130, 6–4–63, Cl. 137—112.

Hewitt-Robins Inc.: *See*—
Herold, Alfred F. 3,084,502.
Herrmann, William E. 3,103,726.
Holloman, Leonidas C., Jr. 3,082,857.
Olender, Francis B., and Wilson. 3,100,189.
Sasadi, John. 3,104,766.
Vander Laan, Martin, D'Agati, and Sasadi. 3,077,270.

Hewitt, Roy F. Cotton recovering machine. 3,105,340, 10–1–63, Cl. 56—48.

Hewitt, William H., Jr., to Bell Telephone Laboratories, Inc. Nonreciprocal rectangular wave guide device. 3,076,946, 2–5–63, Cl. 333—24.

Hewko, Roman. Stamp collection register. 3,108,734, 10–29–63, Cl. 229—44.

Hewlett-Packard Co.: *See*—
Cochran, David S. 3,114,112.
Darble, Arthur M., Harrison, and Tighe. 3,101,442.
Harrison, Charles W. 3,105,188.
Hunton, James K., and Ryals. 3,107,335.
McCullough, William R. 3,100,863.
Negrete, Marco R. 3,076,933.
Porter, Noel E. 3,084,308.
Schulz, Donald F. 3,100,876.
Stanley, George C., Jr. 3,106,685.
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Dutro, Orville V., Hewson, and Glaser. 3,103,125.
Dutro, Orville V., Hewson, and Glaser. 3,111,250.

Hewson, Walter N., to The Minister of Supply, in Her Majesty's Government of the United Kingdom of Great Britain and Northern Ireland. Manufacture of propellant charges. 3,073,242, 1–15–63, Cl. 102—98.

Hexacon Electric Co.: *See*—
Johnson, Richard O. 3,109,231.

Hexcel Products Inc.: *See*—
Johnson, Delbert H. 3,114,666.
Steele, Roger C., and Rule. 3,082,141.

Heyden, Frank H., Jr.: *See*—
Robins, Erford E., and Heyden. 3,090,601.

Heyden Newport Chemical Corp.: *See*—
Girard, Theodore A., and Neumann. 3,075,008.
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Kraft, William M., and Weisfeld. 3,073,786.
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Sidi, Henri. 3,096,307.
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Sidi, Henri, and Gottesman. 3,097,190.
Silverman, Bernard H., and Baigley. 3,109,830.
Tischler, Nathaniel. 3,081,162.

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Bach, Jacob C., Fivek, and Heyden. 3,098,615.

Heyden, Rudi: *See*—
Strauss, Wennemar, and Heyden. 3,084,111.

Heyden, Rudi, and J. Plapper, to Bohme Fettchemie G.m.b.H. Impregnation of leather. 3,106,478, 10–8–63, Cl. 106—287.

Heyer, Arthur J., to Heyer Inc. Desk pad. 3,105,495, 10–1–63, Cl. 129—35.

Heyer, Clair B. Folding table or like structure. 3,099,428, 7–30–63, Cl. 248—166.

Heyer, Don, to M & H Industries. Magnetic catch assembly. 3,102,748, 9–3–63, Cl. 292—251.5.

Heyer, Don, to M & H Industries. Magnetic door catch. 3,102,749, 9–3–63, Cl. 292—251.5.

Heyer Inc.: *See*—
Heyer, Arthur J. 3,105,495.
Springer, Edward M. 3,108,458.

Heyer, William T., and F. Kepka. Timer valve. 3,104,861, 9–24–63, Cl. 251—43.

Heying, Theodore L.: *See*—
Ager, John W., Jr., Alexander, and Heying. 3,109,858.
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Heying, Theodore L., to Olin Mathieson Chemical Corp. Organoboron hydroxy carboxylic acids and their preparation. 3,092,659, 6–4–63, Cl. 260—535.

Heyl, Edgar G.: *See*—
Albrecht, Ransom C., and Heyl. 3,074,115.

Heyl, Gerhard: *See*—
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Heyl, Leo W., to Institutional Industries, Inc. Overbed table. 3,089,743, 5–14–63, Cl. 312—227.

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Heyl, Russell G., Jr.: *See*—
Williams, Richard J., Heyl, and Downs. 3,081,463.

Heyl, Russell G., Jr., to American Metal Products Co. Power seat track having horizontal and vertical movement. 3,109,622, 11–5–63, Cl. 248—420.

Heym, Bernhard J., to Sperry Rand Corp, Ford Instrument Co. Division. Vibration isolation suspension system. 3,084,009, 4–2–63, Cl. 312—352.

Heymann, Henry: *See*—
Seymour, Dale R., Poe, and Heyman. 3,090,516.

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Klumpp, Ferdinand, Jr., and Jemison. 3,099,046.

Heymes, Rene: *See*—
Amiard, Gaston, Heymes, and Van Thuong. 3,081,300.
Velluz, Leon, Amiard, and Heymes. 3,076,797.

Heyna, Johannes, E. Schinzel, and W. Noll, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Blue acid anthraquinone-dyestuffs. 3,097,216, 7–9–63, Cl. 260—372.

Heynen, Wilhelm: *See*—
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Heynen, Wilhelm, and W. Martin, to Vereinigte Glanzstoff-Fabriken AG. Spinning apparatus for the spinning of bollow filaments. 3,081,490, 3–19–63, Cl. 18—8.

Heynisch, Hlurich: *See*—
Veith, Werner, and Heynisch. 3,090,890.
Velth, Werner, and Heynisch. 3,114,073.

Heyser, Lewis S., W. A. Skillman, and D. H. Mooney, Jr., to Westinghouse Electric Corp. Pulse doppler simulator. 3,103,010, 9–3–63, Cl. 343—17.7.

Heyward, William B.: *See*—
Trammell, William H., Jr., Wallace, and Heyward. 3,078,516.

Heywood, Bernard, to Bloctube Controls Ltd. Coin operated devices. 3,102,624, 9–3–63, Cl. 194—72.

Heywood, James E., to International Business Machines Corp. Arithmetic circuitry. 3,112,396, 11–26–63, Cl. 235—170.

Heywood-Wakefield Co.: *See*—
Hendrickson, Severin B. 3,095,239.

Hezzlewood, Alan, to British Nylon Spinners Ltd. Controlling of tension in running threads. 3,093,282, 6–11–63, Cl. 226—7.

Hiatt, Gordon D., and M. E. Rowley, to Eastman Kodak Co. Preparation of cellulose derivative sulfates under non-acid conditions. 3,075,962, 1–29–63, Cl. 260—215.

Hiatt, Gordon D., and M. E. Rowley, to Eastman Kodak Co. Method of preparing cellulose derivative sulfates. 3,075,963, 1–29–63, Cl. 260—215.

Hibbard, Billy B., and A. S. Teot, to The Dow Chemical Co. Sulfonated vinyl aromatic hydrocarbon-maleic anhydride copolymer composition and use as a soil conditioner. 3,078,241, 2–19–63, Cl. 260—17.4.

Hibbard, Earl R., to Ampex Corp. Recording and/or reproducing apparatus. 3,076,055, 1–29–63, Cl. 178—6.6.

Hibbert, Gilbert S., W. S. Miller, and A. Schofield, to The Calico Printers' Association Ltd. Process of wet crease-proofing cellulose fabrics with specific aldehyde solutions containing specific metal salts and products produced thereby. 3,094,372, 6–18–63, Cl. 8—116.4.

Hibbert, Wayne G., and R. G. McHugh. Selective apparatus for the mounting of coins on mailing cards. 3,104,193, 9–17–63, Cl. 156—350.

Hibbitts, Charles H.: *See*—
Waters, Charles E., and Hibbitts. 3,092,486.

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Hickam, William M., to Westinghouse Electric Corp. Method for producing a sealing gasket. 3,077,638, 2–19–63, Cl. 18—59.

Hicken, James. Insulation testing apparatus. 3,093,793, 6–11–63, Cl. 324—54.

Hickerson, Frederick P., to United States of America, Navy. Variable buoyancy underwater missile. 3,083,667, 4–2–63, Cl. 114—25.

Hickey, Arthur O. Hat and garment holder. 3,108,723, 10–29–63, Cl. 223—66.

Hickey, Edward J., to Airtron, Inc. Nonreciprocal wave guide junction. 3,079,570, 2–26–63, Cl. 333—1.1.

Hickey, Edward T. Collapsible tube dispenser. 3,088,632, 5–7–63, Cl. 222—100.

Hickey, Frank D., to FMC Corp. Apparatus for aseptic canning of food products. 3,105,335, 10–1–63, Cl. 53—127.

Hickey, James B., and J. J. Mills, to United States of America Air Force. Radar display scope automatic recording system. 3,102,769, 9–3–63, Cl. 346—110.

Hickey, John J.: *See*—
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Clark, George L., and Hickey. 3,088,052.
Clark, George L., and Hickey. 3,105,168.

Hickey, John J., and G. L. Clark, to Space Technology Laboratories, Inc. Pulse former capacitor discharging providing rapid rise-time and thyratron shorting output providing rapid fall-time. 3,100,872, 8–13–63. Cl. 328—67.

Hickey, Robert L., L. W. Higgins, and E. T. Platz, to I-T-E Circuit Breaker Co. Continuous outlet surface extension assembly. 3,089,042, 5–7–63, Cl. 307—147.

Hickin, Robert J., to Packaging Corp. of America. Box construction. 3,104,793, 9–24–63, Cl. 229—17.

Hickle, Clyde S., and P. B. Hover, to Ranco Inc. Motor starter relay. 3,110,785, 11–12–63, Cl. 200—87.

Hickly, Nicholas J., to Pennwood Numechron Co. Electrically operated indexing and presetting means for a clock or like mechanism. 3,078,655, 2–26–63, Cl. 58—26

Hickman, Albert F. Vehicle spring suspension for rear drive axle. 3,111,335, 11–19–63, Cl. 280—124.

Hickman, Carl V., deceased (by J. W. Hickman, administratrix), R. E. Taylor, R. Butterworth, H. G. Miller, A. E. Young, and W. M. Powell, to United States of America, Navy. Ammunition transfer mechanism. 3,075,434, 1–29–63, Cl. 89—45.

Hickman, Charles F., and E. P. Copenhaver; said Hickman, assor. to said Copenhaver. Thread protector for casing. 3,087,512, 4–30–63, Cl. 138—96.

Hickman, Charles R., to W. D. Keith. Extension attachment to convert a vehicle cab into a sleeping compartment. 3,080,188, 3–5–63, Cl. 296—23.

Hickman, Jean W.: *See*—
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Hickman, Kenneth C. D., to The Battelle Development Corp. Process and apparatus for separating a vaporizable mixture. 3,111,461, 11–19–63, Cl. 202—52.

Hickman, William P. Combination water dam and gravel stop. 3,100,951, 8–20–63, Cl. 50—66.

Hickner, Richard A., to The Dow Chemical Co. 2-oxo-1-pyrrolidinepropionates. 3,105,080, 9–24–63, Cl. 260—326.3.

Hickner, Richard A., W. W. Bakke, and C. I. Judd, to The Dow Chemical Co. Preparation of ethylidene bis-(N-heterocyclic) compounds. 3,072,652, 1–8–63, Cl. 260—244.

Hickner, Richard A., and C. I. Judd, to The Dow Chemical Co. Certain oxazolediniinone-2 and pyrrolidinone-2 derivatives of aromatic sulfonamides and process. 3,072,672, 1–8–63, Cl. 260—307.

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Hickory, Frank R.: *See*—
Macormack, James G., and Hickory. 3,093,260.

Hickox, Walter A., to Combustion Engineering, Inc. Indicating and recording instrument organization. 3,099,511, 7–30–63, Cl. 346—17.

Hicks, Aubren L.: *See*—
Haynes, Aurbon H., and Hicks. 3,084,818.

Hicks, Bobby E.: *See*—
Sievert, William C., and Hicks. 3,104,993.

Hicks, Bruce C., to E.M.P. Electric Ltd. Spark gap devices. 3,076,114, 1–29–63, Cl. 313—161.

Hicks, Charles F., to Cargill, Inc. Belt computer with manually adjustable tensioning member. 3,082,946, 3–26–63, Cl. 235—86.

Hicks, Darrell D., and J. E. Masters, to Devoe & Raynolds Co., Inc. Process for preparation of a polyester resin of pentaerythritol, a dicarboxylic acid anhydride and a mono epoxide. 3,089,863, 5–14–63, Cl. 260—75.

Hicks, Donald K.: *See*—
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Hicks, Druery F., Jr. Apparatus for flushing and scraping the inside of pipes. 3,078,487, 2–26–63, Cl. 15—104.19

Hicks, Duane L., 10% to N. Brown, and 10% to I. D. Bare. Bowling pin cleaner. 3,076,651, 2–5–63, Cl. 273—54.

Hicks, George W., Jr. Chemical injector. 3,109,452, 11–5–63, Cl. 137—564.5.

Hicks, John W., Jr., and W. P. Bazinet, Jr., to American Optical Co. Method of manufacturing optical image transfer devices. 3,104,191, 9–17–63, Cl. 156—174.

Hicks, Mary M.: *See*—
Hayes, Aurbon H. and Hicks. 3,084,818.

Hicks, William C. Weed catcher for fishing lines. 3,104,488, 9–24–63, Cl. 43—44.88.

Hicks, William R., and B. E. Oehlbeck, to General Electric Co. Knife sharpener. 3,071,899, 1–8–63, Cl. 51—128.

Hickson, Donald A., to California Research Corp. Method of determining catalyst activity in the cracking of hydrocarbon oils. 3,072,563, 1–8–63, Cl. 208—120.

Hickson & Welch Ltd.: *See*—
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Hickson, William F., to Continental Copper & Steel Industries, Inc. (Welin Davit and Boat Division). Winch construction. 3,081,067, 3–12–63, Cl. 254—184.

Hickson, William F., to Continental Copper & Steel Industries, Inc. (Welin Davit and Boat Division). Life boat release gear. 3,094,720, 6–25–63, Cl. 9—45.

Hidden, William P., and V. H. Meyer, to United Shoe Machinery Corp. Apparatus for performing sequential operations on shoes. 3,077,619, 2–19–63, Cl. 12—1.

Hidden, William P., L. E. Stelmen, and R. N. Sandberg, deceased (by S. F. Sandberg, administrix), to United States of America, Army. Bolt mechanism for an automatic firearm. 3,103,142, 9–10–63, Cl. 89—188.

Hidde Nijland, Hendrik A., to "COQ", N.V. Driving mechanisms for electric circuit-breakers. 3,098,134, 7–16–63, Cl. 200—78.

Hidemar S.R.L.: *See*—
Polisena, Ricardo D. 3,104,534.

Hideyoshi, Hiroaki. Door check. 3,074,101, 1–22–63, Cl. 16—54.

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Delachapelle, Richard P., and Hidler. 3,109,959.

Hiebar, Walter, and G. Wagner, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Production of manganese pentacarbonyl hydride. 3,100,137, 8–6–63, Cl. 23—14.

Hieber, Ellsworth E., to Schulz Tool and Mfg. Co. Ring wing drogue. 3,108,769, 10–29–63, Cl. 244—135.

Hieber, George E., and A. H. Billow, to Landis Machine Co. Pipe handling table. 3,090,499, 5–21–63, Cl. 214—1.

Hieber, Walter, and G. Wagner, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Manganese pentacarbonyl hydride and a process for its preparation. 3,075,824, 1–29–63, Cl. 23—14.

Hieger, Robert H. Unitary diaphragm assembly. 3,071,158, 1–1–63, Cl. 137—790.

Hieken, Charles, to Laboratory for Electronics, Inc. Data signal combining system. 3,084,341, 4–2–63, Cl. 343—8.

Hierholzer, Frank J., Jr., to Westinghouse Electric Corp. Bridge type inverter network. 3,074,030, 1–15–63, Cl. 331—113.

Hiers, Victor H., to Hamilton Mfg. Co. Photographic film treatment table. 3,075,447, 1–29–63, Cl. 95—102.

Hiersteiner, Walter L., to Tension Envelope Corp. of Kansas City. Expansion envelope with solid front and back panels. 3,073,508, 1–15–63, Cl. 229—68.

Hiersteiner, Walter L., to Tension Envelope Corp. of Kansas City. Envelope for two-way use. 3,096,925, 7–9–63, Cl. 229—73.

Hiersteiner, Walter L., to Tension Envelope Corp. of Kansas City. Expandable pouch envelope. 3,111,256, 11–19–63, Cl. 229—68.

Hierta, Lars J., and J. W. Murray, to Ford Motor Co. Damper door control. 3,103,867, 9–17–63, Cl. 98—2.

Hieserman, Clarence E., T. M. Veazey, and K. R. Lea, to Monsanto Chemical Co. Vinyl polymerization shortstopping process. 3,084,143, 4–2–63, Cl. 260—85.5.

Hiestand, Preston E., and E. V. Mills, to Handcraft Co., Inc. Stretchable footwear. 3,093,916, 6–18–63, Cl. 36—9.

Higashi, Louis M.: *See*—
Fincke, John K., Higashi, and Jarvi. 3,074,903.

Higashi, Louis M., to Monsanto Chemical Co. Laminate structures. 3,074,904, 1–22–63, Cl. 260—43.

Higashide, Eiji: *See*—
Nakazawa, Koiti, Shibata, Higashide, Kanzaki, Yamamoto, Miyake, Hitomi, Horii, Yamaguich, Araki, Tsuchiya, Oka and Imai. 3,089,827.

Higashiuchi, Kazuo, to J. R. Short Milling Co. Preparation and methods of employing oxidatively active materials. 3,077,412, 2–12–63, Cl. 99—232.

Higashiuchi, Kazuo, A. W. Kleinschmidt, and C. G. Ferrari, to J. R. Short Milling Co. Methods for preparing yeast-leavened baked goods. 3,108,878, 10–29–63, Cl. 99—90.

Higby, Richard F.: *See*—
Kaisler, Francis J., and Higby. 3,110,816.

Higer, Aaron L. Garbage grinding machine. 3,071,328, 1–1–63, Cl. 241—43.

Higginbotham, Howard E.: *See*—
Rockabrand, Claude S., and Higginbotham. 3,114,940.

Higginbotham, John W., to Martin-Marietta Corp. Transistor amplifier temperature stabilization circuits. 3,105,198, 9–24–63, Cl. 330—15.

Higgins, Anthony J. Guard accessory for beds. 3,093,839, 6–18–63, Cl. 5—331.

Higgins, Edward F., Jr., and D. H. Larson, to United States of America, Army. Radio frequency leveling device. 3,096,-491, 7–9–63, Cl. 33—206.

Higgins, Horace M., and C. A. Congwer, to Aerojet-General Corp. Method of propulsion using solid propellant compositions. 3,098,351, 7–23–63, Cl. 60—35.4.

Higgins, John L.: *See*—
Sharp, Annabel R., Higgins, and Roehr 3,072,120.

Higgins, John L., to Brunswick Corp. Plastic cartridge needle assembly. 3,110,309, 11–12–63, Cl. 128—218.

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Hickey, Robert L., Higgins, and Platz. 3,089,042.

Higgins, Lyman F., Jr. Animated devices. 3,089,279, 5–14–63, Cl. 46—124.

Higgins, Paul H. Kneeling bench. 3,102,757, 9–3–63, Cl. 297—426.

Higgins, Ralph G., Jr.: *See*—
Allman, William T., Jr., Joseph, and Higgins. 3,100,-328.

Higgins, William F.: *See*—
Waite, William G., and Higgins. 3,081,175.

Higgins William J. Cargo container. 3,084,966, 4–9–63, Cl. 294—77

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Hofer, Peter H., and Higgins. 3,108,851.

Higgs, Richard F., to United States Steel Corp. Method of making tin plate. 3,075,897, 1–29–63, Cl. 204—42.

High, Robert L.: *See*—
Roscelli, Gertrude A., and High. 3,081,183.

Highberg, George A., W. E. Beaney, and J. C. Greenlees, Jr., to The Whiton Machine Co. Radially adjustable chuck. 3,088,746, 5–7–63, Cl. 279—110.

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Tu, Shu-tung, and Highberger. 3,073,714.

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Hisley, Ralph W., Schmidt, Highley, and Hutchins. 3,076,488.
Schmidt, Chester W., Highley, and Hutchins. 3,076,489.

Highley, Everett L., to Chemetron Corp. Gristle shearing ring for comminuting apparatus. 3,109,471, 11–5–63, Cl. 146—182.

Highley, Kenneth G., to North American Aviation, Inc. Clip fastener. 3,082,897, 3–26–63, Cl. 217—65.

Highsmith, Clifford. Slab liner. 3,087,514, 4–30–63, Cl. 138—114.

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Wilson, George A. 3,106,795.

Hight, Stuart C.: *See*—
Sander, Howard H., Cowan, and Hight. 3,108,466.

Hightower, John D.: *See*—
Hightower, John R. 3,108,448.

Hightower, John R., to J. R. Hightower, S. W. Croll, Jr., J. T. Reynolds, and J. D. Hightower, as joint trustees, and Croll-Reynolds Co., Inc. Method of cooling cement mixes for concrete. 3,108,448, 10–29–63, Cl. 62—63.

Hightower, John R., and J. T. Reynolds. Continuous cooling method and apparatus. 3,099,138, 7–30–63, Cl. 62—63.

Hightower, Joseph P. Hide-away clothes rack. 3,102,639, 9–3–63, Cl. 211—103.

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Denholm, Alec S. 3,107,326.
Enge, Harald A. 3,071,702.
Enge, Harald A. 3,084,249.
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Gale, Alfred J., and Connor. 3,104,322.
Marker, Roy C., and Farrell. 3,105,916.
McFarland, George C. 3,087,091.
Meader, Donald E. 3,099,371.
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Stolar, Gerard, Gropp, and Higley. 3,095,537.

Higo, Fujihiko: *See*—
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Higonnet, Rene A., and L. M. Moyroud. Phototype composing method. 3,094,050, 6–18–63, Cl. 95—4.5.

Higonnet, Rene A., and L. M. Moyroud. Image displacement mechanism. 3,105,624, 10–1–63, Cl. 226—9.

Higson, George E., Jr., to American Telephone and Telegraph Co. Pressure transducer testing circuit. 3,105,883, 10–1–63, Cl. 179—175.3.

Higuchi Akira: *See*—
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Higuchi, Koze, M. Tsuyuguchi, T. Osa, K. Ando, and S. Yonemoto, to Hokkaido Tanko Kisen Kabusbiki Kaisha. Preventing reversion by the addition of nitro-humic acid or alkali salts thereof. 3,114,625, 12–17–63, Cl. 71—64.

Higuchi, Nori, to Davis Aircraft Products Inc. Quick releasable belt buckle. 3,081,506, 3–19–63, Cl. 24—75.

Higuchi, Nori, to Davis Aircraft Products Inc. End fastenings for cable on large stowage drums. 3,081,869, 3–19–63, Cl. 206—55.

Higuchi, Nori, to Davis Aircraft Products Inc. Belt buckle. 3,110,071, 11–12–63, Cl. 24—230.

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Hilado, Alfonso. Self locking differential mechanism. 3,095,-761, 7–2–63, Cl. 74—715.

Hilbert, Richard G., to Leesona Corp. False twist spindle assembly. 3,074,226, 1–22–63, Cl. 57—77.45.

Hild, Henry F., and S. E. Manecke, to Robertshaw-Fulton Controls Co. Method for securing terminals. 3,091,838, 6–4–63, Cl. 29—155.55.

Hild, Henry F., and S. E. Manecke, to Robertshaw Controls Co. Thermally actuated cycling switch. 3,110,789, 11–12–63, Cl. 200—122.

Hildebrand, Harry L., to Taylor Corp. Apparatus for fabricating tubular stock. 3,112,084, 11–26–63, Cl. 242—56.

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Haughton, Kenneth E., and Hildebrand. 3,071,773.

Hildebrand, Klaus, to Askania-Werke A.G. Telescope with circular interference grating reticle. 3,107,270, 10–15–63, Cl. 88—32.

Hildebrand, Klaus, to Keuffel & Esser Co. Focusing telescope lens system. 3,113,992, 12–10–63, Cl. 88—57.

Hildebrand, Oliver W. Spring clamp. 3,097,408, 7–16–63, Cl. 24—255.

Hildebrand, Robert. Treating veneers. 3,099,541, 7–30–63, Cl. 34—18.

Hildebrandt, Alexander B., to Jersey Production Research Co. Producing fluid from an unconsolidated subterranean reservoir. 3,088,520, 5–7–63, Cl. 166—33.

Hildebrandt, Alexander B., and H. C. Bridwell, to Jersey Production Research Co. Coring bit. 3,095,935, 7–2–63, Cl. 175—330.

Hildebrandt, Frederick V.: *See*—
Roberts, Cecil P., and Hildebrandt. 3,095,957.

Hildebrandt, Joachim: *See*—
Schmieder, Felix, Hildebrandt, and Krombach. 3,112,-551.

Hildebrandt, Robert L., N. B. Newton, and E. R. Simmons, to United Aircraft Corp. Aeronautical propeller with combined surge and low pitch stop servo valve. 3,103,249, 9–10–63, Cl. 170—160.32.

Hildebrecht, Dewey C. Adjustable spotlight. 3,075,073, 1–22–63, Cl. 240—61.13.

Hilden, Donald E., and J. N. Groeneveld, to Controls Co. of America. Shaft seal. 3,086,825, 4–23–63, Cl. 308—36.1.

Hilderink, Johannes H.: *See*—
Van Boort, Henricus J. J., and Hilderink. 3,105,889.
Van Boort, Henricus J. J., and Hilderink. 3,113,194.

Hildon, Anthony M.: *See*—
Bantield, Reginald H., and Hildon. 3,073,755.

Hildyard, Joseph M.: *See*—
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Hildyard, Joseph M., and H. C. Breckon, to The Hooker Electrochemical Co. Hydrogen chloride production system. 3,097,073, 7–9–63, Cl. 23—277.

Hileman, Ronald E., and H. E. Parks, to Sylvania Electric Products, Inc. Switching circuits. 3,095,509, 6–25–63, Cl. 307—88.5.

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Scibbe, Harold R., and Hilgendorf. 3,079,904.

Hilger, Harry B., and R. S. Hammett. Washer for cups and the like. 3,092,120, 6–4–63, Cl. 134—47.

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Hilgers, Karl, to Losenhausenwerk, Dusseldorfer Maschinenbau A.G. Balancing machine. 3,076,342, 2–5–63, Cl. 73—462.

Hilgoe, Vernon J., and F. J. Doyle, to Miehle-Goss-Dexter, Inc. Ink supply system for printing presses. 3,099,211, 7–30–63, Cl. 101—207.

Hilkemeier, Louis G., and L. A. Pickle, to Worthington Corp. Liquid level measure device. 3,114,478, 12–17–63, Cl. 222—17.

Hilker, Eugene A., to Automatic Electric Laboratories, Inc. Special service concentrator system. 3,106,611, 10–8–63, Cl. 179—2.

Hilker, George D.: *See*—
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Walker, Henry C., and Hill. 3,106,093.

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Hill, Arthur J., to Holley Carburetor Co. Carburetor. 3,085,-792, 4–16–63, Cl. 261—39.

Hill, Arthur M., to Service Pipe Line Co. Pipeline cleaner propelling cup. 3,107,379, 10–22–63, Cl. 15—104.06.

Hill, Broadus R., Jr., and L. O. Vanneman, Sr., to E. I. du Pont de Nemours and Co. Yarn windup. 3,092,339, 6–4–63, Cl. 242—18.

Hill, Carence L. Support and holder device for fishing rods. 3,074,674, 1–22–63, Cl. 248—45.

Hill, Claude, to Harry Ferguson Research Ltd. Vehicle braking control. 3,081,836, 3–19–63, Cl. 180—44.

Hill, Claude, to Harry Ferguson Research Ltd. Dual one-way clutch for differential control. 3,107,763, 10–22–63, Cl. 192—41

Hill, Claude, and A. P. R. Rolt, to Harry Ferguson Research Ltd. Vehicle braking control. 3,073,405, 1–15–63, Cl. 180—44.

Hill, Dale E., to Monsanto Chemical Co. Power rectifier. 3,071,715, 1–1–63, Cl. 317—237.

Hill, Dale E., to Monsanto Chemical Co. Neutron detector of crystalline boron phosphide. 3,113,210, 12–3–63, Cl. 250—83.1.

Hill, Dale E., and A. S. Epstein, to Monsanto Chemical Co. Thermoelectricity. 3,077,506, 2–12–63, Cl. 136—5.

Hill, Dale L.: *See*—
Hass, Martin A., and Hill. 3,084,435.

Hill, Donald A.: *See*—
Hunter, George D., and Hill. 3,092,187.

Hill, Earl S.: *See*—
Schafer, Richard V., and Hill. 3,096,944.

Hill, Edward, to General Electric Co. Toolholder with replaceable tip. 3,097,417, 7–16–63, Cl. 29—96.

Hill, Edward G., to Kelsey-Hayes Co. Vehicle power brake mechanism. 3,084,514, 4–9–63, Cl. 60—54.5.

Hill, Edward J. Long term urine collectors. 3,077,883, 2–19–63, Cl. 128—295.

Hill, Edward J. Elbow restraint means. 3,115,132, 12–24–63, Cl. 128—133.

Hill, Frank A., and H. L. Stahle, to General Precision, Inc. Input buffer system. 3,095,553, 6–25–63, Cl. 340—172.5.

Hill, Frank A., and H. L. Stahle, to General Precision, Inc. Computer. 3,102,996, 9–3–63, Cl. 340—172.5.

Hill, Frank M. Sectional boat. 3,072,928, 1–15–63, Cl. 9—2.

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Fieser, Garland E., and Hill. 3,110,880.

Hill, Fred L.: *See*—
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Hill, Fred N.: *See*—
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Hill, George B. Double sickle mowing machine. 3,089,300, 5–14–63, Cl. 56—25.

Hill, George N.: *See*—
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Hill, George W. and V. C. Little, to United States of America, Army. Closure plate for airplane spray tank. 3,087,644, 4–30–63, Cl. 220—57.

Hill, Gilman A., to Petroleum Research Corp. Ionized boundary layer fluid pumping system. 3,095,163, 6–25–63, Cl. 244—12.

Hill, H. Leslie: *See*—
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Hill, Harold C.: *See*—
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Hill, Harold W., Jr., S. L. Kwolek, and W. Sweeny, to E. I. du Pont de Nemours and Co. Wholly aromatic polyamides. 3,094,511, 6–18–63, Cl. 260—78.

Hill, Harry. Toy display mechanism. 3,109,250, 11–5–63, Cl. 40—31.

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Hill, James E., D. B. Levinson, and L. L. Wolman, to General Precision, Inc. Transistor gate biased by signal being gated. 3,096,447, 7–2–63, Cl. 307—88.5.

Hill, James S., to Engelhard Industries, Inc. Method of making an electrical resistance device. 3,083,445, 4–2–63, Cl. 29—155.62.

Hill, James S., to Engelhard Industries, Inc. Thermocouple. 3,099,575, 7–30–63, Cl. 117—212.

Hill, James S., to Engelhard Industries, Inc. Method of bonding amalgam inserts in cavities and structure thereby produced. 3,110,089, 11–12–63, Cl. 29—155.55.

Hill, James S., C. S. Sivil, deceased (by B. O. Sivil, executrix), to Engelhard Industries, Inc. Method of making wire. 3,091,026, 5–28–63, Cl. 29—419.

Hill, James T., and F. Leonard, to United States of America, Army. Process for making prosthetic limbs. 3,107,189, 10–15–63, Cl. 156—212.

Hill, John, to Clevite Corp. Method of assembling a semiconductor. 3,094,766, 6–25–63, Cl. 29—25.3.

Hill, John. Cable reel having sheet metal cheeks. 3,108,758, 10–29–63, Cl. 242—77.3.

Hill, John A., and G. N. Cyr, to Olin Mathieson Chemical Corp. Stabilization of tetracycline base in dry form with glucono delta lactone. 3,106,512, 10–8–63, Cl. 167—65.

Hill, John C., to The Metal Box Co. Ltd. Container closures. 3,086,672, 4–23–63, Cl. 215—44.

Hill, John L., and B. H. Richelmann, to Ramsey Engineering Co. Integrating circuit. 3,104,318, 9–17–63, Cl. 235—183.

Hill, John W.: *See*—
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Hill, John W., deceased (by M. M. Hill, administratrix); said J. W. Hill assor. to The Kartridg Pak Co. Clips and method for sealing containers therewith. 3,079,067, 2–26–63, Cl. 229—65.

Hill, Joseph M. Strip guiding method and apparatus. 3,072,309, 1–8–63, Cl. 226—88.

Hill, Joseph M. Crankshaft positioning apparatus. 3,078,751, 2–26–63, Cl. 83—72.

Hill, Joseph M. Welding method employing ultrasonic energy. 3,101,404, 8–20–63, Cl. 219—128.

Hill, Justin D., and D. J. Cain, to The Lawrence Paper Co. Manufacture of slip-resistant paper. 3,097,989, 7–16–63, Cl. 162—135.

Hill, Keith A., to Besly-Welles Corp. Tool for reducing the diameter of a hole. 3,097,426, 7–16–63, Cl. 29—567.

Hill, Lawrence R., to General Instrument Corp. Method of bonding bismuth-containing bodies. 3,110,100, 11–12–63, Cl. 29—473.1.

Hill, Lester O.: *See*—
Cath, Pieter G., and Hill. 3,086,081.

Hill, Lloyd L., to Auto-View Welding Helmet Co. Eye shield holding mechanism for welding helmets. 3,086,212, 4–23–63, Cl. 2—8.

Hill, Martha A., and A. E. Ballard, to Eastman Kodak Co. Method for removing thiol contaminants from thioether. 3,110,712, 11–12–63, Cl. 260—240.

Hill, Martin C. Drill for tractors. 3,108,645, 10–29–63, Cl. 175—108.

Hill, Mary M.: *See*—
Hill, John W. 3,079,067.

Hill, Max L., to Rockwell Mfg. Co. Plug valve stem mounting. 3,088,706, 5–7–63, Cl. 251—214.

Hill, Neil. Utility cart having telescoping tubular frame members. 3,104,890, 9–24–63, Cl. 280—34.

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Hill, Peter C. J.: *See*—
Gabor, Dennis, and Hill. 3,096,398.

Hill, Ralph M.: *See*—
Kirshenbaum, Isidor, Bartlett, and Hill. 3,082,192.
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Hill, Robert A.: *See*—
Tomasko, Howard M., and Hill. 3,106,166.

Hill, Robert A., to American Monarch Corp. Switch actuating apparatus. 3,094,591, 6–18–63, Cl. 200—5.

Hill, Robert H.: *See*—
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Hill, Robert H., to R. H. Hill and H. Hoffman. Thread rolling tool. 3,089,362, 5–14–63, Cl. 80—6.

Hill, Robert H. Slush pump. 3,098,449, 7–23–63, Cl. 103—4.

Hill, Robert H., to United States of America, Army. Self-circulating solution anode for chromium plating vessels. 3,104,221, 9–17–63, Cl. 204—237.

Hill, Robert H., and J. C. Hetzler, Jr., to Westinghouse Electric Corp. Circuit breakers. 3,073,927, 1–15–63, Cl. 200—88.

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Clark, Clayton F., and Hill. 3,108,981.

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Deschenes, Emile A., and Hill. 3,105,983.

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Osborne, Michael B. 3,104,753.

Hill, Uno T., to Inland Steel Co. Method and apparatus for automatic control of acid concentration in pickling system. 3,074,277, 1–22–63, Cl. 73—439.

Hill, Vernon L., to General Motors Corp. Thermocouple. 3,085,125, 4–9–63, Cl. 136—4.

Hill, Walter P. Numerically controlled beam fabricating machine. 3,090,261, 5–21–63, Cl. 77—32.2.

Hill, Wayne N., to Jersey Production Research Co. Permeability measuring device. 3,102,416, 9–3–63, Cl. 73—38.

Hill, William J., and N. D. Fay, to Morgan Construction Co. Rolling mill apparatus. 3,073,426, 1–15–63, Cl. 193—39.

Hill, William J., and B. R. Neely, to Morgan Construction Co. Loop thrower. 3,113,477, 12–10–63, Cl. 80—35.

Hillberg, Bror, to Superior Concrete Accessories, Inc. Panel-aligning bracket assembly for concrete forms. 3,077,652, 2–19–63, Cl. 25—131.

Hillberg, Bror, to Superior Concrete Accessories, Inc. Cable hold-down anchor device. 3,091,897, 6–4–63, Cl. 50—130.

Hillberg, Bror, to Superior Concrete Accessories, Inc. Coil tie spacer cone and pulling device for the removal thereof from concrete installations. 3,096,574, 7–9–63, Cl. 29—263.

Hillburn, Edward, to Continental Oil Co. Subterranean drilling process. 3,102,599, 9–3–63, Cl. 175—72.

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Dietzel, Walter, and Hillebrand. 3,108,067.

Hiller, John D.: *See*—
Brown, Arthur E., Gaeke, Hiller, and Zelsloft. 3,095,702.

Hillgren, Carl A. Combination dead lock and spring latch. 3,087,324, 4–30–63, Cl. 70—147.

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Hillier, Edward L., to The United States Stoneware Co. Dry blending vinyl resin. 3,090,763, 5–21–63, Cl. 260—23.

Hillier, Malcolm E., to Automation Ltd. Bar stock push feeder. 3,072,269, 1–8–63, Cl. 214—1.2.

Hillig, Clemens R. Engraving attachment. 3,110,966, 11–19–63, Cl. 33—25.

Hilliker, Arthur E., to Crouse-Hinds Co. Minor movement controller. 3,078,440, 2–19–63, Cl. 340—35.

Hilliker, Arthur E., to Crouse-Hinds Co. Parking control system. 3,081,941, 3–19–63, Cl. 235—99.

Hilliker, Donald E., to General Electric Co. Refrigerator cabinet, including improved closure sealing means. 3,070,852, 1–1–63, Cl. 20—16.

Hilliker, Frank T. Preliminary rinsing machines. 3,071,144, 1–1–63, Cl. 134—46.

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Wilhoite, Murray O., and Hillin. 3,111,940.

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Selbel, Bobby H., and Hillman. 3,074,315.

Hillman, James G. E., to Molins Machine Co. Ltd. Apparatus for filling trays with cigarettes or articles of substantially the same shape. 3,091,064, 5–28–63, Cl. 53—148.

Hillmer, Willy. Joint lock ring for thin walled cylinders. 3,100,121, 8–6–63, Cl. 285—321.

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Eifel, Paul J. 3,075,468.
McFarland, Rolland, Jr. 3,096,966.
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Rost, Thomas E. 3,096,786.

Hills, Robert C., to Freeport Sulphur Co. Recovery of nickel and cobalt by reduction and leaching. 3,100,700, 8–13–63, Cl. 75—63.

Hills, Russell B. Pilot to water skier intercom-alarm. 3,103,005, 9–3–63, Cl. 340—286.

Hills, William H.: *See*—
Bromley, James E., and Hills. 3,092,890.

Hills, William H., to Monsanto Chemical Co. Filament severing devices. 3,113,368, 12–10–63, Cl. 28—64.

Hillson, Frank, and R. Krivisky. Sliding drawer construction. 3,099,501, 7–30–63, Cl. 308—3.8.

Hillson, Frank, and R. Krivisky. Universal sliding drawer roller. 3,112,960, 12–3–63, Cl. 308—3.8.

Hillyer, John C.: *See*—
Wilson, Joseph F., Vives, and Hillyer. 3,116,185.

Hillyer, John C., and J. L. Hart, to Phillips Petroleum Co. Inhibition of post precipitation of uranium in barren liquor of carbonate leaching process. 3,081,148, 3–12–63, Cl. 23—14.5.

Hillyer, John C., and L. D. Sneary, to Phillips Petroleum Co. Uranium recovery process. 3,086,840, 4–23–63, Cl. 23—14.5.

Hilma G.m.b.H., Maschinenfabrik: *See*—

Hi-Lo Mfg. Corp.: *See*—
Klancnik, Frank J. 3,083,044.

Hilpert, Conrad R., to Twin Disc Clutch Co., Torque limiting device. 3,071,922, 1–8–63, Cl. 60—12.

Hilpert, Conrad R., and W. G. Winkels, to Twin Disc Clutch Co. Power transmission. 3,110,196, 11–12–63, Cl. 74—645.

Hilroy Envelopes and Stationery Ltd.: *See*—
Coulter, John A. 3,113,513.

Hilscher, Henry F.: *See*—
Jones, William E., and Hilscher. 3,105,576.

Hilsinger, Arthur R., Jr., to The Hilsinger Corp. Rack supporting containers of small parts. 3,079,003, 2–26–63, Cl. 211—71.

Hilsinger Corp., The: *See*—
Hilsinger, Arthur R., Jr. 3,079,003.
Nelson, Herbert P. 3,085,718.

Hilson Industries, Inc.: *See*—
Burks, Howard L., and Stewart. 3,075,324.

Hilt, Eugene W., and E. G. Whalon, Jr., to Pepperell Mfg. Co. Method of mixing or blending fibers. 3,107,397, 10–22–63, Cl. 19—145.5.

Hiltenbrand, Charles, to Societe de Ventilation et d'Electricite Appliques. Hair drier. 3,082,540, 3–26–63, Cl. 34—48.

Hilterbrand, Heinrich, to Lennartz & Co. Method for manufacturing circular saws. 3,071,027, 1–1–63, Cl. 76—112.

Hilti, Martin, to Anstalt für Montage-Technik. Stud-driving apparatus. 3,105,238, 10–1–63, Cl. 1—44.5.

Hilti, Martin, to Anstalt für Montage-Technik. Explosively actuated stud driving apparatus. 3,112,487, 12–3–63, Cl. 1—44.5.

Hiltman, Rudolf, H. Wollweber, F. Hoffmeister, and W. Wirth, to Farbenfabriken Bayer Aktiengesellschaft. 3-methoxy-4-carbamidomethoxy-phenylacetic acid esters. 3,086,978, 4–23–63, Cl. 260—326.3.

Hiltmann, Rudolf: *See*—
Wirth, Wolfgang, Hiltmann, and Mietzsch. 3,095,449.

Hilton, Albert R., Jr., and H. H. Spain, to Jersey Production Research Co. Sand consolidation. 3,100,527, 8–13–63, Cl. 166—33.

Hilton, Barney W., to Frito-Lay, Inc. Potato products and process for making same. 3,109,739, 11–5–63, Cl. 99—100.

Hilton, Frank E., to Package Containers Inc. Method and apparatus for closing and tying bag tops. 3,083,512, 4–2–63, Cl. 53—134.

Hilton, Frederick. Coin or token dispenser. 3,077,893, 2–19–63, Cl. 133—5.

Hilton, James C. Phonograph turntable units. 3,081,092, 3–12–63, Cl. 274—9.

Hilton, Robert E.: *See*—
Clarkson, Robert J., and Hilton. 3,108,427.

Hilverink, John W.: *See*—
Pittman, Clarence E., and Hilverink. 3,112,697.

Himelbloom, Yale: *See*—
Bromstead, Edward J., and Himelbloom. 3,084,051.

Himes, Glenn R., and H. O. Spang, to Shell Oil Co. Polymerization shortstopping. 3,091,602, 5–28–63, Cl. 260—84.3.

Himes, John M., and R. F. Garms, to E. R. Wagner Mfg. Co. Squeezable-handle cleaning device having brush-sponge head. 3,101,506, 8–27–63, Cl. 15—532.

Himler, Gary J., and O. C. Mitchell, to North American Aviation, Inc. Range tracking computer system. 3,078,457, 2–19–63, Cl. 343—7.3.

Himmelberger, Harold, to United States of America, Navy. Talos positioning jig. 3,103,062, 9–10–63, Cl. 29—200.

Himmelberger, Harold, and D. K. Adrian, to United States of America, Navy. Restraining latch. 3,086,481, 4–23–63, Cl. 104—250.

Himmelmann, Wolfgang: *See*—
Klockgether, Helfried, Himmelmann, and Wahl. 3,071,466.

Himmelrick, Thomas C., to HYR Products, Inc. Dual stroke toilet flush valve. 3,091,775, 6–4–63, Cl. 4—67.

Himmen, Eugen: *See*—
Nützel, Karl, Stroh, Himmen, and Lohmar. 3,080,221.

Hinchcliffe, Emily: *See*—
Hinchcliffe, Theodore H. 3,085,676.
Hinchcliffe, Theodore H. 3,100,566.

Hinchcliffe, Theodore H., deceased (E. Hinchcliffe, administratrix). Conveyor belt cleats. 3,085,676, 4–16–63, Cl. 198—198.

Hinchcliffe, Theodore H., deceased (E. Hinchcliffe, administratrix). Conveyor belt cleats. 3,100,566, 8–13–63, Cl. 198—199.

Hinckle, John E.: *See*—
Phillips, Malcolm E., Jr., Pinkham, and Hinckle. 3,089,661.

Hinckley, Alfred A., to Metal Hydrides Inc. Quaternary ammonium aluminum hydrides. 3,072,698, 1–8–63, Cl. 260—448.

Hinckley, Alfred A., to Metal Hydrides Inc. Dyeing with acid leuco vat dyes. 3,112,982, 12–3–63, Cl. 8—34.

Hinckley, Arthur T., to Strategic Material Corp. Electrode structures and processes for utilizing the same. 3,076,050, 1–29–63, Cl. 13—18.

Hinckley, John A., and W. J Leighty, to United States of America, Navy. Cable cutter. 3,071,098, 1–1–63, Cl. 114—221.

Hincklieff, Alan E.: *See*—
Brown, Leonard, and Hincklieff. 3,100,975.

Hind, Hobart M. Process for removal of seed coats and foreign matter from nuts. 3,077,217, 2–12–63, Cl. 146—221.7.

Hind, John D., and F. H. Crayton, to Philip Morris, Inc. Tobacco flavorants. 3,095,882, 7–2–63, Cl. 131—17.

Hindal, David B.: *See*—
Bos, John R., Hindal, Loy, and White. 3,103,735.

Hindall, Carey B. Chalk line impregnator. 3,099,091, 7–30–63, Cl. 33—87.

Hinde, George M., and R. L. McDowell, to American Viscose Corp. Method of making a gas filter. 3,082,481. 3–26–63, Cl. 18—47.5.

Hinden, Fritz. Diaphragm devices for photographic or cinematographic cameras. 3,074,336, 1–22–63, Cl. 95—64.

Hinden, Milton. Damper shaft lock. 3,089,481, 5–14–63, Cl. 126—295.

Hinden, Milton. Welding apparatus. 3,092,714, 6–4–63, Cl. 219—101.

Hinder, Gordon H. A., to Hamilton Clamp & Stampings Ltd. Windshield wipers. 3,089,175, 5–14–63, Cl. 15—250.36.

Hinder, Gordon H. A., to Hamilton Clamp & Stamping Ltd. Windshield cleaners. 3,104,412, 9–24–63, Cl. 15—250.42.

Hindes, Clifford K.: *See*—
Bell, Millard J., and Hindes. 3,096,727.

Hindin, Eugene: *See*—
Levitt, Semond, Hindin, and Abolins. 3,112,040.
Schmidt, George A., and Hindin. 3,080,191.

Hindin, Herbert B., L. E. Reinowski, and R. J. Olejniczak, to United States Rubber Co. Reserve chamber tubeless tire. 3,087,528, 4–30–63, Cl. 152—330.

Hindle, Thomas. Warp tensioning devices for looms. 3,101,747, 8–27–63, Cl. 139—109.

Hindle, Thomas. Dobbie mechanism. 3,115,899, 12–31–63, Cl. 139—76.

Hindle, Thomas, and D. D. Banks. Positive let-off motions for looms. 3,115,901, 12–31–63, Cl. 139—110.

Hindle, Walter H., to Monsanto Chemical Co. Union dyeing acrylonitrile copolymer and wool blends. 3,096,139, 7–2–63, Cl. 8—21.

Hindman, William M. Measuring pipet. 3,091,124, 5–28–63, Cl. 73—425.4.

Hindmarch, Thomas. Oil operated clutches. 3,115,231, 12–24–63, Cl. 192—86.

Hinds, Earl S. Pick-up arm and container. 3,078,621, 2–26–63, Cl. 50—71.

Hinds, Frank R., and H. O. Pommer, to Martin-Marietta Corp. Metering system for electrically conductive flowable materials. 3,090,525, 5–21–63, Cl. 222—64.

Hinds, George E.: *See*—
Jacocks, Claud L., and Hinds. 3,094,503.

Hinds, Ronald. Capacitor winding machines. 3,113,740, 12–10–63, Cl. 242—56.1.

Hine, Charles R.: *See*—
MacDonald, Lee H., and Hine. 3,106,492.

Hine, Edward K.: *See*—
Chillson, Charles W., and Hine. 3,073,328.

Hine, Edward K. Guidance apparatus. 3,095,939, 7–2–63, Cl. 180—79.1.

Hine, Sheldon H. Power optical apparatus. 3,107,296, 10–15–63, Cl. 250—42.

Hine, Wilbur H. Jr. Apparatus for raising and quickly restoring the level of water in wells. 3,094,167, 6–18–63, Cl. 166—97.

Hiner, Edward C. Scaffold. 3,098,540, 7–23–63, Cl. 182—152.

Hines, Benjamin M. Identification tag. 3,094,799, 6–25–63, Cl. 40—2.

Hines, Eugene W., and R. A. Hard, to General Motors Corp. Adjustable electronic chassis mounting. 3,081,139, 3–12–63, Cl. 312—351.

Hines, Marion E., to Bell Telephone Laboratories, Inc. Multiplex message transmission. 3,089,921, 5–14–63, Cl. 179—15.

Hings, Donald L. Inductor survey apparatus and method for determining presence of oil bearing substrata. 3,085,197, 4–9–63, Cl. 324—8.

Hingst, Erika: *See*—
Hingst, Rudolf. 3,106,192.

Hingst, Rudolf, deceased (E. Hingst, heir and guardian of minor heir), to Schmidt'sche Heissdampf-Gesellschaft. Waste heat utiliation. 3,106,192, 10–8–63, Cl. 122—7.

Hinkamp, James B.: *See*—
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Hinkein, Donald J., to International Business Machines Corp. Information-gated flip-flop adapted to generate output in response to millimicrosecond sampling pulse from blocking oscillator. 3,115,583, 12–24–63, Cl. 307—88.5.

Hinkein, Donald J., and W. N. Carroll, to International Business Machines Corp. Single pulse generator employing integrator and logic gates to detect and form clock synchronized output. 3,088,041, 4–30–63, Cl. 307—88.5.

Hinkle, Glenber L., and L. R. Breese, to North Electric Co. Reversing counting chain. 3,076,918, 2–5–63, Cl. 317—140.

Hinkle, James O., R. K. Miller, and J. J. Monahan, to Western Electric Co., Inc. Apparatus for zone refining elongated bodies of metal. 3,076,049, 1–29–63, Cl. 13—1.

Hinkle, James O., and P. Toth, Jr., to Western Electric Co. Inc. Wire straightening apparatus. 3,114,400, 12–17–63, Cl. 140—147.

Hinkle, John H., Jr., to Hooker Chemical Corp. Conveyor apparatus. 3,087,602, 4–30–63, Cl. 198—220.

Hinkle, John H., Jr., to Hooker Chemical Corp. Process for recovery of HF and SiO_2 from waste gases. 3,110,562, 11–12–63, Cl. 23—153.

Hinkle, John H., Jr., E. J. Weaver, and L. M. Smith, to Hooker Chemical Corp. Process for defluorinating phosphatic materials. 3,107,145, 10–15–63, Cl. 23—108.

Hinkley, James R.: *See*—
Bowman, Robert L., and Hinkley. 3,078,235.

Hinks, William L. Continuous strip type of laminated bearing. 3,071,422, 1–1–63, Cl. 308—237.

Hinks, William L., and G. D. Shook. Static load bearing having preformed lateral support features. 3,083,065, 3–26–63, Cl. 308—237.

Hinlicky, John A.: *See*—
Thorn, John P., and Hinlicky. 3,089,844.

Hinman, Montford E. Float. 3,105,980, 10–8–63, Cl. 9—9.

Hinman, Virginia B.: *See*—
Steer, Inez, and Hinman. 3,106,721.

Hino, Kumao, M. Yokogawa, S. Asaka, and G. Okada, to Nippon Kayaku Kabushiki Kaisha. Cap sensitive ammonium nitrate-fuel oil explosive and a method of manufacturing the same. 3,111,437, 11–19–63, Cl. 149—21.

Hinrichs, Karl, and J. V. White, to Beckman Instruments, Inc. Method of and apparatus for transferring analog signal voltages. 3,084,321, 4–2–63, Cl. 320—1.

Hinrichsen, Ejner C., and F. A. Harder. Watch crystal removing and replacing tool. 3,074,156, 1–22–63, Cl. 29—210.

Hinsch, Karl: *See*—
Fenzl, Franz, and Hinsch. 3,073,275.

Hinsey, Robert S., to Universal American Corp. Method of forming a pull rod. 3,077,848, 2–19–63, Cl. 113—116.

Hinshaw, Meral W., to Diamond Tool Associates. Method of making a cutting apparatus. 3,072,470, 1–8–63, Cl. 51—293.

Hinson, Arthur L., to Kimble Glass Co. Method and apparatus for cleaning small glass containers. 3,071,497, 1–1–63, Cl. 134—1.

Hinton, Everett H., Jr., to E. I. du Pont de Nemours and Co. Dyeing polyacrylonitrile and cellulosic blends with vat and cationic dyes. 3,085,848, 4–16–63, Cl. 8—21.

Hintz, Gerhard O. Stretcher device for producing artificial respiration. 3,094,117, 6–18–63, Cl. 128—28.

Hintze, Klaus: *See*—
Böhm, Siegfried, Hahn, Hennig, Hintze, and Weise. 3,072,031.
Hausmann, Günter, and Hintze. 3,107,593.
Reiher, Wolfgang, and Hintze. 3,098,418.

Hintzen, Heinz, to Ford Motor Co. Spring mounting means. 3,089,690, 5–14–63, Cl. 267—30.

Hinz, Arnulf: *See*—
Bielenberg, Waldemar, Rodis, Ziegler, Drousek, and Hinz. 3,100,106.

Hinz, Walter W., P. Stansbury, W. M. Parkison, and D. W. Boutwell, to Miller and Poston Mfg. Co. Method for interconnecting malleable tubing and fittings therefor. 3,103,068, 9–10–63, Cl. 29—523.

Hinze, Charles G., to International Business Machines Corp. Magnetic core sensing device. 3,092,815, 6–4–63, Cl. 340—174.1.

Hiorns, Frederick J., to C.U.R.A. Patents Ltd. Apparatus for the disintegration of solid particles. 3,072,348, 1–8–63, Cl. 241—103.

Hipp, Allen J., to Allis-Chalmers Mfg. Co. Method of making fuel cell electrodes and the like. 3,110,622, 11–12–63, Cl. 117—227.

Hipp, Allen J. Method of making fuel cell electrodes and the like. 3,116,165, 12–31–63, Cl. 117—217.

Hipp, Otto T.: *See*—
Burbach, Henry E., and Hipp. 3,090,332.

Hipp, William J., to Webster Electric Co. Regenerative hydraulic circuit. 3,091,929, 6–4–63, Cl. 60—52.

Hippen, Ralph W. Method of resolving emulsions. 3,085,068, 4–9–63, Cl. 252—324.

Hippen, Ralph W., and C. L. Murphy. Metering and sampling apparatus for fluids. 3,107,527, 10–22–63, Cl. 73—198.

Hipple, George M., to American Brake Shoe Co. Electric control circuit. 3,080,508, 3–5–63, Cl. 317—135.

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Williams, Burdell S. 3,091,288.

Hirahara, Katsuji, to FMC Corp. Apparatus for processing fruit. 3,105,504, 10–1–63, Cl. 134—57.

Hiraiwa, Fukushisa: *See*—
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Hirano, Yutaka: *See*—
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Hirayama, Hisao, to Shionogi & Co., Ltd. Method of combating coccidiosis with sulfonamide compositions. 3,085,937, 4–16–63, Cl. 167—53.1.

Hire, William R. Foldable extension ladder. 3,081,840, 3–19–63, Cl. 182—163.

Hirons, John L. Machine for sandblasting. 3,104,499, 9–24–63, Cl. 51—8.

Hiroumi, Mitsuji and S. Work feed and product remover means for punching machine. 3,081,655, 3–19–63, Cl. 83—112.

Hiroumi, Shimbee: *See*—
Hiroumi, Mitsuji and S. 3,081,655.

Hirs, Gene. Filter apparatus. 3,087,620, 4–30–63, Cl. 210—111.

Hirs, Gene. Filter apparatus. 3,091,336, 5–28–63, Cl. 210—111.

Hirshbrunner, Hans-Rudolf, and A. Schaeuble, to J. R. Geigy A.-G. Process for the dyeing of polypeptide fibres. 3,083,069, 3–26–63, Cl. 8—54.

Hirsch, Albert W. H. Decorative twirling baton shaft. 3,113,482, 12–10–63, Cl. 84—177.

Hirsch, James C., to Klagber Games, Inc. Table tennis table. 3,091,196, 5–28–63, Cl. 108—112.

Hirsch, Leo. Wheel chock apparatus for carrying motor cars. 3,110,361, 11–12–63, Cl. 188—32.

Hirsch, Mahlon E., and C. Merl, to Louis Marx & Co., Inc. Toy repeat firing cap gun with percussive firing noise and simulated used shell ejection. 3,098,474, 7–23–63, Cl. 124—5.

Hirsch, Max. Three dimensional optical display apparatus. 3,077,816, 2–19–63, Cl. 88—24.

Hirsch, Richard A.: *See*—
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Bodem, Roy C., Brandes, Hirsch, McDonald, and Wood. 3,091,295.

Hirsch, Robert L.: *See*—
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Hirschbeck, Joseph, and F. Lohöfer, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Process for the removal of carbon monoxide from olefin-containing gas mixtures. 3,102,919, 9–3–63, Cl. 260—677.

Hirschberg, Rudolf, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning. Process for the manufacture of chlorine dioxide. 3,101,253, 8–20–63, Cl. 23—152.

Hirschberg, Rudolf, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Process for the manufacture of chlorine dioxide. 3,107,147, 10–15–63, Cl. 13—152.

Hirschberg, Rudolf, and H. Hund, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning. Process for the manufacture of alkali metal chlorites and alkaline earth metal chlorites. 3,101,248, 8–20–63, Cl. 23—85.

Hirschfeld, Irving M., C. Caccioppo, R. E. Linse, and D. M. Leitch, to North American Aviation, Inc. Positive expulsion tank. 3,104,526, 9–24–63, Cl. 60—39.48.

Hirschhorn, Ernestine: *See*—
Warren, Paul V., Mathews, and Hirschhorn. 3,101,239.

Hirschhorn, Leo. Denture construction. 3,083,461, 4–2–63, Cl. 32—6.

Hirschhorn, Louis. Mouth-to-airway artificial respiration device. 3,089,485, 5–14–63, Cl. 128—29.

Hirschhorn, Max L. Cooled surgical instrument. 3,093,135, 6–11–63, Cl. 128—303.1.

Hirschland, Richard S., and A. A. and S. R. Cohen, to George V. Clark Co., Inc. Motion picture film reel. 3,080,129, 3–5–63, Cl. 242—71.8.

Hirschle, Arthur J. Arch file. 3,079,923, 3–5–63, Cl. 129—23.

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Chemerda, John M., and Hirschmann. 3,079,383.
Chemerda, John M., and Hirschmann. 3,083,198.
Christensen, Burton G., Hirschmann, and Chemerda. 3,087,925
Christensen, Burton G., Hirschmann, and Chermerda. 3,088,945.

Hirschmann, Ralph F., to Merck & Co., Inc. Preparation of 2-methyl-3 phytyl-1,4 naphthohydroquinone esters. 3,076,004, 1–29–63, Cl. 260—410.5.

Hirschmann, Ralph F., to Merck & Co., Inc. 6-chloro-4,6-androstadieno-[3,2-c]pyrazoles. 3,092,622, 6–4–63, Cl. 260—239.5.

Hirschmann, Ralph F., to Merck & Co., Inc. [3,2-c]pyrazolo-4,9-androstadienes. 3,092,623, 6–4–63, Cl. 260—239.5.

Hirschmann, Ralph F., to Merck & Co., Inc. Novel 6-chloro-17α ethynyl-androstadienes and processes. 3,094,540, 6–18–63, Cl. 260—397.4.

Hirschmann, Ralph F., and A. A. Patchett, to Merck & Co., Inc. 16-oxygenated-4-pregneno-[3,2-c] pyrazoles and process of preparing them. 3,072,639, 1–8–63, Cl. 260—239.5.

Hirschmann, Ralph F., and A. A. Patchett, to Merck & Co., Inc. 16-oxygenated-4-pregneno-[3,2-c] pyrazoles and process of preparing them. 3,072,640, 1–8–63, Cl. 260—239.5.

Hirschmann, Ralph F., and A. A. Patchett, to Merck & Co., Inc. 16-oxygenated-4-pregneno-[3,2-c] pyrazoles and process of preparing them. 3,072,641, 1–8–63, Cl. 260—239.5.

Hirschmann, Ralph F., and A. A. Patchett, to Merck & Co., Inc. 16-oxygenated-4-pregneno-[3,2-c] pyrazoles and process of preparing them. 3,072,642, 1–8–63, Cl. 260—239.5.

Hirschmann, Ralph F., and A. A. Patchett, to Merck & Co., Inc. Δ^4 and $\Delta^{1,4}$ derivatives of 16α-fluoro-steroid-[3,2-c] pyrazoles of the pregnane series. 3,116,287, 12–31–63, Cl. 260—239.5.

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Horndasch, Georg. 3,071,751.
Odenwald, Helmut. 3,089,141.
Stroebel, Hermann. 3,090,029.

Hirschson, Richard. Automatic vending machines. 3,076,537, 2–5–63, Cl. 194—65.

Hirsekorn, Fred S., to Frontier Chemical Co., Division of Vulcan Materials Co. Liquid metering apparatus. 3,083,873, 4–2–63, Cl. 222—48.

Hirsh, S. A., Mfg. Co.: *See*—
Ferdinand, Irwin J. 3,099,931.
Handler, Milton E. 3,099,891.
Handler, Milton E., and Bellon. 3,097,746.

Hirshhorn, Leo. Fixed restorative dentistry. 3,091,032, 5–28–63, Cl. 32—6.

Hirst, Archie J., to Metalastik Ltd. Vehicle spring suspension systems. 3,097,839, 7–16–63, Cl. 267—11.

Hirst, Archie J., to Metalastik Ltd. Vehicle suspensions. 3,101,938, 8–27–63, Cl. 267—25.

Hirst, Archie J., and G. Liversage, to Metalastik Ltd. Vehicle wheel suspensions. 3,099,967, 8–6–63, Cl. 105—224.1.

Hirst, Arthur A., and A. N. Burns, to Coal Industry (Patents) Ltd. Quick acting valve. 3,083,942, 4–2–63, Cl. 251—48.

Hirst, Donald A. Take-off and landing strip. 3,094,907, 6–25–63, Cl. 94—4.

Hirst, Raymond V. Apparatus for cleaning paint brushes. 3,095,000, 6–25–63, Cl. 134—164.

Hirst, Raymond V. Rotary paint brush comb. 3,112,505, 12–3–63, Cl. 15—38.

Hirt, Gerald E.: *See*—
Peterson, Leslie D. and Hirt. 3,096,957.

Hirt, Gerald E., to Rocket Power, Inc. Ejection seat catapult. 3,115,320, 12–24–63, Cl. 244—122.

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Brown, Clarence K. 3,114,962.
Wing, George S. 3,079,819.
Wing, George S., and Bochman. 3,071,903.

Hi-Shear Rivet Tool Co.: *See*—
Brown, Clarence K. 3,107,136.
Reddy, Robert R. 3,080,633.
Wing, George S., and Dickle. 3,110,212.

Hitachi Ltd.: *See*—
Nishiyama, Shizuo, Takagi, Anzai, and Haga. 3,114,654.
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Hitachi Wire and Cable, Ltd.: *See*—
Mase, Kiyoshi, Ouchi, Azuma, and Yagi. 3,074,107.

Hitch, Eric G.: *See*—
King, Daniel L., and Hitch. 3,100,244.

Hitchcock, Arthur B. Razor blade holder. 3,084,434, 4–9–63, Cl. 30—330.

Hitchcock, Helen K. Feeding apparatus for infants. 3,106,312, 10–8–63, Cl. 220—90.4.

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Kilby, William, and Hitchen. 3,077,370.

Hitchings, Douglas W.: *See*—
Kraft, Derald H., and Hitchings. 3,111,895.

Hitchings, George H., and I. Goodman, to Burroughs Wellcome & Co. (U.S.A.) Inc. Glycosides of 6-mercaptopurine. 3,074,929, 1–22–63, Cl. 260—211.5.

Hitchings, George H., and I. Goodman, to Burroughs Wellcome & Co. (U.S.A.) Inc. 6-mercaptopurine nucleosides and method of preparing them. 3,074,930, 1–22–63, Cl. 260—211.5.

Hitchings, George H., G. B. Elion, and L. E. Mackay, to Burroughs Wellcome & Co. (U.S.A.) Inc. 6-thiocarboxamidopurine. 3,098,074, 7–16–63, Cl. 260—252.

Hite, Billy L., to Vanity Fair Mills, Inc. Garment working apparatus. 3,099,970, 8–6–63, Cl. 112—2.

Hite, Merrill W., to Washington Iron Works. Differential slack line carrier. 3,090,497, 5–21–63, Cl. 212—120.

Hitomi, Hiromu: *See*—
Nakazawa, Koiti, Shibata, Higashide, Kanzaki, Yamamoto, Miyake, Hitomi, Horii, Yamaguich, Araki, Tsuchiya, Oka and Imai. 3,089,827.
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Hitt, James J., to Leeds and Northrup Co. Transistor switching circuit. 3,107,309, 10–15–63, Cl. 307—88.5.

Hitz, Luin K., to McGraw-Edison Co. Cabinet pants press. 3,115,285, 12–24–63, Cl. 223—73.

Hitzelberger, Erwin, to Daimler-Benz Aktiengesellschaft. Door frame construction for motor vehicles. 3,083,049, 3–26–63, Cl. 296—44.5.

Hitzelberger, William S., to Walker Mfg. Co. Spinning tool. 3,078,912, 2–26–63, Cl. 156—582.

Hitzfield, Donald V.: *See*—
Crawford, William B., Hitzfield, and Scott. 3,083,409.

Hitzman, Donald O., to Phillips Petroleum Co. Geomicrobiological prospecting. 3,096,254, 7–2–63, Cl. 195—103.5.

Hitzman, Donald O., and A. M. Mills, to Phillips Petroleum Co. Conversion of hydrocarbons by Gibberella fujikuroi. 3,084,106, 4–2–63, Cl. 195—51.

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Hix, Marvin C., to Phillips Petroleum Co. Irrigation system employing flexible conduits. 3,107,684, 10–22–63, Cl. 137—236.

Hixon, Philip E., and E. E. White. Continuous film processing apparatus. 3,072,037, 1–8–63, Cl. 95—94.

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Utsunomiya, Masaichi, Hiyama, and Manabe. 3,108,846.

Hiyama, Howard K.: *See*—
Hiyama, Kazuo and H. K. 3,096,848.

Hiyama, Kazuo. Retractable mobile scaffold. 3,072,217, 1–8–63, Cl. 182—63.

Hiyama, Kazuo and H. K. Mobile extensible scaffold. 3,096,848, 7–9–63, Cl. 182—131.

Hjelt, Heikki O. Production of sheet material. 3,082,138, 3–19–63, Cl. 156—33.

Hjelte, George, and M. H. Baer. Repeating exercising device. 3,090,617, 5–21–63, Cl. 272—44.

Hjertstrand, Svante L., to International Standard Electric Corp. Magnetic crossbar switch. 3,099,727, 7–30–63, Cl. 200—87.

Hjullan, Julius A., to E. P. Aghnides. Aerator device. Re. 25,447, 9–17–63, Cl. 239—424.

Hlavacek, Robert J., J. E. Sauvage, J. W. Dillehay, and N. Swift, to Swift & Co. Method for stunning animals. 3,112,519, 12–3–63, Cl. 17—45.

Hlavacek, Robert J., J. E. Sauvage, and J. W. Dillehay, to Swift & Co. Method for restraining animals. 3,115,670, 12–31–63, Cl. 17—45.

Hlinsky, Emil J., to Goodman Mfg. Co. Cutter bit cluster support. 3,088,720, 5–7–63, Cl. 262—26.

Hlinsky, Emil J., to Goodman Mfg. Co. Load distributing cutter arm support. 3,109,636, 11–5–63, Cl. 262—26.

Hnilicka, Milo P., Jr., to National Research Corp. Apparatus for reducing vaporizable refractory metal compounds. 3,078,082, 2–19–63, Cl. 266—19.

Hnizda, Vincent F., to Ethyl Corp. Preparation of manganese carbonyl. 3,113,840, 12–10–63, Cl. 23—203.

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Ho, John K. and J. D. 3,092,925.

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Hoadley, Cyrus E., to Manco Mfg. Co. Hydraulically actuated tool. 3,099,135, 7–30–63, Cl. 60—52.

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Hoagland, Albert S., to International Business Machines Corp. Signal decoding system. 3,092,814, 6–4–63, Cl. 340—174.1.

Hoagland, Earl J., to Standard Safety Equipment Co. Shoulder-mounted safety hood. 3,098,233, 7–23–63, Cl. 2—3.

Hoagland, William W., and E. P. Bolen, to American Auto-Felt Corp. Pad for spring cushions and method of making same. 3,087,171, 4–30–63, Cl. 5—354.

Hoar, Brooks, to Borg-Warner Corp. Pressure measuring devices and systems employing the same. 3,079,800, 3–5–63, Cl. 73—399.

Hoard, Lee M., and R. F. Mamer, to Utility Body Co. Aerial ladder. 3,078,949, 2–26–63, Cl. 182—2.

Hoare, David J. R., to Normalair Ltd. Filler, build-up, vent and drain valve unit. 3,103,945, 9–17–63, Cl. 137—317.

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Allen, Kenneth C. 3,085,640.
Allen, Kenneth C. 3,095,054.
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Allen, Kenneth C. 3,109,091.
Burns, Richard H., and Hartley. 3,091,269.
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Hobbs, Charles L., Jr., to E. I. du Pont de Nemours and Co. Preparation of dicyclopentadienyliron and dicyclopentadienylnickel. 3,092,647, 6–4–63, Cl. 260—439.

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Hobbs, Donald C., to Chas. Pfizer & Co., Inc. Novel penicillin compounds. 3,093,633, 6–11–63, Cl. 260—239.1.

Hobbs, Donald S., to North American Philips Co., Inc. Particle counting apparatus. 3,088,036, 4-30-63, Cl. 250—217.
Hobbs, Edwin D., and T. J. Crust, to J. Stone & Co. (Deptford) Ltd. Driving arrangements for generators. 3,112,655, 12-3-63, Cl. 74—421.
Hobbs, Howard F., to Hobbs Transmission Ltd. Power transmission Ltd. Power transmission apparatus. 3,071,025, 1-1-63, Cl. 74—763.
Hobbs, Howard F., to Hobbs Transmission Ltd. Internal combustion engines and power transmission therefor. 3,089,305, 5-14-63, Cl. 60—19.
Hobbs, Howard F., to Hobbs Transmission Ltd. Power transmission apparatus. 3,115,793, 12-31-63, Cl. 74—761.
Hobbs, Jack W. Bag holder. 3,091,422, 5-28-63, Cl. 248—101.
Hobbs, Kenneth, to North American Philips Co., Inc. Holder for pluralities of objects. 3,091,452, 5-28-63, Cl. 269—68.
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Hobbs, Kenneth, to North American Philips Co., Inc. Method of separating into pieces, plates of brittle material. 3,105,623, 10-1-63, Cl. 225—99.
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Hobbs, Howard F. 3,071,025.
Hobbs, Howard F. 3,089,305.
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Hobbs, William, Jr., to Sperry Rand Corp. Conveyor. 3,077,975, 2-19-63, Cl. 198—213.
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Hoberman, Max J., to Engelhard Industries, Inc. Cathodic protection system. 3,113,093, 12-3-63, Cl. 204—196.
Hobert, Richard H. Apparatus and process for the conversion of heat to electricity. 3,080,442, 3-5-63, Cl. 136—86.
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Hobiger Leopold: *See*—
Nohl, Egon and G. 3,081,481.
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Hobley, Peter, to Radio Corp. of America. Channel tuning system for signal receivers in which tuning components assigned to unselected channels form part of adjacent channel traps. 3,099,808, 7-30-63, Cl. 334—50.
Hobley, Peter. Electro-magnetic means for measuring a mechanical excursion. 3,113,280, 12-3-63, Cl. 336—118
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Porter, Allan W. H. 3,097,511.
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Hobson, Carroll D., to Goshen Rubber Co., Inc. Hydraulic piston cup. 3,072,450, 1-8-63, Cl. 309—53.
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Hobson, Charles F., Jr., to General Electric Co. Circuit breaker trip assembly. 3,116,388, 12-31-63, Cl. 200—116.
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Hobson, Eric D., to Yarrow and Co. Ltd. Oil burning installations for furnaces. 3,073,376, 1-15-63, Cl. 158—36.3.
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Wagner, George M., and Hoch. 3,101,279.
Hoch, Paul E., and J. S. Newcomer, to Hooker Chemical Corp. Method for pest control employing polychloropolyhydric alcohols. 3,096,239, 7-2-63, Cl. 167—30.
Hoch, Paul E., and R. J. Bellet, to Hooker Chemical Corp. Polyester resin stabilized with m-bis (12-hydroxy-4-methoxy benzoyl) benzene. 3,113,121, 12-3-63, Cl. 260—45.4.
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Hoch, Woodrow E. Crank-case draining unit. 3,112,012, 11-26-63, Cl. 184—1.5.
Hochberg, Walter S. Ventilator. 3,083,633, 4-2-63, Cl. 98—42.
Hochgraf, Lester, and H. A. Stone, Jr., to Bell Telephone Laboratories, Inc. Prevention of power harmonic interference in bridged subscriber loops. 3,073,908, 1-15-63, Cl. 179—35.
Hochheiser, Jerome S., to United States of America, Air Force. Pin socket for miniature electrical components. 3,097,032, 7-9-63, Cl. 339—17.
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Hochmuth, Frank W., to Combustion Engineering, Inc. Chemical recovery unit with improved superheater construction. 3,071,448, 1-1-63, Cl. 23—277.
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Hoder, William. Fish hook and guard combination. 3,101,565, 8-27-63, Cl. 43—43.16.
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Hodge, Edward B, to Commercial Solvents Corp. Anthelmintic composition containing 2-nitro-1-phenyl-1-propene and process for using same. 3,098,005, 7-16-63, Cl. 167—53.
Hodge, Edward B., to Commercial Solvents Corp. Process for the control of bacteria. 3,098,039, 7-16-63, Cl. 252—8.55.
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Hodge, Edward B., to Commercial Solvents Corp. Imidazoline anthelmintic compositions and method of using same. 3,102,073, 8-27-63, Cl. 167—53.
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Hodge, Edward B., to Commercial Solvents Corp. Process for the control of bacteria. 3,114,707, 12-17-63, Cl. 252—8.55.
Hodge, Robert W. Prestressed concrete structure and method of making the same. 3,111,965, 11-26-63, Cl. 138—176.
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Hodgson, Robert F., to The New York Air Brake Co. Hydrostatic transmission. 3,108,701, 10-29-63, Cl. 214—140.
Hodgson, Robert F., and C. A. L. Ruhl, to The New York Air Brake Co. Hydraulic system. 3,073,123, 1-15-63, Cl. 60—53.
Hodkinson, Harold, to Dunlop Rubber Co. Ltd. Automatic brake adjuster for spot-type, lever actuated disc brakes. 3,111,198, 11-19-63, Cl. 188—72.
Hodne, Ingard B. Sequence timer. 3,115,556, 12-24-63, Cl. 200—46.
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Hoefle, Milton L., and A. Holmes, to Parke, Davis & Co. 2-aryl-N-(polyamino-5-pyrimidinyl)-glycinonitriles. 3,111,521, 11-19-63, Cl. 260—256.4.
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Hoenick, Hans, to Dr. Ing. Porsche, h.c.F., KG, Firma. Internal combustion engine arrangement. 3,078,958, 2-26-63, Cl. 184—6.
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Hohltschmidt, Hans, F. von Spulak, E. Müller, and O. Bayer, ½ to Farbenfabriken Bayer Aktiengesellschaft, and ½ to Mobay Chemical Co. Coating composition comprising a solvent solution of rubber and an isocyanato aryl phosphorous compound. 3,098,840, 7-23-63, Cl. 260—45.9.

Hohman, Robert F. Sorting apparatus. 3,092,255, 6-4-63, Cl. 211—10.

Hohmann, Albert, to American Electronics, Inc. Friction error correcting device. 3,103,983, 9-17-63, Cl. 177—2.

Hohmann, Charles R.: *See*—
Williams, Philip B., Allen, and Hohmann. 3,073,916.

Hohmuth, Leopold: *See*—
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Breuer, Hermann, and Höhn. 3,102,121.
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Hoberg, George G., and Hohnecker. 3,090,947.
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Black, Ronald C., and Hohos. 3,089,552.
Hohstadt, Gail A. Earth cutter assembly. 3,087,557, 4–30–63, Cl. 172—556.
Hohwart, Ernest F. Napkin dispenser. 3,090,522, 5–21–63, Cl. 221—33.
Hohwart, Ernest F. Self positioning accurately remountable dowel. 3,115,356, 12–24–63, Cl. 287—127.
Hohwart, George, to N. A. Woodworth Co. Work clamping fixture. 3,073,589, 1–15–63, Cl. 269—90.
Hohwart, George, and P. Toth, to N. A. Woodworth Co. Equalizing chuck. 3,082,015, 3–19–63, Cl. 279—106.
Hohwart, George, and P. Toth, to N. A. Woodworth Co. Chuck. 3,099,457, 7–30–63, Cl. 279—106.
Hohwart, George, and P. Toth, to N. A. Woodworth Co. Chuck. 3,104,886, 9–24–63, Cl. 279—106.
Holby, James C., and H. E. Jorgenson, to Onan, Division of Studebaker-Packard Corp. Ignition system. 3,105,481, 10–1–63, Cl. 123—179.
Holer, Walter A., G. W. Marshall, and M. V. Waters, to The Cincinnati Milling Machine Co. Automatic control mechanism for roll grinder. 3,089,293, 5–14–63, Cl. 51—165.
Holst, Thomas, Co.: *See*—
Jones, Addis T., and Ellis. 3,088,562.
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Pearson, Otto H., and Holsve. 3,084,838.
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Ahlberg, Anders E. A. 3,107,158.
Hoke, Donald L., to The Lubrizol Corp. Method for preparing phosphono-lactones. 3,108,119, 10–22–63, Cl. 260—343.6.
Hoke, Howard L., to Dresser Industries, Inc. Inside repair clamp. 3,101,743, 8–27–63, Cl. 138—97.
Hoke Inc.: *See*—
Salmon, Douglas A., and D. B. 3,088,486.
Hoke, Le Roy A. Swimming pool safety enclosure and cover. 3,094,710, 6–25–63, Cl. 4—172.
Hoke, Martin E. Coin controlled golf game. 3,078,718, 2–26–63, Cl. 73—380.
Hokkaido Tanko Kisen Kabushiki Kaisha: *See*—
Higuchi, Kozo, Tsuyuguchi, Osa, Ando, and Yonemoto. 3,114,825.
Hokkeling, Pieter, to North American Philips Co., Inc. Casting mold and method of making the same. 3,101,516, 8–27–63, Cl. 22—193.
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Holben, Bernard C., to Industrial Nucleonics Corp. Diverter mechanisms for automatic routing conveyors. 3,110,383, 11–12–63, Cl. 193—36.
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Holbert, Don R., to Sinclair Research, Inc. Profiling method using a non-ionizing organic additive. 3,097,525, 7–16–63, Cl. 73—152.
Holbrook, Orrin C., and G. G. Bernard, to The Pure Oil Co. Synthetic cores. 3,070,991, 1–1–63, Cl. 73—38.
Holbrook, Orrin C., and L. W. Holm, to The Pure Oil Co. Solvent water-flood secondary recovery process. 3,102,587, 9–3–63, Cl. 166—9.
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Pastore, Michael W., and Holbrooke. 3,091,222.
Holbrown, Richard F. Mountings for road wheels. 3,073,650, 1–15–63, Cl. 301—9.
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Holcomb, Don R., to Hughes Aircraft Co. Bi-stable circuit. 3,109,934, 11–5–63, Cl. 307—88.
Holcomb, Don R., and D. B. Leeson, to Hughes Aircraft Co. voltage-variable capacitor bridge amplifier. 3,101,452, 8–20–63, Cl. 330—10.
Holcomb, Harry E., to Johns-Manville Corp. Filter unit. 3,084,427, 4–9–63, Cl. 29—419.
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Holcomb, Philo, Jr., to Litton Systems, Inc. Communication switching systems. 3,071,641, 1–1–63, Cl. 178—4.
Holcomb, Stephen A. Steerable sled provided with a rudder bow. 3,097,861, 7–16–63, Cl. 280—21.
Holcombe, Gordon B. Method of erecting buildings, tanks, domes or similar structures. 3,106,772, 10–15–63, Cl. 29—429.
Holcombe, Harold N., to The Mead Corp. Combined container and dispenser. 3,092,294, 6–4–63, Cl. 225—47.
Holcombe, Ralph L., 47½% to W. Coulson and 5% to R. B. Coleman, Jr. Curing device for bowlers. 3,082,000, 3–19–63, Cl. 273—41.
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Holcroft, Walter H., and Blair. 3,105,863.
Holcroft, Walter H., to Holcroft & Co. Material handling apparatus. 3,072,266, 1–8–63, Cl. 214—1.
Holcroft, Walter H., and G. D. Blair, to Holcroft & Co. Heat treating apparatus. 3,105,863, 10–1–63, Cl. 266—5.
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Hold, Peter, and F. A. Ziegler, to Farrel-Birmingham Co., Inc. Apparatus for controlling roll temperatures. 3,074,695, 1–22–63, Cl. 165—26.
Hold, Peter, and A. T. Parrella, to Farrel-Birmingham Co., Inc. Automated roll grinder. 3,088,250, 5–7–63, Cl. 51—165.
Holdeman, Eugene J., and D. A. Burkholder. Water softener for supply lines. 3,099,283, 7–30–63, Cl. 137—111.
Holden, Artemas F. Control system for luminous wall furnace. 3,076,605, 2–5–63, Cl. 236—15.
Holden, Ellsworth K., to E. I. du Pont de Nemours and Co. Process for producing microporous films and coatings. 3,100,721, 8–13–63, Cl. 117—135.5.
Holden, Orloff W., to Steam-O-Matic Corp. Suction cup mounting for kitchen appliance. 3,082,988, 3–26–63, Cl. 248—206.
Holden, Thomas J.: *See*—
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Holden, Thomas W. Band pass audio filter. 3,098,986, 7–23–63, Cl. 333—71.
Holden, Thomas W. Variable band pass audio filter. 3,098,987, 7–23–63, Cl. 333—71.
Holden, William S., and I. T. Jones, to Texas Instruments Inc. Superregenerative transistor transceiver. 3,112,445, 11–26–63, Cl. 325—19.
Holdener, Simeon. Piston engine operable as pump or motor. 3,104,618, 9–24–63, Cl. 103—163.
Holder, Manfred. Machine tool speed step-up drive attachment. 3,084,570, 4–9–63, Cl. 74—798.
Holder, Otis W., to Browns Hosiery Mills, Inc. Method of forming a knit article. 3,107,508, 10–22–63, Cl. 66—9.
Holder, William E., to Mendel Brown. Lapse timer. 3,073,919, 1–15–63, Cl. 200—33.
Holderer, Oscar C., to United States of America, Army. Gate valve. 3,072,378, 1–8–63, Cl. 251—31.
Holdham, John H. Shaft sealing unit. 3,075,779, 1–29–63, Cl. 277—37.
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Holdren, Donald R. 3,104,672.
Holdren, Donald R., to Holdren Bros., Inc. Tractor mounted lift. 3,088,611, 5–7–63, Cl. 214—140.
Holdren, Donald R., to Holdren Brothers, Inc. Spray cleaning device. 3,104,672, 9–24–63, Cl. 134—168.
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Holdt, Donald H., to Airpax Electronics Inc. Circuit breakers. 3,083,281, 3–26–63, Cl. 200—106.
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Holicky, William F., to Seismograph Service Corp. Voting machine and registering means for use therein. 3,104,805, 9–24–63, Cl. 235—50.
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Holl, Walter V., and J. J. Morrison. Guide means for adjustable hydraulic press. 3,091,147, 5–28–63, Cl. 83—568.
Hollaender, Peter R. Step structure. 3,099,333, 7–30–63, Cl. 182—90.
Holland, Barney B. Propulsion unit for shallow draft boats or the like. 3,098,464, 7–23–63, Cl. 115—16.
Holland, Donald W. Door frame square. 3,102,345, 9–3–63, Cl. 33—194.
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Sheriff, Merle M., and Holland. 3,082,851.
Holland, Harvison C., to North American Aviation, Inc. Float actuated vent and replenishing valves for a liquid container. 3,075,543, 1–29–63, Cl. 137—390.
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Holland, Ivor J., to Consolidated Beryllium Ltd. Method of making a porous shape of sintered refractory material. 3,097,930, 7–16–63, Cl. 25—156.
Holland, John B., and V. C. Starner, to Richardson & Holland, Inc. Sweet powdered coating for bakery products. 3,084,050, 4–2–63, Cl. 99—141.
Holland, John M., to Radio Heaters Ltd. Foodstuffs baking apparatus. 3,082,710, 3–26–63, Cl. 107—54.
Holland, John P.: *See*—
Wolf, Cecil R., Holland, and Sharp. 3,104,699.
Holland, Joseph R. Means for controlling the temperature of an internal combustion engine. 3,106,343, 10–8–63, Cl. 236—35.
Holland, Russell S.: *See*—
Cohen, Abraham B., and Holland. 3,073,953.

Holland Transplanter Co.: *See*—
Poll, Benjamin. 3,078,816.
Holland, Warren E.: *See*—
Kerver, John K., Holland, and Winsauer. 3,090,435.
Holland, Warren E., R. E. Williams, and H. H. Spain, to Jersey Production Research Co. Sand consolidation method. 3,097,692, 7–16–63, Cl. 166—33.
Hollander, Lewis E., Jr., to Lockheed Aircraft Corp. Active solid-state devices using anisotropic single crystal rutile. 3,100,849, 8–13–63, Cl. 307—88.5.
Hollander, William L., to A. B. Chance Co. Method of subsoil surveying and probe therefor. 3,080,749. 3–12–63, Cl. 73—101.
Hollands, George, to Bar-ray Products, Inc. Film washing tank nozzle assembly. 3,101,659, 8–27–63, Cl. 95—97.
Hollandsche Draad-En Kabelfabriek, N.V.: *See*—
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Hollar, Travis B., and W. F. Harbison, to General Dynamics Corp. (Convair Division). Method and apparatus for shear testing. 3,090,225, 5–21–63, Cl. 73—101.
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Hollenbaugh, William J., and H. G. Winter, to General Motors Corp. Fabric tester. 3,095,737, 7–2–63, Cl. 73—159.
Hollenbeck, Clifford M., to Red Arrow Products Corp. Aqueous smoke solution for use in foodstuffs and methd of producing same. 3,106,473, 10–8–63, Cl. 99—229.
Hollenbeck, Harry K. Free play device for automatic bowling alleys. 3,095,196, 6–25–63, Cl. 273—54.
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Holleron, William K., to U.S. Industries, Inc. Kelly valve dynamically balanced in open position. 3,086,746, 4–23–63, Cl. 251—83.
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Bettoni, Eugene C., and Kerr. 3,076,064.
Cameron, Donald J. 3,072,061.
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Conti, Girard N. Re. 25,392.
Cowles, Warren H., and Ensinger. 3,115,750.
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Cramer, Thomas F. 3,072,111.
Cramer, Thomas F. 3,072,210.
Cramer, Thomas F. 3,081,757.
Dalder, Gerald W. 3,083,722.
De Claire, Alton G., Jr., and Cowles. 3,073,166.
Drake, Derrell A. 3,110,439.
Egerer, William E. 3,081,986.
Frank, Robert K. 3,098,366.
Griffen, Ralph R. 3,073,378.
Griffen, Ralph R. 3,110,186.
Hill, Arthur J. 3,085,792.
Kerr, Fred S. 3,099,254.
Lift, Bob G. 3,081,846.
Marsee, Frederick J. 3,110,749.
McGregor, Arvin D. 3,081,030.
Moss, James R. 3,076,351.
Pembleton, James D. 3,092,128.
Romeo, Neil M. 3,110,750.
Saxby, Richard M. 3,072,258.
Saxby, Richard M. 3,088,320.
Smith, John E. 3,072,261.
Smith, John E. 3,103,229.
Smitley, Marion L. 3,081,847.
Soulligney, Mitchell J. 3,098,916.
Sterner, Melvin F. 3,085,790.
Vismara, John F. 3,099,999.
Holley, Donald A. Safety thermostatic control for marine engine cooling systems. 3,096,022. 7–2–63, Cl. 236—34.5.
Holley, Herschel Q., and E. Marsh, to Thiokol Chemical Corp. Apparatus for casting thixotropic material. 3,111,058, 11–19–63, Cl. 86—20.
Holley, John M. Propulsion apparatus. 3,086,492, 4–23–63, Cl. 115—28.
Holliday, Reuben H. Microwave absorption measurement. 3,115,131, 12–24–63, Cl. 128—2.
Holliday, Walter T., T. R. Lynch, and W. K. Fooshe, Jr., to Riegel Textile Corp. Diaper with hydrophobic yarns. 3,113,570, 12–10–63, Cl. 128—284.
Holliday, William M., H. C. Schweizer, and P. E. Norris, to The Procter & Gamble Co. Dentifrice composition. 3,105,798, 10–1–63, Cl. 167—93.
Hollinger, Richard G. Contact lens travel kit. 3,085,584, 4–16–63, Cl. 134—137.
Hollings, John S., and E. R. Unitt, to Rolls-Royce & Associates Ltd. Handling apparatus. 3,082,893, 3–26–63, Cl. 214—658.
Hollingshead, Ethan A., and N. W. F. Phillips, to Aluminium Laboratories Ltd. Subhalide distillation of aluminum. 3,078,159, 2–19–63, Cl. 75—63.
Hollingsworth, Clinton A., and M. A. Diaz, to Smith-Douglass Co., Inc. Clarification of phosphoric acid. 3,084,027, 4–2–63, Cl. 23—165.
Hollingsworth, Clinton A., and B. L. Sapp, to Smith-Douglas Co., Inc. Beneficiation of phosphate rock. 3,086,654, 4–23–63, Cl. 209—166.
Hollingsworth, Ernest H., to Aluminum Co. of America. Wrought aluminous metal article. 3,113,002, 12–3–63, Cl. 29—195.
Hollingsworth, Henry L., to Phelps Dodge Copper Products Corp. Wire coiling apparatus. 3,079,103, 2–26–63, Cl. 242—82.
Hollingsworth, John H., and L. Block, to The Siegler Corp. Furnaces. 3,073,296, 1–15–63, Cl. 126—110.
Hollingsworth, Pierce, to Standard-Thomson Corp. Fluid control apparatus. 3,096,828, 7–9–63, Cl. 170—160.14.
Hollingsworth, Thomas C.: *See*—
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Hollis, Louis, and T. J. Nolder, to Republic Steel Corp. Method of grinding diamond-shaped recesses in metal-embossing roll. 3,073,690, 1–15–63, Cl. 51—325.
Hollis, Thomas W., Jr.: *See*—
Hoffman, Charles P., and Hollis. 3,109,173.
Hollmeyer, Thomas J., to Macleod Co. Blast cleaning room. 3,077,996, 2–19–63, Cl. 214—17.
Holloman, Leonidas C., Jr., to Hewitt-Robins Inc. Conveyor belt system with means for absorbing load shocks on conveyor belt. 3,082,857, 3–26–63, Cl. 198—57.
Holloran, Thomas P.: *See*—
Close, Patrick B., Coulter, Ditmer, Fahrenbruck, Goldammer, Goodrick, Gulden, Holloran, Jenkins, Kilhefler, Kniker, Lyons, Manor, Marvin, Miller, O'Brian, Randall, Garner, Sather, Yost, and Braden. 3,112,394.
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Holloway, Joseph H., and A. O. McCoubrey, to National Co., Inc. Molecular beam frequency standard. 3,076,942, 2–5–63, Cl. 331—3.
Holloway, Robert L., to American Machine & Foundry Co. Bowling ball and pin separating mechanism. 3,103,358, 9–10–63, Cl. 273—43.
Holloway, Robert L., and H. C. Congelli, to American Machine & Foundry Co. Bowling ball storage and retarding device. 3,106,396, 10–8–63, Cl. 273—47.
Holloway, William S., to Madison Industries Inc. Cutter assembly for boring bar. 3,081,649, 3–19–63, Cl. 77—58.
Hollowell, John R., to Ford Motor Co. Wheel suspension with ride control. 3,083,034, 3–26–63, Cl. 280—124.
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Holly, Lester C.: *See*—
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Holly Sugar Corp.: *See*—
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Hollyday, James H., to Sperry Rand Corp. Bale thrower. 3,095,961, 7–2–63, Cl. 198—128.
Hollyday, James H., to Sperry Rand Corp. Conveying apparatus. 3,095,962, 7–2–63, Cl. 198—128.
Hollyday, James H., to Sperry Rand Corp. Agricultural implement. 3,105,602, 10–1–63, Cl. 214—42.
Hollyday, James H., to Sperry Rand Corp. Thrower-type conveyor. 3,110,392, 11–12–63, Cl. 198—128.
Hollyday, James H., to Sperry Rand Corp. Hay baler. 3,114,310, 12–17–63, Cl. 100—142.
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Hollyday, William C., Jr., and M. W. Munsell, to Esso Research and Engineering Co. Lubricating oil additives obtained by shearing a polymer and a monomer. 3,076,791, 2–5–63, Cl. 260—78.5.
Hollyday, William C., Jr., and M. W. Munsell, to Esso Research and Engineering Co. Lubricating oil additives obtained by shearing a polymer and a monomer. 3,076,792, 2–5–63, Cl. 260—78.5.
Holm, Carl H., to United States of America, Navy. Underwater launched surface mine. 3,084,627, 4–9–63, Cl. 102—10.
Holm, James P., to J. A. Sexauer Mfg. Co., Inc. Tank bulb. 3,084,347, 4–9–63, Cl. 4—56.
Holm, Le Roy W.: *See*—
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Holm, Le Roy W., to The Pure Oil Co. Secondary recovery of petroleum. 3,075,918, 1–29–63, Cl. 252—8.55.
Holm, Le Roy W., to The Pure Oil Co. Reverse-flow solvent flooding method. 3,101,782, 8–27–63, Cl. 166—9.
Holm, Le Roy W., and G. G. Bernard, to The Pure Oil Co. Secondary recovery water-flood process. 3,082,822, 3–26–63, Cl. 166—9.
Holm, Roy F., and J. F. Proesch, to Standard Conveyor Co. Conveyor belt actuators. 3,115,238, 12–24–63, Cl. 198—127.

Holm, Roy T.: *See*—
Newey, Herbert A., and Holm. 3,106,536.
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Holm, Vernon C. F., to Phillips Petroleum Co. Polymerization with a catalyst of an alkali metal chromate on silica-alumina. 3,072,627, 1-8-63, Cl. 260—93.7.

Holman, Elmer. Zipper safety fastener. 3,080,632, 3-12-63, Cl. 24—205.14.

Holman, Emmette R., to Purex Corp., Ltd. Container structure. 3,101,839, 8-27-63, Cl. 206—2.

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Holman, Howard E., to The Wurlitzer Co. Switch for electronic musical instruments. 3,095,465, 6-25-63, Cl. 84—1.01.

Holman, Rudolph G., to W. J. Volt Rubber Corp. Ball winding apparatus. 3,071,331, 1-1-63, Cl. 242—3.

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Holmberg, Karl E. O., to Quartz & Silica S.A. Separation of hydrogen isotopes. 3,101,256, 8-20-63, Cl. 23—204.

Holmberg, Robert D.: *See*—
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Holmes Electric Protective Co: *See*—
Spenard, Le Roy C., and Armstrong. 3,091,760.

Holmes, Elmond A., G. H. Rohrback, and W. R. Scott, Jr., to Magna Products, Inc. Corrosion measuring probe with a temperature compensating element in a Wheatstone bridge and method of using same. 3,104,355, 9-17-63, Cl. 324—71.

Holmes, Frank C., to Beaver Industries, Inc. Cultivator for use on a four-wheel tractor. 3,080,929, 3-12-63, Cl. 172—99.

Holmes, Gifford L., to American Air Filter Co., Inc. Louvered outside air intake. 3,087,412, 4-30-63, Cl. 98—121.

Holmes, John D., Jr., to Roper Hydraulics, Inc. Truck pumping apparatus. 3,109,445, 11-5-63, Cl. 137—354.

Holmes, Joseph C.: *See*—
Tyrrell, William M., and Holmes. 3,115,767.

Holmes, Julian C., to United States of America, Navy. Emission current regulator. 3,072,822, 1-8-63, Cl. 315—107.

Holmes, Lawrence, Jr. Helicopter drive. 3,074,623, 1-22-63, Cl. 230—150.

Holmes, Lucas C. Dual headlights for motorcycles. 3,099,400, 7-3-63, Cl. 240—7.55.

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Hoover, Fred W., to E. I. du Pont de Nemours and Co. Process of producing γ-isocyanto ethers and products thereof. 3,076,788, 2-5-63, Cl. 260—77.5.
Hoover, George R., to Armco Steel Corp. Rust inhibitive and paint holding treatment for alloyed zinc iron surfaces. 3,074,827, 1-22-63, Cl. 148—6.16.
Hoover, John C., to United Aircraft Corp. Pressure balanced pump. 3,073,254, 1-15-63, Cl. 103—182.
Hoover, John C., to Sperry Rand Corp. Electromagnetic radiation monitor utilizing means responsive to all types of polarization. 3,109,988, 11-5-63, Cl. 325—364.
Hoover, John R., to Smith Kline & French Laboratories. Process for the preparation of 6-amino-penicillanic acid and novel intermediates useful therein. 3,107,250, 10-15-63, Cl. 260—306.7.
Hoover, John R. E., to Smith Kline & French Laboratories. Sonochemical processes for the preparation of 6-amino-penicillanic acid derivatives. 3,079,313, 2-26-63, Cl. 204—154.
Hoover, John R. E., to Smith Kline & French Laboratories. Sonochemical processes for the preparation of antimicrobial agents. 3,079,314, 2-26-63, Cl. 204—154.
Hoover Ltd.: *See*—
Holzer, Walter. 3,112,378.
Holzer, Walter. 3,112,379.
Hoover, Merle L., to Joy Mfg. Co. Mine haulage vehicle. 3,073,464, 1-15-63, Cl. 214—83.36.
Hoover, Merle V., to Radio Corp. of America. Radio frequency switching. 3,085,239, 4-9-63, Cl. 343—5.
Hoover, Valno A. Electromechanical actuator with limiting mechanism. 3,087,105, 4-23-63, Cl. 318—468.
Hoover, Valno A. Mechanical actuator. 3,090,631, 5-21-63, Cl. 277—174.
Hope, Alexander J. N.: *See*—
Strang, John M., Davy, and Hope. 3,111,570.
Hope, James H., 40% to T. S. Kinney. Earth scraping and moving machine. 3,100,355, 8-13-63, Cl. 37—126.
Hopes, Harry E.: *See*—
Evans, Lloyd D., and Hopes. 3,072,453.
Hopf, Hermann: *See*—
Hopf, Paul and H. 3,082,530.
Hopf, Paul and H. Drilling and like tools. 3,082,530, 3-26-63, Cl. 32—59.
Hopfeld, Fred P., to Grand Specialties Co. Lift truck constructed from detachably connected parts. 3,085,656, 4-16-63, Cl. 187—9.
Hopfeld, Fred P., to Grand Specialties Co. Pump apparatus. 3,098,587, 7-23-63, Cl. 222—176.
Hopfeld, Henry. Convertible ladder. 3,100,552, 8-13-63, Cl. 182—22.
Hopfeld, Henry. Adjustable legs for ladders. 3,102,606, 9-3-63, Cl. 182—202.
Hopfer, Samuel, to PRD Electronics, Inc. Microwave power meter of the calorimeter type. 3,081,430, 3-12-63, Cl. 324—95.
Hopff, Heinrich: *See*—
Valkanas, George N., and Hopff. 3,086,968.
Valkanas, George N., and Hopff. 3,093,692.
Valkanas, George N., and Hopff. 3,113,141.
Hopff, Heinrich, U. Hoffmann, and H. Metzler, to Deutsche Gold- und Silber-Scheidenstalt vormals Roessler. Process for the production of eupolyoxymethylenes. 3,110,700, 11-12-63, Cl. 260—67.
Hopff, Heinrich, and H. Metzler, to Deutsche Gold- und Silber-Scheideanstalt vormals Roessler. Process for the production of eupolyoxymethylenes. 3,114,733, 12-17-63, Cl. 260—67.
Hopkes, Henry, Jr., to No-Sag Spring Co. Bed construction. 3,076,979, 2-12-63, Cl. 5—246.
Hopkin, John S.: *See*—
Tucker, Carl L., and Hopkin. 3,086,694.

Hopkin, Peter R.: *See*—
Sparling, Stanley C., Haslett, Hopkin, and Sothcott. 3,098,210.
Hopkins, Frank L.: *See*—
Helm, Jack D., and Hopkins. 3,096,081.
Hopkins, George M.: *See*—
Megantz, Samuel O., and Hopkins. 3,114,678.
Hopkins, James C., and O. G. Bennett, to United States of America, Navy. Sound generator. 3,097,600, 7-16-63, Cl. 102—7.
Hopkins, Joseph H.: *See*—
Nodge, Joseph A., and Hopkins. 3,076,163.
Hopkins, Joseph H., to General Motors Corp. Electric terminal means. 3,076,171, 1-29-63, Cl. 339—258.
Hopkins, Robert A., to Balcrank, Inc. Folding rocking chair. 3,114,572, 12-17-63, Cl. 297—33.
Hopkins, Robert P., and W. C. Scudder, to Rohm & Haas Co. Improved ion exchange cellular products. 3,094,494, 6-18-63, Cl. 260—2.1.
Hopkins Robert W., to Pittsburgh Plate Glass Co. Method of preparing glass. 3,096,186, 7-2-63, Cl. 106—52.
Hopkins, Thomas R., to Spencer Chemical Co. Process for producing lactams. 3,094,520, 6-18-63, Cl. 260—239.3.
Hopkins, Thomas R., and R. P. Nelghbora, to Spencer Chemical Co. P-phenylazoaniline nematocide. 3,073,738, 1-15-63, Cl. 167—30.
Hopkins, Thomas R., and J. W. Pullen, to Spencer Chemical Co. 4-halo-2-butynyl sulfides and use for controlling nematodes. 3,086,059, 4-16-63, Cl. 260—609.
Hopkins, Thomas R., J. H. Rea, and A. P. Roszkowski, to Spencer Chemical Co. Ammoniumaliphatic esters of carbamic acids. 3,100,223, 8-6-63, Cl. 260—472.
Hopkins, Thomas R., and J. W. Pullen, to Spencer Chemical Co. 4-halo-2-butynyl carbamates. 3,116,322, 12-31-63, Cl. 260—471.
Hopkinson, Eric C., and R. L. Tucker, to Well Surveys, Inc. Apparatus for cyclic activation logging. 3,072,790, 1-8-63, Cl. 250—83.3.
Hopkinson, Paul O. W., to St. Barnabas Free Home, Inc. Apparatus for reducing fluid pressure. 3,111,091, 11-19-63, Cl. 103—262.
Hopp, Harold P. Thread forming sparkplug gaskets. 3,099,456, 7-30-63, Cl. 277—166.
Hopp, Philip, R. H. Ensign, and D. Cardozo, Jr., to The Hopp Press, Inc. Card holding receptacle. 3,112,142, 11-26-63, Cl. 312—50.
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Hopp, Philip, Ensign, and Cardozo. 3,112,142.
Hoppe, Alfred, and H. Franz, to Edeleanu Gesellschaft m.b.H. Process and apparatus for separating paraffins from hydrocarbon oils. 3,071,534, 1-1-63, Cl. 208—25.
Hoppe, Clemens B. Mandrel for driving pile shells. 3,107,497, 10-22-63, Cl. 61—53.72.
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Weinbrenner, Erwin, Hoppe, and Breer. 3,088,172.
Hoppenstand, David, to Transport Industries, Inc. Double air chamber brake cylinder. 3,090,359. 5-21-63, Cl. 121—38.
Hoppenstand, David, to Transport Industries, Inc. Shaft lock. 3,096,558, 7-9-63, Cl. 188—82.7.
Hopper, Edward W.: *See*—
Effer, Walter R., Marshall, and Hopper. 3,095,265.
Hopper, John H., to Armour and Co. Method of feeding chicks. 3,089,771, 5-14-63, Cl. 99—4.
Hopper, June W.: *See*—
Hopper, Robert J., and Elder. 3,086,202.
Hopper, Lois H., to Munsingwear, Inc. Brassiere. 3,077,885, 2-19-63, Cl. 128—510.
Hopper, Lois H., to Munsingwear, Inc. Brassiere. 3,090,387, 5-21-63, Cl. 128—498.
Hopper, Lucien L., Jr.: *See*—
Goldblatt, Leo A., and Hopper. 3,079,354.
Hopper, Robert J., deceased (J. W. Hopper, executrix), and B. B. Elder, to Del Mar Engineering Laboratories. Infrared emitting tow target. 3,086,202, 4-16-63, Cl. 343—18.
Hoppin, George S., III, and R. H. Schwegman, to General Electric Co. Metallic brazing mixture. 3,073,269, 1-15-63, Cl. 113—110.
Hoppner, Ernst: *See*—
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Horak, Arnost A., to Ling-Temco-Vought, Inc. Coherent multi-mode repeater. 3,113,268, 12-3-63, Cl. 325—6.
Horak, Frank A.: *See*—
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Horak, Heinz, to Apparatefabrik AG. Loom let-off. 3,086,560, 4-23-63, Cl. 139—110.
Horan, John J. Mounting for headlamp. 3,089,027, 5-7-63, Cl. 240—57.
Horan, Raymond E., Jr., and H. F. Schuetz, to Jacuzzi Bros., Inc. Shaft sealing means for turbine type pumps and the like. 3,104,918, 9-24-63, Cl. 308—36.1.
Horath, Werner K., to Societe de Fabrication d'Inatruments de Mesure (S.F.I.M.). Floating, integrating rate gyros. 3,084,559, 4-9-63, Cl. 74—5.
Horbinski, Richard D., R. D. MacGregor, and M. R. Neuman, to Thermo Products Co., Inc. Depth and temperature indicator. 3,087,338, 4-30-63, Cl. 73—362.
Horbury, Eric A., A. F. Dix, and R. Parkin, to Rolls-Royce Ltd. Methods of arc welding in an inert gas atmosphere. 3,105,140, 9-24-63, Cl. 219—137.
Horclois, Raymond J.: *See*—
Jacob, Robert M., and Horclois. 3,084,160.
Jacob, Robert M., and Horclois. 3,102,888.
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Deykin, Ronald F. 3,092,228.
Hore, Donald L., to Rotark Engineering Co. Ltd. Automatic valve lubricator system. 3,111,958, 11-26-63, Cl. 137—246.13.
Horeau, Alain M., and A. Becker, to Societe des Usines Chimiques Rhone-Poulenc. 1-methyl-3-phenylindene-1-carboxylic acid. 3,080,419, 3-5-63, Cl. 260—515.
Horeck, John. Shoe heeling accessory. 3,105,984, 10-8-63, Cl. 12—123.3.
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Horecky, Stanley V., to General Electric Co. Automatic speed adjustment for clothes dryers. 3,072,386, 1-8-63, Cl. 259—81.
Horelick, Arnold L., H. W. Dornbush, and J. J. Zimsky, to McGraw-Edison Co. Distribution transformer. 3,097,346, 7-9-63, Cl. 336—68.
Horelick, Arnold L., H. H. Wagner, and J. C. Lynch, to McGraw-Edison Co. Method for testing electrical instrumentalities for incipient fault. 3,111,388, 11-19-63, Cl. 23—232.
Horeth, John M., J. D. Skelton, and W. J. Stark, to Jersey Production Research Co. Transcription of linear traces. 3,110,878, 11-12-63, Cl. 340—15.5.
Horgan, James F.: *See*—
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Hörig, Martin, to Gesellschaft fur Linde's Eismaschinen Aktiengesellschaft. Power vehicle with hydrostatic power transmission to motive and operating drives. 3,104,528, 9-24-63, Cl. 60—52.
Horii, Satoshi: *See*—
Nakazawa, Koiti, Shibata, Higashide, Kanzaki, Yamamoto, Miyake, Hitomi, Horii, Yamaguchi, Araki, Tsuchiya, Oka, and Imai. 3,089,827.
Horino Masao. Discharge tube blinking signal device. 3,089,060, 5-7-63, Cl. 315—224.
Horiuchi, Shizuko: *See*—
Ueno, Fumio, and Horiuchi. 3,087,813.
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Ueno, Fumio, and Horiuchi. 3,087,813.
Horizons Inc.: *See*—
Beasley, Robert M., and Johns. 3,082,099.
Beasley, Robert M., and Johns. 3,110,545.
Fichter, Harry L., Jr., and Hamilton. 3,102,029.
Fidelman, J. George. 3,114,635.
Mayer, Edward F., and Straughan. 3,082,054.
Mayer, Edward F., and Straughan. 3,082,055.
Sprague Robert H. 3,082,086.
Sprague, Robert H., and Fichter. 3,106,466.
Sprague, Robert H., Fichter, and Fidelman. 3,102,027.
Sprague, Robert H., Fichter, and Hamilton. 3,095,303.
Sprague, Robert H., Fichter, and Hamilton. 3,100,703.
Sprague, Robert H., Fichter, and Hamilton. 3,102,810.
Sprague, Robert H., Fichter, and Hamilton. 3,104,973.
Sprague, Robert H., Stewart, and Lewis. 3,113,024.
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Horlacher, Herman, to The Cincinnati Milling Machine Co. Combined sequence and check valve. 3,101,738, 8-27-63, Cl. 137—489.
Horman, John H., to Allied Control Co., Inc. Electromagnetic switch apparatus. 3,109,077, 10-29-63, Cl. 200—87.
Hormann, George A. Combined game board and dice agitator. 3,111,321, 11-19-63, Cl. 273—136.
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Macy, Christian D., and Lindstrom. 3,084,378.
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Horn, Charles W., and D. K. Wilburn, to United States of America, Army. Titanium coating process. 3,071,491, 1-1-63, Cl. 117—50.
Horn, Christian F., to Union Carbide Corp. (Sulfophenoxy) alkoxy-substituted aromatic dicarboxylic acids and derivatives thereof. 3,077,492, 2-12-63, Cl. 260—470.
Horn, Christian F., to Union Carbide Corp. (Sulfophenoxy) alkoxy-substituted aromatic monocarboxylic acids and derivatives thereof. 3,077,493, 2-12-63, Cl. 260—470.
Horn, Christian F., to Union Carbide Corp. Sulfonated 9,9-di(carboxyalkyl) fluorene and esters and salts thereof. 3,096,358, 7-2-63, Cl. 260—429.7.
Horn, Christian F., H. Vineyard, and G. W. Fowler, to Union Carbide Corp. Acyloxymetallosulfophthalates. 3,088,956, 5-7-63, Cl. 260—429.9.

Horn, Christian F., and H. Vineyard, to Union Carbide Corp. Sulfoaromatic-substituted alkanoic acids and derivatives thereof. 3,116,321, 12–31–63, Cl. 260—470.

Horn, Clarence L. Collapsible and adjustable head stand apparatus. 3,114,545, 12–17–63, Cl. 272—60.

Horn, Edward P., and C. A. Ballard, deceased (M. A. Ballard, administratrix); to Combustion Engineering, Inc. Rotor construction. 3,073,384, 1–15–63, Cl. 165—9.

Horn, Franz: *See*—
Klapdohr, Hans, Binder, Horn, and Pens. 3,106,866.

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Johnson, Richard, Horn, and Strickland. 3,088,800.

Horn, Friedrich: *See*—
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Horn, Hans, and H. Stern, to Konrad Peter Aktiengesellschaft. Pad-steam dyeing of polyacrylonitrile tows padded in nip of squeeze rollers. 3,104,932, 9–24–63, Cl. 8—55.

Horn, Herman, H. C. Klein, and R. Griffith, to Nopco Chemical Co. Process for recovering water-soluble glucoheptonic acid salts. 3,084,188, 4–2–63, Cl. 260—528.

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Horn, Jesse L., Jr. Spring-loaded frog gig. 3,102,355, 9–3–63, Cl. 43—6.

Horn, Karl H., and B. Shlachter, to Motorola, Inc. Printed circuit panel with plug-in connectors. 3,104,282, 9–17–63, Cl. 178—7.8.

Horn, Lutz, R. Dieberg, F. Philipp, and S. Dickfeldt, to Accumulatoren-Fabrik Aktiengesellschaft. Process of producing porous, electrically conductive sheet material. 3,071,637, 1–1–63, Cl. 136—36.

Horn, Lutz, and F. Philipp, to Varta Aktiengesellschaft. Separator for electric batteries. 3,097,975, 7–16–63, Cl. 136—145.

Horn, Lutz, and F. Philipp, to Varta Aktiengesellschaft. Expanded metal. 3,099,899, 8–6–63, Cl. 50—500.

Horn, Lutz, and F. Philipp, to Varta Aktiengesellschaft. Sinter electrode. 3,102,329, 9–3–63, Cl. 29—182.3.

Horn, Richard C.: *See*—
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Horn, Robert B., to Ball Brothers Co., Inc. Carton erecting machine. 3,094,045, 6–18–63, Cl. 93—36.

Horn, Roy H. Relatively collapsible aerosol foam compositions. 3,092,535, 6–4–63, Cl. 167—88.

Horn, Walter, and F. P. Vultaggio, to Aero Supply Mfg. Co. Inc. Gas supply unit. 3,107,724, 10–22–63, Cl. 165—35.

Horna, Otakar, to Vyzkumny ustav matematickych stroju. Shift register equipped with tunnel diodes. 3,102,962, 9–3–63, Cl. 307—88.5.

Hornbaker, Edwin D., to Ethyl Corp. Stabilized vinyl chloride monomer. 3,109,035, 10–29–63, Cl. 260—652.5.

Hornberger, Clarence L., to Armstrong Cork Co. Register control for rotary printing press. 3,098,436, 7–23–63, Cl. 101—248.

Hornberger, Clarence L., and E. W. Stanley, to Armstrong Cork Co. Doctor blade and drive for rotary printing press. 3,098,433, 7–23–63, Cl. 101—157.

Hornberger, Harry M., Sr., to Merrow Machine Co. Sewing machine thread cutting mechanism. 3,109,399, 11–5–63, Cl. 112—252.

Hornbostel, Lloyd, to Beloit Iron Works. Reconstituted creped paper and method and apparatus for making same. 3,072,522, 1–8–63, Cl. 162—113.

Hornbostel, Lloyd, to Beloit Iron Works. Supporting and conveying means for pulp grinders. 3,073,498, 1–15–63, Cl. 226—98.

Hornbostel, Lloyd, to Beloit Iron Works. Pulpwood grinding apparatus. 3,077,310, 2–12–63, Cl. 241—280.

Hornbostel, Lloyd, to Beloit Iron Works. Pressure chamber feeder. 3,080,074, 3–5–63, Cl. 214—17.

Hornbostel, Lloyd, to Beloit Iron Works. Inverse first press for paper machine. 3,080,913, 3–12–63, Cl. 162—360.

Hornbostel, Lloyd. Reel with reciprocable spool. 3,084,885, 4–9–63, Cl. 242—84.21.

Hornbostel, Lloyd, to Beloit Iron Works. Roll subject to deflection. 3,098,284, 7–23–63, Cl. 29—113.

Hornbostel, Lloyd, and S. G. Holt, to Beloit Iron Works. Method for producing paper. 3,079,700, 3–5–63, Cl. 34—41.

Hornbostel, Lloyd, and J. F. Pigman. Mooring buoy. 3,082,439, 3–26–63, Cl. 9—8.

Hornbostel, Lloyd, and C. E. Youngchild, to Beloit Iron Works. Stock refiner. 3,102,695, 9–3–63, Cl. 241—255.

Hornbostel, Lloyd, and J. H. Franz. Sailboat fitting. 3,103,908, 9–17–63, Cl. 114—111.

Hornbostel, Lloyd, Jr., to Beloit Iron Works. Traversing cutting apparatus having magnetic follower means. 3,088,355, 5–7–63, Cl. 83—177.

Hornbostel, Lloyd, Jr., to Beloit Iron Works. Liquid removal means for rotatable perforated shells. 3,098,788, 7–23–63, Cl. 162—274.

Hornbrook, Lester H., Jr. Control mechanism. 3,083,579, 4–2–63, Cl. 74—25.

Horncastle, David C., to The Ontario Paper Co. Ltd. Tree felling and bunching mechanism. 3,102,562, 9–3–63, Cl. 144—3.

Horncastle, David C., to The Ontario Paper Co. Ltd. Tree felling and bunching mechanism. 3,102,563, 9–3–63, Cl. 144—3.

Horndasch, Georg, to Richard Hirschmann Radiotechnisches Werk. Connector element for ignition systems. 3,071,751, 1–1–63, Cl. 339—100.

Horne, Campbell C., to The International Nickel Co., Inc. Method of making turbine and compressor blades. 3,107,416, 10–22–63, Cl. 29—156.8.

Horne, Clede A. Trailer stabilizer. 3,096,065, 7–2–63, Cl. 248—354.

Horne, Donald S., R. Ashton, and L. L. Kepkay, to Massey-Ferguson Ltd. Grain handling conveyors for combines. 3,108,703, 10–29–63, Cl. 214—522.

Horne, Frederick H.: *See*—
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Horne, James Q., Jr. Apparatus for justifying. 3,075,446, 1–29–63, Cl. 95—85.

Horne, Russel K., to Singing Needles, Inc. Adjustable shoulder straps. 3,077,650, 2–19–63, Cl. 24—200.

Horne, Samuel E., Jr., to Goodrich-Gulf Chemicals, Inc. Method of preparing synthetic rubber. 3,114,743, 12–17–63, Cl. 260—94.3.

Horne, William A.: *See*—
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Horner, Amos A. Truck adapter. 3,095,217, 6–25–63, Cl. 280—404.

Horner, Carl L. Sun screens. 3,077,643, 2–19–63, Cl. 20—56.5.

Horner, Frank W.: *See*—
Sachs, Hans W., Fromm, and Horner. 3,087,405.

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Horner, Henry L., and H. A. S. Hamlin, to Normalair Ltd. Pressure releasing means. 3,091,365, 5–28–63, Cl. 222—5.

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Jones, Martin L., and Horner. 3,099,754.

Horner, John W., to Thompson Ramo Wooldridge Inc. Quantized impulse rocket. 3,088,406, 5–7–63, Cl. 102—49.

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Hornfeck, Anthony J., to Bailey Meter Co. Transmission means. 3,071,006, 1–1–63, Cl. 73—432.

Hörnig, Lothar, E. Paszthory, O. Probst, W. Riemenschneider, and A. Steinmetz, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning. Process for oxidizing olefins to aldehydes, ketones and acids. 3,087,968, 4–30–63, Cl. 260—604.

Hörnig, Lothar, and H. Lenzmann, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning. Process for oxidizing olefins to aldehydes and ketones. 3,106,579, 10–8–63, Cl. 260—586.

Hornish, Arthur H. Dispensing coin saver. 3,088,570, 5–7–63, Cl. 194—91.

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Carmellini, Andrew E., Lee, and Hornkohl. 3,107,818.

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Hornschuch, Hanns, to Ingersoll-Rand Co. Impact tool. 3,100,558, 8–13–63, Cl. 192—30.5.

Hornschuch, Hanns, to Ingersoll-Rand Co. Centrifugal pump. 3,115,843, 12–31–63, Cl. 103—103.

Hornschuch, Hanns, and A. Brkich, to Ingersoll-Rand Co. Centrifugal pump. 3,071,077, 1–1–63, Cl. 103—103.

Hornstein, Victor, M. Schneider, and B. Lenz, to Jagenberg-Werke Akt. Ges. Method of and apparatus for the longitudinal cutting and subsequent winding of a paper web. 3,075,719, 1–29–3, Cl. 242—65.

Hornsteiner, Maximilian. Transmission apparatus. 3,079,807, 3–5–63, Cl. 74—415.

Hornung, Hans: *See*—
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Biel, Hans, and Hornung. 3,090,481.

Horovitz, Marcus, to Metalastik Ltd. Methods of manufacturing ball joints and universal couplings employing such ball joints. 3,099,879, 8–6–63, Cl. 29—436.

Horovitz, Marcus, to Metalastik Ltd. Multi-conductor cable spacers for overhead transmission lines. 3,113,173, 12–3–63, Cl. 174—40.

Horowitz, Arnold J. Collapsible motorized cart. 3,094,187, 6–18–63, Cl. 180—27.

Horowitz, Bernard and S. Waterproof over pants. 3,111,680, 11–26–63, Cl. 2—227.

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Mendelsohn, Meyer, and Horowitz. 3,104,933.

Horowitz, Carl, and T. Breitner, to Yardney International Corp. Anhydrous electric battery. 3,098,770, 7–23–63, Cl. 136—100.

Horowitz, Charles, to Berg Airlectro Products Co. Quick release valve. 3,093,153, 6–11–63, Cl. 137—102.

Horowitz, Charles, to Berg Airlectro Products Co. Snap action switch. 3,093,716, 6–11–63, Cl. 200—83.

Horowitz, Charles, to Berg Airlectro Products Co. Tractor protection valve. 3,109,442, 11–5–63, Cl. 137—111.

Horowitz, Charles, and H. L. Dobrikin, to Berg Airlectro Products Co. Dash control parking brake valve. 3,096,789, 7–9–63, Cl. 137—627.5.

Horowitz, Charles, and H. L. Dobrikin, to Berg Airlectro Products Co. Brake system control valve. 3,109,455, 11–5–63, Cl. 137—627.5.

Horowitz, Charles, and H. L. Dobrikin, to Berg Airlectro Products Co. Dash control valve. 3,109,456, 11–5–63, Cl. 137—627.5.

Horowitz, Irving, to Blonder-Tongue Electronics. Audio-tone control circuit. 3,116,462, 12–31–63, Cl. 330—157.

Horowitz, Robert M., and B. Gentill, to United States of America, Agriculture. Dihydrochalcone derivatives and their use as sweetening agents. 3,087,821, 4–30–63, Cl. 99—141.

Horowitz, Sol: *See*—
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Horrell, Maurice W., and E. R. Sanders, to United States of America, Atomic Energy Commission. System for measuring distance by the utilization of pulse echoes. 3,110,025, 11–5–63, Cl. 343—13.

Horrigan, Robert V., to National Lead Co. Tanning with silicated sodium zirconyl sulfate. 3,096,143, 7–2–63, Cl. 8—94.25.

Horrobin, Sydney, to Imperial Chemical Industries Ltd. Dichlorotriazines stabilized with arylaminosulphonic acid/salt mixtures. 3,103,504, 9–10–63, Cl. 260—153.

Horrocks, David L., and R. G. Trenchard, to Microcell Ltd. Seats, chairs, chairbacks and the like. 3,088,773, 5–7–63, Cl. 297—445.

Horrocks, Rex A.: *See*—
Hasbrouck, Augustus, and Horrocks. 3,107,099.

Horrocks, Rex A., to United Aircraft Corp. Compressor spacer. 3,083,947, 4–2–63, Cl. 253—30.

Horrocks, Walter E. Screw capped glass jars for packaging and dispensing powdery products. 3,088,628, 5–7–63, Cl. 220—90.

Horrom, Bruce W., and W. B. Martin, to Abbott Laboratories. N-benzyl cyclopropylamines and carbamates. 3,083,226, 3–26–63, Cl. 260—471.

Horrom, Bruce W., and L. R. Swett, to Abbott Laboratories. N - (N' - cyclopropyl - N' - benzyl - aminoalkyl) - substituted amides. 3,112,344, 11–26–63, Cl. 260—562.

Horseling, Jan: *See*—
Frouws, Simon M., and Horseling. 3,072,825.

Horsfall, Robert B.: *See*—
Slater, John M., and Horsfall. 3,073,170.

Horsley, Franz A., and P. A. Gray, Jr., to Shell Oil Co. Urea-sulfur fertilizer composition and method for its production. 3,100,698, 8–13–63, Cl. 71—28.

Horsley, William D., to C. A. Parsons & Co. Ltd. Dynamo-electric machines. 3,082,337, 3–19–63, Cl. 310—179.

Horsley, William D., to C. A. Parsons & Co. Ltd. Dynamo electric machinery. 3,092,741, 6–4–63, Cl. 310—54.

Horst, Karl: *See*—
Orthner, Lüdwig, Horst, Scharf, Kirst, Oxé, and Gross. 3,101,235.

Horstkotte, Donald A., to Ampex Corp. Magnetic tape apparatus. 3,076,060, 1–29–63, Cl. 179—100.2.

Horstman, Anton J., to The Bauer Bros. Co. Continuous digester. 3,085,624, 4–16–63, Cl. 162—237.

Horstman, Clifford C.: *See*—
Goethe, Paul K., and Horstman. 3,106,769.

Horstmann, Beven G.: *See*—
Hamlyn, Peter M., Snelling, and Horstmann. 3,085,544.

Hort, Eugene V., II, R. Freyermuth, and D. E. Graham, to General Aniline & Film Corp. Catalytic reduction of aromatic mononitro compounds. 3,093,685, 6–11–63, Cl. 260—580.

Horton, Billy M.: *See*—
Warren, Raymond W., and Horton. 3,107,850.

Horton, Billy M. Fluid servo system. 3,111,291, 11–19–63, Cl. 244—78.

Horton, Claude W., to United States of America, Navy. Missile mounted circular slot antenna. 3,074,063, 1–15–63, Cl. 343—708.

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Kolze Lawrence A. 3,078,874.

Horton, Donald, to Olin Mathieson Chemical Corp. Bag with interrupted longitudinal seam. 3,085,737, 4–16–63, Cl. 229—55.

Horton, Edward C., to Thompson Ramo Wooldridge Inc. Tuner slide assembly. 3,086,401, 4–23–63, Cl. 74—10.33.

Horton, Edward C., and J. H. Teaf, to Thompson Ramo Wooldridge Inc. Friction drive means particularly adapted for radio tuners. 3,077,119, 2–12–63, Cl. 74—206.

Horton, Harold B., to Sperry Rand Corp. Delay line memory. 3,075,548, 1–29–63, Cl. 137—569.

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Horton, John L., A. B. Conrad, Jr., and R. F. McCormick, to American Machine & Foundry Co. Gas drying and separation. 3,116,136, 12–31–63, Cl. 62—20.

Horton, John P., G. E. Berry, and J. E. Stirling. Rotary broom for street sweeper. 3,101,501, 8–27–63, Cl. 15—180.

Horton, John W., to International Business Machines Corp. Vapor cell light modulator. 3,098,112, 7–16–63, Cl. 88—61.

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Horton, Paul B., J. E. Funk, and H. C. Hill, to General Electric Co. Apparatus for extrusion of plastic material. 3,111,739, 11–26–63, Cl. 25—14.

Horton, Paul V., to International Business Machines Corp. Method of fabricating an array of magnetic cores. 3,071,843, 1–8–63, Cl. 29—155.5.

Horton, Ralph A. Apparel carrier. 3,093,246, 6–11–63, Cl. 211—113.

Horton, Robert A., to Precision Metalsmiths, Inc. Method of form removal from precision casting shells. 3,094,751, 6–25–63, Cl. 22—196.

Horton, Robert R., to Wynlit Pharmaceutical, Inc. Pelvic measuring device. 3,097,637, 7–16–63, Cl. 128—2.

Horton, Walter, and G. H. Townsend, to G.K.N. Group Services Ltd. Methods and apparatus for forming a stream of articles. 3,112,022, 11–26–63, Cl. 198—32.

Horton, William H., to Eastman Kodak Co. Clip for detachably connecting a carrying strap to a camera. 3,071,832, 1–8–63, Cl. 24—265.

Horton, William H., E. L. Sturm, and C. W. Michatek, to Eastman Kodak Co. Photographic shutter. 3,081,683. 3–19–63, Cl. 95—59.

Horvath, Alexander M. Timer assembly. 3,071,064, 1–1–63, Cl. 99—336.

Horvath, Gyula, to Rotax Ltd. Apparatus for dispensing packaged goods. 3,080,032, 3–5–63, Cl. 193—21.

Horvath, John F., to International Duplex Corp. Automatic washing machine. 3,101,625, 8–27–63, Cl. 74—472.

Horvath, Josef. Draughting device. 3,082,568, 3–26–63, Cl. 45—131.

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Heller, László, Forgo, and Horváth. 3,091,250.

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Horvay, Jullus B., to General Electric Co. Method of operating thermoelectric cooling unit. 3,070,964, 1–1–63, Cl. 62—3.

Horvitz, David, to FMC Corp. Methylated derivatives of hydrazine. 3,102,144, 8–27–63, Cl. 260—583.

Horvitz, David, to FMC Corp. Preparation of methylhydrazine. 3,113,152, 12–3–63, Cl. 260—583.

Horvitz, David, and J. H. Murib, to National Distillers and Chemical Corp. Production of boron hydrides. 3,111,386, 11–19–63, Cl. 23—204.

Horvitz, Howard J. Coagulating aid and method of treating water therewith. 3,082,173, 3–19–63, Cl. 252—181.

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Cone, Joseph H., and Horwitt. 3,088,015.

Horwitz, Earl P.: *See*—
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Clark, Charles A., Doorenbos, and Horwitz. 3,102,141.

Horwitz, Lester, and C. B. Roth, to General Aniline & Film Corp. Sensitizing dyes derived from 2-methyl-6-(2-carbamylethoxy)-benzothiazoles. 3,080,363, 3–5–63, Cl. 260—240.6.

Horwitz, Lester, and C. A. Clark, to General Aniline & Film Corp. Preparation of aminothiols and aminoselenols by improved alkali fusion and their derivatives. 3,102,142, 8–27–63, Cl. 260—578.

Horzick, Joseph: *See*—
Huff, Robert S., and Horzick. 3,090,462.

Hosbein, Hugh W., to Essex Wire Corp. Wire-unwinding device. 3,112,899, 12–3–63, Cl. 242—128.

Hosbein, Louis H., to M. H. Detrick Co. Plate holder. 3,077,362, 2–12–63, Cl. 294—87.

Hosbein, Louis H., and K. T. Kimmlinger, to M. H. Detrick Co. Method of co-moulding brick. 3,109,702, 11–5–63, Cl. 18—59.

Hose, Alexander V., to Atwood & Morrill Co. Check valve with dashpot. 3,106,220, 10–8–63, Cl. 137—514.

Hose, Eddy: *See*—
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Hosegood, Samuel R., B. E. Puffett, and J. H. Swain, to United Kingdom Atomic Energy Authority. Fluid circuits. 3,105,025, 9–24–63, Cl. 204—193.2.

Hoseus, Karl-Heniz: *See*—
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Hosford, Harry W., Jr. Cathodic protection system for submerged installations. 3,071,531, 1–1–63, Cl. 204—196.

Hoshino, Toshio, K. Ashida, and T. Mukaiyama. Process of manufacturing polyurethane foam. 3,078,240, 2–19–63, Cl. 260—2.5.

Hoshino, Yasushi, M. Namikawa, and S. Tochihara. Apparatus for printing magnetic sound record provided with a device for the inspection of the intensity of printed magnetic sound record. 3,093,709, 6–11–63, Cl. 179—100.2.

Hoshizaki, Akira, to Illinois Tool Works Inc. Self aligning arbor. 3,115,712, 12–31–63, Cl. 33—179.5.

Hosler, William A., and H. S. Hoffman, Jr., to Research Corp. Selective comparison apparatus for a digital computer. 3,105,143, 9–24–63, Cl. 235—157.

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Hosking, Michael R., to Electronic Assistance Corp. Liquid degassing means and method. 3,103,424, 9–10–63, Cl. 55—15.

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Hosking, Paul C., to Stewart-Warner Corp. Wheel spinner. 3,071,221, 1–1–63, Cl. 192—4.

Hoskins, Nathan D. Can opener. 3,108,372, 10–29–63, Cl. 30—15.

Hoskins, Robert J., and A. J. Tenner, to Entoleter, Inc. Centrifugal processing apparatus for destroying insect infestation. 3,102,781, 9–3–63, Cl. 21—61.

Hoskins, Thomas E., to Wheatland Electric Products Co. Closures for access openings and method of using the same. 3,081,896, 3–19–63, Cl. 220—3.4.

Hosli, Hansjakob, to Brevets Aero-Mecaniques S.A. Projectiles to be slidably fitted on the end of a gun barrel. 3,098,447, 7–23–63, Cl. 102—51.

Hosmer, A. J., Corp.: *See*—
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Hostetler, Ervin A. Overhead door. 3,092,173, 6–4–63, Cl. 160—191.
Hostetler, Gerald W., and V. W. Kelley, to International Harvester Co. Vehicle cab mounting means. 3,101,809, 8–27–63, Cl. 180—89.
Hostetter, John V. Retractable dome light. 3,107,865. 10–22–63, Cl. 240—7.1.
Hostettler, Fritz, R. K. Barnes, and R. W. McLaughlin, to Union Carbide Corp. Polyurethane foams. 3,073,788, 1–15–63, Cl. 260—2.5.
Hostettler, Fritz, and E. F. Cox, to Union Carbide Corp. Method of reacting castor oil and an organic polyisocyanate in the presence of an organo-metallic tin catalyst. 3,084,177, 4–2–63, Cl. 260—404.5.
Hostettler, Werner, to F. Fabrni. Moulding line for moulding loose particle material into preliminary blanks destined to be pressed in a multiple tier press. 3,070,838, 1–1–63, Cl. 18—4.
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Hotchkiss, Robert J., Jr. Combination disc harrow and tooth drag attachment. 3,090,447, 5–21–63, Cl. 172—178.
Hotchkiss, Robert J., Jr. Combination wheel-mounted disc harrow and tooth drag attachment with tension means therefor. 3,090,448, 5–21–63, Cl. 172—178.
Hotchkiss, William E. Gas absorption apparatus. 3,109,873, 11–5–63, Cl. 261—35.
Hoteko, Henry E., to Aluminium Laboratories Ltd. Continuous casting of metal. 3,080,627, 3–12–63, Cl. 22—57.4.
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Hott, Ion V. K. Balancing mechanism for two-wheeled vehicles. 3,075,789, 1–29–63, Cl. 280—295.
Hott, Ion V. K., to The Joyce-Cridland Co. Movable vehicle lift post with roller elements for supporting pit cover plates. 3,106,988, 10–15–63, Cl. 187—8.45.
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Houbeau, Hubert, and F. von Olnhausen. Vibrating apparatus. 3,077,869, 2–19–63, Cl. 128—33.
Houck, Harry W., and N. W. Gaw, Jr., to McGraw-Edison Co. Multistage frequency measurement system utilizing predetermined frequency slip factors. 3,102,980, 9–3–63, Cl. 324—79.
Houda, James C., Jr., to Western Electric Co., Inc. Article tensioning apparatus. 3,091,960, 6–4–63, Cl. 73—95.
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Houff, William H., and W. T. Tsatsos, to Shell Oil Co. Treatment of fibrous textile materials and resulting products. 3,079,280, 2–26–63, Cl. 117—139.5.
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Hougen, Everett D. Article for separating spot welded panels. 3,104,564, 9–24–63, Cl. 77—69.
Hougen, Olaf A., to Miller Brewing Co. Catalytic reduction of a hop extract. 3,079,262, 2–26–63, Cl. 99—50.5.
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Houghton, Daniel E., E. F. Deady, and S. F. Reed, to Cambridge Wire Cloth Co. Loom harness. 3,088,496, 5–7–63, Cl. 139—92.
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House, Bryan E., to Rockwell-Standard Corp. Hand brake lever-ratchet type. 3,071,979, 1–8–63, Cl. 74—141.5.
House, Bryan E., to Rockwell-Standard Corp. Brake assembly. 3,114,437, 12–17–63, Cl. 188—78.
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House, David C., to Electrolux Corp. Vacuum cleaner suction nozzles. 3,108,311, 10–29–63, Cl. 15—417.
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House, William C., to Aerojet-General Corp. Gas generator turbojet motor. 3,110,153, 11–12–63, Cl. 60—35.3.
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Hovannesian, Albert S., A. J. Gere, and C. Ciecciarella, to Diamond Antenna & Microwave Corp. Proximity warning system. 3,089,139, 5–7–63, Cl. 343—112.
Hovekamp, John C., and E. J. Russell, Jr., to Kamru Products Co. Blanket roll means. 3,111,896, 11–26–63, Cl. 101—37.
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Hoven, Alfred C., and W. E. Nordmark, to American Seating Co. Communication booth. 3,079,473, 2–26–63, Cl. 179—149.
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Cockerell, Christopher S. 3,077,174.
Hovey, John M. Divider circuit using delay time to inhibit transistor conduction for predetermined multiple of input pulses. 3,089,040, 5–7–63, Cl. 307—88.5.
Hovey, John M., and F. C. Hallberg, to United States of America, Navy. Gated amplifier with positive feedback. 3,081,405, 3–12–63, Cl. 307—88.5.
Hovey, Richard J., to American Optical Co. Optical filters and method of making same. 3,104,176, 9–17–63, Cl. 117—33.3.
Hovingh, Albertus R., and H. J. R. Perdijk, to North American Philips Co. Inc. Method of heating getters in strip-shaped holders. 3,102,764, 9–3–63, Cl. 316—25.
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Howard, George C., to Pan American Petroleum Corp. Restraining flow of sand into wells. 3,107,727, 10–22–63, Cl. 166—12.
Howard, George C., and E. R. Jennings, to Pan American Petroleum Corp. Method of cementing parallel tubes in a well. 3,110,347, 11–12–63, Cl. 166—46.
Howard, Glenn, Emergency fuel supplies. 3,113,584, 12–10–63, Cl. 137—266.
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Howard, James E. Mailing device. 3,113,716, 12–10–63, Cl. 229—73.
Howard, James W. Transistorized pulse gate noise limiter. 3,098,972, 7–23–63, Cl. 325—319.
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Howard, John, and S. Y. C. Soong, to Stauffer Chemical Co. Method of controlling vegetative growth. 3,077,393, 2–12–63, Cl. 71—2.5.
Howard, John B. Thermo-responsive switch. 3,082,306, 3–19–63, Cl. 200—140.
Howard, John C.: *See*—
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Howard, John H., to Burroughs Corp. Magnetic cores. 3,071,755, 1–1–63, Cl. 340—174.
Howard, John W., to General Fire Extinguisher Corp. Hose actuated valve apparatus. 3,086,545, 4–23–63, Cl. 137—343.
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Creel, Ernest S. 3,075,594.
Howard, Luther D., to Stall & Dean Mfg. Co. Hockey helmet. 3,087,166, 4–30–63, Cl. 2—3.
Howard, Paul J. Container for plants. 3,091,896, 6–4–63, Cl. 47—37.
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Howard, Robert C., and A. W. Conow, to Giannini Controls Corp. Computer for functions such as true airspeed. 3,104,315, 9–17–63, Cl. 235—151.
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Howard, Sheldon J., to Trico Products Corp. Windshield wiper system. 3,113,333, 12–10–63, Cl. 15—250.14.
Howard, Sheldon J., to Trico Products Corp. Windshield wiper system. 3,113,334, 12–10–63, Cl. 15—250.14.
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Howard, Wayne R., to Clark Equipment Co. Power transmission mechanism. 3,109,524, 11–5–63, Cl. 192—3.2.
Howard, William J. Valve stem caps. 3,112,770, 12–3–63, Cl. 138—89.2.
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Lorette, Nicholas B., and Howard. 3,114,772.
Howard, William L., and N. B. Lorette, to The Dow Chemical Co. Process for the preparation of ketals. 3,072,727, 1–8–63, Cl. 260—611.
Howard, William W. Coin handling means. 3,085,378, 4–16–63, Cl. 53—254.
Howarth, John T., and J. Shulman, to Arthur D. Little, Inc. Waterproof plastic films of increased water vapor permeability and method of making them. 3,081,270, 3–12–63, Cl. 260—17.
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Howdle, Frederic E., and J. Rauenbuehler, to Cutler-Hammer, Inc. Signature jogging and stacking mechanism. 3,083,014, 3–26–63, Cl. 271—89.
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Howe, Donald J., and R. E. Maurer, to Eastman Kodak Co. Continuous prescreening of film. 3,110,594, 11–12–63, Cl. 96—45.
Howe, Earl E., 50% to E. E. Howe, 25% to R. W. Howe, and 25% to M. H. Frisbey. Mandrel swage. 3,115,797, 12–31–63, Cl. 78—60.
Howe, Earl E. and R. W. Steering suspension. 3,103,376, 9–10–63, Cl. 287—90.
Howe, Elra F. Floor valve. 3,107,687, 10–22–63, Cl. 137—362.
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Howe, Harold, and S. L. Bauer, to Howe Folding Furniture, Inc. Executive-type folding table. 3,093,095, 6–11–63, Cl. 108—131.
Howe, Howard W., to Stauffer Chemical Co. Electron-beam furnace with opposed-field magnetic beam guidance. 3,087,211, 4–30–63, Cl. 22—57.2.
Howe, John J. Dual sun visors and mounting means therefor. 3,074,756, 1–22–63, Cl. 296—97.
Howe, Joseph H., and L. R. Morris, to The Dow Chemical Co. Process for making pyrocarbonate esters. 3,078,294, 2–19–63, Cl. 260—453.
Howe, Joseph H., and L. R. Morris to The Dow Chemical Co. Selective separation of luteo cobalt from ammoniacal solutions containing divalent copper and/or divalent nickel by preferential adsorption on a chelating resin. 3,082,081, 3–19–63, Cl. 75—119.
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Howell, Alun R., and C. E. Moss, to Power Jets (Research and Development) Ltd. Jet propulsion plant. 3,111,005, 11-19-63, Cl. 60—35.6.
Howell, David S., to Arlington Aluminum Co. Display assembly and poster holder. 3,083,489, 4-2-63, Cl. 40—152.
Howell, David S., to Arlington Aluminum Co. Double-sided poster holder. 3,102,351, 9-3-63, Cl 40—125.
Howell, Dennis G., R. Parr, and K. R. Heath, to Glaxo Group Ltd. Improved swine erysipelas vaccine. 3,083,142, 3-26-63, Cl. 167—78.
Howell, Derek, to Faraday Electronic Instruments Ltd. Apparatus for use in stethoscopy. 3,110,770, 11-12-63, Cl 179—1.
Howell, Dixie, to Kellwood Co. Composite garment. 3,098,485, 7-23-63, Cl. 128—455.
Howell, Edward K., to General Electric Co. Photoelectric controller. 3,080,491, 3-5-63, Cl. 307—117.
Howell, George E. Illuminated signal attachment for a fishing rig. 3,078,610, 2-26-63, Cl. 43—17
Howell, Harvey L., and R. E. Ruhfel, to Avien, Inc. Buoyancy capsule for deep submerged buoys. 3,110,914, 11-19-63, Cl. 9—8.
Howell, Louis J., to General Electric Co. Condition responsive electric switch mechanism. 3,096,419, 7-2-63, Cl. 200—140.
Howell, Peter A., to Union Carbide Corp. Process for producing molecular sieves. 3,101,251, 8-20-63, Cl. 23—113.
Howell, Peter A., to Union Carbide Corp. Process for synthetic zeolite A. 3,114,603, 12-17-63, Cl. 23—113.
Howell, Richard S., to Burroughs Corp. Method of electrostatic recording with different inks. 3,094,429, 6-18-63, Cl. 117—17.5.
Howell, Richard S., to Burroughs Corp. Cathode ray electrostatic printing or recording device. 3,103,606, 9-10-63, Cl. 313—73.
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Howerton, Hugh K., to American Instrument Co., Inc. Diaphragm pump protective system. 3,105,442, 10-1-63, Cl. 103—11.
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Howland, Louis H., and V. S. Chambers, to United States Rubber Co. Process of increasing the particle size of synthetic rubber latex. 3,095,398, 6-25-63, Cl. 260—29.7.
Howle, Ray B., to The Pure Oil Co. Ion exchange material regeneration process. 3,116,241, 12-31-63, Cl. 210—35.
Howlett, Charles L., to Huron Portland Cement Co. Pneumatic discharge systems. 3,104,030, 9-17-63, Cl. 222—59.
Howlett, Claude W., to Leeford (London) Ltd. Trenching machines. 3,072,272, 1-8-63, Cl. 214—141.
Howlett, Edward J., to Isaac Braithwaite & Son Engineers Ltd. Washing machines. 3,100,978, 8-20-63, Cl. 68—140.
Howling, Dennis H., to McGraw-Edison Co. U-V detector tube with heated electrodes. 3,103,589, 9-10-63, Cl. 250—83.6.
Howling, Harold L., to Basic Atomics Inc. Purification of leach liquor containing lithium values. 3,099,527, 7-30-63, Cl. 23—33
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Hoxie, John P., and A. J. Werner, to Corning Glass Works. Light filter. 3,113,033, 12-3-63, Cl. 106—54.
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Hoyer, Llewellyn E., and E. R. Gorcyca, to American Brake Shoe Co. Journal lubricators. 3,090,660, 5-21-63, Cl. 308—243.
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Hoyrup, Sigurd J., and R. V. Pagendarm, to Atlas General Industries, Inc. Devices for forming heat sealable blanks into box form and method. 3,085,479, 4-16-63, Cl. 93—51.
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Hoyt, Herbert L., to Textron Industries, Inc. Machine for forming metal articles. 3,101,632, 8-27-63, Cl. 78—17
Hoyt, Herbert L., to Textron Industries. Machine for forming metal articles. 3,112,660, 12-3-63, Cl. 78—17.
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Hruby, John O., Jr., to Rain Jet Corp. Lawn sprinkler with gyratory stem. 3,091,398, 5-28-63, Cl. 239—206.
Hruby, John O., Jr., to Rain Jet Corp. Sprinkling system. 3,091,401, 5-28-63, Cl. 239—276.
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Hryniszak, Waldemar, to C. A. Parsons & Co. Ltd. Gas turbine plants. 3,103,100, 9-10-63, Cl. 60—13.
Hsia, Henry T., to Lockheed Aircraft Corp. Hydrogen transpiration cooling of a high temperature surface using a metal hydride as the coolant material. 3,115,746, 12-31-63, Cl. 60—35.6.
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Hu, Quang Hsi. Novel and safety process and device for use in connection with motor vehicles. 3,098,538, 7-23-63, Cl. 180—82
Huang, Chaang, and B. H. White, to Sylvania Electric Products Inc. Trigger circuits employing transistors of complementary characteristics. 3,113,217, 12-3-63, Cl. 307—88.5.
Huang, Chingyun, and M. Imoto. Production of thermosetting hydrocarbon resins from polyaromatic hydrocarbon glycol. 3,116,265, 12-31-63, Cl. 260—42.

Huang, Hsing T., to Chas. Pfizer & Co., Inc. 6-aminopenicillanic acid amide production. 3,088,880, 5-7-63, Cl 195—36.
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Hubbard, David W., and S. H. Lippa, to Sperry Rand Corp. Electromagnetic set-up device for a selective perforator. 3,106,339, 10-8-63, Cl. 234—115.
Hubbard, Eber J., to Van Norman Industries, Inc. Method and apparatus for packaging, shipping and supplying wire. 3,082,868, 3-26-63, Cl. 206—52.
Hubbard, James R., and S. V. Horecky, to Philco Corp. Laundry apparatus having automatic clutch control. 3,100,387, 8-13-63, Cl. 68—12.
Hubbard, John L., and A. Kromm, to The Firth Carpet Co. Looper with sliding cutter. 3,070,983, 1-1-63, Cl. 66—84.
Hubbard, Leo J., G. J. Heckel, and B. M. Leyland, to General Electric Co. Hinged gate document feeder. 3,103,355, 9-10-63, Cl. 271—5.
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Hubbard, S. Eugene, to Kawneer Co. Metal construction element. 3,081,851, 3-19-63, Cl. 189—34.
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Hubbell, Harvey, to Harvey Hubbell Inc. Sealed electrical receptacles. 3,096,132, 7-2-63, Cl. 339—36.
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Hubbs, John C., to E. H. Research Laboratories, Inc. Electronic force balancing device. 3,079,792, 3-5-63, Cl. 73—141.
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Hubby, Laurence M., to Texaco Inc. Automatic custody transfer system. 3,087,336, 4-30-63, Cl. 73—223.
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Hubel, Karl W., and E. H. Braye, to Union Carbide Corp. Process for the preparation of ketonic organic compounds and products resulting therefrom. 3,096,265, 7-2-63, Cl. 204—158.
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Huber, Johann. Sterilizing apparatus. 3,086,263, 4-23-63, Cl. 21—98.
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Huber, Mortimer J. Torque clutch. 3,092,983, 6-11-63, Cl. 64—30.
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Huber, Richard, to Pertrix-Union G.m.b.H. Primary battery cell for high current loads and method of its manufacture. 3,098,771, 7-23-63, Cl. 136—103.
Huber, Richard, and F. Kübler, to SKF Kugellagerfabriken Gesellschaft mit beschrankter Haftung. Textile drafting mechanism. 3,091,814, 6-4-63, Cl. 19—281.
Huber, Robert A. Double-firing-per-trigger-actuation cap pistol. 3,080,672, 3-12-63, Cl. 42—57.
Huber, Robert D., to G. Miller. Bicycle saddle bag carrier and spoke protector. 3,101,163, 8-20-63, Cl. 224—32.
Huber, William J., to Goodman Mfg. Co. Conveyor system for large material removal areas. 3,107,002, 10-15-63, Cl. 198—95.
Huberman, Sam, to Schwartz & Benjamin, Inc. Foot conforming shoe upper. 3,084,460, 4-9-63, Cl. 36—51.
Huberty, Elmer J., to Advance Transformer Co. Ballast apparatus with dimming control. 3,091,720, 5-28-63, Cl. 315—98.
Hubka, Theodore, to General Precision, Inc Microwave transmitter and receiver. 3,095,561, 6-25-63, Cl. 343—5.
Hubka, Theodore, and A. C. Blumenfeld, to General Precision, Inc. Test instrument for doppler radar systems. 3,090,955, 5-21-63, Cl. 343—17.7.
Hubmann, Hans, to Schweizerische Industrie-Gesellschaft. Mold and expresser sealing means. 3,113,380, 12-10-63, Cl. 31—10.
Hubner, Gerhard, to Hermann Bauermeister, Maschinenfabrik und Muhlenbau G.m.b.H. Machine for treating bulk chocolate. 3,115,821, 12-31-63, Cl. 99—236.
Hubner, Karl: *See*—
Buchwald, Fritz, and Hubner. 3,104,078.
Huboi, Karl A., H. Eicker, and E. Bonn, to General Motors Corp. Chain tightener. 3,081,643, 3-19-63, Cl. 74—242.11.
Hubrich, Christoph, to Polysius G.m.b.H. Rotary piston for a roots blower. 3,105,634, 10-1-63, Cl. 230—141.
Hubscher, Pierre: *See*—
Borvall, Mehmed Y., Grolla, Hubscher, and Reynaud. 3,107,977.
Hubscher, Rudolf F.: *See*—
Krause, Georges, and Hubscher. 3,085,817.
Huchala, Andrew P. Undercarriage safeguard system. 3,089,672, 5-14-63, Cl. 244—102.
Huck Co.: *See*—
Huck, William F. 3,078,587.
Huck, William F. 3,097,844.
Huck, William F. 3,103,320.
Huck, William F. 3,112,657.
Huck, Georg: *See*—
Grosskinsky, Otto, Huck, and Klempt. 3,104,959.
Huck Mfg. Co.: *See*—
Brillmyer, Harold G., and Wohlann. 3,095,776.
Koeller, William N. 3,105,291.
Orloff, John F. 3,107,572.
Van Hecke, George J. 3,105,416.
Van Hecke, George J. 3,115,752.
Van Hecke George J., and Smoot. 3,107,806.
Huck, Rodney M.: *See*—
Freedman, Bernard, and Huck. 3,091,596.
McTaggart, Robert B., Jackson, and Huck. 3,106,547.
Huck, William F.: *See*—
Huck, William F. 3,097,844.
Huck, William F. Variable cutting and delivery apparatus. 3,075,678, 1-29-63, Cl. 225—96.

Huck, William F., to W. F. Huck, d.b.a. Huck Co. Coordinated heater and speed control for web drying machines. 3,078,587, 2–26–63, Cl. 34—48.

Huck, William F. Web tension control mechanism. 3,083,887, 4–2–63, Cl. 226—41.

Huck, William F. Multiple web collating and folding apparatus. 3,094,320 6–18–63, Cl. 270—52.

Huck, William F., to William F. Huck, d.b.a. Huck Co. Automatic web register controls. 3,097,844, 7–16–63, Cl. 270—52.

Huck, William F., to W. F. Huck, d.b.a. Huck Co. Automatic splicing rollstand. 3,103,320, 9–10–63, Cl. 242—58.3.

Huck, William F., to W. F. Huck, d.b.a. Huck Co. Reciprocation balancing mechanism. 3,112,657, 12–3–63, Cl. 74—590.

Huckabay, William B., to Socony Mobil Oil Co. Inc. Multiple reflection determination for continuous marine acoustic exploration. 3,075,606, 1–29–63, Cl. 181—.5.

Huckabay, William B., and W. H. Parker, to Rayflex Exploration Co. Underwater beacon. 3,090,938, 5–21–63, Cl. 340—5.

Huckabee, Thad T. Apparatus for cooking and smoke-flavoring food. 3,088,393, 5–7–63, Cl. 99—259.

Hucker, Francis E. Display device. 3,087,624, 4–30–63, Cl. 211—87.

Huckleberry, Irvin E.: *See*—
Newland, Arthur E., and Schultz. 3,086,513.

Hucks, Helmut: *See*—
Widmer, Manfred, and Hucks. 3,103,135.

Huddle, Edwin F., to International Harvester Co. Seal for bearings. 3,083,972, 4–2–63, Cl. 277—13.

Huddle, Edwin F., to International Harvester Co. Self adjusting seal. 3,101,954, 8–27–63, Cl. 277—39.

Huddleston, Richard H., Jr.: *See*—
Bravenec, Frank R., and Huddleston. 3,094,658.

Huddleston, Richard H., Jr., to Halliburton Co. Means and techniques for effecting a mathematical inversion. 3,076,955, 2–5–63, Cl. 340—18.

Huddleston, Richard H., Jr., to Halliburton Co. Temperature measuring system. 3,085,436, 4–16–63, Cl. 73—361.

Huddleston, Richard H., Jr., to Halliburton Co. Bridge circuit. 3,109,137, 10–29–63, Cl. 323—75.

Huddleston, Richard H., Jr., F. R. Bravenec, and E. Eszlinger, to Halliburton Co. Electrical well logging system. 3,079,550, 2–26–63, Cl. 324—1.

Huddleston, Sherell R.: *See*—
Fuhrman, Richard E., and Huddleston. 3,109,412.

Huddleston, William B. Manually operated key for electronic keyer. 3,087,037, 4–23–63, Cl. 200—153.

Huddlestone, Richard H.: *See*—
Clauser, Milton U., Meyer, Huddlestone, and Fried. 3,102,088.

Hudgens, Bernard C.: *See*—
Dettlof, Lee A., and Hudgens. 3,087,436.

Hudgens, Bernard C., C. F. Hammond, and R. P. Kohlitz to Gemmer Mfg. Co., Division of Ross Gear and Tool Co., Inc. Close tolerance anti-friction component assembly. 3,081,644, 3–19–63, Cl. 74—424.8.

Hudgin, Donald E., and F. M. Berardinelli, to Celanese Corp. of America. Continuous bulk polymerization process. 3,093,617, 6–11–63, Cl. 260—67.

Hudimac, Albert A. Electromechanical vibratory force suppressor and indicator. 3,088,062, 4–30–63, Cl. 318—128.

Hudis, Michael L., and G. Mihulowicz, to Chain Belt Co. Pavement surface finishing apparatus. 3,094,048, 6–18–63, Cl. 94—45.

Hudon, Marie A. Combined gaiter and overshoe. 3,087,260, 4–30–63, Cl. 36—7.2.

Hudson, Donald P.: *See*—
Booth, Gerald, and Hudson. 3,084,166.

Hudson, Edwin B., to Armco Steel Corp. Cold mill pressure control. 3,097,549, 7–16–63, Cl. 80—60.

Hudson, Frederick W.: *See*—
Bogdonoff, Harold, and Hudson. 3,103,445.

Hudson Foam Plastics Corp.: *See*—
Wilson, Christopher L., and Schuffman. 3,093,525.

Hudson, George A., to Mobay Chemical Co. Polyurethane polymers containing tall oil. 3,095,386, 6–25–63, Cl. 260—2.5.

Hudson, H. D., Mfg. Co.: *See*—
Anderson, Donald H., and Peterson. 3,082,917.
Keating, Maurice H., and Kubinski. 3,096,425.
Pinke, August H. 3,109,567.

Hudson, Harold R., to Fluidgenics. Pressure control system. 3,113,582, 12–10–63, Cl. 137—115.

Hudson, Holland R.: *See*—
Pabst, Carl F., and Hudson. 3,104,572.

Hudson, James W.: *See*—
Witort, William W., Hudson, and King. 3,110,754.

Hudson, James W., and E. J. King, to Square D Co. Underfloor electrical junction box. 3,104,774, 9–24–63, Cl. 220—3.94.

Hudson Lamp Co.: *See*—
Welsh, James W. 3,088,012.

Hudson, Lloyd A. Shopping cart pickup machine. 3,073,404, 1–15–63, Cl. 180—27.

Hudson, Milton W., and F. J. Moore, Sr., to International Resistance Co. Variable resistor. 3,096,499, 7–2–63, Cl. 338—165.

Hudson, Paul S.: *See*—
Cobb, Raymond L., Hudson, and Mayfield. 3,109,761.

Hudson, Paul S., to Phillips Petroleum Co. Hybrid method of rocket propulsion using tetranitromethane. 3,083,526, 4–2–63, Cl. 60—35.4.

Hudson, Paul S., and C. C. Bice, to Phillips Petroleum Co. Solid composite propellants containing aziridinyl-curing agents. 3,087,844, 4–30–63, Cl. 149—19.

Hudson, Perry D. Combustion products pressure generator. 3,088,276, 5–7–63, Cl. 60—39.6.

Hudson, Ray E., to Bell Corp. Pneumatic device. 3,086,397, 4–23–63, Cl. 73—311.

Hudson, Raymond A., and R. S. Nelson, to Chicago Rawhide Mfg. Co. Oil seal assemblies. 3,086,781, 4–23–63, Cl. 277—99.

Hudson, Robert L. Shaded panel groove. 3,087,269, 4–30–63, Cl. 41—24.

Hudson, William J.: *See*—
Ford, David E., Jr., and Hudson. 3,081,427.

Hueber, Carl J.: *See*—
Brugge, Walter J., Hueber, and Hampton. 3,077,828.

Huebner, Charles F., to Ciba Corp. Substituted indenes. 3,072,716, 1–8–63, Cl. 260—501.

Huebner, Charles F., to Ciba Corp. 2-(N,N-di-loweralkylamino-loweralkyl)-1-[pyridylmethylidene]-indene and process. 3,076,804, 2–5–63, Cl. 260—240.

Huebner, Charles F., to Ciba Corp. Heterocyclic compounds. 3,085,094, 4–9–63, Cl. 260—295.

Huebner, Charles F., to Ciba Corp. Certain 3-(pyridyl lower alkyl)-2-(tert-amino-lower alkyl)-indene quaternary salts. 3,105,836, 10–1–63, Cl. 260—296.

Huebner, Charles F., to Ciba Corp. Bicyclic hydrazinium compounds. 3,106,849, 10–1–63, Cl. 260—501.

Huebner, Herbert A.: *See*—
Worrel, Richard M. 3,098,341.

Huebner, William C. Printing plate treating apparatus. 3,072,049, 1–8–63, Cl. 101—147.

Huebner, William C., to Lanston Industries, Inc. All-purpose photographic mechanical reproduction camera. 3,101,024, 8–20–63, Cl. 88—24.

Huebner, William C., and J. Kunicki, to Advanced Graphics, Inc. Humid air press plate conditioning apparatus for printing press. 3,093,067, 6–11–63, Cl. 101—147.

Huebschmann, Eugene C., to United States of America, Air Force. Accelerometer using magnetic torsion. 3,074,280, 1–22–63, Cl. 73—517.

Huelskamp, Donald A., to Koehring Co. Hydraulic molding machines. 3,084,512, 4–9–63, Cl. 60—52.

Huelster, Otto J., to Scovill Mfg. Co. Spring-locking slider for zipper fasteners. 3,070,865, 1–1–63, Cl. 24—205.14.

Huelster, Otto J., to Scovill Mfg. Co. Spring-locking slider for zipper fasteners. 3,099,059, 7–30–63, Cl. 24—205.14.

Huelster, Otto J., and J. F. Scott, to Scovill Mfg. Co. Plastic stud and socket with common rivet. 3,107,408, 10–22–63, Cl. 24—208.

Huemer, Hans, to Deutsche Gold- und Silber-Scheideanstalt vormals Roessler. Perchloromethylmercaptoaminotriazines and a process for their production. 3,079,391, 2–26–63, Cl. 260—249.8.

Huenig, Siegfried: *See*—
Baumann, Hans, and Huenig. 3,078,137.

Huet, André, to Combustion Engineering, Inc. Control for neck forming machine. 3,074,460, 1–22–63, Cl. 153—21.

Huet, André, to Combustion Engineering, Inc. Machine for the fabrication of spiral tube coils. 3,074,465, 1–22–63, Cl. 153—64.

Huet, Andre. Furnaces for heat treating articles. 3,087,714, 4–30–63, Cl. 263—2.

Huet, André. Metallic piping system for fluids at high temperature. 3,089,520, 5–14–63, Cl. 138—138.

Huet, André. Device for regularizing the distribution of a fluid. 3,092,147, 6–4–63, Cl. 138—37.

Huet, André. Light boiler for use in a nuclear energy installation. 3,098,468, 7–23–63, Cl. 122—32.

Huet, André. Nuclear reactor with fuel under spheroidal form. 3,098,809, 7–23–63, Cl. 204—193.2.

Huet, Andre. Process of forming a bulb on a straight metal tube. 3,099,880, 8–6–63, Cl. 29—544.

Huet, Andre. Tubular heat exchanger. 3,101,930, 8–27–63, Cl. 165—143.

Huet, Andre. Device for the controlled circulation of water in evaporator assembly. 3,103,918, 9–17–63, Cl. 122—407.

Huet, Andre. Method of making tubular heat exchanger. 3,108,362, 10–29–63, Cl. 29—157.4.

Huet, Andre. Heat exchangers. 3,111,168, 11–19–63, Cl. 165—165.

Huet, André. Heat exchange installation. 3,115,870, 12–31–63, Cl. 122—32.

Huet, Jean R. Method of obtaining coloured images. 3,091,155, 5–28–63, Cl. 88—16.4.

Huet, Raymond J., to United States Steel Corp. Method of drawing wire and a lubricant therefor. 3,111,218, 11–19–63, Cl. 205—21.

Hueter, Theodore F., to Raytheon Co. Electroacoustical apparatus. 3,115,588, 12–24–63, Cl. 310—8.6.

Huettner, Robert J., and C. M. Goodyear. Orthodontic attachment device. 3,087,244, 4–30–63, Cl. 32—14.

Huey, Homer D., to Martin-Marietta Corp. Turret and electronic sighting station. 3,086,425, 4–23–63, Cl. 89—37.5.

Huey, Norman R., to General Electric Co. Constructional kit. 3,111,219, 11–19–63, Cl. 206—45.34.

Huff, Ehrman P.: *See*—
Kane, Gale L. 3,099,355.

Huff, George F., to Gallery Chemical Co. Preparation of metal borohydrides. 3,079,224, 2–26–63, Cl. 23—14.

Huff, Hazel S.: *See*—
Huff, Leslie R. 3,095,667.

Huff, Irwin K., to Cart Ads Corp. Advertising display board. 3,082,557, 3–26–63, Cl. 40—10.

Huff, James R., and D. T. Haworth, to Allis-Chalmers Mfg. Co. Preparation of iron tetracarbonyl, $Fe(CO)_4$. 3,107,978, 10–22–63, Cl. 23—203.

Huff, John, to L. A. Welt. Folding rack. 3,104,763, 9–24–63, Cl. 211—178.

Huff, Joseph F., to Northrop Corp. Precision adjusting head for machine tools. 3,101,631, 8–27–63, Cl. 77—58.

Huff, Leslie R., deceased; H. S. Huff, administratrix of the estate of L. R. Huff, Rotatable and translatable drawing board. 3,095,667, 7–2–63, Cl. 45—131.

Huff, Robert S., to Motorola, Inc. Portable radio cabinet. 3,089,740, 5–14–63, Cl. 312—7.

Huff, Robert S., and J. Horzick, to Motorola, Inc. Cabinet for sound reproducing equipment. 3,090,462, 5–21–63, Cl. 181—31.

Huffaker, James E.: *See*—
Brunson, Marion O., and Huffaker. 3,110,608.

Hufferd, George H.: *See*—
Small, Charles B., Vail, and Hufferd. 3,094,108.

Hufferd, George H., H. L. Vail, Jr., and R. H. Josephson, to Clevite Corp. Voltage or spark source. 3,082,333, 3–19–63 Cl. 310—8.3.

Hufferd, George H., R. H. Josephson, and A. L. W. Williams, to Clevite Corp. Distorted bearing piezoelectric voltage source. 3,101,420, 8–20–63, Cl. 310—8.7.

Hufferd, George H., and R. E. Stewart, to Clevite Corp. Piezoelectric voltage source. 3,114,059, 12–10–63, Cl. 310—8.7.

Huffman, Charles O., W. F. Galey, and G. W. Misson, to Pittsburgh Plate Glass Co. Glass cutting apparatus. 3,107,834, 10–22–63, Cl. 225—96.5.

Huffman, George W., to The Quaker Oats Co. Method for producing a barley fraction having thickening properties and the product resulting therefrom. 3,115,410, 12–24–63, Cl. 99—80.

Huffman, Harold W., to The Hamilton Tool Co. Method and apparatus for producing air-cooled carbon-coated paper. 3,084,449, 4–9–63, Cl. 34—159.

Huffman, Harold W., to The Hamilton Tool Co. Air expandable core shaft. 3,096,949, 7–9–63, Cl. 242—72.

Huffman, Harold W., to The Hamilton Tool Co. Apparatus for rotarily punching webs of paper. 3,106,859, 10–15–63, Cl. 83—345.

Huffman, John W., to Pace, Inc. Thermostat switch. 3,098,913, 7–23–63, Cl. 200—138.

Huffman Mfg. Co., The: *See*—
Silbereis, Joseph. 3,075,788.

Huffman, Max N., to Lasdon Foundation, Inc. 3-alkenyl ethers of 17α-hydrocarbonyl-17β estradiols. 3,077,486, 2–12–63, Cl. 260—397.5.

Huffman, Mervin C., to Gardner-Denver Co. Drilling device. 3,082,741, 3–26–63, Cl. 121—7.

Huffman, Raymond A., to Sperry Rand Corp. Overridable clutch mechanism. 3,091,316. 5–28–63, Cl. 192—150.

Huffman, Robert E.: *See*—
Kafoure, Lewis, and Huffman. 3,097,888.

Hufford Corp., The: *See*—
Wheeler, Walter G., and Drone. 3,073,373.

Hufford, Harold H., ½ to R. C. Shape. Interchangeable lure bodies and single support means therefor. 3,091,883, 6–4–63, Cl. 43—42.08.

Hug, Hans A.: *See*—
Reswick, James B., and Hug. 3,086,686.

Hug, Richard C.: *See*—
Rhodes, James L., and Hug. 3,081,916.

Huge, Ernest C., and G. Musat, to The Babcock & Wilcox Co. Pulverized fuel burner. 3,074,361, 1–22–63, Cl. 110—28.

Hugelshofer, Paul: *See*—
Weber, Kurt, Ulrich, Hugelshofer, Bruengger, and Staeuble. 3,083,068.

Hugenholtz, Eduard H., to North American Philips Co., Inc. Frequency converting circuit with mixing element in input circuit of amplifying device. 3,084,330, 4–2–63, Cl. 325—440.

Huger, Wilhelm: *See*—
Walz, Karl B., and Huger. 3,079,799.

Huggins, Donald N.: *See*—
Rees, Willis M., and Huggins. 3,111,188.

Huggins, Homer D., to Modine Mfg. Co. Heat exchanger header construction. 3,113,615, 12–10–63, Cl. 165—149.

Hugheds, William R.: *See*—
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Hughel, Thomas J., to General Motors Corp. Strain gage dilatometer. 3,106,086, 10–8–63, Cl. 73—16.

Hughes Aircraft Co.: *See*—
Bates, David J. Re. 25,329.
Berk, Aristid D., and Strumwasser. 3,099,805.
Blasberg, Lawrence A., Lader, and Young. 3,099,806.
Bordelon, Sidney A., Jr. 3,106,650.
Braeutigam, Jean L. 3,084,302.
Branch, Gerald L., Richardson, and Scapple. 3,105,869.
Brennan, Robert A. 3,080,539.
Coronado, Robert J., Yamashiro, and Ward. 3,083,960.
Davidson, Richard S., Jr. 3,076,947.
Dehirst, Donald R. 3,080,536.
Denney, Joseph M., Friedland, and Keywell. 3,110,806.
Dill, Johann G. 3,075,092.
Farnsworth, Robert P., and Azar. 3,076,135.
Fusfield, Robert L., and Sterba. 3,095,542.

Hughes Aircraft Co.: *See*—Continued
Gebhardt, Carl C. 3,091,761.
Gebhardt, Carl C. 3,110,022.
Gluth, Norman P. 3,109,143.
Holcomb, Don R. 3,076,133.
Holcomb, Don R. 3,109,934.
Holcomb, Don R., and Leeson. 3,101,452.
Hulett, Henry R. 3,080,484.
Kleinman, Leonard, and Berk. 3,076,132.
Knechtli, Ronald C., and Grabowski. 3,076,149.
Leetmaa, Juri G., and Uebele. 3,104,361.
Lehrer, Norman H. 3,086,139.
Lehrer, Norman H. 3,089,055.
Lehrer, Norman H. 3,089,056.
Lehrer, Norman H., and Solivan. 3,089,050.
Munushian, Jack, and Kliger. 3,084,293.
O'Meara, Thomas R. 3,116,455.
Paschal, Edwin A. 3,081,441.
Plummer, Robert E. 3,109,174.
Preston, Daniel S. 3,086,071.
Reuvers, John F., and Clark. 3,108,237.
Reuvers, John F., Clark, and Lockhart. 3,084,296.
Riley, Ray L. 3,109,945.
Scapple, Robert Y., and Stillman. 3,103,454.
Schultz, Harold R., Sr., and Mason. 3,084,284.
Steiger, Werner. 3,092,753.
Stello, Phyllis E., Hall, and Nestor. 3,103,428.
Thaler, Samuel. 3,072,857.
Urias, Gilbert, and Paustian. 3,112,354.
Wannlund, Arthur L., Jr. 3,076,731.
Wannlund, Arthur L., Jr., and Waters. 3,088,856.
Wargo, Lorand J. 3,109,995.
Welty, William R. 3,090,928.
Welty, William R., and Levenson. 3,083,360.

Hughes, Alvin W. Apparatus for animal immobilization. 3,081,483, 3–19–63, Cl. 17—1.

Hughes, Alvin W. Slaughter house equipment and apparatus for bleeding slaughtered animals. 3,115,666, 12–31–63, Cl. 17—1.

Hughes, Arthur C.: *See*—
Dumas, Roger E., and Hughes. 3,076,343.
Dumas, Roger E., and Hughes. 3,076,927.

Hughes, Brian G.: *See*—
Watson, William F., Izod, and Hughes. 3,072,968.

Hughes, Daniel C., to Royal Masters Grinders, Inc. Centerless grinder. 3,108,470, 10–29–63, Cl. 51—103.

Hughes, Daniel C., to Royal Master Grinders, Inc. Grinding wheel crush dressing apparatus. 3,113,563, 12–10–63, Cl. 125—11.

Hughes, David E., to Superior Valve & Fittings Co. High pressure valve. 3,111,141, 11–19–63, Cl. 137—630.22.

Hughes, Donald W., Jr. Integral battery multiple cell cover. 3,081,373, 3–12–63, Cl. 136—177.

Hughes, Edward L.: *See*—
Bennett, Moreland P., and Hughes. 3,075,299.

Hughes, Ernest S., Jr.: *See*—
Hamilton, Francis E., Hawkins, Lawhead, and Hughes. Re. 25,482.

Hughes, F. A., & Co. Ltd.: *See*—
Waite, William G. 3,074,876.
Waite, William G., and Higgins. 3,081,175.

Hughes, Frank J.: *See*—
Bosset, Clebert J., and Hughes. 3,105,206.

Hughes, Garyth: *See*—
Bickerdike, Robert L., and Hughes. 3,084,394.
Bickerdike, Robert L., Hughes, and Watt. 3,107,973.

Hughes, George M. K.: *See*—
Hess, Hans-Jurgen E., Figdor, Hughes, and Moreland. 3,081,319.

Hughes, George M. K., to Chas. Pfizer & Co., Inc. 3-pyridylacrylonitriles. 3,094,533, 6–18–63, Cl. 260—294.9.

Hughes, George W. Sand trap for pump by-pass line to motor control switch diaphragm. 3,114,320, 12–17–63, Cl. 103—25.

Hughes, Herbert D., and R. W. Lewis, to Metachemical Processes Ltd. Production of articles or coatings by electrodeposition. 3,092,558, 6–4–63, Cl. 204—4.

Hughes, Hugh F. Recreational bounce type device. 3,114,550, 12–17–63, Cl. 273—106.

Hughes, James R.: *See*—
Tyler, Merle D., Hughes, and Bitzer. 3,092,240.

Hughes, James R., to Hughes-Tyler Mfg. Co. Conveyor. 3,088,580, 5–7–63, Cl. 198—184.

Hughes, James W.: *See*—
Stowell, Nathan J. 3,115,548.

Hughes, Lawrence J., to Monsanto Chemical Co. Method of producing benzene and ethylene from allyl chloride. 3,114,780, 12–17–63, Cl. 260—668.

Hughes, Lawrence J., T. D. McMinn, Jr., and J. C. Burleson, to Monsanto Chemical Co. Process for the oxidation of organic sulfides. 3,114,775, 12–17–63, Cl. 260—607.

Hughes, Martin R.: *See*—
Baar, Howard E., and Hughes. 3,094,737.

Hughes, Ralph L. Automobile alarm system. 3,072,884, 1–8–63, Cl. 340—52.

Hughes, Ralph L. Automobile alarm system. 3,077,576, 2–12–63, Cl. 340—52.

Hughes, Ritchmond P. Piston ring assembly. 3,108,817, 10–29–63, Cl. 277—136.

Hughes, Robert W., to Joy Mfg. Co. Cryogenic apparatus. 3,092,973, 6–11–63, Cl. 62—55.

Hughes, Robert W., and N. A. Leist, to Joy Mfg. Co. Compressor control. 3,074,434, 1–22–63, Cl. 137—628.

Hughes, Roland L.: *See*—
Carpenter, Richard A., Hughes, and Bush. 3,072,704.
Hughes, Shannon C. Hand truck. 3,102,648, 9-3-63, Cl. 214—375.
Hughes, Stanley G., to General Electric Co. Plasma accelerometer. 3,105,385, 10-1-63, Cl. 73—516.
Hughes, Stanley G., to General Electric Co. Split anode plasma accelerometer. 3,110,185, 11-12-63, Cl. 73—517.
Hughes Tool Co., Aircraft Division: *See*—
Amer, Kenneth B., Chris, and Boswell. 3,096,826.
Atkinson, Gerald O., Cline, and Cunningham. 3,075,781.
Dougherty, Walter J., Jr. 3,087,558.
Galle, Edward M., and Scott. 3,086,601.
Hughes-Tyler Mfg. Co.: *See*—
Hughes, James R. 3,088,580.
Tyler, Merle D., Hughes, and Bitzer. 3,092,240.
Hughes, William R., to Petrolite Corp. Process of inhibiting corrosion. 3,096,294, 7-2-63, Cl. 252—390.
Hughes, William R., to Petrolite Corp. Testing corrosion inhibitors. 3,110,567, 11-12-63, Cl. 23—230.
Hughey, Carter F.: *See*—
Hodges, Howard T., Hughey, and Erdisse. 3,099,208.
Hughey, J. Benedict, to Standard Fire Hose Co. Fire hose cabinet. 3,091,251, 5-28-63, Cl. 137—355.28.
Hugley, Dale G., to Skinner Brothers Rubber Co. Expansible swab cups. 3,079,205, 2-26-63, Cl. 309—54.
Hugo, August O.: *See*—
Funke, Wilhelm F., Hugo, and Honke. 3,075,755.
Hugo, JIM, E. Köllner, F. Novák, and B. Schreiber, to Statní vyzkumny ustav materialu a technologie. Method of machining metal parts. 3,084,426, 4-9-63, Cl. 29—418.
Hugoson, Birger O. G., to Worthington Corp. Induction circulator tube means assembly. 3,114,307, 12-17-63, Cl. 98—38.
Huguley, William C. Method of fabricating small motor armatures. 3,093,888, 6-18-63, Cl. 29—155.53.
Huhn, Wolfram, and F. Berndt, to Krauss-Maffei Aktiengesellschaft. Method for treatment of fatty animal material. 3,114,638, 12-17-63, Cl. 99—7.
Huisman, George R., and C. Shorts, to Filon Plastics Corp. Method and apparatus for manufacture of transverse contoured reinforced plastic sheet material. 3,077,000, 2-12-63, Cl. 18—19.
Huisman, Henderikus O., J. H. Uhlenbroek, and M. J. Koopmans, to North American Philips Co., Inc. Method of destroying plant harmful microorganisms. 3,102,069, 8-27-63, Cl. 167—30.
Huitt, Jimmie L., B. B. McGlothlin, and J. L. Pekarek, to Gulf Research & Development Co. Method of fracturing a subsurface formation. 3,106,959, 10-15-63, Cl. 166—37.
Hulbert, John K., to Bell Aerospace Corp. Hydrodynamic propulsion system. 3,090,345, 5-21-63, Cl. 115—6.1.
Hulbert, John K., to Bell Aerospace Corp. Helicopter rotor blade. 3,100,539, 8-13-63, Cl. 170—172.
Hulbert, Warren D.: *See*—
Caddock, Richard E., and Hulbert. 3,107,336.
Hulburt, Robert S. Fence construction apparatus. 3,079,129, 2-26-63, Cl. 254—29.
Hulett, Henry R., to Hughes Aircraft Co. Electrooptical light-detecting apparatus. 3,080,484, 3-5-63, Cl. 250—203.
Hulett, Henry R., W. Snyder, and H. A. Elliott, to American Radiator & Standard Sanitary Corp. Space vehicle angular rate and orbiting vehicle yaw attitude sensor. 3,110,812, 11-12-63, Cl. 250—203.
Hulette, Roger L.: *See*—
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Hull, David C., to United States of America, Secretary of War. Nitrolysis of hexamine. 3,093,640, 6-11-63, Cl. 260—248.
Hull, David C., and S. B. Vaughn, Jr., to Eastman Kodak Co. Process for incorporating additives into polymers and resulting product. 3,085,988, 4-16-63, Cl. 260—32.6.
Hull, David C., H. J. Hagemeyer, Jr., and M. B. Edwards, to Eastman Kodak Co. Olefin polymerization catalyst pretreatment. 3,091,605, 5-28-63, Cl. 260—93.7.
Hull, David C., H. J. Hagemeyer, Jr., and J. W. Wilder, to Eastman Kodak Co. Method for purifying polyolefins by filtration under a partial pressure dissolved gas. 3,096,-317, 7-2-63, Cl. 260—93.7.
Hull, Donald E., to California Research Corp. Methods of fluid measurement with radioactive tracers. 3,108,184, 10-22-63, Cl. 250—43.5.
Hull, Joseph F.: *See*—
Crapuchettes, Paul W., and Hull. 3,104,340.
Hull, Joseph L., Jr.: *See*—
Crossland, Edward J., Ragan, Bright, and Hull. 3,108,-744.
Hull, R. Dell. Drag brake for spinning reels. 3,088,691, 5-7-63, Cl. 242—84.5.
Hull, R. Dell. Closed-face spinning reel. 3,105,651, 10-1-63, Cl. 242—84.2.
Hull, Raymond J., to Gas Processing Inc. Apparatus and methods for treatment of natural gas. 3,100,147, 8-6-63, Cl. 62—37.
Hull, Raymond J., to Gas Processing Inc. Apparatus for treatment of natural gas. 3,100,697, 8-13-63, Cl. 62—42.
Hull, Richard L., and A. M. Harp, to Ametek, Inc. Fan assembly. 3,094,273, 6-18-63, Cl. 230—211.
Hull, Robert E.: *See*—
Wallace, John W., Hull, and Moore. 3,089,363.
Hull, Robert L., to Parke, Davis & Co. Basic esters of 11-oxygenated 17,21-dihydroxy-1,4-pregnadiene-3,20 dionea. 3,086,011, 4-16-63, Cl. 260—239.5.
Hull, Thomas N., Jr., and C. E. Le Bell, to General Electric Co. Engine rotor design. 3,094,309, 6-18-63, Cl. 253—39.
Hull, Walter E. Magnetic compass. 3,079,698, 3-5-63, Cl. 33—223.
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Jacobsen, Bjarne P., and Hulls. 3,081,544.
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Hulme, Kenneth F., and J. B. Mullin, to National Research Development Corp. Process for purifying intermetallic binary antimonides containing zinc and cadmium impurities. 3,116,113, 12-31-63, Cl. 23—204.
Hulse, Alexander. Drive mechanism. 3,075,368, 1-29-63, Cl. 64—20.
Hulsey, Hansford E. Dispensing apparatus. 3,113,816, 12-10-63, Cl. 312—72.
Hulsing, Kenneth L.: *See*—
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Hulten, Richard E., to General Motors Corp. Oil control baffle. 3,101,129, 8-20-63, Cl. 184—106.
Hulterstrum, Harold D., to Flambeau Plastics Corp. Nylon wheel and axle assembly. 3,107,947, 10-22-63, Cl. 308—8.
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Woodford, Ernest M., and Hultgren. 3,070,925.
Hultgren, Hjalmar R.: *See*—
Claesson, Carl O., and Hultgren. 3,073,152.
Hultquist, Albert, to Sylvania Electric Products Inc. Automatic stop mechanism. 3,072,411, 1-8-63, Cl. 274—10.
Hultquist, Charles H. Tall weed lawn mower attachment. 3,083,518, 4-2-63, Cl. 56—238.
Hultquist, J. Albert, to Sylvania Electric Products Inc. Illuminated electronic time piece. 3,079,748, 3-5-63, Cl. 58—50.
Hultquist, Martin E., to Arapahoe Chemicals, Inc. Method for manufacture of L-glutamine. 3,083,227, 3-26-63, Cl. 260—534.
Hultquist, Victor J. Storage container for vehicles. 3,084,-825, 4-9-63, Cl. 220—8.
Hults, Harold W., to Cutler-Hammer, Inc. Electric switches. 3,087,341, 4-30-63, Cl. 74—18.1.
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Tantlinger, Keith W., Fujioka, and Hulverson. 3,108,822.
Hulverson, Adrian F., to General Motors Corp. Windshield cleaning system. 3,084,371, 4-9-63, Cl. 15—250.2.
Hulverson, Adrian F., and J. W. Harper to Fruehauf Trailer Co. Kingpin construction. 3,082,020, 3-19-63, Cl. 280—433.
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Long, George, Tsuchiya, and Hum. 3,101,853.
Hum, Jack K. Y.: *See*—
Donlevy, Alfred L., and Hum. 3,075,840.
Hum, Jack K. Y., and A. L. Donlevy, to Stauffer Chemical Co. Multicomponent columbium alloys. 3,115,407, 12-24-63, Cl. 75—174.
Humane Slaughtering Device Corp.: *See*—
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Marshall, Milton, Milbury, and Shults. 3,092,871.
Milbury, Elwood E., and Shultz. 3,099,857.
Humbach, Walter, to Siemens-Schuckertwerke Aktiengesellschaft. Fuel-rod structure for heterogeneous nuclear reactors. 3,094,473, 6-18-63, Cl. 204—193.2.
Humbert, Edward R.: *See*—
Clauss, Raymond E., Humbert, and Jorch. 3,081,629.
Humbert, Edward R., and S. A. Nestor, to Sperry Rand Corp. Bi-directional precision fluid flow measuring apparatus. 3,104,549, 9-24-63, Cl. 73—228.
Humbert, Kingsley E., Jr., to Wix Corp. Filter sealing means. 3,076,551, 2-5-63, Cl. 210—232.
Humbert, Kingsley E., Jr., R. L. Young, and L. M. Hough, Jr., to Wix Corp. Filter cartridge. 3,086,656, 4-23-63, Cl. 210—493.
Humboldt Co., The: *See*—
McIntyre, Maurice J. 3,083,839.
Humby, Edward T., to The Magnavox Electronics Co. Ltd. Automatic record changers. 3,109,656, 11-5-63, Cl. 274—10.
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Scheidenhelm, Earl L. 3,071,196.
Scheidenhelm, Earl L. 3,093,229.
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Humiston, Charles G., to The Dow Chemical Co. Internal sizing of paper. 3,084,093, 4-2-63, Cl. 162—168.
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Barbour, Charles W., Jr., and Humiston. 3,110,026.
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Jensen, Philip B., and Humiston. 3,079,659.
Huml, František, and Č. Prochazka, to Sdruzeni podniku textilniho strojirenstvi. Manufacture of needle cylinder for circular knitting machine. 3,084,429, 4-9-63, Cl. 29—520.
Hummer, Herbert B., and E. W. Conklin, to Durametallic Corp. Seals for stuffing boxes and the like permitting thereof. 3,090,320, 5-21-63, Cl. 103—111.
Hummer, Ralph G., to Folding Carrier Corp. Nesting shopping cart having user controlled brake means released by nesting action of another like cart. 3,112,121, 11-26-63, Cl. 280—33.99.

Hummitzsch, Werner: *See*—
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Humpage, Harold A., and L. T. Stegmaier, to General Electric Co. Connector for strap conductor. 3,075,164, 1-22-63, Cl. 339—32.
Humpal, Harold H., and H. Kitaoka, to Thompson Ramo Wooldridge Inc. Externally mounted, direct driven rotary units for prime movers. 3,094,638, 6-18-63, Cl. 310—75.
Humphrey, David H. Rotatable drawer cabinet. 3,075,820, 1-29-63, Cl. 312—326.
Humphrey, Earl L., and C. E. Trautman, to Gulf Research & Development Co. Lubricating composition. 3,073,782, 1-15-63, Cl. 252—34.
Humphrey, Frederick H. Device for mixing and applying liquids. 3,089,180, 5-14-63, Cl. 15—525.
Humphrey, Howard C., to Texaco, Inc. Weighted drill collar. Re. 25,485, 11-26-63, Cl. 189—20.
Humphrey, Howard C., to Texaco Inc. Pumping apparatus. 3,103,175, 9-10-63, Cl. 103—46.
Humphrey, Robert. Speed change gear mechanism. 3,113,-468, 12-10-63, Cl. 74—353.
Humphrey, Sidney B., and D. R. Smoak, to United States Rubber Co. Nitration of aromatic hydrocarbons. 3,092,-671, 6-4-63, Cl. 260—645.
Humphrey, Watts S., Jr., J. Terzian, and F. M. Bosch, to Sylvania Electric Products Inc. Electronic computers. 3,094,610, 6-18-63, Cl. 235—157.
Humphrey, William G.: *See*—
Heck, Irving A., and Humphrey. 3,087,283.
Humphreys, Hanna R., Jr.: *See*—
Lewis, Wallace E., and Humphreys. 3,112,575.
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Bergmann, Paul F., Humphreys, and Dodd. 3,115,128.
Humphreys, John W., to Johnson Products, Inc. Hydraulic tappet. 3,079,903, 3-5-63, Cl. 123—90.
Humphreys, John W., to Johnson Products, Inc. Self-adjusting mechanical tappet. 3,105,475, 10-1-63, Cl. 123—90.
Humphreys, John W., to Johnson Products Inc. Crankcase pressure controller. 3,108,581, 10-29-63, Cl. 123—119.
Humphreys, John W., and M. V. Dadd, to Johnson Products, Inc. Crankcase ventilation regulator. 3,111,138, 11-19-63, Cl. 137—480.
Humphreys, Joseph A. Alarm transmission apparatus and system. 3,109,894, 11-5-63, Cl. 179—5.
Humphreys, Robert E., and I. L. Marra, to Small Business Administration. Injector tool. 3,110,205, 11-12-63, Cl. 81—15.7.
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Humphreys, Thomas W., to Merck & Co., Inc. Sorbitol treatment of poultry. 3,097,953, 7-16-63, Cl. 99—194.
Humphreys, Thomas W., and D. S. Titus, to Merck & Co., Inc. Coagulation of milk. 3,086,866, 4-23-63, Cl. 99—59.
Humphreys, Victor T., to Koppers Co., Inc. Sealing of dyed anodized aluminum. 3,071,494, 1-1-63, Cl. 117—127.
Humphries, Harvey G.: *See*—
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Bekkala, Ralph R., and Humphries. 3,109,417.
Fox, William R., and Humphries. 3,088,446.
Humphries, Harvey G., to General Motors Corp. Fuel injector pump with hydraulically controlled injection valve. 3,115,304, 12-24-63, Cl. 239—90.
Humphries, James J., A. L. Hodge, R. S. Babcock, and B. C. Whitmore, to Union Carbide Corp. Process for the manufacture of cement. 3,074,707, 1-22-63, Cl. 263—53.
Humphries, John, W. C. Brown, and A. G. McIntosh, to National Research Council. Infra-red detecting systems. 3,094,617, 6-18-63, Cl. 250—83.3.
Humphries, John B., to The Excelsior Hardward Co. Luggage latch. 3,100,980, 8-20-63, Cl. 70—71.
Hund, Franz, to Farbenfabriken Bayer Aktiengesellschaft. Process for the production of isometric ferromagnetic gamma-ferric oxide. 3,082,067, 3-19-63 Cl. 23—200.
Hund, Franz, to Farbenfabriken Bayer Aktiengesellschaft. Process for producing ferrites. 3,084,123, 4-2-63, Cl. 252—62.5.
Hund, Franz, and W. Deissmann, to Farbenfabriken Bayer Aktiengesellschaft. Crystalline solid solutions with silicon dioxide structure as host components. 3,091,544, 5-28-63, Cl. 106—288.
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Hungate, Ernest C., to Carrier Corp. Apparatus for treating air. 3,073,095, 1-15-63, Cl. 55—230.
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Sorensen, Walter. 3,099,269.
Hunkeler, Ernst J., to The Gleason Works. Method and machine for finishing or testing gears. 3,099,901, 8-6-63, Cl. 51—26.
Hunkeler, Jules W., to Perma Tubes Ltd. Method of forming a bituminous coated glass fiber pipe. 3,084,088, 4-2-63, Cl. 156—167.
Hunnicutt, Wayne, to Applied Power Industries, Inc. Fluid motor. 3,079,900, 3-5-63, Cl. 121—164.
Hunsberger, John R., and A. F. Welch, to General Motors Corp. Plating thickness indicating apparatus and method. 3,081,194, 3-12-63, Cl. 117—113.
Hunsdlecker, Heinz, to U.S. Plastic and Chemical Corp. Plastic articles and method of producing same. 3,073,-732, 1-15-63, Cl. 154—43.
Hunsdlecker, Heinz, to O. K. Kolb. Lustre pigment. 3,079,-415, 2-26-63, Cl. 260—435.
Hunsinger, Lukas. Mixing faucet. 3,098,503, 7-23-63, Cl. 137—597.
Hunt, Arthur J., to N. A. Douglas Mfg., Inc. Insoluble separator. 3,080,065, 3-5-63, Cl. 210—414.
Hunt, Charles D'A.: *See*—
Hanks, Charles W., Hunt, and Vance. 3,078,388.
Hunt, Charles d'A., to Stauffer Chemical Co. Deoxidation of refractory metal. 3,091,525, 5-28-63, Cl. 75—84.
Hunt, Charles F.: *See*—
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Lavin, Edward, Markhart, and Hunt. 3,072,597.
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Hunt, Charles R., to Hunt Industries, Inc. Boat hull. 3,085,-535, 4-16-63, Cl. 114—56.
Hunt, Chester M.: *See*—
Wulf, Charles A., Jr., Hunt, and Lofberg. 3,110,370.
Hunt, David H., to The Spencer Turbine Co. Vacuum cleaners. 3,097,673, 7-16-63, Cl. 141—272.
Hunt, Donald E. Power-operated winch for boat trailers and the like. 3,088,709, 5-7-63, Cl. 254—166.
Hunt, Donald L. Adapter for portable motor driven floor maintaining machines. 3,115,660, 12-31-63, Cl. 15—230.
Hunt, Earl R.: *See*—
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Hunt, George B. Floor squeegee. 3,089,173, 5-14-63, Cl. 15—245.
Hunt, Grover C., to Norton Co. Multiple blade power hacksaw. 3,079,908, 3-5-63, Cl. 125—17.
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Gresham, William F., and Hunt. 3,093,624.
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Hunt, Nathan C., A. W. Hainlin, and D. E. Lockwood, to International Basic Economy Corp. Methods of and means for providing safe operation of devices. 3,075,552, 1-29-63, Cl. 137—620.
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Hunt, Paul B., Jr.: *See*—
Hunt, Paul B., Sr. 3,076,456.
Hunt, Paul B., Sr., deceased (by P. B. Hunt, Jr., administrator), to E. B. Hunt. Hypodermic syringe. 3,076,456, 2-5-63, Cl. 128—218.
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Hunt, Robert A., and G. P. Taillie; said Hunt assor. Xerox Corp. Xerographic reproducing apparatus. 3,078,770, 2-26-63, Cl. 95—1.7.
Hunt, Robert G., to Marco Products Co. Pipe cleaning machine. 3,095,592, 7-2-63, Cl. 15—104.3.
Hunt, Robert W. G., to Eastman Kodak Co. Method of controlling the spectral composition of a light source. 3,089,386, 5-14-63, Cl. 88—111.
Hunt, Russell A., Jr., and B. L. Mickel, to Standard Oil Co. Radiation-stable and thermally stable oils. 3,109,815, 11-5-63, Cl. 252—33.
Hunt, Seymour. Linear detector circuit and method of operation. 3,084,292, 4-2-63, Cl. 329—170.
Hunt, William A. Starter for small gasoline engines. 3,080,-942, 3-12-63, Cl. 185—39.
Hunter, Arthur T., to Combustion Engineering, Inc. Steam generation. 3,101,697, 8-27-63, Cl. 122—4.
Hunter, Buren V., to H. E. Alne, and A. Leinwohl. Miniature radio beacon apparatus. 3,108,223, 10-22-63, Cl. 325—105.
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Hunter, Byron A., to United States Rubber Co. Low temperature expansion of liquid organic polysulfide polymer with hydrazine-type compounds and an oxidative curative. 3,114,723, 12-17-63, Cl. 260—2.

Hunter, Byron A., to United States Rubber Co. Low temperature expansion of liquid organic polysulfide polymer with metal hydrides, borohydrides or aluminum hydrides. 3,114,724, 12–17–63, Cl. 260—2.5.

Hunter, Byron A., and R. R. Barnhart, to United States Rubber Co. High temperature blowing of rubber and plastics with alkali metal azodicarboxylate. 3,111,496, 11–19–63, Cl. 260—2.5.

Hunter, Carrie E.: *See*—
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Hunter, Don L., to United States Borax & Chemical Corp. Preparation of metaborate and polyborate esters. 3,099,677, 7–30–63, Cl. 260—462.

Hunter, Don L., K. Kitasaki, and G. W. Willcockson, to United States Borax & Chemical Corp. Lubricating oil compositions. 3,074,885, 1–22–63, Cl. 252—33.6.

Hunter, Edgar W.: *See*—
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Hunter, Edward, and H. Smith, to Imperial Chemical Industries Ltd. Process for making chlorine from ammonium chloride. 3,103,419, 9–10–63, Cl. 23—219.

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Hunter, Edward A., M. A. Segura, and A. B. Small, to Esso Research and Eng. Co. Process for preparing aqueous dispersion or solvent solution of olefin polymer from polymerization slurry. 3,071,555, 1–1–63, Cl. 260—29.7.

Hunter, Edward A., and C. L. Aldridge, to Esso Research and Engineering Co. Indane synthesis. 3,082,267, 3–19–63, Cl. 260—668.

Hunter, Edward A., and C. L. Aldridge, to Esso Research and Engineering Co. Process for hydrogenating carbonyl compounds. 3,102,150, 8–27–63, Cl. 260—632.

Hunter, Edwin J., to Moist O Matic, Inc. Sprinkler. 3,107,056, 10–15–63, Cl. 239—206.

Hunter, Frank M., to Acheson Industries, Inc. Heat resistant electrically conducting compositions, method of coating articles therewith and articles produced thereby. 3,099,578, 7–30–63, Cl. 117—226.

Hunter, George D., to Deere & Co. Cushion spring standard for an earth working tool. 3,098,531, 7–23–63, Cl. 172—710.

Hunter, George D., to Deere & Co. Tractor cultivator mounting. 3,100,654, 8–13–63, Cl. 280—412.

Hunter, George D., to Deere & Co. Control system. 3,108,642, 10–29–63, Cl. 172—44.

Hunter, George D., and D. A. Hill, to Deere & Co. Farm implement. 3,092,187, 6–4–63, Cl. 172—297.

Hunter, George D., and W. W. Jackson, to Deere & Co. Center enclosed drive for rod weeder. 3,101,786, 8–27–63, Cl. 172—44.

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Hart, Linton, and Hunter. 3,087,308.

Hunter, Herbert T.: *See*—
Block, Zenas, Hunter, and Hodges. 3,078,979.

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Hunter, John M. Surgical instrument. 3,081,770, 3–19–63, Cl. 128—221.

Hunter, Joseph L.: *See*—
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Hunter, Lee. Torsion bar height gauge. 3,111,773, 11–26–63, Cl. 33—181.

Hunter, Lloyd P., to International Business Machines Corp. Superconductor persistent current circuits. 3,093,816, 6–11–63, Cl. 340—173.1.

Hunter, Lloyd P., to International Business Machines Corp. Domain rotational memory system. 3,093,818, 6–11–63, Cl. 340—174.

Hunter, Lloyd P., to International Business Machines Corp. Graded energy gap semiconductor devices. 3,111,611, 11–19–63, Cl. 317—235.

Hunter, Matthew S., and E. C. Franz, to Aluminum Co. of America. Production of void-free aluminum and aluminum base alloy articles. 3,084,080, 4–2–63, Cl. 148—11.5.

Hunter, Melmoth W., deceased, C. E. Hunter, executrix. Mobile device for removing water from playing fields. 3,079,620, 3–5–63, Cl. 15—119.

Hunter, Robert B., and R. F. Archer, to The National Cash Register Co. Regulated power supply. 3,087,107, 4–23–63, Cl. 321—19.

Hunter, Roger W., and I. K. Haak, to International Telephone and Telegraph Corp. Electron discharge device. 3,087,088, 4–23–63, Cl. 315—12.

Hunter, Walter F. Pneumatic dispatch system. 3,101,183, 8–20–63, Cl. 243—3.

Hunter, Walter J. Battery terminal connector. 3,116,100, 12–31–63, Cl. 339—226.

Hunter, Wesley L., to The Pure Oil Co. Sampling apparatus. 3,101,619, 8–27–63, Cl. 73—422.

Hunter, William A., to Pettibone Mulliken Corp. Spinning table assembly. 3,102,310, 9–3–63, Cl. 22—17.

Hunter, William A., to Pettibone Mulliken Corp. Core-unloading apparatus for an automatic core-making machine. 3,107,402, 10–22–63, Cl. 22—10.

Hunter, William A., and R. Lund, to Pettibone Mulliken Corp. Automatic core-making machine. 3,096,547, 7–9–63, Cl. 22—10.

Hunter, William H., to Meredith Publishing Co. Photoelectric article detector apparatus. 3,071,711, 1–1–63, Cl. 317—130.

Hunter, William H., R. J. Bolscott, P. H. Sherman, and C. R. Worthing, to Chas. Pfizer & Co., Inc. α-naphthol derivatives. 3,078,286, 2–19–63, Cl. 260—110.5.

Hunting Mhoglas Ltd.: *See*—
Kemp, Allan J. 3,081,202.

Hunting Survey Corp. Ltd.: *See*—
Hobrough, Gilbert L., and Hanna. 3,097,355.
Hutchins, Roger W., and D'Arcy. 3,095,744.

Huntingdon Industries Inc.: *See*—
Marshall, Edward E. 3,105,334.
Ullman, John E. 3,101,654.

Huntington Chemical Corp.: *See*—
Huntington, Morgan G. 3,083,471.
Huntington, Morgan G. 3,088,816.
Huntington, Morgan G. 3,100,146.
Huntington, Morgan G. 3,106,521.
Huntington, Morgan G. 3,107,985.

Huntington, Laurance W., to Reno Engineering & Mining Co. Continuous process mineral separation. 3,100,701, 8–13–63, Cl. 75—101.

Huntington, Morgan G., to Huntington Chemical Corp. Apparatus for continuous and uniform contacting of fluids and solids. 3,083,471, 4–2–63, Cl. 34—52.

Huntington, Morgan G., to Huntington Chemical Corp. Method and apparatus for the dry ash generation of hydrogen and carbon monoxide gases from solid fuels. 3,088,816, 5–7–63, Cl. 48—63.

Huntington, Morgan G., to Huntington Chemical Corp. Method and apparatus for the condensation, agglomeration, filtration and absorption of the exhaust gases from internal combustion engines. 3,100,146, 8–6–63, Cl. 55—9.

Huntington, Morgan G., to Huntington Chemical Corp. Method for the production of light oils from oil shale through the recombination of hydrogen originally contained therein. 3,106,521, 10–8–63, Cl. 208—11.

Huntington, Morgan G., to Huntington Chemical Corp. Method for the continuous distillation of coal and other hydrocarbonaceous materials and for the autogenous hydrogenation of the condensable volatiles. 3,107,985, 10–22–63, Cl. 48—197.

Huntington, Richard L., to Radio Corp. of America. Semiconductor devices and method of making same. 3,086,892, 4–23–63, Cl. 148—1.5.

Huntley, Baxter D., to Huntley Knitting Mills, Inc. Method of making knit garment. 3,078,699, 2–26–63, Cl. 66—176.

Huntley Knitting Mills, Inc.: *See*—
Huntley, Baxter D. 3,078,699.

Huntly Engineering & Welding Co. Ltd.: *See*—
Wight, John L. 3,093,008.

Hunton, James K., and A. G. Ryals, to Hewlett-Packard. High frequency transmission line having variable absorption using variably biased semiconductor devices shunting the line. 3,107,335, 10–15–63, Cl. 333—81.

Huntowski, Raymond J., to FMC Corp. Strainer. 3,074,558, 1–22–63, Cl. 210—299.

Huntress, Howard B., to American Brake Shoe Co. Powder metallurgy. 3,074,152, 1–22–63, Cl. 29—182.3.

Huntsinger Associates: *See*—
Huntsinger, Carl F. 3,080,179.

Huntsinger, Carl F., to Huntsinger Associates. Slip engaging portion of drill string formed of increased wall thickness and reduced hardness. 3,080,179, 3–5–63, Cl. 285—45.

Huntzinger, Gerald O.: *See*—
Hetzler, Lewis R., Hartman, and Huntzinger. 3,072,838.

Hunziker, Charles E. Wire clamping tool for tensioning, twisting and severing. 3,072,156, 1–8–63, Cl. 140—93.6.

Hunziker, Louis A. Hand truck for outboard motors. 3,089,602, 5–14–63, Cl. 214—653.

Hunziker, Louis A. Outboard motor test and service stand. 3,109,304, 11–5–63, Cl. 73—116.

Hupp Corp.: *See*—
Crider, Thomas G. 3,073,132.
Dolan, Thomas I., and Harley. 3,111,818.
Fornili, Philip M. 3,108,630.
Fornili, Philip M., and Smith. 3,103,160.
Harley, Earl K., Jr. 3,103,797.
Hottenroth, Fred W., and Spooner. 3,092,095.
Lubin, Marvin. 3,087,838.
Makuh, Paul H. 3,097,507.
Patrick, Malcolm W. 3,087,677.
Patrick, Malcolm W. 3,093,720.
Price, Earl R., and Hupp. 3,103,854.
Rocard, Yves A. 3,111,587.
Schneider, Gerd. 3,114,410.
Smith, George A. 3,110,164.
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Stilwell, William E., Jr. 3,102,407.

Hupp, Edward E.: *See*—
Broser, Immanuel J., and Broser-Warminsky. 3,104,365.

Huppert, Charles B. Printing device for printing stickers on a continuous roll. 3,101,049, 8–20–63, Cl. 101—292.

Huppert, K. H., Co.: *See*—
Weise, Erwin K. 3,114,082.

Hurcomb, William J., to Rolls-Royce Ltd. Clamp. 3,099,056, 7–30–63, Cl. 24—84.

Hurd, Elmer G., to Norton Co. Cathode bar for aluminum reduction cell. 3,088,906, 5–7–63, Cl. 204—279.

Hurdel, Thomas D. Pneumatic tire. 3,106,951, 10–15–63, Cl. 152—334.

Hurdlow, William R., B. B. Boecker, and R. E. Johnson, Jr., to United States of America, Air Force. Swipe sampler. 3,091,967, 6–4–63, Cl. 73—425.

Hurel, Maurice L., J. H. Bertin, and M. P. Le Nabour. Aircraft having a lift producing rotor disposed in the wing. 3,080,137, 3–5–63, Cl. 244—12.

Huret, Norman B., to Locke Mfg. Co. Interlocking ornamental railing. 3,083,951, 4–2–63, Cl. 256—65.

Huret, Norman B., and C. W. Halliwell, to Locke Mfg. Co. Interlocking ornamental railing. 3,113,760, 12–10–63, Cl. 256—59.

Hurford, Walter J.: *See*—
Gordon, Robert B., and Hurford. 3,072,982.

Hurka, Rudolph J., Jr.: *See*—
Carothers, John N., and Hurka. 3,076,691.

Hurko, Bohdan, to General Electric Co. Oven liner for automatic heat cleaning oven. 3,113,200, 12–3–63, Cl. 219—35.

Hurlburt, John C., and G. H. Kraft, to National Dairy Products Corp. Method for texturizing cheese. 3,072,489, 1–8–63, Cl. 99—116.

Hurlbut, Gordon K., and H. C. Reynolds, to Cadre Industries Corp. Cable stripping apparatus. 3,085,455, 4–16–63, Cl. 81—9.51.

Hurlebaus, Richard P., to The Budd Co. Indirect welding. 3,089,020, 5–7–63, Cl. 219—86.

Hurley, Frederick A., to Forward Industries, Inc. Golf game apparatus. 3,114,554, 12–17–63, Cl. 273—176.

Hurley, Frederick A., to Forward Industries, Inc. Golf game apparatus. 3,114,555, 12–17–63, Cl. 273—176.

Hurley, George F.: *See*—
Wilson, Thomas P., Hurley, and Manyik. 3,087,978.

Hurley, Roy T., to Curtiss-Wright Corp. Gas seal for rotary mechanisms. 3 081,745, 3–19–63, Cl. 121—68.

Hurley, Roy T., M. Bentele, and J. A. Kimberley, to Curtiss-Wright Corp. Rotary combustion engines. 3,081,753, 3–19–63, Cl. 123—8.

Hurley, Rupert B., and P. C. Colodny, to The Dow Chemical Co. Process of treating wet-spun acrylonitrile fibers. 3,099,517, 7–30–63, Cl. 18—48.

Hurley, Stanley R.: *See*—
Beals, Vaughn L. R., Jr., Hurley, and Laidlaw. 3,113,451.

Hurley, Thomas P., F. L. Donohue, and J. R. Teeple, to Sprague Electric Co. Fully silvered ceramic. 3,103,734. 9–17–63, Cl. 29—25.42.

Huron, James W. Vacuum sensitive electric control with mounting bracket. 3,076,627, 2–5–63, Cl. 248—309.

Huron Portland Cement Co.: *See*—
Howlett, Charles L. 3,104,030.

Hurrey, Ross C.: *See*—
Leeds, Carl M., Connell, and Hurrey. 3,072,959.

Hurschman, Alfred A.: *See*—
Wormser, Eric S., Ankney, and Hurschman. 3,075,675.

Hursen, Thomas F.: *See*—
Wilterdink, Meredith W., and Hursen. 3,081,728.

Hurst, Arnold U.: *See*—
Buechele, Calvin F., and Hurst. 3,073,012.

Hurst, Derek, and P. D. Havard, to Electric & Musical Industries Ltd. Apparatus for maintaining a predetermined quantity of an elongated medium at a predetermined zone. 3,090,535, 5–21–63, Cl. 226—26.

Hurst, Frank E. Device for holding a fish. 3,086,311, 4–23–63, Cl. 43—25.

Hurst, George P. Wire rope connector and kiln structure. 3,097,834, 7–16–63, Cl. 263—33.

Hurst, George P. Boat launching apparatus. 3,101,149, 8–20–63, Cl. 212—20.

Hurst, Howard L. Thermal head appliance. 3,090,045, 5–21–63, Cl. 2—7.

Hurst, John W.: *See*—
Rose, Frederick M., Hurst, Latham, Moore, and Platner. 3,109,416.

Hurst, Mowatt M. Automobile drying installation. 3,085,351, 4–16–63, Cl. 34—229.

Hurst, Norman A., and W. J. Edney, to Dunlop Rubber Co. Ltd. Perforator for pneumatic tire sidewall. 3,095,773, 7–2–63, Cl. 83—2.

Hurt, Arthur A. Method of mixing and spreading fertilizer. 3,073,606, 1–15–63, Cl. 275—8.

Hurt, Charles N.: *See*—
Mydels, John W., and Hurt. 3,106,252.

Hurt, Norman A.: *See*—
Emblem, Harold G., and Hurt. 3,110,601.

Hurt, Percy F. Accelerometer. 3,071,975, 1–8–63, Cl. 73—517.

Hurt, Robert H. Gear driven elevator. 3,110,393, 11–12–63, Cl. 198—158.

Hurth, Carl: *See*—
Rogg, Otto. 3,115,064.

Hurth, Carl, Maschinen- und Zahnradfabrik: *See*—
Seitz, Max. 3,112,116.

Hurtig, Carl R., to Pacific Industries, Inc. Crystal discriminator circuits. 3,108,230, 10–22–63, Cl. 329—117.

Hurtig, Roy E., to FMC Corp. Automatic choke control for a screw press. 3,085,502, 4–16–63, Cl. 100—43.

Hurtig, Roy E., to FMC Corp. Can track. 3,105,526, 10–1–63, Cl. 141—171.

Hurtt, Leon E., to Ryan Aeronautical Co. Cosine-secant multiplier. 3,086,704, 4–23–63, Cl. 235—61.

Hurtt, William C.: *See*—
Sexton, John L. 3,086,591.

Hurtz, Ernst G.: *See*—
Kreisky, Kurt, Hurtz, and Frobeen. 3,071,087.

Hurvitz, Harriet. Convertible baby carriage. 3,094,339, 6–18–63, Cl. 280—31.

Hurvitz, Hyman. Variable scan rate spectrum analyzer. 3,110,861, 11–12–63, Cl. 324—77.

Hurwitz, Abraham, and W. J. O'Neill, to Hypro Diving Equipment Corp. Harness pack for free diving apparatus. 3,090,205, 5–21–63, Cl. 61—70.

Hurwitz, Leon A.: *See*—
Swarr, John H., and Hurwitz. 3,097,980.

Hurwitz, Marvin J., and A. Carson, to Rohm & Haas Co. Preparation of trialkyl phosphites. 3,087,958, 4–30–63, Cl. 260—461.

Hurwitz, Max, to Maxam, Inc. Quick detachable die and die carrier. 3,085,508, 4–16–63, Cl. 101—384.

Hurwitz, Max, to Maxam, Inc. Leather marking machine. 3,092,023, 6–4–63, Cl. 101—297.

Hurwitz, Melvin D.: *See*—
Balmer, Clifford E., Brown, Hurwitz, and Masterson. 3,089,897.

Hurwitz, Melvin D., and S. Y. Wang, to Rohm & Haas Co. Process of creaseproofing cellulose fabrics with 2,6-dioxaspiro (3,3) heptane and formaldehyde and fabrics produced thereby. 3,097,050, 7–9–63, Cl. 8—116.4.

Husband, William M. Turf plugger. 3,098,672, 7–23–63, Cl. 294—50.7.

Husby, Donald E., and M. E. Keck, to Westinghouse Electric Corp. Luminaire. 3,099,405, 7–30–63, Cl. 240—106.

Huschke, Ernst G. J., P. R. Mobley, and W. R. Blackham, to General Electric Co. Nickel-chromium-palladium brazing alloy. 3,089,769, 5–14–63, Cl. 75—171.

Huse, Mason W., to Raytheon Co. Cathode support. 3,100,273, 8–6–63, Cl. 313—82.

Hush Bumper Service, Inc.: *See*—
Corydon, Jeff I. 3,092,385.

Hushley, Walter J., now by change of name W. J. Harper, to Westinghouse Electric Corp. X-ray fluorescent screen. 3,089,956, 5–14–63, Cl. 250—80.

Huska, Paul. Motor driven rotary selector valve. 3,098,960, 7–23–63, Cl. 318—443.

Huso, Maurice A. Toilet filtering ventilator. 3,087,168, 4–30–63, Cl. 4—213.

Husome, Robert G.: *See*—
Wyman, James H., and Husome. 3,094,214.

Husome, Robert G., to Barry-Wehmiller Machinery Co. Inspection circuit. 3,115,970, 12–31–63, Cl. 209—111.5.

Huss, Gerold, to Werner & Pfleiderer G.m.b.H. Dough-forming machine. 3,115,103, 12–24–63, Cl. 107—9.

Huss, Shottie L., and F. D. Lynn. Positively driven clearer roll. 3,108,309, 10–29–63, Cl. 15—256.52.

Huss, Steven J., to Sperry Rand Corp. Magnetic field compensation means. 3,107,347, 10–15–63, Cl. 340—174.1.

Hussey, Paul W.: *See*—
Sadler, James E., and Hussey. 3,092,949.

Hussey, Russell B., and M. J. Gottsche, Jr., to United States of America, Atomic Energy Commission. Hydraulic servo control mechanism. 3,103,853, 9–17–63, Cl. 91—48.

Hussmann Refrigerator Co.: *See*—
Dickson, Edgar V., and Weber. 3,091,942.
Dickson, Edgar V., and Weber. 3,103,796.

Hustead, Ralph L. Center crank feed drill press. 3,089,355, 5–14–63, Cl. 77—6.

Husted, Louise M.: *See*—
Husted, Ralph and L. M. 3,076,557.

Husted, Ralph and L. M., ½0 to Gadget-of-The-Month Club, Inc. Portable foldable support. 3,076,557, 2–5–63, Cl. 211—178.

Huston, Elmo F., and J. L. Nicholls, to The Ohio Brass Co. Electrical apparatus housing. 3,104,278, 9–17–63, Cl. 174—163.

Huston, John R.: *See*—
Webb, William A., Huston, Haass, and Johnson. 3,113,915.

Huston, John R., W. A. Webb, R. G. McGrath, and W. E. Johnson, to Westinghouse Electric Corp. Semidirect equipment maintenance. 3,090,740, 5–21–63, Cl. 204—193.2.

Huston, Milton D., to Controls Co. of America. Combustion ring and air supply means for hydroxylating burner. 3,084,735, 4–9–63, Cl. 158—91.

Huston, Paul O.: *See*—
Rossi, William F., and Huston. 3,079,038.

Huston, William D.: *See*—
Hastings, Warren W., and Huston. 3,072,150.

Huston, William D., to American Radiator & Standard Sanitary Corp. Electro-magnetic device. 3,091,725, 5–28–63, Cl. 317—171.

Huston, William D., and R. A. Beisheim, to Rochester Mfg. Co., Inc. Multi-angle gauge. 3,091,966, 6–4–63, Cl. 73—362.2.

Husum, Charles W., to Owens-Illinois Glass Co. Conveyer. 3,088,579, 5–7–63, Cl. 198—134.

Huszar, Kalman Z. Gear. 3,108,488, 10–29–63, Cl. 74—465.

Hutchens, Frederick L., to United States of America, Navy. Cooling device for infrared detector. 3,079,504, 2–26–63, Cl. 250—83.

Hutchens, Morris L., and K. A. Riedel, to Kearney & Trecker Corp. Metal working machine. 3,073,024, 1–15–63, Cl. 29—568.

Hutcherson, Eugene S. Knockdown sandbox. 3,086,773, 4–23–63, Cl. 272—1.

Hutchings, Le Roi E., and G. W. Crosby, to The Pure Oil Co. Preparation of alkaline earth petroleum sulfonates. 3,076,841, 2–5–63, Cl. 260—504.

Hutchings, William D. J. Individual milk yield measuring apparatus. 3,088,316, 5–7–63, Cl. 73—223.

Hutchins, Alma A. Polisher. 3,084,364, 4–9–63, Cl. 15—97.

Hutchins, Alma A. Work smoothing tool. 3,106,806, 10–15–63, Cl. 51—187.

Hutchins, Kenneth A.: *See*—
Illsley, Ralph W., Schmidt, Highley, and Hutchins. 3,076,488.
Schmidt, Chester W., Highley, and Hutchins. 3,076,489.

Hutchins, Loren, to The Douthitt Corp. Step and repeat photographic printer. 3,077,824, 2–19–63, Cl. 95—77.5.

Hutchins, Loren, to The Douthitt Corp. Contact printing device. 3,106,145, 10–8–63, Cl. 95—73.

Hutchins, Roger W., and D. F. D'Arcy, to Hunting Survey Corp. Ltd. Gravity gradient measuring device. 3,095,744, 7–2–63, Cl. 73—382.

Hutchinson, Gildea: *See*—
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Hutchinson, Herman R., to Plastomatic Corp. Sealed plastic containers. 3,096,904, 7–9–63, Cl. 220—47.

Hutchinson, Robert J.: *See*—
Taber, Samuel J., and Hutchinson. 3,077,009.

Hutchinson, Robert J., to H. O. McPheeters. Method of manufacturing bracing. 3,102,306, 9–3–63, Cl. 20—9.

Hutchinson, Terence, to Short Bros. & Harland Ltd. Apparatus for measuring the mark-space ratio of a train of pulses. 3,096,400, 7–2–63, Cl. 178—69.

Hutchinson, William M., H. Pickett, and H. G. Cutforth, to United States of America, Air Force. Pretreatment of solid propellant grains containing ammonium nitrate. 3,072,510, 1–8–63, Cl. 149—19.

Hutchison, Fenton H.: *See*—
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Hutchison, Frank C., G. H. Ratcliffe, W. E. Tibbetts, and C. B. Weeks, to United States of America, Army. Fuze. 3,103,172, 9–10–63, Cl. 102—75.

Hutchison, Miller R., Jr., and G. E. Kindig, to Eastman Kodak Co. Photographic exposure control system. 3,094,051, 6–18–63, Cl. 95—10.

Hutchison, Paul T., to Bell Telephone Laboratories, Inc. Communication system using polarized waves and employing concentric waveguides to control transmitter-receiver interaction. 3,086,203, 4–16–63, Cl. 343—100.

Hutgens, Karel M.: *See*—
Van Loon, Arie, and Hutgens. 3,081,166.

Huth, Walter H. Hearing aid. 3,098,127, 7–16–63, Cl. 179—107.

Huthmacher, Lester C. Gear motor. 3,115,124, 12–24–63, Cl. 123—12.

Huthsing, Charles K., Jr. Fire extinguisher head assembly. 3,101,120, 8–20–63, Cl. 169—31.

Huthsing, Henry W.: *See*—
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Hutsell, Thomas A. Beer dispenser. 3,091,366, 5–28–63, Cl. 222—36.

Hutsman, Henderikus O.: *See*—
Koopmans, Martinus J., Meltzer, Hutsman, ven den Bos, Wellinga, and Schoot. 3,111,526.

Hutson, Andrew R., to Bell Telephone Laboratories, Inc. Piezoelectric devices utilizing aluminum nitride. 3,090,876, 5–21–63, Cl. 310—8.

Hutson, Andrew R., to Bell Telephone Laboratories, Inc. Piezoelectric devices utilizing zinc oxide. 3,091,707, 5–28–63, Cl. 310—8.

Hutson, Andrew R., to Bell Telephone Laboratories, Inc. Piezoelectric devices utilizing cadmium sulfide. 3,093,758, 6–11–63, Cl. 310—8.

Hutson, Thomas, Jr., to Phillips Petroleum Co. Alkylation. 3,113,987, 12–10–63, Cl. 260—683.48.

Hutt, Philip, to General Electric Co. Pushbutton switch with mechanically actuated extended slider. 3,091,671, 5–28–63, Cl. 200—5.

Hutt, Philip, to General Electric Co. Two circuit door switch. 3,104,300, 9–17–63, Cl. 200—159.

Huttenlocher, Dietrich F., and W. M. Sweeney, to Texaco Inc. Urethane containing lubricant. 3,096,285, 7–2–63, Cl. 252—47.5.

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Graef, Rudolf. 3,086,637.
Graef, Rudolf, and von Bogdandy. 3,098,739.
Von Bogdandy, Luwdig, and Pantke. 3,100,699.

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Hutter, James F., and L. Kelly, to K & H Equipment Ltd. Pilot operated valve. 3,075,556, 1–29–63, Cl. 137—625.27.

Hutter, James F., L. Kelly, G. R. Mounce, and E. W. Leaver, to K & H Equipment Ltd. Materials sorting apparatus. 3,075,641, 1–29–63, Cl. 209—74.

Hutter, James F., L. Kelly, G. R. Mounce, and E. W. Leaver, to K & H Equipment Ltd. Quantitative photometric materials sorter. 3,097,744, 7–16–63, Cl. 209—111.5.

Hutter, Jean-Claude, and A. Peyron, to Pechiney, Compagnie de Produits Chimiques et Electrometallurgiques. Purification of gallium by halogenation and electrolysis. 3,075,901, 1–29–63, Cl. 204—105.

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Bates, Arthur C., and Huttinger. 3,110,782.

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Herterich, Oskar, and Huttner. 3,083,789.

Hutto, Francis B., Jr., and G. R. Bell, to Johns-Manville Corp. Method of rotary precoat filtering. 3,080,971, 3–12–63, Cl. 210—75.

Hutton, Robert W., to International Telephone and Telegraph Corp. Connector with automatically controlled ringing. 3,085,133, 4–9–63, Cl. 179—18.

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Lloyd, Edward C., Johnson, and Hutton. 3,100,912.

Hutty, Fred A., and W. J. Trickey, 33⅓% to T. F. Needham. Adjustable sprinkler pipe assemblies. 3,084,869, 4–9–63, Cl. 239—201.

Hutzenlaub, John F.: *See*—
Draper, Charles S., Wrigley, Woodbury, and Hutzenlaub. 3,104,545.

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Bardsley, Robert V., and Grady. 3,114,396.
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Huyck, Willard M., and V. A. Romito, to Aseptic Thermo Indicator Co. Package article for ethylene oxide sterilization and subsequent storage. 3,093,242, 6–11–63, Cl. 206—47.

Huyck, Willard M., and V. A. Romito, to Aseptic Thermo Indicator Co. Printing ink composition for ethylene oxide sterilization indicators. 3,098,751, 7–23–63, Cl. 106—20.

Huyser, Francis C., to Ametek, Inc. Testing machines. 3,083,566, 4–2–63, Cl. 73—90.

Hvam, Hjalmar. Toe holding device for skis. Re. 25,425, 7–23–63, Cl. 280—11.35.

Hvistendahl, Nels J. Measuring dispenser attachable to receptacles. 3,094,253, 6–18–63, Cl. 222—452.

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Hwa, Chih M., to Dearborn Chemical Co. Process antifoams. 3,078,236, 2–19–63, Cl. 252—321.

Hwa, Jesse C. H., to Rohm & Haas Co. Bis-quaternary ammonium compounds. 3,079,436, 2–26–63, Cl. 260—567.6.

Hyatt, Philip L., and W. G. Kautz, to The Aro Corp. Valve for pneumatic motors. 3,101,030, 8–20–63, Cl. 121—154.

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Stockett, Wiley T., Jr. 3,078,873.

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Hyde, Arthur P. S., to General Motors Corp. Pump. 3,103,180, 9–10–63, Cl. 103—160.

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Hyde, James S., to Varian Associates. Gyromagnetic resonance methods and apparatus. 3,100,280, 8–6–63, Cl. 324—.5.

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Hyde, Richard E. Airplane liquid spraying unit. 3,084,890, 4–9–63, Cl. 244—136.

Hyde, Robert W., to Superior Tool and Grinding Co. Pump assembly. 3,094,076, 6–18–63, Cl. 103—150.

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Hyman, Benjamin M., to International Harvester Co. Open end auger feed over inclined rolls. 3,101,582, 8–27–63, Cl. 56—104.

Hyman, Edward S. Heart-lung device. 3,101,083, 8–20–63, Cl. 128—214.

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Hyman, Martin. Adjustable bedspring supporting hook. 3,109,180, 11–5–63, Cl. 5—296.

Hyman, Theodore. Inflatable kites. 3,086,737, 4–23–63, Cl. 244—153.

Hynd, Irvin W. Electrical control system circuit. 3,115,275, 12–24–63, Cl. 222—20.

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Scott, William M., Jr. 3,116,385.
Stratton, Robert L., and Reighter. 3,086,888.
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Cordier, Jean. 3,076,607.
Martin, Luciende S. 3,111,243.
Institut Dr. Ing. Reinhard Straumann A.G.: *See*—
Straumann, Reinhard. 3,099,128.
Tannenberger, Helmuth. 3,091,917.
Institut Francais du Petrole des Carburants et Lubrifiants: *See*—
Balaceanu, Jean-Claude, and Clement. 3,108,432.
Clement, Claude, Eschard, and Vignier. 3,094,410.
Eschard, Francois. 3,101,268.
Jenny, Robert. 3,079,448.
Montarnal, Roger, and Preve. 3,110,653.
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Bonnefoi, Antoine. 3,071,519.
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Elliott, Martin A. 3,112,189.
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Baudry, Jean. 3,087,480.
Enrick, Norbert L., and Fornes. 3,079,713.
Helberg, Ornulf E. 3,108,429.
Larbre, Jean. 3,085,559.
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Institutional Industries, Inc.: *See*—
Heyl, Leo W. 3,089,743.
Institutum Divi Thomae Foundation, The: *See*—
Sperti, George S., and Cook. 3,114,641.
Instrument Development Laboratories, Inc.: *See*—
Bentley, George P. 3,076,885.
Bentley, George P., McNabb, and Lewis. 3,085,951.
Instrusion-Prepakt, Inc.: *See*—
Jennings, Roscoe C., Jr., and King. 3,114,245.
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Emery, Edgar F. 3,109,212.
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Favill, William A., and Taylor. 3,075,383.
Peaster, Bertram A. 3,101,056.
Interchemical Corp.: *See*—
Ackerman, Joseph F., and Haskell. 3,087,824.
Aronoff, Eli J., Del Franco, and Rooney. 3,083,171.
Booth, Arthur, Pizzarello, and De Graff. 3,093,602.
Britt, Norman G., Engle, Carroll, and Blumberg. 3,085,896.
Dehn, Joseph W., Jr., Pizzarello, and Eltonhead. 3,090,789.
Engle, Loy S., Dunn, and Bownes. 3,100,981.
Gaylord, Norman G. 3,083,190.
Gaylord, Norman G. 3,098,835.
Gessler, Albert E., and Van Kirk. 3,074,801.
Hamermesh, Charles L. 3,084,139.
Hamermesh, Charles L., Bolstad, and Del Franco. 3,077,427.
Hamermesh, Charles L., and Gaylord. 3,076,011.
Kissel, William J. 3,075,945.
Lattarulo, Charles J., and Luzzi. 3,113,038.
Pizzarello, Roy A., De Lucia, and Maguire. 3,072,661.
Rash, John W. 3,087,848.
Intercontinental Dynamics Corp.: *See*—
Sharko, Sam, Salem, and Andresen. 3,089,331.
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Levinson, Louis E. 3,090,973.
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Daniell, Alan F. 3,082,608.
Intermountain Research and Engineering Co., Inc.: *See*—
Cook, Melvin A., and Collins. 3,096,223.
Ursenbach, Wayne O., and Udy. 3,113,059.
International Air-Springs, Inc.: *See*—
Perrotto, Joseph. 3,114,440.

International Applied-Research Corp.: *See*—
Shaw, Hubert K., and Craig. 3,076,206.
International Bank: *See*—
Crawford, David J. 3,098,799.
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Collins, John E. 3,089,509.
Hunt, Nathan C. 3,095,176.
Hunt, Nathan C., Hainlin, and Lockwood. 3,075,552.
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Johnston, Dwight A. 3,079,896.
Mahan, Guy S. 3,078,735.
Zies, Carl W. 3,108,530.
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Abramson, Norman M. 3,114,130.
Adams, John M., Cummings, Dalton, and Gaudet. 3,085,664.
Akmenkalns, Ivars G., and McDonnell. 3,077,591.
Ames, Irving, and Christensen. 3,085,739.
Anderson, John L. 3,086,197.
Anderson, John L. 3,093,748.
Anderson, John L. 3,111,650.
Anderson, Richard L. 3,082,283.
Anderson, Richard L., Marinace, and Silvey. 3,072,507.
Anderson, Stanley F. 3,078,039.
Anderson, Theodore H., and Harrington. 3,092,380.
Arneth, August P., Jr. 3,114,894.
Arthur, Merwyn E. 3,114,883.
Avery, Robert W. 3,114,035.
Averyt, Robert W., Gardner, and Harrison. 3,079,511.
Axelrod, Martin S., and Rosenheim. 3,096,450.
Balles, Paul W., Jr. 3,072,876.
Bauer, Edwin W. 3,077,582.
Becker, Frank E., Bingham, and Young. 3,082,854.
Bedrij, Orest J. 3,100,835.
Behrndt, Marianne E., Gladd, Perkins, and Weed. 3,091,556.
Bell, Kenneth A., and Conzola. 3,105,898.
Berkin, George M. 3,083,910.
Bernard, Levio P. 3,103,269.
Bertelsen, Bruce I. 3,110,620.
Bland, George F. 3,093,801.
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Boyle, William W. 3,075,093.
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Brandenburg, Thomas E. 3,090,945.
Branscomb, Charles E., and Martin. 3,088,665.
Brehm, Lyle W. 3,087,420.
Brennemann, Andrew E. 3,098,159.
Brennemann, Andrew E., and Tsui. 3,090,023.
Brooks, Kenneth A. 3,077,211.
Brownlow, James M. 3,077,021.
Brownlow, James M. 3,108,074.
Bruce, George D., and Henle. 3,089,964.
Brunschweiger, Alfred. 3,078,377.
Buchholz, Werner. 3,108,257.
Buchholz, Werner, and Kanter. 3,108,256.
Buck, Robert D. 3,087,142.
Butler, Arnold J., and Hedstrom. 3,076,563.
Butler, Sammy A. 3,077,585.
Butler, Sammy A., and Yourke. 3,108,218.
Cannon, Maxwell R. 3,100,889.
Carroll, William N. 3,111,649.
Carroll, William N., Coopper, and Counihan. 3,087,074.
Caswell, Hollis L. 3,085,913.
Charnetsky, Harry, Jr., and Maclay. 3,072,752.
Checketts, Jack H., and La Tell. 3,104,099.
Chiang, Franklin C. 3,103,658.
Clapper, Genung L. 3,098,939.
Clapper, Genung L. 3,098,999.
Clapper, Genung L. 3,102,165.
Clapper, Genung L. 3,108,228.
Clarke, Henry R. 3,088,666.
Clauer, Calvin K., and Kuehler. 3,109,062.
Clinton, William C., Brophy, and Ku. 3,077,242.
Cochrane, Harry W. 3,104,317.
Cole, Theodore H. 3,103,388.
Compton, Dinsdale M. J., and Baker. 3,104,049.
Cooper, Leon M., and Sims. 3,115,620.
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Croll, Donald C. 3,080,113.
Crowe, James W. 3,094,685.
Crowe, James W. 3,100,267.
Cummings, Thomas F. 3,095,654.
Da Silva, Edward M. 3,104,178.
Daly, George F., and Saltz. 3,088,398.
Daly, George F., and Saltz. 3,107,292.
D'Antonio, Renato A., and Gerrand. 3,100,293.
Darwin, Daniel P., Rex, and Kellogg. 3,107,346.
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Day, Kelly B., Jr., and Rinaldi. 3,107,339.
Delmege, James W., Jr. 3,088,095.
Demer, Frederick M., and Kelly. 3,100,834.
Dersch, William C. 3,090,837.
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Dickinson, Arthur H. 3,112,152.
Dietrich, Wolfgang. 3,113,297.
Di Ricco, Leo. 3,109,749.
Doolittle, Charles M. 3,095,739.
Dunning, Joseph E. 3,099,000.
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Einsele, Theodor E. 3,086,706.
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Estrems, Eugeni, and Papo. 3,107,342.
Farber, Arnold S. 3,108,199.
Fiehl, Michael. 3,107,912.
Foglia, Henry R. 3,114,843.
Ford, Norman C., Jr. 3,077,586.
Ford, Norman C., Jr. 3,111,652.
Foreman, Donald F. 3,103,580.
Francey, Sonia, and Albin. 3,078,446.
Francisco, Sherman G. 3,076,938.
Freiser, Marvin J., and Swihart. 3,114,895.
French, Walter K., and Johnson. 3,104,284.
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Gargill, Roger D., and Northrop. 3,104,927.
Garwin, Richard L. 3,082,408.
Gerrand, Fred, and Thomas. 3,111,578.
Giannuzzi, George A. 3,092,295.
Glattli, Hans H. 3,114,390.
Godycki, Ludwig E., Stevens, and Tsu. 3,098,803.
Gray, Alvin E. 3,075,194.
Greanias, Evon C., and Hamburgen. 3,072,886.
Greanias, Evon C., and Hamburgen. 3,105,956.
Greene, Jack E., Teriato, and Updike. 3,077,579.
Griesmer, James H., and Wagner. 3,079,083.
Gruodis, Algirdas J. 3,107,345.
Gunther-Mohr, Gerard R., and Winogradoff. 3,114,195.
Haibt, Luther H. 3,104,380.
Hakimoglu, Ayhan. 3,072,837.
Hamilton, Francis E., Hawkins, Lawhead, and Hughes. Re. 25,482.
Harper, Leonard R. 3,102,986.
Harper, Leonard R. 3,105,144.
Harris, John P. 3,091,380.
Harrison, Benjamin C., and Tompkins. 3,101,280.
Haughton, Kenneth E., and Hildebrand. 3,071,773.
Havens, Byron L., Fleming, and Schreiner. 3,076,180.
Haynes, Munro K. Re. 25,340.
Haynes, Munro K., and Lockhart. 3,106,702.
Hazel, Herbert K. 3,073,946.
Hennis, Robert B., and Larson. 3,089,123.
Heywood, James E. 3,112,396.
Hinkeln, Donald J. 3,115,583.
Hinkeln, Donald J., and Carroll. 3,088,041.
Hinze, Charles G. 3,092,815.
Hoagland, Albert S. 3,092,814.
Hoffmann, Walter. 3,077,158.
Homan, Merle E. 3,075,091.
Horton, John W. 3,098,112
Horton, Paul V. 3,071,843.
Hunter, Lloyd P. 3,093,816.
Hunter, Lloyd P. 3,093,818.
Hunter, Lloyd P. 3,111,611.
Iasher, Delmar J. 3,074,545.
Ingham, Herbert S., Jr. 3,096,209.
Jimerson, Le Roy S., Jr., and Watson. 3,078,725.
Johnson, Alfred H. 3,077,023.
Johnson, Reynold B. 3,079,594.
Johnson, Reynold B. 3,092,686.
Johnston, Howard T., Jr. 3,107,529.
Junge, Bjarne, and Brown. 3,094,883.
Kapur, Kishen N. 3,106,881.
Kauffmann, John A. 3,090,036.
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Khoury, Henri A. 3,081,682.
Khoury, Henri A., and Wilmer. 3,103,850.
Klotz, Herman J., Droege, and Krysiuk. 3,084,856.
Koretzky, Herman. 3,073,762.
Koretzky, Herman. 3,077,442.
Laman, William H., and Norris. 3,103,656.
Lamy, Richard C. 3,085,232.
Landauer, Rolf W. 3,111,628.
Larson, Russell H. 3,083,903.
Lasher, Gordon J., and Sorokin. 3,072,859.
Leaycraft, Edgar C., and Morris. 3,083,164.
Lee, Tsiun L., Stahl, and Vincent. 3,105,141.
Leff, Jerry. 3,088,888.
Leiching, Joseph D. 3,085,314.
Lindquist, Robert M., and Reyes. 3,111,407.
Lipschutz, Lewis D. 3,111,576.
Litwiller, Robert J. 3,086,128.
Logue, Joseph C. Re. 25,342.
Logue, Joseph C. 3,103,595.
Lord, Harry R. 3,088,104.
Luhn, Hans P. 3,109,058.
Lyons, Vincent J. 3,093,517.
MacCormack, Henry E. 3,113,035.
Maclay, William R. 3,081,942.
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Maley, Gerald A. 3,074,640.
Maley, Gerald A. 3,075,089.
Maley, Gerald A. 3,083,305.
Margopoulos, William P. 3,072,332.
Margopoulos, William P. 3,116,458.
Marinace, John C. 3,089,788.
Marinace, John C. 3,089,794.
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Markey, Harold G. 3,088,069.
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Martin, Glenn E. 3,103,399.
Martin, Harold F., Tidball, and Goddard. 3,092,823.
Mathers, Harry W. 3,090,909.
May, Gordon H. 3,090,201.
May, Gordon H. 3,105,680.
Melas, Constantin M. 3,114,109.
Meyers, Norman H. 3,114,845.
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Michaelsen, John D. 3,091,532.
Miller, Lewis F., and Callaghan. 3,072,577.
Miller, Solomon L. 3,094,613.
Morgan, Mark. 3,099,780.
Murray, Richard F. 3,099,818.
Myers, Aurle S., Jr. 3,104,326.
Newman, Ernest G., Sippel, and Skov. 3,103,000.
Nick, Howard H. 3,078,417.
O'Brien, Hugh A. 3,078,448.
Olekslak, Robert E. 3,100,888.
Olsen, Floyd W. 3,072,547.
Palmer, Leon E. 3,077,971.
Palmer, Leon E. 3,086,635.
Panissidi, Hugo A. 3,114,394.
Paul, Gerard T., Bahnsen, and Dirac. 3,115,574.
Paul, Gerard T., and Bedrij. 3,100,835.
Pawletko, Joseph P. 3,092,816.
Pecchenino, Paul L. 3,094,064.
Penoyer, Ralph F. 3,109,935.
Perlini, Robert S. 3,088,689.
Perry, Gerald H., and Shallow. 3,113,296.
Phillips, Robert K. 3,073,967.
Pingry, Carl O., III. 3,087,076.
Poole, Arnold L. 3,107,343.
Post, Frederick L. 3,099,821.
Preisinger, Max. 3,108,534.
Pricer, Wilbur D. 3,114,135.
Pugh, Emerson W. 3,071,756.
Rabinovici, Benjamin. 3,079,508.
Radovsky, David A., and Ronkese. 3,099,608.
Raffensperger, Maurice J. 3,072,818.
Raider, Jerry W. 3,090,552.
Randles, Richard J. 3,091,752.
Reines, Jose. 3,100,297.
Reitfort, Henry A. 3,096,508.
Reynolds, Andrew C., Jr. 3,075,176.
Reynolds, Andrew C., Jr. 3,089,125.
Rice, Rex. 3,082,327.
Rose, Alan, and Parton. 3,105,923.
Russell, Louis A. 3,077,583.
Rutz, Richard F. 3,079,512.
Rutz, Richard F. 3,083,302.
Rutz, Richard F. 3,085,310.
Rutz, Richard F. 3,089,038.
Sage, Richard N. 3,100,512.
Saxenmeyer, George J. 3,092,811.
Schacht, Gunter H., and Wilson. 3,078,732.
Schaffert, Roland M. 3,077,150.
Schaffert, Roland M. 3,096,198.
Scharff, Leon. 3,110,884.
Schmookler, Martin S. 3,099,753.
Schreiner, Kenneth E. 3,071,738.
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Schultz, Frederick A., and Noell. 3,102,328.
Schultz, Gerald L. 3,074,050.
Schulz, Peter R. 3,089,062.
Seader, Leonard D. 3,114,134.
Semple, William E. 3,088,211.
Shaban, Victor T. 3,090,037.
Shoultes, Donald P., and Royse. 3,085,230.
Sierra, Hugh M. 3,081,447.
Simpson, Victor R. 3,113,509.
Skerritt, John W. 3,100,848.
Skerritt, John W. 3,103,596.
Slobodzinski, Edwin J. 3,105,958.
Smith, Charles B. 3,089,128.
Smith, Donald H., and Hoffman. 3,116,474.
Smith, James T. 3,098,998.
Smith, William V., and Sorokin. 3,072,890.
Smura, Edwin J. 3,092,746.
Sommerfield, Edward H. 3,089,036.
Stark, William E. 3,115,308.
Sterling, John L. 3,107,414.
Stevens, Louis D. 3,082,406.
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Stewart, William R. 3,115,012.
Stillings, Warner E. 3,089,988.
Streeter, Donald N. 3,087,664.
Supernowicz, Edward J. 3,094,699.
Sweeney, John L. 3,108,272.
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Taras, Andrew. 3,096,511.
Tarwater, James P., and Griesemer. 3,104,983.
Tate, Lawrence A. 3,086,198.
Taunt, James E. 3,114,115.
Taylor, Wilfred K. 3,096,471.
Theodoseau, Nicholas. 3,111,352.
Thompson, Thomas W. 3,094,261.
Tilton, Charles J. 3,085,747.
Triebwasser, Sol. 3,093,477.
Tsu, Ignatius, and Fritsch. 3,111,463.
Underwood, Francis O. 3,077,580.
Uttal, William R. 3,108,268.
Uttal, William R. 3,114,210.
Vogel, Marcel J. 3,100,844.
Wagner, Eric G., and McCarthy. 3,093,814.
Weed, Donald S. 3,100,723.
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West, Gerald N. 3,114,133.
Wicklund, Harold P., and Panissidi. 3,112,473.
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Willard, Dennis D. 3,084,337.
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Windes, Frank V., and Paul. 3,098,214.
Wipke, Walter J. 3,104,745.
Witt, Victor R. 3,085,236.
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Wolensky, William. 3,109,162.
Wolff, Hermann P. 3,074,637.
Wolff, Hermann P. 3,090,923.
Woo, James J. 3,114,144.
Wood, James R. 3,089,645.
Woodland, Norman J. 3,103,593.
Wu, Peig F. 3,108,195.
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International Commodities, Inc.: *See*—
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International Computers and Tabulators Ltd.: *See*—
Circuit, Martin P. 3,082,379.
Coates, Harold N. 3,097,350.
Cound, Laurence J. 3,108,154.
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James, John B. 3,110,018.
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International Computers and Tabulators Ltd. (formerly The British Tabulating Machine Co., Ltd): *See*—
Williams, Emrys J. 3,099,822.
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Horvath, John F. 3,101,625.
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Barkstrom, Reynold. 3,075,339.
Barows, Arthur G., and Zitko. 3,093,951.
Bechman, William O. 3,101,794.
Bellingher, Fred A. 3,079,024.
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Clark, Adna R. 3,075,449
Clark, John D. 3,099,358.
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Hallgren, Carl T. M., and Alden. 3,101,787.
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Hostetler, Gerald W., and Kelley. 3,101,809.
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Hyman, Benjamin M. 3,083,785.
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Jennings, Marvin D. 3,101,788.
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Johnson, Arnold E. W., Swift, and Kariba. 3,110,152.
Johnson, Richard S., and Brehm. 3,111,937.
Johnson, Samuel G. 3,110,523.
Johnston, Edward J. 3,088,189.
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Karlsson, Elof K. 3,101,720.
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Kolthoff, C. Paul, Jr. 3,085,625.
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Kries, Donald A. 3,102,554.
Maughan, John. 3,083,777.
McAfee, Robert E., and Arnold. 3,093,212.
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McConeghy, George, Jr., and Grillot. 3,110,246.
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Pool, Stuart D., and Hyman. 3,083,812.
Reynolds, Ralph K. 3,104,480.
Reynolds, Ralph K., and Clarke. 3,092,919.
Rice, Russell E. 3,101,790.
Sadler, James E., and Hussey. 3,092,949.
Sammarco, Peter. 3,093,254.
Scarnato, Thomas J. 3,083,519.
Scarnato, Thomas J., and Johnson. 3,092,947.
Shallenberg, Robert L. 3,083,912.
Showalter, Carl N. 3,101,827.
Sullivan, Herbert D., Bledsoe, and Barfield. 3,101,963.
Telisehl, Raba. 3,110,174.
Van Londersele, Jean. 3,101,791.
Virtue, Eugene P., and Moyer. 3,090,639.
Voreaux, Claude, Joyeux, and Copie. 3,114,424.
Walker, Dennis W. 3,106,998.
Ward, Gerald G. 3,090,449.
Ward, Gerald G. 3,115,191.
Weaver, Leo G. 3,078,707.
Witt, Robert H. 3,101,807.
Witt, Robert H., and Clark. 3,107,472.
Wojcik, Richard P. 3,079,061.
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Ostolaza, Frank. 3,104,436.
International Instruments, Inc.: *See*—
Connelly, John F., and Mulligan. 3,079,556.
Mulligan, Robert J. 3,114,089.
International Latex Corp.: *See*—
Barth, Harry J., and Gay. 3,098,755.
Dorsey, William J. 3,098,486.
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Ishimoto, Kunio, and A. Morimoto, to Nippon Electric Co. Keying circuit with four terminal network for independent keying of plural repeaters without interference. 3,116,423, 12–31–63, Cl. 307—88.5.

Ishizuka, Toshizo, M. Momoi, and R. Fujita, to Shin-Etsu Chemical Co., Ltd. Method for the preparation of organostannosiloxane. 3,086,304, 7–2–63, Cl. 260—46.5.

Ishler, Norman H., R. V. MacAllister, A. S. Szczesniak, and E. Engel, to General Foods Corp. Process for preparing a food product having a fibrous texture and the resulting product. 3,093,483, 6–11–63, Cl. 99—131

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Isley, John V., and R. A. Gilliam, to Burlington Industries, Inc. High pressure, high temperature dye beck. 3,094,859, 6–25–63, Cl. 68—15.

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Ito, Yoshikazu, to Toyo Rayon Kabushiki Kaisha. Method of producing nitroso compounds or oximes. 3,090,739, 5–21–63, Cl. 204—162.

Itoh, Yuko, to International Mac Gregor Organization (I.M.G.O.) Covers for closing open spaces such as shipholds, railway cars and the like. 3,095,847, 7–2–63, Cl. 114—202.

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Ivarson, Nemo S. M., to Kooperativa Forbundet ekonomisk forening. Device for batching apparatus. 3,113,701, 12–10–63, Cl. 222—80.

Ivarsson, Erik, to Malcus Holmquist Aktiebolaget. Combined squeezing and jolting devices for inverting moulding machines. 3,111,730, 11–26–63, Cl. 22—26.

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Ivey, Henry F., to Westinghouse Electric Corp. Frequency-dependent electroluminescent device for presenting colored images. 3,103,551, 9–10–63, Cl. 178—5.4.

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Jachimowicz, Ludwik, to General Cable Corp. Electric cable and method of manufacture. 3,087,007, 4–23–63, Cl. 174—110.

Jachter, Martin H., to United States of America, Army. Apparatus for calibrating radiation measuring devices. 3,107,299, 10–15–63, Cl. 250—83.

Jack, Bill, Scientific Instrument Co.: *See*—
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Jack, Robert F., R. E. Prescott, and P. R. White, to Bell Telephone Laboratories, Inc. Method of making printed wiring assemblies. 3,075,280, 1–29–63, Cl. 29—155.5.

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Jackel, Simon S., to Vico Products Co. Flavoring composition and method of preparing the same. 3,102,033, 8–27–63, Cl. 99—90.

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Jackle, Carl W., to United States of America, Navy. Marker generator. 3,077,598, 2–12–63, Cl. 343—118.

Jacklin, Earl R.: *See*—
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Jacklin, Merl E. and E. R. Can rack. 3,102,707, 9–3–63, Cl. 248—146.

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Miller, William J. 3,110,139.

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Jackson, Clarence E., to Union Carbide Corp. Submerged melt welding process and composition. 3,078,193, 2–19–63, Cl. 148—26.

Jackson, Curtiss E., Sr. Hermetic seal valve assemblies. 3,101,863, 8–27–63, Cl. 220—44.

Jackson, Dale E., to E. I. du Pont de Nemours and Co. Fused homogeneous waterleaf of organic polymer fibrids and inorganic flakes, and process for preparing same. 3,080,272, 3–5–63, Cl. 162—157.

Jackson, Donald, to Pye Ltd. Television cameras. 3,114,798, 12–17–63, Cl. 178—7.2.

Jackson, Earl R. Athletic foul automatic indicator. 3,100,472, 8–13–63, Cl. 116—114.

Jackson, Edmond D.: *See*—
White, Gale, and Jackson. 3,083,341.

Jackson, Edward R. B.: *See*—
Cohen, John C., and Jackson. 3,111,401.

Jackson, Elwood F.: *See*—
McTaggart, Robert B., Jackson, and Huck. 3,106,547.

Jackson, Ernest J.: *See*—
Sabatino, Anthony, and Jackson. 3,100,162.

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Jackson, George W. Locking bracket for scaffolding brace bars. 3,091,485, 5–28–63, Cl. 287—53.5.

Jackson, Harold. Portable lamp brackets. 3,078,367, 2–19–63, Cl. 240—52.1.

Jackson, Harold E., to Tecalemit Ltd. Electrically operated pumps. 3,074,346, 1–22–63, Cl. 103—58.

Jackson, Harold E., P. W. Stripp, and R. E. Farnfield, to Tecalemit Ltd. Fluid filters. 3,076,555, 2–5–63, Cl. 210—493.

Jackson, Harold L., to E. I. du Pont de Nemours and Co. Method for preparing silane. 3,103,415, 9–10–63, Cl. 23—204.

Jackson, Harry L., and T. E. Kraner, to C-B Southern, Inc. Gas sweetening process and apparatus. 3,087,291, 4–30–63, Cl. 55—62.

Jackson, Haskell L. Fishing lure. 3,093,923, 6–18–63, Cl. 43—42.11.

Jackson, Ivan U., to E. I. du Pont de Nemours and Co. Radially expansible holder for tubular packages. 3,092,342, 6–4–63, Cl. 242—46.2.

Jackson, Ivan U., to E. I. du Pont de Nemours and Co. Transfer tail winding device. 3,097,804, 7–16–63, Cl. 242—19.

Jackson, James M., Jr., to The V. L. Smithers Mfg. Co. Process of making flexible absorbent material. 3,101,242, 8–20–63, Cl. 18—47.5.

Jackson, James M., Jr., to The V. L. Smithers Mfg. Co. Suction head for saturating foam blocks. 3,104,987, 9–24–63, Cl. 118—50.

Jackson, James S., to Mayor & Coulson Ltd. Conveyor belt tension device. 3,113,662, 12–10–63, Cl. 198—208.

Jackson, John B., to United States of America, Army. Decontaminating solution. 3,079,346, 2–26–63, Cl. 252—153.

Jackson, John G., to Well Completions, Inc. Well drilling apparatus and method. 3,094,175, 6–18–63, Cl. 175—69.

Jackson, John G., to Gas Drilling Services Co. Reverse circulation sub. 3,095,052, 6–25–63, Cl. 175—324.

Jackson, John G., to Gas Drilling Services Co. Drilling apparatus for large well bores. 3,102,600, 9–3–63, Cl. 175—308.

Jackson, John G., to Well Completions, Inc. Method and apparatus for severing casings and the like. 3,115,184, 12–24–63, Cl. 166—35.

Jackson, John G., Jr., and A. F. Rhodes, to McEvoy Co. Apparatus for drilling and completion of inaccessible wells. 3,086,590, 4–23–63, Cl. 166—66.5.

Jackson, John G., Jr., and A. F. Rhodes, to McEvoy Co. Valves with upstream-downstream sealing. 3,095,004, 6–25–63, Cl. 137—246.11.

Jackson, John M.: *See*—
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Jackson, John M., and K. J. Whitbourn, to The Metal Box Co. Ltd. Manufacture of hollow articles from thermoplastic materials. 3,081,489, 3–19–63, Cl. 18—5.

Jackson, John M., and D. M. Kohler, to Armco Steel Corp. Production of cube-on-edge oriented silicon iron. 3,116,430, 12–24–63, Cl. 148—2.

Jackson, Joseph J. Grouping and crowding machine. 3,109,531, 11–5–63, Cl. 198—34.

Jackson, Julius, to E. I. du Pont de Nemours and Co. Coating compositions containing water-insoluble ferric polyphosphate pigments. 3,074,895, 1–22–63, Cl. 260—22.

Jackson, Kenneth R.: *See*—
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Jackson, Kenneth R. and W. Seiden, to The Foxboro Co. Flowmeter. 3,097,529, 7–16–63, Cl. 73—231.

Jackson, Leslie K., to The Harvard Mfg. Co. Slide-out sofa-divan. 3,079,614, 3–5–63, Cl. 5—17.

Jackson, Lloyd H. Soil conditioning composition. 3,075,836, 1–29–63, Cl. 71—24.

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Jackson, Martin A., and J. W. Dow, to Van Zelm Associates Inc. Load limiting shock strut. 3,087,584, 4–30–63, Cl. 188—1.

Jackson, Merlon L., P. Merlin, and J. S. Cameron, to J. F. Auer, Inc. Teaching machine. 3,106,026, 10–8–63, Cl. 35—9.

Jackson, Norman W.: *See*—
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Jackson, Osie E., to Associated Spring Corp. Spring clip for retaining rear view mirror or the like. 3,082,666, 3–26–63, Cl. 88—96.

Jackson, Pearce E. Means for fastening and sealing yarn packages on perforated circulating pipes of dyeing machines. 3,086,381, 4–23–63, Cl. 68—198.

Jackson, Philip, to The Bendix Corp. Transducer. 3,096,656, 7–9–63, Cl. 73—517.

Jackson, Richard T., and D. G. Magill, Jr., to Riegel Paper Corp. Process for manufacturing paper from synthetic fibers. 3,095,345, 6–25–63, Cl. 162—146.

Jackson, Robert C., to Monsanto Chemical Co. Bobbin chuck device. 3,093,332, 6–11–63, Cl. 242—46.6.

Jackson, Robert D. Isolation of pheophytin from dehydrated alfalfa. 3,087,934, 4–30–63, Cl. 260—314.

Jackson, Robert E.: *See*—
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Jackson, Robert J., and R. J. Carrigan, to Bigelow-Sanford, Inc. Patterned rough-textured pile fabric floor covering. 3,093,163, 6–11–63, Cl. 139—396.

Jackson, Robert L.: *See*—
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Jackson, Robert W., and J. E. Pike, to The Upjohn Co. 6-fluoro-3,11-diketo Δ^4, 17(20) pregnadien-21 oic acid esters. 3,114,757, 12–17–63, Cl. 260—397.1.

Jackson, Roderick M., to Hamilton Watch Co. Electric watch having transistor controlled contact. 3,098,185, 7–16–63, Cl. 318—128.

Jackson, Stuart P., to North Electric Co. Current supply apparatus. 3,076,925, 2–5–63, Cl. 323—22.

Jackson, Thomas, and A. McPherson, to Associated Electrical Industries Ltd. Apparatus for use in the coating of electrically conducting members by the process of electrophoresis. 3,094,477, 6–18–63, Cl. 204—300.

Jackson, Thomas J. Foundation column. 3,108,403, 10–29–63. Cl. 50—100.

Jackson Vibrators, Inc.: *See*—
Derler, Charles J. 3,099,225.

Jackson, Wilbur. Automatic radio warning system. 3,102,235, 8–27–63, Cl. 325—163.

Jackson, William H.: *See*—
Scharmer, Herman P., and Jackson. 3,084,916.

Jackson, William H., and C. C. Piontkowski, to The Udylite Corp. Electric power transfer mechanism for conveyor apparatus. 3,094,475, 6–18–63, Cl. 204—202.

Jackson, William R.: *See*—
Pickard, Edgar C., Jackson, and Grappo. 3,091,305.

Jackson, William R., to Fordees Corp. Automatic billet center punching machine. 3,091,139, 5–28–63, Cl. 78—9.

Jackson, William W.: *See*—
Hunter, George D., and Jackson. 3,101,786.

Jackson, Winston J., Jr.: *See*—
Caldwell, John R., and Jackson. 3,096,359.
Caldwell, John R., and Jackson. 3,113,963.

Jackwig, Roy R.: *See*—
Rowe, Dale H., and Jackwig. 3,102,583.

Jacob, Albert H., and L. Ginsberg, to Radio Components Ltd. Communication system. 3,087,990, 4–30–63, Cl. 179—2.

Jacob, Herbert: *See*—
Enk, Eduard, Jacob, and Nickl. 3,077,384.

Jacob, Morris L., to Pittsburgh Annealing Box Co. Inner cover for annealing furnaces. 3,097,837, 7–16–63, Cl. 263—49.

Jacob, Norman B., to Keystone Ferrule & Nut Corp. Combination film can and spicer. 3,097,558, 7–16–63, Cl. 83—648.

Jacob, Robert M., and J. G. Robert, to Societe des Usines Chimiques Rhone-Poulenc. Phenothiazine derivatives. 3,075,976, 1–29–63, Cl. 260—243.

Jacob, Robert M., and J. C. Fouche, to Societe des Usines Chimiques Rhone-Poulenc. (1-piperidylalkyl) derivatives of 3-indole. 3,075,986, 1–29–63, Cl. 260—294.7.

Jacob, Robert M., and J. G. Robert, to Societe des Usines Chimiques Rhone-Poulenc. Phenthiazine derivatives. 3,081,305, 3–12–63, Cl. 260—243.

Jacob, Robert M., and N. M. Preau, to Societe des Usines Chimiques Rhone-Poulenc. Adamant-1-yl monoesters of dibasic acids. 3,081,337, 3–12–63, Cl. 260—475.

Jacob, Robert M., J. G. Robert, and R. A. Gaillard, to Societe des Usines Chimiques Rhone-Poulenc. New 10-(azetidinylalkyl)-phenthiazines. 3,082,210, 3–19–63, Cl. 260—243.

Jacob, Robert M., and R. J. Horclois, to Societe des Usines Chimiques Rhone-Poulenc. Carbamoylpiperazinylalkylphenthiazine derivatives. 3,084,160, 4–2–63, Cl. 260—243.

Jacob, Robert M., and R. J. Horclois, to Societe des Usines Chimiques Rhone-Poulenc. 5-[(carbamoyloxy or oxy substituted piperidino)-lower alkylene] iminodibenzyls. 3,102,888, 9–3–63, Cl. 260—294.3.

Jacob, Walter E. W., to Telefonaktiebolaget L M Ericsson. Arrangement at multi-channel pulse communication systems. 3,112,367, 11–26–63, Cl. 179—15.

Jacobaeus, Anton C.: *See*—
Bergmann, Anders K., Elldin, Jacobaeus, Svala, and Welander. 3,088,998.

Jacobaeus, Anton C., K. Katzeff, and C. G. Svala, to Telefonaktiebolaget L M Ericsson. Switching means for telephone systems. 3,111,559, 11–19–63, Cl. 179—18.

Jacobel, Herbert, Jr., and T. W. Jentges, to Marco Industries Co. Modular type indicator. 3,080,554, 3–5–63, Cl. 340—378.

Jacobi, Arno M., to Walter Jacobi & Sons, Inc. Church kneeler. 3,107,122, 10–15–63, Cl. 297—426.

Jacobi, Edward N., to Briggs & Stratton Corp. Automatic keyhole cover for cylinder locks. 3,077,101, 2–12–63, Cl. 70—455.

Jacobi, Ernst, and H. Beck. Suction device for spinning machines. 3,073,105, 1–15–63, Cl. 57—34.5.

Jacobi, Henry C., to Continental Copper & Steel Industries, Inc., (Welin Davit and Boat Division). Lifeboat construction. 3,101,490, 8–27–63, Cl. 9—3.

Jacobi, Walter & Sons, Inc.: *See*—
Jacobi, Arno M. 3,107,122.

Jacobi, William F., to Union Bag-Camp Paper Corp. Unitized shelf loading carton. 3,111,223, 11–19–63, Cl. 206—65.

Jacobowitz, Herbert. Device for fixing the welding base on belt conveyers of vacuum packing machines. 3,094,824, 6–25–63, Cl. 53—89.

Jacobowsky, Armin, to Knapsack-Griesheim Aktiengesellschaft. Process for preparing vinyl chloride. 3,113,158, 12–3–63, Cl. 260—656.

Jacobowsky, Armin, and K. Sennewald, to Knapsack-Griesheim Aktiengesellschaft. Method of preparing halogen-substituted aliphatic hydrocarbons. 3,079,444, 2–26–63, Cl. 260—654.

Jacobowsky, Armin, and F. Hartmann, to Knapsack-Griesheim Aktiengesellschaft. Process for preparing hydrogen chloride. 3,085,860, 4–16–63, Cl. 23—155.

Jacobs, Clyde L., and W. R. Souply. Material handling system. 3,077,269, 2–12–63, Cl. 214—15.

Jacobs, Gerhard, and A. Melcher. Source of radiation for infrared spectrophotometers. 3,100,828, 8–13–63, Cl. 219—34.

Jacobs, Harold, F. A. Brand, J. D. Meindl, and M. A. Benanti, to United States of America, Army. Microwave amplitude modulator. 3,096,494, 7–2–63, Cl. 333—81.

Jacobs, Haynie, and A. Morehead, to Eastman Kodak Co. Apparatus and method for producing volumized slub yarn. 3,113,413, 12–10–63, Cl. 57—34.

Jacobs, Heins, to Industrie-Companie Kleinewefers Konstruktions- und Handelsgesellschaft m.b.H. Air heater or recuperator. 3,076,449, 2–5–63, Cl. 126—116.

Jacobs, Henry R. Medicinal tablets. 3,113,076, 12–3–63, Cl. 167—82.

Jacobs, Henry S., to Harnischfeger Corp. Induced current electromagnetic torque transmitting couplings. 3,113,229, 12–3–63, Cl. 310—105.

Jacobs, Isaac, ½ to L. Jacobs. Latch release. 3,104,904, 9–24–63, Cl. 292—254.

Jacobs, Israel S., and J. S. Kouvel, to General Electric Co. Method for making magnets. 3,116,254, 12–31–63, Cl. 252—62.5.

Jacobs, James W., to General Motors Corp. Refrigerating apparatus. 3,070,971, 1–1–63, Cl. 62—78.

Jacobs, James W., to General Motors Corp. Dishwashing machine. 3,082,779, 3–26–63, Cl. 134—174.

Jacobs, James W., to General Motors Corp. Refrigerating apparatus with defrosting controls. 3,084,520, 4–9–63, Cl. 62—156.

Jacobs, James W., to General Motors Corp. Washing machine level control. 3,095,895, 7–2–63, Cl. 137—387.

Jacobs, James W., to General Motors Corp. Domestic electric heating appliance. 3,115,565, 12–24–63, Cl. 219—20.

Jacobs, James W., to General Motors Corp. Domestic electric heating appliance. 3,115,566, 12–24–63, Cl. 219—20.

Jacobs, James W., and L. L. Suttman, to General Motors Corp. Dishwasher control circuit. 3,078,858, 2–26–63, Cl. 134—57.

Jacobs, John H., to Consolidated Electrodynamics Corp. Rapid photographic developing. 3,088,824, 5–7–63, Cl. 96—63.

Jacobs, Joseph D. Hole packing device. 3,104,584, 9–24–63, Cl. 86—20.

Jacobs, Joseph H., to Jacobs Wind Electric Co. Cutting torch. 3,071,361, 1–1–63, Cl. 266—23.

Jacobs, Kenneth C.: *See*—
Stypulkowski, Walter C., and Jacobs. 3,102,982.

Jacobs, Leonard: *See*—
Jacobs, Isaac. 3,104,904.

Jacobs, Paul E.: *See*—
Wallace, John W., and Jacobs. 3,089,365.

Jacobs, Phillip C., Jr., to The Chase-Shawmut Co. Electric striker pin fuses for elevated circuit voltages. 3,113,193, 12–3–63, Cl 200—121.

Jacobs, Philip F., to Flexigrip, Inc. Slider for fastener strips. 3,115,689, 12–31–63, Cl. 24—201.

Jacobs, Ray T. Headgate apparatus. 3,091,934, 6–4–63, Cl. 61—29.

Jacobs, Richard L.: *See*—
Ecke, George G., and Jacobs. 3,114,752.

Jacobs, Robert B.: *See*—
Staker, William P., Jacobs, and Ginsburgh. 3,075,077.

Jacobs, Robert J., and J. T. Coghill, to The Black-Clawson Co. Paper machinery. 3,079,889, 3–5–63, Cl. 118—8.

Jacobs, Robert J., and C. J. Waechter, to Midland-Ross Corp. Web severing and roll initiating mechanism. 3,096,947, 7–9–63, Cl. 242—56.

Jacobs, Robert L., to Industrial Nucleonics Corp. Hand wire stripper. 3,087,363, 4–30–63, Cl. 81—9.5.

Jacobs, Rudolph A., Jr.: *See*—
Dodd, Glen M., and Jacobs. 3,075,153.

Jacobs, William H. Sealing gasket for beverage dispensers. 3,112,114, 11–26–63, Cl. 277—205.

Jacobs Wind Electric Co.: *See*—
Jacobs, Joseph H. 3,071,361.

Jacobsen, Albert E. Barometer. 3,114,265, 12–17–63, Cl. 73—385.

Jacobsen, Alexander, to Kools Bros., Inc. Grid for disintegrating fibrous materials. 3,095,916, 7–2–63, Cl. 146—117.

Jacobsen, Andrew B., to United States of America, Navy. Coded data decoder. 3,093,798, 6–11–63, Cl. 328—67.

Jacobsen, Bjarne P.: *See*—
Hulls, Leonard R., and Jacobsen. 3,100,410.

Jacobsen, Bjarne P., and L. R. Hulls, to Canadian Westinghouse Co., Ltd. Floating drive take off. 3,081,544, 3–19–63, Cl. 33—1.

Jacobsen, Edward H., to General Electric Co. Doppler radar system. 3,105,966, 10–1–63, Cl. 343—8.

Jacobsen, Ib J., to Mikrovaerk A/S. Mould and associated mould carrier for confectionary mass moulding machines and the like plants. 3,082,709, 3–26–63, Cl. 107—8.

Jacobsen, John B.: *See*—
Romine, Roy T., Jacobsen, and Grasel. 3,107,677.

Jacobsen, Julius E., to Allis-Chalmers Mfg. Co. Tap changer motor control system with thermal time delay relay. 3,109,975, 11–5–63, Cl. 318—207.

Jacobsen Mfg. Co.: *See*—
Barth, John W. 3,100,372.
Barth, John W. 3,110,147.
Heth, Sherman C., and Akgulian. 3,106,811.
Heth, Sherman C., Akgulian, and Hoffmeyer. 3,099,165.
Heth, Sherman C., and Price. 3,112,598.
Heth, Sherman C., Price, and Wridt. 3,112,597.
Price, Warren H. 3,099,123.
Price, Warren H. 3,112,596.
Strasel, Raymond K. 3,091,073.
Strasel, Raymond K. 3,099,124.
Strasel, Raymond K. 3,106,813.

Jacobsen, Paul W.: *See*—
Beninger, Robert L., and Jacobsen. 3,088,688.

Jacobsen, Rolf. Arrangement in regulating valves for heating units. 3,099,430, 7–30–63, Cl. 251—146.

Jacobsen, Vagn K.: *See*—
Juncker, Flemming G., Damgaard, Jacobsen, Henk, and Schmidt. 3,090,411.

Jacobson, Alvin E., Jr., to Grand Haven Brass Foundry. Ball cock valve. 3,109,447, 11–5–63, Cl. 137—436.

Jacobson, Arthur L., to Inland Steel Products Co. Roof deck. Re. 25,364, 4–2–63, Cl. 189—34.

Jacobson, Benjamin B., to J. & L. Devices, Inc. Vehicle speed control device. 3,114,428, 12–17–63, Cl. 180—82.1.

Jacobson, Carl H., to American Optical Co. Traffic safety belts. 3,089,143, 5–14–63, Cl. 2—1.

Jacobson, Delbert G. Low crop harvesting attachment for combines. Re. 25,385, 5–14–63, Cl. 56—23.

Jacobson, Donald, and I. Davis. Bow sight. 3,084,442, 4–9–63, Cl. 33—46.4.

Jacobson, Earl C. Powder tamping and retrieving implement. 3,079,832, 3–5–63, Cl. 86—21.

Jacobson, Edwin B., to Jervis Corp. Remote control structure for rearview mirrors and the like. 3,077,142, 2–12–63, Cl. 88—93.

Jacobson, Edwin B., to Jervis Corp. Remote control for rearview mirrors and the like. 3,094,582, 6–18–63, Cl. 88—93.

Jacobson, Elliot L. Plumbing fitting and escutcheon assembly therefor. 3,105,707, 10–1–63, Cl. 285—39.

Jacobson, George. Cigarette filters. 3,087,500, 4–30–63, Cl. 131—10.

Jacobson, Irvin D., to Perfection Pipe Nipple Co. Lined nipple assembly for hot water tanks. 3,093,161, 6–11–63, Cl. 138—143.

Jacobson, John H., Jr.: *See* Godcharles, Charles A., Blyth, Jacobson, and Gabrielson, 3,100,942.

Jacobson, John W., and J. C. Dawson. Collapsible container. 3,107,023, 10–15–63, Cl. 217—15.

Jacobson, Kenneth E., to Dorr-Oliver Inc. Centrifugal machines having a nozzle type rotor structure. 3,080,108, 3–5–63, Cl. 233—14.

Jacobson, Melvin O., and P. G. Wermager, to United States of America, Navy. Blast door seal. 3,075,254, 1–29–63, Cl. 20—16.

Jacobson, Melvin O., B. J. Matson, and P. G. Wermager, to United States of America, Navy. Retractable spanning rail and blast door arrangement. 3,101,026, 8–20–63, Cl. 89—1.7.

Jacobson, Robert J. Dental matrix strip. 3,082,531, 3–26–63, Cl. 32—63.

Jacobson, Robert L., and R. H. Kozlowski, to California Research Corp. Catalytic hydrodenitrification process. 3,114,701, 12–17–63, Cl. 208—254.

Jacobsson, Åke L. F. Laboratory table for research work in hospitals and the like. 3,087,763, 4–30–63, Cl. 108—13.

Jacobsson, Axel O.: *See* Berglund, Kurt K., Jacobsson, and Magni. 3,103,590.

Jacoby, Ben, Jr., to Olin Mathieson Chemical Corp. Heat exchanger. 3,104,701, 9–24–63, Cl. 165—148.

Jacoby Bender, Inc.: *See* Rodriguez, Emil. 3,084,412.

Jacoby, Thomas A.: *See* Brown, Harry W., Jacoby, and Kruger. 3,083,309.

Jacocks, Claud L., and G. E. Hinds, to Continental Oil Co. Phthalates of mixture of normal 6, 8 and 10 carbon primary alcohols and vinyl chloride polymers plasticized therewith. 3,094,503, 6–18–63, Cl. 260—31.8.

Jacoff, Salem L., to Great Neck Saw Manufacturers, Inc. Saw blade holding mechanism. 3,114,402, 12–17–63, Cl. 145—108.

Jacokes, Benton D.: *See* Powers, Walter H., and Jacokes. 3,087,580.

Jacopini, Sereno: *See* Danelli, Germano, and Jacopini. 3,102,676.

Jacox, Helen M.: *See* Reames, Leonard. 3,110,140.

Jacquemond, Jean. Mine-cars. 3,080,987, 3–12–63, Cl. 214—83.36.

Jacquest, John A. T.: *See* Jack, Harry R. S., Jacquest, and Rothwell. 3,077,094.

Jacquet, Gabriel. Method of producing shoes with molded soles of rubber or plastic material. 3,109,701, 11–5–63, Cl. 18—59.

Jacquier, Jean H., to Bell Telephone Laboratories, Inc. Diversity communication system. 3,099,716, 7–30–63, Cl. 179—15.

Jacquot, Henri T.: *See* Donovan, Arthur F., Jacquot, and Richardson. 3,102,016.

Jacquot, Louise R. P.: *See* Robert, Roger A., Matge, and Jacquot. 3,106,863.

Jacuzzi Bros., Inc.: *See* Horan, Raymond E., Jr., and Schuetz. 3,104,918.
Jacuzzi, Candido. 3,085,267.

Jacuzzi, Candido, to Jacuzzi Bros., Inc. Swimming pool cleaner head. 3,085,267, 4–16–63, Cl. 15—1.7.

Jacwil Mfrs.: *See* White, John L. 3,077,016.

Jaderholm, Henrik W. Fermi level calculator for semiconductors. 3,076,596, 2–5–63, Cl. 235—61.

Jadot, Edgard, to Panmetals and Processes Inc. Method for preparing diammonium phosphate, starting from phosphoric acid produced by the wet process. 3,115,390, 12–24–63, Cl. 23—107.

Jaeger, Karl: *See* Von Grotthuss, Johann, Jaeger, and Karmat. 3,090,672.

Jaeger, Kirt S., to Midland-Ross Corp. Pipe end heating apparatus and method. 3,082,760, 3–26–63, Cl. 126—271.2.

Jaeger, Peter, E. J. Koller, J. Wegmann, and H. Zollinger, to Ciba Ltd. Process for the production of fast dyeings on polyhydroxylated materials. 3,073,662, 1–15–63, Cl. 8—54.2.

Jaeger, Renee H.: *See* Fray, Gordon I., Jaeger, and Morgan. 3,084,178.

Jaeger, Theodore D.: *See* Drnec, Harry F., Bell, and Jaeger. 3,115,813.
Drnec, Harry F., Bell, and Jaeger. 3,116,006.

Jaensch, Kreszenz: *See* Jaensch, Kurt A. and K. 3,114,544.

Jaensch, Kurt A. and K. Combination playground slope and playhouse. 3,114,544, 12–17–63, Cl. 272—56.5.

Jaeschke, Ralph L.: *See* Ames, Oliver C., Jaeschke, and Lackl. 3,073,977.

Jaeschke, Ralph L., to Eaton Mfg. Co. Electric coupling. 3,072,811, 1–8–63, Cl. 310—105.

Jaeschke, Ralph L., to Eaton Mfg. Co. Multiple-clutch electromagnetic torque devices. 3,088,565, 5–7–63, Cl. 192—48.

Jaeschke, Ralph L., to Eaton Mfg. Co. Liquid-cooled and -lubricated electric machine. 3,089,046, 5–7–63, Cl. 310—105.

Jaeschke, Ralph L., to Eaton Mfg. Co. Electrical shift control system for a transmission. 3,103,826, 9–17–63, Cl. 74—339.

Jaffa, David and M. L., to Precision Screen Machines Co., Inc. Frame and screen construction for screen printing. 3,078,793, 2–26–63, Cl. 101—127.1.

Jaffa, Matthew L.: *See* Jaffa, David and M. L. 3,078,793.

Jaffe, Arnold V., to Airkem, Inc. Dispenser having end point indicating means. 3,104,816, 9–24–63, Cl. 239—35.

Jaffe, Benjamin, and A. Textor, to Deltowu Foods, Inc. Disc washing machine. 3,093,149, 6–11–63, Cl. 134—149.

Jaffe, David L., to Polarad Electronics Corp. Signal recognition and identification system. 3,076,932, 2–5–63, Cl. 324—77.

Jaffe, David L., to Polarad Electronics Corp. Panoramic scanning counter. 3,115,622, 12–24–63, Cl. 340—224.

Jaffe, David L., and A. Ross, to Polarad Electronics Corp. Infrared signal generator. 3,080,483, 3–5–63, Cl. 250—84.

Jaffe, David L., and C. French, to Polarad Electronics Corp. Digital pH meter. 3,095,535, 6–25–63, Cl. 324—30.

Jaffe, David L., A. Ross, and A. Sonnenscheln, to Polarad Electronics Corp. Star energy identification system for space navigation. 3,100,264, 8–6–63, Cl. 250—203.

Jaffe, David L., C. F. Luck, Jr., and S. Schneider, to Polarad Electronics Corp. Spectrum analyzer employing velocity modulation. 3,108,222, 10–22–63, Cl. 324—77.

Jaffe, Donald, and E. F. Losco, to Westinghouse Electric Corp. Process for bonding zirconium and alloys thereof. 3,106,773, 10–15–63, Cl. 29—487.

Jaffe, Fred: *See* Steadman, Thomas R., and Jaffe. 3,115,480.

Jaffe, Fritz, and H. Kaesmacher, to Spies, Hecker and Co. Furane resin lacquers and process for preparing same. 3,071,558, 1–1–63, Cl. 260—33.4.

Jaffe, Henry I.: *See* Davenport, William A. 3,074,722.

Jaffe, Lawrence L., and G. N. Wetzel, to General Motors Corp. Mixer. 3,092,469, 6–4–63, Cl. 23—285.

Jaffe, Max L., to American Guard It Mfg. Co. Garment bag. 3,115,959, 12–31–63, Cl. 190—43.

Jaffe, Myron I. Filter element. 3,092,581, 6–4–63, Cl. 210—510.

Jaffe, Sam, to Renuzit Home Products Co. Briquette igniting and grease absorbent material. 3,089,760, 5–14–63, Cl. 44—41.

Jaffer, Joseph H., Jr., to Esso Research and Engineering Co. Jet engine fuel. 3,103,101, 9–10–63, Cl. 60—35.4.

Jaffers, Frank H.: *See* Hood, Everett D., and Jaffers. 3,077,461.

Jagenberg-Werke A.G.: *See* Ehlenbeck, Georg. 3,116,193.
Hornstein, Victor, Schneider, and Lenz. 3,075,719.
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Meyer-Jagenberg, Gunther. 3,101,879.
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Jager, Albert: *See* Werres, Horst, Czyzewski, and Jager. 3,098,001.

Jäger, Heinz, to Westfalia Dinnendahl Groppel Aktiengesellschaft. Air-circulation classifier. 3,095,369, 6–25–63, Cl. 209—139.

Jaggard, La Barre L., to Rohm & Haas Co. Surface-coating compositions comprising a polyepoxide, an alkylated aminoplast, and an acrylate copolymer and articles coated therewith. 3,105,826, 10–1–63, Cl. 260—45.2.

Jaggers, George A., to Mayfair Industries, Inc. Packaged article. 3,092,251, 6–4–63, Cl. 206—63.2.

Jahn, Alex K., to The Dow Chemical Co. Non-clumping foamable thermoplastic polymer granules and method of making. 3,086,885, 4–23–63, Cl. 117—100.

Jahn, Carl M. Waler corner coupler. 3,108,793, 10–29–63, Cl. 269—122.

Jahn, Charles R. Bowling target. 3,105,685, 10–1–63, Cl. 273—54.

Jahn, Dale M., to Sperry Rand Corp. Very low frequency waveform generator. 3,085,206, 4–9–63, Cl. 328—21.

Jahn, Dale M., to Sperry Rand Corp. Antenna side lobe suppression system. 3,094,695, 6–18–63, Cl. 343—100.

Jahn, Earl W., to Shell Process Inc. Method and apparatus for manufacturing resin coated core sand. 3,099,498, 7–30–63, Cl. 302—53.

Jahn, Edward R., and A. J. Zaupa, to The Sherwin-Williams Co. Filter tube cleaner. 3,089,167, 5–14–63, Cl. 15—4.

Jahn, Marion C., to Colborne Mfg. Co. Automatic fried pie forming machine. 3,112,713, 12–3–63, Cl. 107—1.

Jahn, Marion C., and T. P. McNichols, to Colborne Mfg. Co. Machine for forming shells of pie crust dough. 3,109,390, 11–5–63, Cl. 107—15.

Jahn, Ulrich: *See* Bork, Karl-Heinz, Bruckner, Mannhardt, Von Werder, Jahn, Bertram, and Hotovy. 3,113,143.

Jahnig, Charles E.: *See* Destremps, Edward A., and Jahnig. 3,086,923.

Jahnke, Richard W.: *See* Wurstner, Robert G., and Jahnke. 3,093,610.

Jahnsen, Sverre: *See* Godtfredsen, Wagn O., Lorck and Jahnsen. 3,072,531.

Jaldinger, John H. Hot wire switch for directional signals and the like. 3,111,566, 11–19–63, Cl. 200—113.

Jakacki, Wallace B., and K. G. Harple, to Leeds and Northrup Co. Generator for producing servomotor control-pulse trains. 3,091,726, 5–28–63, Cl. 318—21.

Jäkel, Gustav, to Siemens-Schuckertwerke Aktiengesellschaft. Contactor. 3,088,058, 4–30–63, Cl. 317—195.

Jakeways, Frederick T., to Automotive Products Co. Ltd. Automatic adjusting device for disc brakes. 3,085,663, 4–16–63, Cl. 188—196.

Jakl, Jindrich: *See* Strnad, Josef, and Jakl. 3,099,148.

Jakob, Franz: *See* Winkler, Alfred, and Jakob. 3,097,582.

Jakob, Franz, and K. Wagner, to Agfa Aktiengesellschaft. Camera with adjustable light meter. 3,111,072, 11–19–63, Cl. 95—10.

Jakob, Fritz, to Gesellschaft fur Linde's Eismaschinen Aktiengesellschaft. Rectification of gases. 3,083,544, 4–2–63, Cl. 62—28.

Jakob, Hans, to F. Zoellig. Washing and dyeing machines. 3,095,720, 7–2–63, Cl. 68—43.

Jakob, John P.: *See* Grover, Victor T., Jakob, Kluesener, and Borkmann. 3,111,874.

Jakobs, Karl, and F.-K. Ludwigs, to L. & C. Steinmuller Gesellschaft mit beschrankter Haftung. Filter nozzle. 3,081,877, 3–19–63, Cl. 210—293.

Jakobsen, Kjell, and T. K. Semb. Method of excavating rock, ore and the like by blasting and means for use in said method. 3,099,216, 7–30–63, Cl. 102—22.

Jakobsson, S., Kungspannan: *See* Jakobsson, Stig V. 3,102,406.

Jakobsson, Stig V., to S. Jakobsson, Kungspannan. Combined hot water boiler and washing machine. 3,102,406, 9–3–63, Cl. 68—16.

Jakosky, John J., and J. J. Jakosky, Jr. Telegraph key. 3,098,898, 7–23–63, Cl. 178—108.

Jakosky, John J., Jr.: *See* Jakosky, John J., and J. J. Jakosky, Jr. 3,098,898.

Jakowatz, Charles V., to General Electric Co. Adaptive filter. 3,114,884, 12–17–63, Cl. 328—121.

Jakubowics, Edward, to United States of America, Army. Synthesization of crystal controlled frequencies. 3,085,202, 4–9–63, Cl. 325—25.

Jamco, Inc.: *See* Melton, James O., and Wilkinson. 3,072,448.

Jamentz, Robert K. Collapsible roasting rack. 3,084,617, 4–9–63, Cl. 99—426.

James, Albert L., to National Distillers and Chemical Corp. Impregnating a roll having a deformable porous periphery with varnish. 3,113,853, 12–10–63, Cl. 117—8.

James, Cyril H., to United Shoe Machinery Corp. Blank feeding apparatus. 3,106,392, 10–8–63, Cl. 271—44.

James, David R., to Murray Curnex Printing Ltd. Machines for printing or decorating articles of ware. 3,094,921, 6–25–63, Cl. 101—44.

James, Dennis B., to Bell Telephone Laboratories, Inc. Video interchange by digital band and scan conversions. 3,073,896, 1–15–63, Cl. 178—6.

James, Dennis B., to Bell Telephone Laboratories, Inc. Analog-to-digital encoder. 3,087,150, 4–23–63, Cl. 340—347.

James, Dennis B., W. A. Malthaner, and J. P. Runyon, to Bell Telephone Laboratories, Inc. Scanning control circuit. 3,096,403, 7–2–63, Cl. 179—18.

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James, Donald R., to Citrus Equipment Corp. Citrus peel slicer. 3,072,161, 1–8–63, Cl. 146—3.

James, Duane A., to Ling-Temco-Vought, Inc. Continuous flow dishwasher and steamer. 3,072,128, 1–8–63, Cl. 134—57.

James, Duane A., to Ling-Temco-Vought, Inc. Dishwashing machine and liquid distributor therefor. 3,103,938, 9–17–63, Cl. 134—111.

James, Duane A., to L.T. Industries, Inc. Dishwasher positioning and drain structure. 3,111,132, 11–19–63, Cl. 134—186.

James, Elsworth T. Wire wrapping tool. 3,108,620, 10–29–63, Cl. 140—124.

James, Estella T.: *See* Ornitz, Martin N., and James. 3,115,335.

James, George R.: *See* Koniewiez, Paul, and James. 3,087,798.

James, George R., to Chemical Construction Corp. Hydrocarbon reform process. 3,071,453, 1–1–63, Cl. 48—196.

James, Harry R.: *See* Ornitz, Martin N., and James. 3,115,335.

James, Houston F. Printing mat. 3,106,891, 10–15–63, Cl. 101—376.

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James, Ivanhoe J. P., to Electric & Musical Industries Ltd. Correction of transmission variations in television standards converting system. 3,097,260, 7–9–63, Cl. 178—5.4.

James, Jimmie, and E. A. Herider, to Rockwell-Standard Corp. Automatic swivel seat. 3,104,911, 9–24–63, Cl. 296—68.

James, John B., to International Computers and Tabulators Ltd. (formerly The British Tabulating Machine Co. Ltd.). Data storage devices. 3,110,018, 11–5–63, Cl. 340—174.

James, John W., and L. F. Wiggins, to Aspro-Nicholas Ltd. Heterocyclic substituted biguanides and cyanoguanidines. 3,101,336, 8–20–63, Cl. 260—268.

James, Kenneth: *See* Audet, Henry J., Dwinell, James, and Kingston. 3,109,751.

James, Lewis A.: *See* Graham, Ralph G. 3,115,306.

James, Lewis A., Dishwashing machine. 3,106,930, 10–15–63, Cl. 134—186.

James, Peter. Information retrieval and storage systems. 3,075,178, 1–22–63, Cl. 340—172.5.

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James, Ralph, Jr., to Esso Research and Engineering Co. Free-piston generator of electric current. 3,105,153, 9–24–63, Cl. 290—1.

James, Robert A., and C. R. Ward, to Pittsburgh Plate Glass Co. Process for drawing glass sheet. 3,097,942, 7–16–63, Cl. 65—85.

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James, Robert P., to Lockheed Aircraft Corp. Low heat leak structural support. 3,080,086, 3–5–63, Cl. 220—15.

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James, Thomas R., D. F. Melton, and R. S. Hedin, to General Mills, Inc. Remote control manipulator drives. 3,108,498, 10–29–63, Cl. 74—801.

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Jamieson, William: *See* Smith, Thomas R. 3,092,400.

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Jamison, Samuel J., to Chicopee Mfg. Corp. Diaper. 3,072,124, 1–8–63, Cl. 128—284.

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Jamison, Truman K. Power generating system. 3,083,581, 4–2–63, Cl. 74—128.

Jamison, William H. Dome construction. 3,085,366, 4–16–63, Cl. 50—52.

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Jamrosy, Bernard V. Extension cord lock and keeper. 3,097,034, 7–9–63, Cl. 339—75.

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Janda, Frantisek, to Zavody V. I. Lenina Plzen, narodni podnik. Cigarette wrapper box. 3,090,541, 5–21–63, Cl. 229—51.

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Jankus, Eugene, to Chrysler Corp. Frequency operated brake anti-skid device. 3,089,734, 5–14–63, Cl. 303—86.

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Jans, Leonard. Explosive engine. 3,103,171, 9–10–63, Cl. 102—64.

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Janssen, Paul A. J., to Dr. C. Janssen Research Laboratorium, N.V. Alkanoylamino and alkoxycarbonylamino derivatives of 1-(aroylalkyl)-4-arylpiperidines. 3,083,205, 3–26–63, Cl. 260—294.

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Jeffers, Walter M., to Crouse-Hinds Co. Traffic signal controller. 3,078,441, 2–19–63, Cl. 340—37.

Jeffers, Walter M., to Crouse-Hinds Co. Traffic control system. 3,078,442, 2–19–63, Cl. 340—40.

Jefferson Chemical Co., Inc.: *See*—
Currier, Vernon A., and Moss. 3,087,966.
Godfrey, Norman B. 3,087,928.
Milligan, John G. 3,083,203.
Moss, Philip H. 3,093,690.
Speranza, George P., and Lesesne. 3,110,732.

Jefferson Electric Co.: *See*—
Ouletta, Nicholas. 3,107,317.
Ouletta, Nicholas. 3,111,637.

Jefferson, Glen V.: *See*—
Garrett, Edward O., Jr., and Jefferson. 3,107,751.

Jefferson, Melissa H. Brassiere. 3,109,431, 11–5–63, Cl. 128—472.

Jefferson, Sidney: *See*—
Putman, John L., Jefferson, and Owen. 3,076,894.

Jefferys, Richard A., W. I. Pollock, and F. J. Anders, Jr., to E. I. du Pont de Nemours and Co. Columbium base alloys. 3,086,859, 4–23–63, Cl. 75—174.

Jeffrey, David W., and V. Leonard, to Esso Research and Engineering Co. Fluid seal for a reciprocating shaft. 3,106,099, 10–8–63, Cl. 74—18.2.

Jeffrey Galion Mfg. Co.: *See*—
Eberle, William R. 3,102,718.
Kindig, Arnie J. 3,097,541.
Moon, Sterling C. 3,074,701.
Moon, Sterling C. 3,100,629.

Jeffrey, George M., and W. Poole, to Courtaulds Ltd. Tow processing machines. 3,106,326, 10–8–63, Cl. 226—177.

Jeffrey, Louis R., Jr. Ultrasonic cleaning machine. 3,073,678, 1–15–63, Cl. 259—54.

Jeffery, Thomas H.: *See*—
Faulkner, Alfred H., and Jeffery. 3,109,979.

Jeffress-Dyer, Inc.: *See*—
Jeffress, Thomas N. 3,110,131.

Jeffress, Thomas N., to Jeffress-Dyer, Inc. Building construction. 3,110,131, 11–12–63, Cl. 50—399.

Jeffries, Dan W., 50% to H. W. Nash. Compensating brake structure. 3,112,014, 11–26–63, Cl. 188—196.

Jeffries, Lloyd W.: *See*—
Bryant, Raymond W. 3,108,825.

Jeffreys, Roy A., to Eastman Kodak Co. Photographic emulsions stabilized with 1,2-dithiacyclopent-3-enes. 3,114,687, 12–17–63, Cl. 96—109.

Jeffreys, Roy A., A. N. Davenport, and D. G. Saunders, to Eastman Kodak Co. Method of inhibiting discoloration of color photographic layers containing dye images and resulting photographic products. 3,095,302, 6–25–63, Cl. 96—11.

Jeffris, Bruce M., to The Parker Pen Co. Dialing tool. 3,073,285, 1-15-63, Cl. 120—1.

Jeffs, Jeffrey W. Screw couplings. 3,073,633, 1-15-63, Cl. 287—54.

Jeger, Oskar, to Ciba Corp. Δ^4-pregnane-20-imino derivatives and process for their preparation. 3,072,637, 1-8-63, Cl. 260—239.5.

Jeger, Oskar, to Ciba Corp. 18-oxygenated pregnanes and process for their manufacture. 3,098,068, 7-16-63, Cl. 260—239.5.

Jeger, Oskar, D. Arigoni, A. Wettstein, G. Anner, K. Heusler, C. Meystre, P. Wieland, and J. Kalvoda, to Ciba Corp. 20-hydroxy steroids. 3,092,625, 6-4-63, Cl. 260—239.55.

Jelinek, Vaclav: *See*—
Semonsky, Miroslav, Rockova, and Jelinek. 3,105,850.

Jellinek, Karl: *See*—
Wille, Hans, Schuhmann, and Jellinek. 3,092,602.

Jellinek, Karl, T. Hegedüs, H. Ulmer, and H. Bartl, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Dyeings and prints possessing fastness to wet processing and their manufacture on cellulose materials and protein fibers. 3,097,908, 7-16-63, Cl. 8—22.

Jelrus Technical Products Corp.: *See*—
Kauer, George C., Jr. 3,100,504.

Jelsch, Louis J., to Ford Motor Co. Isolated chassis frame member for a vehicle. 3,078,103, 2-19-63, Cl. 280—96.2.

Jemison, William H.: *See*—
Klumpp, Ferdinand, Jr., and Jemison. 3,099,046.

Jemnco Corp.: *See*—
Wagner, John C. 3,093,310.

Jenaer Glaswerk Schott & Gen.: *See*—
Geffcken, Walter, and Faulstich. 3,074,805.
Geffcken, Walter, and Faulstich. 3,080,240.
Geffcken, Walter, and Faulstich. 3,082,101.
Schröder, Hubert. 3,094,436.

Jenckel, Ludolf. Combined mass spectrometer and gas chromatograph recording apparatus. 3,084,012, 4-2-63, Cl. 346—49.

Jencks, Charles L., to General Electric Co. Guide means for supporting a contact cross-arm of a circuit breaker. 3,105,132, 9-24-63, Cl. 200—168.

Jendrisak, Joseph E., to Libbey-Owens-Ford Glass Co. Glass sheet bending mold. 3,094,403, 6-18-63, Cl. 65—288.

Jendrisak, Joseph E., to Shatterproof Glass Corp. Glass bending apparatus. 3,103,430, 9-10-63, Cl. 65—290.

Jendrusch, Paul, to E. C. H. Will. Device for overlapping sheets of paper, press board and other material. 3,096,978, 7-9-63, Cl. 271—46.

Jeney, Endre: *See*—
Csermely, Gyorgy, Lugosi, Jeney, and Zsolnai. 3,102,111.

Jenkin, William C., to Union Carbide Corp. Method for securing adhesion of gas plating. 3,086,881, 4-23-63, Cl. 117—50.

Jenkins, Albert S., to Owens-Illinois Glass Co. Hollow container decorating apparatus. 3,089,414, 5-14-63, Cl. 101—124.

Jenkins, Albert S., and R. A. Atkinson, to Owens-Illinois Glass Co. Flame treating apparatus. 3,089,686, 5-14-63, Cl. 263—6.

Jenkins, Carlton H., to The Martin Co. Universally tiltable machine tool head for compound contouring. 3,084,603, 4-9-63, Cl. 90—13.

Jenkins, Cecil: *See*—
Woolslayer, Homer J., Jenkins, and Woolslayer. 3,083,987.

Jenkins, Charles S.: *See*—
Close, Patrick B., Coulter, Ditmer, Fahrenbruck, Goldammer, Goodrick, Gulden, Holloran, Jenkins, Kilheffer, Kinker, Lyons, Manor, Marvin, Miller, O'Brian, Randall, Garner, Sather, Yost, and Braden. 3,112,394.

Jenkins, Clifford M.: *See*—
Butsch, Alfred G., and Jenkins. 3,111,135.

Jenkins, Edward M.: *See*—
Carter, David C., and Jenkins. 3,073,412.

Jenkins, Edwin E., and A. B. Schwartz, to Socony Mobil Oil Co., Inc. Process for preparing siliceous aerogels. 3,079,234, 2-26-63, Cl. 23—182.

Jenkins, Edwin E., and A. B. Schwartz, to Socony Mobil Oil Co., Inc. Hydrogel treatment. 3,095,384, 6-25-63, Cl. 252—451.

Jenkins, Frank H.: *See*—
Hall, Gloria E., and Jenkins. 3,086,222.

Jenkins, Frank W.: *See*—
Heimaster, John W., Jenkins, and Rogers. 3,108,789.

Jenkins, Fred W., to Petrolite Corp. Process for breaking emulsions of the oil-in-water class. 3,090,759, 5-21-63, Cl. 252—344.

Jenkins, George A., to G. C. Jenkins. Reversible ratchet mechanism. 3,096,659, 7-9-63, Cl. 74—157.

Jenkins, George C.: *See*—
Jenkins, George A. 3,096,659.

Jenkins, Gerald L.: *See*—
Martin, William A., Easterly, Thomson, Babcock, and Jenkins. 3,106,125.

Jenkins, Gerald L., and R. F. Finzer, to Eastman Kodak Co. Magazine orientation indicator. 3,110,215, 11-12-63, Cl. 88—16.

Jenkins, Henry H.: *See*—
Mowry, Lorenz J., and Jenkins. 3,096,429.

Jenkins, Herbert A. H.: *See*—
Triggle, Ann M., and Jenkins. 3,090,710.

Jenkins, Hugh P., Jr.: *See*—
Cohen, William, and Jenkins. 3,115,008.

Jenkins, James H.: *See*—
Crockford, Jack A., Hayes, Feurt, Jenkins, and Palmer. 3,087,196.

Jenkins, Jobe: *See*—
Dike, Sheldon H., Strickroth, and Jenkins. 3,087,155.

Jenkins, John W.: *See*—
Nager, Maxwell, Jenkins, and Maas. 3,116,232.

Jenkins, John W., to Minneapolis-Honeywell Regulator Co. Pneumatic actuator. 3,082,792, 3-26-63, Cl. 137—790.

Jenkins, Lewis J.: *See*—
Allers, William D., and Jenkins. 3,084,910.

Jenkins, Lloyd T., to Monsanto Chemical Co. Homopolymerization of acrylonitride with catalyst compositions comprising organo tin hydride and metal halide complexes. 3,088,940, 5-7-63, Cl. 260—88.7.

Jenkins, Lloyd T. Pen. 3,094,105, 6-18-63, Cl. 120—42.16.

Jenkins, Lois M. Miniature-type jumping stand. 3,107,091, 10-15-63, Cl. 272—59.

Jenkins, Mary E.: *See*—
Hotard, Septime R. 3,074,102.

Jenkins, Mervyn M., and J. R. Macy, to Owens-Illinois Glass Co. Method for cleaning corrugated partition strips. 3,104,187, 9-17-63, Cl. 134—21.

Jenkins, Ralph E., to Core Laboratories, Inc. Hydrocarbon gas chromatography and apparatus. 3,111,835, 11-26-63, Cl. 73—23.

Jenkins, Richard E.: *See*—
Sinclair, Richard L., and Jenkins. 3,079,015.

Jenkins, Richard L.: *See*—
Cory, Carleton D., Jr., and Jenkins. 3,105,119.

Jenkins, Robert H., to Radio Corp. of America. Pulse timing circuit. 3,073,972, 1-15-63, Cl. 307—88.5.

Jenkins, Roy F. Log grapple. 3,102,752, 9-3-63, Cl. 294—111.

Jenkins, Theron W., Jr., to Leeds and Northrup Co. Control system for electrical generating units. 3,109,102, 10-29-63, Cl. 290—2.

Jenkins, Thomas E.: *See*—
Hardy, Albert L., Cushing, and Jenkins. 3,084,701.

Jenkins, Thomas E., to General Electric Co. Tub for article washing machine. 3,115,885, 12-31-63, Cl. 134—176.

Jenkins, Vance J. Body clamp. 3,108,629, 10-29-63, Cl. 153—32.

Jenkins, Vance J. Clamp. 3,111,159, 11-19-63, Cl. 153—32.

Jenkins, Victor R., to The Armstrong Rubber Co. Severing apparatus. 3,072,004, 1-8-63, Cl. 83—318.

Jenkner, Herbert, to Kali-Chemi A.G. Process for producing organolead compounds. 3,072,697, 1-8-63, Cl. 260—437.

Jenkner, Herbert, to Kali-Chemie A.G. Preparation of silicon hydrogen compounds. 3,100,788, 8-13-63, Cl. 260—448.2.

Jenkner, Herbert, to Kali-Chemie A.G. Preparation of boranes. 3,103,416, 9-10-63, Cl. 23—204.

Jenkner, Herbert, to Kali-Chemie Aktiengesellschaft. Preparation of alkyl compounds of the second to fifth group elements. 3,103,526, 9-10-63, Cl. 260—431.

Jenkner, Herbert, to Kali-Chemie Aktiengesellschaft. Preparation of sodium hydride. 3,116,112, 12-31-63, Cl. 23—204.

Jenks, Don M.: *See*—
Fettig, Arthur J., Jenks, Lasdine, Maldment, and Runde. 3,089,641.

Jenks, Glenn H., E. M. Shapiro, N. Elliott, and C. V. Cannon, to United States of America, Atomic Energy Commission. Production of tritium. 3,079,317, 2-26-63, Cl. 204—154.2.

Jenks, William R., and R. M. Shepherd, to E. I. du Pont de Nemours and Co. Method of producing hydrogen cyanide. 3,104,945, 9-24-63, Cl. 23—151.

Jenn-Air Products Co., Inc.: *See*—
Field, Thomas R. 3,085,490.
Jenn, Louis J., and Field. 3,102,533.
Jenn, Louis J., and Morrison. 3,085,647.
Jenn, Louis J., and Morrison. 3,110,357.

Jenn, Louis J., and W. E. Morrison, to Jenn-Air Products Co., Inc. Acoustic curb. 3,085,647, 4-16-63, Cl. 181—56.

Jenn, Louis J., and T. R. Field, to Jenn-Air Products Co., Inc. Counter-top range exhaust apparatus. 3,102,533, 9-3-63, Cl. 126—303.

Jenn, Louis J., and W. E. Morrison, to Jenn Air Products Co. Acoustic curb. 3,110,357, 11-12-63, Cl. 181—36.

Jenne, Helmut: *See*—
Von Kutepow, Nikolaus, Kindler, Elsfeld, Dettke, Jenne, and Wetzer. 3,103,538.

Jenne, John G. Method for producing decorative surface coverings. 3,071,487, 1-1-63, Cl. 117—10.

Jenne, John G. Rocking toy. 3,074,731, 1-22-63, Cl. 280—1.196.

Jenney, Theodore M., and D. H. Porter, to FMC Corp. Production of hydrogen peroxide. 3,073,680, 1-15-63, Cl. 23—207.

Jenney, Theodore M., D. H. Porter, and E. M. Zdrojewski, to FMC Corp. Method of regenerating a noble metal hydrogenation catalyst. 3,112,278, 11-26-63, Cl. 252—420.

Jennings, Alfred P. H., and B. A. Worswick, to Bailey Meter Co. Dewpoint hygrometer. 3,083,565, 4-2-63, Cl. 73—17.

Jennings, Burridge, to United States of America, Navy. Velocity-locking system. 3,110,024, 11-5-63, Cl. 343—7.

Jennings, Cecil D.: *See*—
Schick, George B., Issacs, and Jennings. 3,093,848.

Jennings, Charles A.: *See*—
Mougey, Herald W. 3,107,121.

Jennings, Charles E., to Aqua-Serv Engineers, Inc. Process for treating water. 3,085,975, 4-16-63, Cl. 210—58.

Jennings, Charles H.: *See*—
Thomas, Eugene P., Jennings, and Griffith. 3,114,043.

Jennings, David C., to United Aircraft Corp. Carbon dioxide freezeout system. 3,103,427, 9-10-63, Cl. 62—39.

Jennings, Donald E., to Jeruco Enterprises, Inc. Pin setting apparatus for bowling games. 3,072,404, 1-8-63, Cl. 273—42.

Jennings, Earl R.: *See*—
Howard, George C., and Jennings. 3,110,347.

Jennings, Floyd R.: *See*—
Sunday, Richard K., Van Dolsen, Moore, and Jennings. 3,078,528.

Jennings, Frederic B.: *See*—
Schaefer, Hans F., Jr., and Jennings. 3,091,979.

Jennings, Gerald P., to Phillips Petroleum Co. Automatic drain for a floating roof tank. 3,074,587, 1-22-63, Cl. 220—26.

Jennings, Jay C.: *See*—
Olson, Birger H., Harvey, Junek, and Jennings. 3,104,208.

Jennings, Jo E., to Jennings Radio Mfg. Corp. Multiple position vacuum switch. 3,079,481. 2-26-63, Cl. 200—144.

Jennings, Jo E., to Jennings Radio Mfg. Corp. Relay. 3,099,726. 7-30-63, Cl. 200—87.

Jennings, Jo E., to Jennings Radio Mfg. Corp. Tip-off for processed tubes. 3,109,968. 11-5-63, Cl. 317—244.

Jennings, John H., and C. S. Thompson; said Thompson assor. to Jennings. Renewable wiper blade and method of making same. 3,092,866, 6-11-63, Cl. 15—250.36.

Jennings, Lyston C., and H. C. Spooner, to The New York Air Brake Co. Hydraulic system. 3,096,619, 7-9-63, Cl. 60—53.

Jennings, Marvin D., to International Harvester Co. Two-way disk plow. 3,101,788, 8-27-63, Cl. 172—219.

Jennings, Marvin D., to International Harvester Co. Disk plow attachment. 3,101,789, 8-27-63, Cl. 172—219.

Jennings, Marvin D., to Internattional Harvester Co. Intermittent clutch. 3,101,826, 8-27-63, Cl. 192—23.

Jennings Radio Mfg. Corp.: *See*—
Jennings, Jo E. 3,079,481.
Jennings, Jo E. 3,099,726.
Jennings, Jo E. 3,109,968.

Jennings, Richard H. Fountain device. 3,101,173, 8-20-63, Cl. 239—23.

Jennings, Roscoe C., Jr., and J. C. King, to Intrusion-Prepakt, Inc. Earth pile anchorage. 3,114,245, 12-17-63, Cl. 61—53.62.

Jennings, Samuel J., to Community Gin Co. Rotary feed for cotton gin. 3,083,413, 4-2-63, Cl. 19—52.

Jennings, Webb C.: *See*—
McAndrew, John B. 3,086,806.

Jennings, William G., to Stewart-Warner Corp. Valve. 3,095,903, 7-2-63, Cl. 137—625.25.

Jennings, William R., and R. V. Greder, to Deere & Co. Molding machine and process. 3,077,014, 2-12-63, Cl. 22—20.

Jenny, Erwin F.: *See*—
Grob, Cyril, and Jenny. 3,098,097.

Jenny, Hans: *See*—
Durrer, Robert, Heintze, and Jenny. 3,079,247.

Jenny, Robert, to Institut Francais du Petrole, des Carburants et Lubrifiants. Alkylating catalysts and alkylation process based thereon. 3,079,448. 2-26-63, Cl. 260—671.

Jenny, Walter, and R. Wittwer, to Ciba Ltd. Process for dyeing or printing fibrous materials of aromatic polyesters. 3,100,132, 8-6-63, Cl. 8—39.

Jensen, Alfred P., Jr., to E. H. Kime. Lumber marking machine. 3,079,963, 3-5-63, Cl. 144—3.

Jensen, Arthur, and J. Egbert, to Combustion Engineering, Inc. Rotor arrangement for rotary regenerative heat exchanger. 3,108,632, 10-29-63, Cl. 165—9.

Jensen, Arthur S.: *See*—
Ogland, Jon W., and Jensen. 3,088,048.

Jensen, Clifford O.: *See*—
Parmele, Harris B., Schultz, and Jensen. 3,112,755.

Jensen, Dennis C., and E. J. Michel. High pressure lamp. 3,098,167, 7-16-63, Cl. 313—232.

Jensen, Ejnar, to B.M.M.F. Bornholms Mejerimaskinforretning Ejnar Jensen. Folding device for transverse folding laundry pieces behind laundry mangles and the like. 3,079,143, 2-26-63, Cl. 270—68.

Jensen, Ejnar, to Ejnar Jensen og Son I/S. Device for transversely folding laundry pieces. 3,116,059, 12-31-63, Cl. 270—68.

Jensen, Ejnar, og Son I/S: *See*—
Jensen, Ejnar. 3,116,059.

Jensen, Emil B. Tire rasp. 3,082,506, 3-26-63, Cl. 29—79.

Jensen, Evan A., to United Air Lines, Inc. High intensity navigation light system. 3,102,993, 9-3-63, Cl. 340—25.

Jensen, Fred C.: *See*—
Thompson, Kenneth W., Schapiro, Price, Vincent, and Jensen. 3,073,746.

Jensen, Gerald A., J. G. Kakatsakis, and A. Sciola, to Avco Corp. Shock absorbing device. 3,082,846, 3-26-63, Cl. 188—1.

Jensen, Hans A.: *See*—
Sloan, Edward C., Eberman, and Jensen. 3,083,106.

Jensen, Hans C. Smoking pipes. 3,079,928, 3-5-63, Cl. 131—201.

Jensen, Henry E., to C & D Batteries, Inc. Battery charger. 3,090,904, 5-21-63, Cl. 320—22.

Jensen, Herman G., to The Seeburg Corp. Delivery mechanism for vending machines. 3,095,115, 6-25-63, Cl. 221—129.

Jensen, James A., to Philadelphia Valve Co. Tank loading and unloading system for tank vehicles. 3,095,894, 7-2-63, Cl. 137—267.

Jensen, James L., to Minneapolis-Honeywell Regulator Co. Semiconductor oscillator and amplifier. 3,098,200, 7-16-63, Cl. 331—113.

Jensen, James L., and D. E. White, to Minneapolis-Honeywell Regulator Co. Converter with active starter circuit. 3,085,211, 4-9-63, Cl. 331—52.

Jensen, Kaj H., to Hamilton Watch Co. Clock housing. 3,090,193, 5-21-63, Cl. 58—53.

Jensen, Kenneth L.: *See*—
Gutekunst, Gerald A., and Jensen. 3,090,507.

Jensen, Lee. Patient hoist. 3,099,842, 8-6-63, Cl. 5—84.

Jensen, Merlin R. Root watering device. 3,109,258, 11-5-63, Cl. 47—48.5.

Jensen, Nathan K., to Medic-Made, Inc. Low gas pressure alarm. 3,101,068, 8-20-63, Cl. 116—70.

Jensen, Otto: *See*—
Flacher, Hermann, Straub, Wiedmann, and Jensen. 3,088,564.

Jensen, Peter W.: *See*—
Coleman, Charles H., Jr., and Jensen. 3,100,816.

Jensen, Philip B., and J. H. Humiston, to Scovill Mfg. Co. Snap fasteners. 3,079,659, 3-5-63, Cl. 24—216.

Jensen, Raymond W., to The Garrett Corp. Pneumatic remote position actuator. 3,079,898, 3-5-63, Cl. 121—41.

Jensen, Richard J.: *See*—
Kulp, Harry B., and Jensen. 3,084,351.

Jensen, Robert, to The G. E. Prentice Mfg. Co. Pin lock for separable fastener slider. 3,112,546, 12-3-63, Cl. 24—205.14.

Jensen-Salsberg Laboratories, Inc.: *See*—
Sinha, Shyamal K., Marshall, and Stewart. 3,080,291.

Jensen, Warren R.: *See*—
Batchelor, Clyde S., and Jensen. 3,092,214.

Jenson, Ernest L., to New Haven Wire & Cable, Inc. Wire package and reel therefor. 3,096,951, 7-9-63, Cl. 242—137.1.

Jenson, Kenneth S., to Preway, Inc. Ventilating hood. 3,077,825, 2-19-63, Cl. 98—115.

Jenssen, Sverre K., and G. C. Egenwall, to Rosenblads Patenter, Aktiebolaget. Heat exchangers of the indirect plate pack type. 3,106,242, 10-8-63, Cl. 165—166.

Jenter, Ellsworth W. Apron for use when treating small pigs. 3,095,576, 7-2-63, Cl. 2—51.

Jentges, Thomas W.: *See*—
Jacobel, Herbert, Jr., and Jentges. 3,080,554.

Jentoft, Arthur P., to H. H. Robertson Co. Ventilator. 3,078,781, 2-26-63, Cl. 98—43.

Jentzen-Miller Co.: *See*—
Jentzen, Sydney W. 3,096,733.

Jentzen, Sydney W., to Jentzen-Miller Co. Modular shelving assembly. 3,096,733, 7-9-63, Cl. 108—158.

Jephcott, John A., to Longworth Scientific Instrument Co. Ltd. Rechargeable electric battery unit. 3,089,072, 5-7-63, Cl. 320—2.

Jepsen, Robert L.: *See*—
Lloyd, William A., and Jepsen. 3,115,297.

Jepsen, Robert L., to Varian Associates. Glow discharge method and apparatus. 3,094,639, 6-18-63, Cl. 313—7.

Jepsen, Robert L., and A. B. Francis, to Varian Associates. Sputter ion protective apparatus. 3,101,431, 8-20-63, Cl. 315—35.

Jepson, Ivar: *See*—
Bell, Ramsay M., and Jepson. 3,099,849.
Koci, Ludvik J., Andersen, and Jepson. 3,098,918.

Jepson, Ivar, to Sunbeam Corp. Steam and dry iron capable of being used with tap water. 3,078,605, 2-26-63, Cl. 38—77.

Jepson, Ivar, to Sunbeam Corp. Hair clipper. 3,079,687, 3-5-63, Cl. 30—210.

Jepson, Ivar, to Sunbeam Corp. Spray device and method of dispensing liquids. 3,083,871, 4-2-63, Cl. 222—41.

Jepson, Ivar, to Sunbeam Corp. Electric dry shaver. 3,090,119, 5-21-63, Cl. 30—41.

Jepson, Ivar, to Sunbeam Corp. Combined engine shroud and fuel reservoir. 3,091,226, 5-28-63, Cl. 123—41.65.

Jepson, Ivar, to Sunbeam Corp. Lightweight composite sole plate and method of making the same. 3,096,566, 7-9-63, Cl. 29—155.5.

Jepson, Ivar, to Sunbeam Corp. Electric power unit for hand held food mixer. 3,097,318, 7-9-63, Cl. 310—68.

Jepson, Ivar, to Sunbeam Corp. Composite electrically heated devices. 3,098,921, 7-23-63, Cl. 219—25.

Jepson, Ivar, to Sunbeam Corp. Pressing iron. 3,104,482, 9-24-63, Cl. 38—77.

Jepson, Ivar, to Sunbeam Corp. Lawn sprinkler. 3,105,639, 10-1-63, Cl. 239—242.

Jepson, Ivar, A. F. Ernstberger, and G. R. Wolter, to Sunbeam Corp. Cleaning attachment. 3,071,799, 1-8-63, Cl. 15—354.

Jepson, Ivar, and S. R. Kukulski, to Sunbeam Corp. Electrically operated hair clipping and shaving device. 3,072,809, 1-8-63, Cl. 310—29.

Jepson, Ivar, and W. L. Chambers, to Sunbeam Corp. Electric mixer. 3,077,340, 2-12-63, Cl. 259—1.

Jepson, Ivar, and F. Ottosen, to Sunbeam Corp. Cooking vessel. 3,082,313, 3-19-63, Cl. 219—44.

Jepson, Ivar, and A. F. Ernstberger, to Sunbeam Corp. Floor conditioner. 3,102,292, 9-3-63, Cl. 15—50.

Jepson, Ivar, A. F. Ernstberger, and G. R. Wolter, to Sunbeam Corp. Floor conditioner. 3,107,378, 10-22-63, Cl. 15—49.

Jepson, Ivar, R. E. O'Quinn, and C. H. Wickenberg, to Sunbeam Corp. Electric heating and cooking device. 3,108,531, 10–29–63, Cl. 99—331.
Jepson, Malcolm D.: *See*—
Wyatt, Leslie M., and Jepson. 3,114,688.
Jepson, Michael D., to The Spooner Dryer & Engineering Co. Ltd. Gaseous restraint of conveyed articles. 3,096,162, 7–2–63, Cl. 34—33.
Jerabek, Robert D., to Archer-Daniels-Midland Co. Preparation of water-soluble oil-resin vehicles. 3,098,834, 7–23–63, Cl. 260—23.7.
Jerchel, Dietrich: *See*—
Müller, Erich, and Jerchel. 3,105,077.
Thomas, Klaus, and Jerchel. 3,101,342.
Jered Industries, Inc.: *See*—
Davies, Edward R. 3,107,765.
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Jergitsch, Friedrich. Position signalling spacer for motor vehicles. 3,102,507, 9–3–63, Cl. 116—28.
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Gaskell, Merwin H., Lindley, and Perkins. 3,104,702.
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Glazier, Walter H. 3,076,379.
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Kerver, John K. 3,087,551.
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Levin, Franklyn K. 3,087,424.
Maurer, John J., Jr. 3,087,539.
McCammon, George A. 3,104,531.
McStravick, Peter R., Lindsey, and Terrel. 3,100,529.
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Jezl, James L., H. M. Khelghatian, and L. D. Hague, to Sun Oil Co. Control of pentane-soluble polymers in the polymerization of propylene. 3,100,764, 8–13–63, Cl. 260—93.7.
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Joa, Curt G., to Falls Paper & Power Co. Method and apparatus for producing fibrous batts. 3,086,253, 4–23–63, Cl. 19—156.
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Johns, Iral B., and H. R. Di Pietro, to Monsanto Research Corp. Mono-alkyl ethers of tris(2-hydroxyphenyl) triazines. 3,113,942, 12–10–63, Cl. 260—248.
Johns, Iral B., and H. R. Di Pietro, to Monsanto Research Corp. Triazine hydroxy ethers. 3,113,943, 12–10–63, Cl. 260—248.
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Johns, William F., to G. D. Searle & Co. 3,5-cyclo-10-hydroxy-19-norandrostan-17-ones and intermediate. 3,087,943, 4–30–63, Cl. 260—397.4.
Johns, William F., to G. D. Searle & Co. 17-oxygenated estra-1,3,5(10)-trien-4-ols and intermediates. 3,098,852, 7–23–63, Cl. 260—239.55.
Johnsen, Henrik S., to United-Carr Fastener Corp. Driven fastener nut. 3,092,162, 6–4–63, Cl. 151—41.73.
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Ashford, Ernest. 3,105,753.
Johnsen, Odd F. Water supply system pump and pressure control means. 3,100,505, 8–13–63, Cl. 137—565.
Johnsen, Odd F. Pressure operated valve, especially for water supply systems. 3,106,894, 10–15–63, Cl. 103—25.
Johnson, Aaron W. Beam type weighing scale. 3,111,180, 11–19–63, Cl. 177—248.
Johnson, Agnar, deceased; by O. Nelson, administrator, to Atwood Vacuum Machine Co. Door hinge with friction type hold-open means. 3,111,704, 11–26–63, Cl. 16—138.
Johnson, Albert O. Boat bumper. 3,077,175, 2–12–63, Cl. 114—219.
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Johnson, Alfred, to William Asquith, Ltd. Speed and feed indicator for machine tools. 3,090,348, 5–21–63, Cl. 116—124.
Johnson, Alfred H., to International Business Machines Corp. Contact element forming and inserting apparatus and method therefor. 3,077,023, 2–12–63, Cl. 29—33.
Johnson, Alfred L., Jr., and R. B. Wister, to The Garrett Corp. Apparatus for local hypothermia. 3,091,242, 5–28–63, Cl. 128—402.
Johnson, Algot T. Hand tools of the nature of screw drivers, socket wrenches and the like. 3,114,401, 12–17–63, Cl. 145—50.
Johnson, Alpha J., and J. A. Moore, to Kaiser Aluminum & Chemical Corp. Cooking and Baking Utensil. 3,098,597, 7–23–63, Cl. 229—2.5.
Johnson, Andy A., to M & T Chemicals, Inc. Process and composition for chromium plating. 3,108,933, 10–29–63, Cl. 204—51.
Johnson, Anton M., and W. T. Harpster, to United States of America, Army. Luneburg lens system. 3,116,486, 12–31–63, Cl. 343—755.
Johnson, Armigene R. Garment sleeve. 3,112,495, 12–3–63, Cl. 2—270.
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Johnson, Arnold E. W., to International Harvester Co. Vehicle with hydrostatic transmission propelled by free piston engine hydraulic pump. 3,088,413, 5–7–63, Cl. 103—54.
Johnson, Arnold E. W., J. F. Swift, and E. A. Kariba, to International Harvester Co. Starting and operating control system for free piston engine hydraulic pump as a power plant of a hydrostatic driven vehicle. 3,110,152, 11–12–63, Cl. 60—14.
Johnson, Arthur F., to Olin Mathieson Chemical Corp. Metal fabrication. 3,088,193, 5–7–63, Cl. 29—157.3.
Johnson, Arthur F., to Strategic Materials Corp. Metallurgical process. 3,091,524, 5–28–63, Cl. 75—24.
Johnson, Arthur L. Dusting and seeding attachment for rotary power mowers. 3,082,007, 3–19–63, Cl. 275—2.
Johnson, Arthur L., to Wisconsin Alumni Research Foundation. Snap bolt having resiliently flexible shank portion. 3,115,804, 12–31–63, Cl. 85—4.
Johnson, Ava J., to Shell Oil Co. Oxidation of olefine to unsaturated aldehydes and ketones. 3,102,147, 8–27–63, Cl. 260—604.
Johnson, Benjamin M., to United States of America, Atomic Energy Commission. Spray calcination reactor. 3,101,258, 8–20–63, Cl. 23—277.
Johnson, Bernard R.: *See*—
Stillman, Sheldon D., and Johnson. 3,099,724.
Johnson, Caldwell C., Jr.: *See*—
Faget, Maxime A., Meyer, Chilton, Blanchard, Kehlet, Hammack, and Johnson. 3,093,346.
Johnson, Carl A. Vascular recording apparatus. 3,083,705, 4–2–63, Cl. 128—2.05.
Johnson, Carl E., to Nalco Chemical Co. New composition of matter and method involving the use of said composition of matter. 3,081,190, 3–12–63, Cl. 117—62.
Johnson, Carl E. Vine remover for potato diggers. 3,112,753, 12–3–63, Cl. 130—30.
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Clifton, John R., Johnson, and Pearne. 3,104,593.
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Johnson, Carl T., J. S. Scheurich, and P. G. Wermager, to United States of America, Navy. Floating tracks. 3,086,480, 4–23–63, Cl. 104—172.
Johnson, Carl T., and P. G. Wermager, to United States of America, Navy. Retractable rails. 3,096,726, 7–9–63, Cl. 104—107.
Johnson, Carl T., and I. E. Smith, to Radio Corp. of America. Wire winding machine. 3,104,841, 9–24–63, Cl. 242—9.
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Johnson, Charles E., to Double A Products Co. Fixed displacement variable discharge pump. 3,106,897, 10–15–63, Cl. 103—120.
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Johnson, Charles G., and K. E. Sager, to Kimberly-Clark Corp. Apparatus for smoothing coating material on a paper web. 3,113,890, 12–10–63, Cl. 118—126.
Johnson, Charles M., to Johnson Mfg. Co. Earth-moving machine. 3,108,388, 10–29–63, Cl. 37—126.

Johnson, Charles Y., to United States of America, Navy. Direct method of measuring neutral gas temperatures. 3,080,754, 3–12–63, Cl. 73—339.
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Johnson, Clarence A.: *See*—
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Johnson, Clark E., Jr. Defrosting system for refrigeration apparatus. 3,077,747, 2–19–63, Cl. 62—140.
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Johnson, Clifford N. Writing instrument. 3,076,437, 2–5–63, Cl. 120—22.
Johnson, Clifford N. Writing instrument. 3,076,438, 2–5–63, Cl. 120—22.
Johnson, Cornell A., to The Norwich Pharmacal Co. Anticoccidial compositions comprising 5-nitro-2-furaldehyde cyanoacetyl- or dichloroacetyl-hydrazone. 3,075,877, 1–29–63, Cl. 167—53.1.
Johnson, Cornell A., to The Norwich Pharmacal Co. Anticoccidial compositions comprising 5-nitrofurfuryl lidenecarbazates and method of using same. 3,110,649, 11–12–63, Cl. 167—53.1.
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Lloyd, Edward C., Johnson, and Hutton. 3,100,912.
Johnson, Dean W., to Addressograph-Multigraph Corp. Data input preparation. 3,113,516, 12–10–63, Cl. 101—426.
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Johnson, Dee L., and D. L. Fields, to Eastman Kodak Co. Process for preparing ethylene monothiolcarbonate. 3,072,676, 1–8–63, Cl. 260—327.
Johnson, Delbert H. Precast block and wall construction. 3,100,953, 8–20–63, Cl. 50—424.
Johnson, Delbert H., to Hexcel Products Inc. Method of and means for making honeycomb utilizing helical printing roller. 3,114,666, 12–17–63, Cl. 156—197.
Johnson, Donald E., to The Astatic Corp. Apparatus for balancing the outputs of a stereophonic phonograph pickup cartridge. 3,088,741, 5–7–63, Cl. 274—23.
Johnson, Donald E., and J. L. Owens, to Western Electric Co., Inc. Method of and apparatus for making deposited carbon resistors. 3,105,288, 10–1–63, Cl. 29—155.62.
Johnson, Donald W., to Thexton Mfg. Co. Engine attachment for valve gear lubrication. 3,096,851, 7–9–63, Cl. 184—6.
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Johnson, Earl B. Automatic water supply control. 3,083,724, 4–2–63, Cl. 137—404.
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Johnson, Frank F., to Schlumberger Well Surveying Corp. Well logging apparatus. 3,089,954, 5–14–63, Cl. 250—71.5.
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Johnson, James R., to Minnesota Mining and Mfg. Co. Thermally resistant articles and method for their fabrication. 3,079,316, 2–26–63, Cl. 204—154.2.

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Street, Frederick A. 3,104,882.

Johnson, Paul H., to Phillips Petroleum Co. Defluorination of HF alkylation reactor product. 3,073,878, 1–15–63, Cl. 260—683.48.

Johnson, Paul H., 50% to J. R. Head. Automatic shut-off device for pumping wells. 3,105,443, 10–1–63, Cl. 103—12.

Johnson, Paul R.: *See*—
Warner, Edmund M., and Johnson. 3,095,570.

Johnson, Paul R., to E. I. du Pont de Nemours and Co. Process for isolating chlorosulfonated or chlorinated polyolefin elastomers from solutions in carbon tetrachloride. 3,110,550, 11–12–63, Cl. 18—57.

Johnson, Paul W., to The Johnson Gage Co. Comparator gage for serrations as in blade wedge. 3,070,890, 1–1–63, Cl. 33—174.

Johnson, Peter D.: *See*—
Carpenter, Harry W., and Johnson. 3,084,055.

Johnson, Peter W. R.: *See*—
Trautmann, John H., and Johnson. 3,082,712.

Johnson, Philip C., to F. and F. Koenigkramer Co. Telescoping means having indexing, braking and inter-locking means. 3,096,059, 7–2–63, Cl. 248—162.

Johnson, Philip C., to F. & F. Koenigkramer Co. Safety side rail for patient support or the like. 3,104,402, 9–24–63, Cl. 5—331.

Johnson, Philip L. Adjustable boring head. 3,097,548, 7–16–63, Cl. 77—58.

Johnson, Philmore E.: *See*—
Snowdon, Arthur E., Johnson, Madsen, and Page. 3,087,132.

Johnson, Philmore E., to The Superior Electric Co. Electrical terminal. 3,093,435, 6–11–63, Cl. 339—276.

Johnson Products, Inc.: *See*—
Bergmann, Paul F. 3,111,119.
Bergmann, Paul F., Humphreys, and Dadd. 3,115,128.
Humphreys, John W. 3,079,903.
Humphreys, John W. 3,105,475.
Humphreys, John W. 3,108,581.
Humphreys, John W., and Dadd. 3,111,138.
Kueny, Kenneth E. 3,089,473.

Johnson, Ralph, to Tamar Electronics, Inc. Position sensor. 3,089,990, 5–14–63, Cl. 318—29.

Johnson, Ralph E., to The Singer Mfg. Co. Needle bar gate mechanism for zigzag sewing machines. 3,084,646, 4–9–63, Cl. 112—158.

Johnson, Ralph E., to The Singer Mfg. Co. Lock stitch sewing machine with bobbin replenishing means. 3,096,736, 7–9–63, Cl. 112—181.

Johnson, Ralph E., to The Singer Co. Thread take-up mechanisms for sewing machines. 3,103,191, 9–10–63, Cl. 112—241.

Johnson, Ralph E., and E. Kohlmayer, to The Singer Mfg. Co. Zigzag mechanism for sewing machines. 3,074,364, 1–22–63, Cl. 112—158.

Johnson, Ralph E., and F. J. Bartoss, to The Singer Co. Bobbin thread replenishing mechanism for lock stitch sewing machine. 3,099,972, 8–6–63, Cl. 112—181.

Johnson, Ralph S., to General Motors Corp. Catalyst feed control device for catalytic converters. 3,090,676, 5–21–63, Cl. 23—288.

Johnson, Ralph S., to General Motors Corp. Catalytic converter. 3,097,074, 7–9–63, Cl. 23—288.

Johnson, Reuben N. Mug holder. 3,113,677, 12–10–63, Cl. 211—88.

Johnson, Reynold B., to International Business Machines Corp. Decoding device. 3,079,594, 2–26–63, Cl. 340—174.1.

Johnson, Reynold B., to International Business Machines Corp. Facsimile apparatus for enlarging images in color. 3,092,686, 6–4–63, Cl. 178—5.2.

Johnson, Richard, F. L. Horn, and G. Strickland, to United States of America, Atomic Energy Commission. Dissolution of uranium fuels by mono- or difluorophosphoric acid. 3,088,800, 5–7–63, Cl. 23—14.5.

Johnson, Richard H., to The Upjohn Co. Process for the purification of Actb. 3,105,796, 10–1–63, Cl. 167—74.

Johnson, Richard L., to Shell Oil Co. Substituted diphenyl. 3,081,355, 3–12–63, Cl. 260—613.

Johnson, Richard O., to Hexacon Electric Co. Method of producing soldering tips for electric soldering irons. 3,109,231, 11–5–63, Cl. 29—411

Johnson, Richard S. Buffing wheel. 3,099,545, 7–30–63, Cl. 51—298.

Johnson, Richard S., and R. J. Brehm, to International Harvester Co. Intake manifold construction for compression ignition type internal combustion engines. 3,111,931, 11–26–63, Cl. 123—55.

Johnson, Robert A.: *See*—
Scarnato, Thomas J., and Johnson. 3,092,947.

Johnson, Robert A., to Collins Radio Co. Center clamped torsional resonator having bearing supported ends. 3,080,538, 3–5–63, Cl. 333—71.

Johnson, Robert A., and P. T. Anderson, to Food Techniques, Inc. Process for oleaginous seed. 3,084,046, 4–2–63, Cl. 99—2.

Johnson, Robert B.: *See*—
Galli, Joseph R., and Johnson. 3,108,902.
Galli, Joseph R., Wheeler, and Johnson. 3,098,987.

Johnson, Robert D., and M. L. Kent, to The New York Air Brake Co. Gearing means. 3,077,796, 2–19–63, Cl. 74—810.

Johnson, Robert E., and R. L. Konopa, to General Motors Corp. Windshield wiper mechanism. 3,082,461, 3–26–63, Cl. 15—250.17.

Johnson, Robert F.: *See*—
Rambo, William H., and Johnson. 3,084,090.

Johnson, Robert G. R.: *See*—
McHugh, James P., Lubell, Johnson, and Brown. 3,073,883.

Johnson, Robert L.: *See*—
Buckley, Donald H., and Johnson. 3,072,574.
Moyle, Clarence L., and Johnson. 3,081,221.

Johnson, Robert L., to The Dow Chemical Co. Aqueous colloidal dispersions containing halogenated acetylenic alcohols. 3,075,938, 1–29–63, Cl. 260—29.7.

Johnson, Robert R., to General Electric Co. Data processing system. 3,077,984, 2–19–63, Cl. 209—111.5.

Johnson, Robert R., R. J. Stahl, and G. A. Walters, to Textron Inc. Non-magnetic electro-hydraulic pump. 3,107,630, 10–22–63, Cl. 103—152.

Johnson, Robert S., to The Adjusto Equipment Co. Transversely movable hinge. 3,073,648, 1–15–63, Cl. 297—142.

Johnson, Robert W.: *See*—
Johnson, Harold D. and R. W. 3,074,199.

Johnson, Roger T.: *See*—
Kebe, Henry J., Johnson, Driscoll, and Bloor. 3,071,619.

Johnson, Ronald D., and K. F. Soliman; said Soliman assor. to said Johnson. Tank truck assembly. 3,080,173, 3–5–63, Cl. 280—5.

Johnson, Ronald J., to Crown Zellerbach Corp. Crate and handle therefor. 3,074,615, 1–22–63, Cl. 229—52.

Johnson, Ronald V., to Waldorf Paper Products Co. Siding package. 3,086,649, 4–23–63, Cl. 206—60.

Johnson, Ronald V., to Waldorf Paper Products Co. Container divider. 3,092,300, 6–4–63, Cl. 229—42.

Johnson, Rowland E., and E. W. Mehal, to Texas Instruments Inc. Method of producing gallium or aluminum arsenides and phosphides. 3,094,388, 6–18–63, Cl. 23—204.

Johnson, Roy D., to H. E. Crawford Co., Inc. Selvage for hosiery and method of making same. 3,078,697, 2–26–63, Cl. 66—9.

Johnson, Roy E., to General Motors Corp. Means for securing convertible top fabric. 3,090,646, 5–21–63, Cl. 296—107.

Johnson, Roy J., to Futurama Mfg. Co., Inc. Variable flow livestock feeder. Re. 25,336, 2–19–63, Cl. 119—52.

Johnson, Roy W., and D. R. Vaughn, to Col-Cube, Inc. Machine and method for pelletizing field cured hay. 3,090,182, 5–21–63, Cl. 56—1.

Johnson, Rulon E., Jr.: *See*—
Hurdlow, William R., Boecker, and Johnson. 3,091,967.

Johnson, S. C. & Son, Inc.: *See*—
Berres, Clifford R., Tabet, and Wilder. 3,088,928.
Greenlee, Sylvan O., and Pearce. 3,112,284.
Greenlee, Sylvan O., and Pearce. 3,113,932.
Leeds, Harry R. 3,101,668.
Luedtke, Warren J. 3,113,702.

Johnson, Samuel G., to International Harvester Co. Emergency releasing means for vehicle brakes. 3,110,523, 11–12–63, Cl. 303—71.

Johnson, Scott R., to Continental Can Co., Inc. Solder wiping apparatus. 3,086,488, 4–23–63, Cl. 113—97.

Johnson Service Co.: *See*—
Chapman, William P. 3,115,039.
Ehlke, Edward C. 3,103,107.

Johnson, Sigurd W., to Radio Corp. of America. Electrostatic printing. 3,105,821, 10–1–63, Cl. 252—62.1.

Johnson, Stanley R. Container with interior rotary dispenser. 3,099,365, 7–30–63, Cl. 221—263.

Johnson, Theodore B.: *See*—
McCallum, John, Johnson, Ditmars, and McGraw. 3,093,512.
McCallum, John, Johnson, Ditmars, and McGraw. 3,093,513.
McCallum, John, Johnson, Ditmars, and McGraw. 3,093,514.

Johnson, Thomas H., and G. D. Hayball, to Santa Barbara Research Center. Radiation shielding for infrared detectors. 3,103,585, 9–10–63, Cl. 250—83.

Johnson, Thomas W.: *See*—
Whitlock, Robert A., and Johnson. 3,109,454.

Johnson, Velmo S., to Spencer Safford Loadcraft, Inc. Dump vehicle. 3,099,489, 7–30–63, Cl. 298—14.

Johnson, Vendell J., to Alven Enterprises, Inc. Staging bracket. 3,082,027, 3–19–63, Cl. 287—54.

Johnson, Waldo O.: *See*—
Eskridge, Harold E., and Johnson. 3,087,193.

Johnson, Waldo O., to Weather-Seal, Inc. Interlocked sash construction. 3,113,354, 12–10–63, Cl. 20—56.

Johnson, Wallace C., to Arcos Corp. Process for welding by fusing a metal strip and article produced. 3,073,948, 1–15–63, Cl. 219—137.

Johnson, Wallace C., to Arcos Corp. Weld strip. 3,078,363, 2–19–63, Cl. 219—146.

Johnson, Wallace C., to Olin Mathieson Chemical Corp. Hollow articles. 3,111,747, 11–26–63, Cl. 29—157.3.

Johnson, Wallace J. S., R. E. Fisher, and A. J. McEwing, to Up-Right, Inc. Single screw lock connection for structural members. 3,107,932, 10–22–63, Cl. 287—54.

Johnson, Walter B., to H. S. Watson Co. Lift gate control system. 3,084,815, 4–9–63, Cl. 214—77.

Johnson, Walter J.: *See*—
Cox, Arthur, and Johnson. 3,074,317.

Johnson, Walter R., to The Borg-Erickson Corp. Weighing scale. 3,097,712, 7–16–63, Cl. 177—126.

Johnson, Walter R., to The Borg-Erickson Corp. Weighing scale. 3,106,976, 10–15–63, Cl. 177—159.

Johnson, Warren H., and R. E. Fitzgerald, to United-Carr Fastener Corp. Dust-proof lamp sockets. 3,072,875, 1–8–63, Cl. 339—101.

Johnson, Wayne R., to Minnesota Mining and Mfg. Co. Transducer for magnetically recorded signals. 3,086,087, 4–16–63, Cl. 179—100.2.

Johnson, Wayne R., to Minnesota Mining and Mfg. Co. Transformer coupling system effective over a wide frequency range. 3,106,688, 10–8–63, Cl. 333—28.

Johnson, Wayne R., to Winston Research Corp. Magnetic tape control system. 3,112,052, 11–26–63, Cl. 226—42.

Johnson, Wayne R., and C. C. Shaw, to Minnesota Mining and Mfg. Co. Transducing system. 3,082,293, 3–19–63, Cl. 178—6.6.

Johnson Welding & Equipment Co., Inc.: *See*—
Quinn, John N. 3,073,536.

Johnson, Wilbert E.: *See*—
Possis, Zinon C., Johnson, Straub, and Franke. 3,108,922.

Johnson, William E.: *See*—
De Camillis, Mason, Hoehn, and Johnson. 3,076,069.

Johnson, William H. Hinge pintle ejector. 3,087,237, 4–30–63, Cl. 29—267.

Johnson, William R., to Associated Spring Corp. Pouring spout closure. 3,105,606, 10–1–63, Cl. 220—24.

Johnson, Woodrow E.: *See*—
Webb, William A., Huston, Haass, and Johnson. 3,113,–915.

Johnson, Woodrow G.: *See*—
Huston, John R., Webb, McGrath, and Johnson. 3,090,–740.

Johnson, Wylie L., III: *See*—
Dison, James R., Johnson, and Jones. 3,081,097.

Johnson City Foundry and Machine Works, Inc.: *See*—
McFall, Charles R., and Eads. 3,093,873.

Johnston, Alan R., to California Institute Research Foundation. Accelerometer. 3,091,972, 6–4–63, Cl. 73—517.

Johnston, Archibald P. Wire straightening apparatus. 3,100,519, 8–13–63, Cl. 153—94.

Johnston, Arthur C. Three-D viewer. 3,079,959, 3–5–63, Cl. 141—21.

Johnston, Charles R. Nailable metal flooring. 3,102,613, 9–3–63, Cl. 189—34.

Johnston, Curtis D. Apparatus for pumping fluids. 3,088,–417, 5–7–63, Cl. 103—208.

Johnston, Donald L.: *See*—
Cronin, Edward F., Johnston, and Delisle. 3,101,386.

Johnston, Douglas, to John Blue Co., Inc. Manually operable implement for injecting anhydrous ammonia and other liquid fertilizers into the soil. 3,107,638, 10–22–63, Cl. 111—7.1.

Johnston, Dwight A., to International Basic Economy Corp. Rotating fluid cylinders. 3,079,896, 3–5–63, Cl. 121—38.

Johnston, Edward J.: *See*—
Clendenin, Wilbur H., and Johnston. 3,104,509.

Johnston, Edward J., to International Harvester Co. Tire carcass disk rolls with retaining washers. 3,088,189, 5–7–63, Cl. 29—125.

Johnston, Edward J., to International Harvester Co. Parallel bars side delivery rake with self adjusting mounting means. 3,092,950, 6–11–63, Cl. 56—377.

Johnston, Edward J., to International Harvester Co. Parallel bar side delivery rake with tine bar adjusting means. 3,092,954, 6–18–63, Cl. 56—377.

Johnston, Edward J., to International Harvester Co. Hay conditioning roller mounting. 3,101,578, 8–27–63, Cl. 56—1.

Johnston, Ernest F. Pupillometer. 3,115,713, 12–31–63, Cl. 33—200.

Johnston, Harlow H. Lug wrench support. 3,097,550, 7–16–63, Cl. 81—53.

Johnston, Henry P., to Callery Chemical Co. Purification of alkali metal borohydrides. 3,107,157, 10–15–63, Cl. 23—312.

Johnston, Herrick L., and J. G. Pierce, to Herrick L. Johnston Inc. Zero load pump flange connection. 3,095,220, 6–25–63, Cl. 285—114.

Johnston, Herrick L., Inc.: *See*—
Johnston, Herrick L., and Pierce. 3,095,220.

Johnston, Howard T., Jr., to International Business Machines Corp. Thermoscope. 3,107,529, 10–22–63, Cl. 73—339.

Johnston, J. Ford: *See*—
Culver, Irven H., Danielson, and Johnston. 3,106,964.

Johnston, Jack F.: *See*—
Trimmell, Donald, Patel, and Johnston. 3,086,971.

Johnston, James D.: *See*—
Giraitis, Albert P., Johnston, and Shapiro. 3,085,319.

Johnston, James D., to Chas. Pfizer & Co., Inc. 5-nitro-furfural azines. 3,099,663, 7–30–63, Cl. 260—347.5.

Johnston, James D., H. Shapiro, and A. P. Giraitis, to Ethyl Corp. Stable lead alkyl compositions and a method for preparing the same. 3,097,222, 7–9–63, Cl. 260—437.

Johnston, James E., to Minnesota Mining and Mfg. Co. Heat shielding, drapeable curtain material. 3,114,840, 12–17–63, Cl. 250—108.

Johnston, James L., to Johnston Testers, Inc. Well completion tool. Re. 25,323, 1–15–63, Cl. 166—128.

Johnston, James R. Connector. 3,081,508, 3–19–63, Cl. 24—211.

Johnston, John R., to General Motors Corp. Timer apparatus for masking machine. 3,076,107, 1–29–63, Cl. 307—141.4.

Johnston, Joseph L., and A. G. Petterson, to United States of America, Army. Feeding mechanism for drum-type firearm. 3,101,029, 8–20–63, Cl. 89—33.

Johnston, Kenneth F., A. L. Quinlan, and B. L. Wright, to Western Electric Co., Inc. Apparatus for forming and welding. 3,081,396, 3–12–63, Cl. 218—79.

Johnston, Lawton L., and W. H. T. Carpenter, to Graniteville Co. Fabric fluid treating apparatus. 3,079,782, 3–5–63, Cl. 68—22.

Johnston, Lowell B., to Owens-Corning Fiberglas Corp. Acoustical panel. 3,077,426, 2–12–63, Cl. 154—45.9.

Johnston, Lowell B., to Owens-Corning Fiberglas Corp. Cushioning structure of fibrous glass. 3,113,788, 12–10–63, Cl. 280—150.

Johnston, Loyal L., to Herman Pneumatic Machine Co. Flask manipulating and mold forming method. 3,094,750, 6–25–63, Cl. 22—193

Johnston, Loyal L., to Herman Pneumatic Machine Co. Flask manipulating and mold forming apparatus. 3,110,940, 11–19–63, Cl. 22—17.

Johnston, Marvin, to J. M. Huber Corp. Pump shaker. 3,089,–428, 5–14–63, Cl. 103—179.

Johnston, Nelson G.: *See*—
Monroe, Roger F., Kucera, Oakes, and Johnston. 3,077,–454.

Johnston, Ransford J., to Clevite Corp. Reversible counter with single input the polarity of which determines direction of count. 3,105,912, 10–1–63, Cl. 307—88.5.

Johnston, Robert W.: *See*—
Hull, Robert D., and Johnston. 3,084,484.

Johnston, Rodney M.: *See*—
Cole, Edward N., and Johnston. 3,096,938.

Johnston, Rufus B., to Wilson Supply Co. Valve. 3,077,329, 2–12–63, Cl. 251—62.

Johnston, Rufus B., to Wilson Supply Co. Valve. 3,093,152, 6–11–63, Cl. 137—87.

Johnston, Rufus B. Hydraulic pumping system. 3,094,842, 6–25–63, Cl. 60—52.

Johnston Testers, Inc.: *See*—
Johnston, James L. Re. 25,323.

Johnston, Verle S., R. E. Maples, and E. Heal, to Victor Adding Machine Co. Sales registering and recording device. 3,107,–849, 10–22–63, Cl. 235—60.38.

Johnston, William D.: *See*—
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Johnston, William D., and A. L. Barach. Cooling unit for beverages. 3,077,085, 2–12–63, Cl. 62—293.

Johnston, William R.: *See*—
Breivik, Orville N., and Johnston. 3,100,151.
Rosenberg, Milton, and Johnston. 3,096,509.

Johnston, William R., to Ampex Corp. Sensing circuit employing two tunnel diodes to provide proper current distribution upon one being switched. 3,106,649, 10–8–63, Cl. 307—88.5.

Johnstone, Ben B.: *See*—
Clemens, John E., Harruff, Johnstone, Ray Sobottke, and Weeks. 3,080,836.
Clemens, John E., and Johnstone. 3,108,799.

Johnstone, Charles W.: *See*—
Dewan, John T., and Johnstone. 3,108,188.

Johnstone, George B. Trolleys, bogies and the like for facilitating the handling and movement of articles and particularly heavy articles. 3,091,477, 5–28–63, Cl. 280—46.

Johnstone, James O.: *See*—
Wilke, William P., III, Nordyke, and Johnstone. 3,080,–248.

Johnstone, Norman J., to General Dynamics Corp. Overlond control system for transistor amplifiers. 3,102,241, 8–27–63, Cl. 330—22.

Johnstone, Theodore H., to General Motors Corp. Coincidental door locking system. 3,096,112, 7–2–63, Cl. 292—3.

Joiner, Edgar E., and F. B. and P. R. Perri, to Fred W. Mears Heel Co., Inc. Machines for forming cores of dowels used in the reinforcing of heels. 3,086,566, 4–23–63, Cl. 142—17.

Joiner, Edgar E., and J. P. Szumski, to Fred W. Mears Heel Co., Inc. Methods of making lightweight heels. 3,100,678, 8–13–63, Cl. 18—59.

Joists Inc.: *See*—
Cadmus, Fred T., Jr. 3,110,933.

Jokela, Veikko J., to Minneapolis-Honeywell Regulator Co. Control apparatus. 3,095,487, 6–25–63, Cl. 200—140.

Jokela, Veikko J., to Minneapolis-Honeywell Regulator Co. Control apparatus. 3,107,499, 10–22–63, Cl. 62—140.

Jokelson, Sonia: *See*—
Boris, Sonia. 3,082,959.

Joline, Everett S., to Sperry Rand Corp. Fuel control system for gas turbine engines. 3,098,356, 7–23–63, Cl. 60—39.28.

Joline, Everett S., and R. C. Sauer, to Sperry Rand Corp. Flight path computer. 3,077,557, 2–12–63, Cl. 318—489.

Jolitz, William L., F. E. Satchell, and F. W. Berry, to Brunswick Corp. Bowling pin and base. 3,104,105, 9–17–63, Cl. 273—82.

Jolles, Zvi E., and E. V. Caldwell. Manufacture of diphenylmercury. 3,106,572, 10–8–63, Cl. 260—433.

Jolley, Gordon B.: *See*—
McDonald, Michael F., Sr., and Jolley. 3,077,504.

Jolly, Donald: *See*—
Metcalfe, Kenneth A., Wright, and McNeil. 3,102,026.

Jolly, Richard N., to Jersey Production Research Co. Seismic profiling system. 3,105,568, 10–1–63, Cl. 181—5.

Jolly, Samuel E.: *See*—
Rue, Howard M., and Jolly. 3,082,168.

Joly, Gabriel. Mould stripping machine. 3,103,044, 9–10–63, Cl. 22—34.

Joly, Robert, J. Warnant, and B. Goffinet, to Roussel-UCLAF, S.A. Novel 9α-fluoro-Δ1-corticosteroids and preparation thereof. 3,099,654, 7–30–63, Cl. 260—239.55.

Joly, Robert, and R. Bucourt, to Roussel-UCLAF, Societe Anonyme. Process for preparing 3-methylchromone. 3,100,782, 8–13–63, Cl. 260—345.2.

Joly, Robert, J. Warnant, and B. Goffinet, to Roussel-UCLAF, S.A. 16α-methyl-3β-pregnane-11,20-diones and derivatives thereof. 3,104,245, 9–17–63, Cl. 260—397.45.

Jonaitis, Charles W.: *See*—
Baarson, Robert E., and Jonaitis. 3,097,162.
Baarson, Robert E., Treweek, Jonaitis, and Ray. 3,098,–817.

Jonard, Karl. Method of producing water-insoluble mineral salts. 3,092,554, 6–4–63, Cl. 167—85.

Jonas, George A.: *See*—
Shelley, Edwin F., Jonas, and Welser. 3,101,628.

Jonas, Heinz: *See*—
Zappel, Albrecht, and Jonas. 3,080,431.
Zappel, Albrecht, and Jonas. 3,100,225.

Jonas, John J., to Ransome & Marles Bearing Co. Ltd. Magnetic rotating apparatus. 3,103,592, 9–10–63, Cl. 250—224.

Jonas, Walter M., to Sobel Metal Products, Inc. Garment having adjustable plastic buckle. 3,112,750, 12–3–63, Cl. 128—310.

Jonassen, Jonas. Automatic releasing fishing float. 3,106,–034, 10–8–63, Cl. 43—43.11.

Jonasson, Axel V., to Reed Mfg. Co. Pipe cutter. 3,100,934, 8–20–63, Cl. 30—102.

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Meyer, John C. 3,074,766.

Jones, Addis T., and G. S. Ellis, to Thomas Holst Co. Extensible and contractible joist. 3,088,562, 5–7–63, Cl. 189—37.

Jones, Alan R., and F. Brech, to Jarrell-Ash Co. Apparatus for counting discrete microscopic particles. 3,076,600, 2–5–63, Cl. 235—92.

Jones, Albert C.: *See*—
Briggs, Kenneth H., and Jones. 3,089,150.
Briggs, Walton E., and Jones. 3,085,198.

Jones, Albert C., F. J. Lingel, and P. B. Troup, to General Electric Co. Tuning fork. 3,085,168, 4–9–63, Cl. 310—25.

Jones, Alex. Grading shingle cutter guide device. 3,073,364, 1–15–63, Cl. 144—216.

Jones, Arthur B., Jr., and E. H. Luber; said Jones assor. to Fafnir Bearing Co., and said Luber assor. to Sperry Rand Corp. Anti-friction support mechanism. 3,082,629, 3–26–63, Cl. 74—5.4.

Jones, Arthur L., and E. J. Neal, Jr., to The Pelton & Crane Co. Dental aspirator with splash baffle. 3,078,579, 2–26–63, Cl. 32—33.

Jones, Arthur L., H. A. Strecker, and R. F. Firestone, to The Standard Oil Co. Method of producing a permanently active catalyst utilizing neutron irradiation. 3,092,588, 6–4–63, Cl. 252—432.

Jones, Augustus, and F. J. Haskins, to General Dynamics Corp. Method of etching copper with rejuvenation and recycling. 3,083,129, 3–26–63, Cl. 156—19.

Jones, Bernard E., ⅓ to G. B. Jones, and ⅓ A. M. Packman. Combination bench router fixture. 3,109,466, 11–5–63, Cl. 144—144.

Jones, Charles: *See*—
Bentele, Max, Jones, and Raye. 3,098,605.
Bentele, Max, Jones, and Raye. 3,111,261.
Bentele, Max, Pierce, and Jones. 3,102,492.

Jones, Charles W. Short circuiting cutout switch for tractors. 3,083,275, 3–26–63, Cl. 200—61.5.

Jones, Clarence L., to Westinghouse Electric Corp. Electrical control apparatus. 3,110,853, 11–12–63, Cl. 318—312.

Jones, Clarence S.: *See*—
Kleist, Robert A., and Jones. 3,072,899.

Jones, Clarence S., to General Precision, Inc. Bridge feedback modulator. 3,100,286, 8–6–63, Cl. 332—37.

Jones, Clarence S. Proximity responsive switching system. 3,103,655, 9–10–63, Cl. 340—258.

Jones, Cleo: *See*—
Klein, Vernon W., and Jones. 3,090,038.

Jones, Clevoe D., to Ford Motor Co. Gear ratio changing structure. 3,079,806, 3–5–63, Cl. 74—335.

Jones, Clevoe D., to Ford Motor Co. Synchronizer clutch mechanism. 3,110,382, 11–12–63, Cl. 192—53.

Jones, Clifford: *See*—
Lang, John L., Jones, and Roche. 3,080,348.

Jones, Clifford E. Applicator for liquid weed-killer. 3,096,–534, 7–9–63, Cl. 15—244.

Jones, Coy V., Sr.: *See*—
Andersen, Charles J., and Jones. 3,101,585.
Kennedy, Harry R., Andersen, and Jones. 3,074,224.

Jones, Coy V., Sr., to Southern Machinery Co. Resilient shaft coupling. 3,074,254, 1–22–63, Cl. 64—11.

Jones, Don P.: *See*—
Stroup, Earl L., and Jones. 3,090,427.

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Jones, Donald W., to Abbott Coin Counter Co. Inc. Combined coin sorter and counting machine. 3,090,390, 5–21–63, Cl. 133—8.

Jones, Dwight V., to General Electric Co. Variable pulse width parallel inverters. 3,075,136, 1–22–63, Cl. 321—45.

Jones, E. D., Corp.: *See*—
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Jones, Edmund L., Jr. Traction device for automobile wheels. 3,093,180, 6–11–63, Cl. 152—216.

Jones, Edward M., to The Baldwin Piano Co. Photoelectric chorus effect generator. 3,086,122, 4–16–63, Cl. 250—220.

Jones, Edward N. Well treating apparatus and method. 3,076,503, 2–5–63, Cl. 166—1.

Jones, Edward W., to Elastic Fabric Co., Inc. Alkaline shrinkage of cotton fabric on vibratory conveyor. 3,090,–666, 5–21–63, Cl. 8—125.

Jones, Edwin C., Jr.: *See*—
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Jones, Evan, to Henry Valve Co. Drier fitting and assembly. 3,080,977, 3–12–63, Cl. 210—232.

Jones, Evan, to Henry Valve Co. Moisture-liquid indication devices. 3,088,811, 5–7–63, Cl. 23—253.

Jones, Evan, to Henry Valve Co. Liquid indicator with moisture indication means. 3,100,691, 8–13–63, Cl. 23—253.

Jones, Eynon, O. H. Tracy, and C. B. Deffenbaugh, ¼ to said E. Jones, ¼ to said O. H. Tracy, ¼ to Roberts Dairy Co., and ⅛ to L. R. Dunham, and ⅛ to E. Johnson. Egg products and processes for preparing same. 3,093,487, 6–11–63, Cl. 99—161.

Jones, Eynon, and A. R. Johnson, to Prep Foods, Inc. Method of treating shelled eggs. 3,113,872, 12–10–63, Cl. 99—161.

Jones, Frank B.: *See*—
Masheter, Lawrence E., Jones, and Udall. 3,107,715.

Jones, Frank D.: *See*—
Morrison, Charles S., Jones, and Wilkins. 3,112,752.
Wilkins, James D., and Jones. 3,091,070.

Jones, Frank E. D. Playground ride. 3,073,595, 1–15–63, Cl. 272—33.

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Jones, Bernard E. 3,109,466.

Jones, George M.: *See*—
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Jones, George M., to American Gilsonite Co. Creep reduction in asphaltic paving. 3,093,500, 6–11–63, Cl. 106—273.

Jones, George S.: *See*—
Wenthe, Stephen J., and Jones. 3,085,505.

Jones, Glyn C. W., and A. L. Tickner. Face driving lathe centers. 3,071,998, 1–8–63, Cl. 82—40.

Jones, Grafton V. Battery booster. 3,105,909, 10–1–63, Cl. 307—10.

Jones, Gwilym T.: *See*—
Earnshaw, John, and Jones. 3,116,162.

Jones, Hal J.: *See*—
Aitken, Alexander R., Gerrard, Sarrafian, and Jones. 3,075,607.

Jones, Harold A.: *See*—
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Jones, Harold L., to International Paper Co. Treating a wood pulp slurry with a water-soluble acid prior to addition of sizing materials thereto. 3,112,242, 11–26–63, Cl. 162—179.

Jones, Harold V. Apparatus facilitating accurate reproduction of eyeglass lenses. 3,082,669, 3–26–63, Cl. 95—1.1.

Jones, Harry S., to United States of America, Navy. Multiple element infrared detector. 3,073,957, 1–15–63, Cl. 250—83.3.

Jones, Horace H. Portable toilet. 3,070,810, 1–1–63, Cl. 4—114.

Jones, Hugh W.: *See*—
Criswell, Billie K., and Jones. 3,096,830.

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Ireland, Glen V. 3,084,408.

Jones, Iradell T.: *See*—
Holden, William S., and Jones. 3,112,445.

Jones, Jack: *See*—
Long, Everett, and Jones. 3,086,931.

Jones, Jack W.: *See*—
Chaney, Preston E., Mayes, and Jones. 3,096,401.

Jones, James B., to Aeroprojects Inc. Vibrating roll and method. 3,096,672, 7–9–63, Cl. 80—60.

Jones, James B., and W. C. Potthoff, to Sonobond Corp. Sandwich construction incorporated discrete metal core elements and method of fabrication thereof. 3,071,216, 1–1–63, Cl. 189—34.

Jones, James B., and K. H. Yocom, to Aeroprojects Inc. Method and apparatus for generating aerosols. 3,084,874, 4–9–63, Cl. 239—424.

Jones, James B., and N. Maropis, to Aeroprojects Inc. Support for workpiece to be subjected to vibratory energy. 3,106,856, 10–15–63, Cl. 78—82.

Jones, James D.: *See*—
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Jones, James L., to Applied Research Laboratories, Inc. Mechanical motion and spectrographic device including it. 3,116,415, 12–31–63, Cl. 250—51.5.

Jones, James M., Jr. Surgical drainage appliance. 3,084,–690, 4–9–63, Cl. 128—275.

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Jones, James O., D. W. Bernard, and J. M. Colagrossi, to Sperry Rand Corp. Typewriter tape punch with program control. 3,107,049, 10–15–63, Cl. 234—15.

Jones, James R., and R. F. Fogle, Jr., to Olin Mathieson Chemical Corp. Stabilization of sulfur trioxide and high strength oleums. 3,093,455, 6–11–63, Cl. 23—167.

Jones, James R., and R. F. Fogle, Jr., to Olin Mathieson Chemical Corp. Stabilization of sulfur trioxide and high strength oleums. 3,098,713, 7–23–63, Cl. 23—174.

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Purtell, Rufus J. 3,087,680.
Purtell, Rufus J. 3,094,282.

Jones, Jefferson F. Miter table for use with masonry saw. 3,089,478, 5–14–63, Cl. 125—35.

Jones, Jefferson F. Masonry corner guide. 3,114,975, 12–24–63, Cl. 33—85.

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Fenske, Merrell R., and Jones. 3,086,852.

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Brakel, Lewis H., and Jones. 3,071,230.

Jones, John E.: *See*—
Snowdon, Donald R., and Jones. 3,087,724.
Williams, Sam B., and Jones. 3,079,068.

Jones, John E., to Oklahoma Electronics Industries, Inc. Electronic and thermodynamic apparatus for processing grains. 3,111,398, 11–19–63, Cl. 34—1.

Jones, John L., G. C. Noll, J. D. Nielson, G. B. Klos, and E. C. Brekelbaum, to The Thew Shovel Co. Crane. 3,083,837, 4–2–63, Cl. 212—46.

Jones, John L. Citryl triglucoinic acid and salts thereof and process of making the same. 3,072,711, 1–8–63, Cl. 260—484.

Jones, John L. Fastener and label. 3,074,133, 1–22–63, Cl. 24—67.

Jones, John L. Label device. 3,077,683, 2–19–63, Cl. 40—2.

Jones, John L. Integral vaginal applicator. 3,079,918, 3–5–63, Cl. 128—261.

Jones, John L., to Armour Pharmaceutical Co. Process of preparing aluminum chlorhydroxides and aluminum hydroxide. 3,113,911, 12–10–63, Cl. 204—94.

Jones, John P., Jr., to Navigation Computer Corp. Sound transducer system. 3,076,870, 2–5–63, Cl. 179—1.

Jones, John W., to E. I. du Pont de Nemours and Co. Process for preparing oriented polymeric linear terephthalate film with a deglossed writeable surface. 3,088,173, 5–7–63, Cl. 18—48.

Jones, John W. Rotary broom sweeper. 3,114,923, 12–24–63, Cl. 15—82.

Jones, Keith C., to Minneapolis-Honeywell Regulator Co. Solid propellant pressurizing device. 3,077,077, 2–12–63, Cl. 60—39.47.

Jones, Kenneth, ½ to Attwood Statistics Ltd. Audience preference analysis system utilizing continuously interrogated responder stations. 3,093,795, 6–11–63, Cl. 325—31.

Jones, Kenneth, to Burndept Ltd. Inert voltaic batteries. 3,102,058, 8–27–63, Cl. 136—90.

Jones, Kenneth W., to The Lord Baltimore Press Inc. Machine for forming and assembling paperboard carriers. 3,111,064, 11–19–63, Cl. 93—45.

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Jones, Llewellyn, to Strongcraft Products, Inc. Merchandise display rack. 3,085,694, 4–16–63, Cl. 211—134.

Jones, Lloyd E., to Texas Instruments Inc. Solar cell. 3,078,328, 2–19–63, Cl. 136—89.

Jones, Lloyd E., to Industrial Brush Co. Brush cleaning device for generally vertical surfaces. 3,108,301, 10–29–63, Cl. 15—77.

Jones, Logan L. Lifting tool. 3,101,211, 8–20–63, Cl. 294—16.

Jones, Louis F., to United States of America, Navy. Detection of metallic objects on an ocean floor. 3,108,246, 10–22–63, Cl. 340—4.

Jones, Lyman L., deceased; A. J. Barger, executrix. Can body and method of forming the same. 3,099,238, 7–30–63, Cl. 113—120.

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Jones, Martin L., and J. M. Horner, to Westinghouse Electric Corp. Magnetic modulator with time jitter compensation for generated pulses. 3,099,754, 7–30–63, Cl. 307—88.5.

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Ahlstone, Arthur G., and Jones. 3,096,999.
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Jones, Marvin R., to Cameron Iron Works, Inc. Drilling pressure control assembly tester. 3,093,996, 6–18–63, Cl. 73—46.

Jones, Max E., to Crane Co. Analogue to digital converter and counter. 3,099,831, 7–30–63, Cl. 340—347.

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Jones, Milton E. Electrical conduit wire puller. 3,072,382, 1–8–63, Cl. 254—134.3.

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Jones, Morton E.: *See*—
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Jones, Morton E., and E. W. Mehal, to Texas Instruments Inc. Method of making degeneratively doped group III-V compound semiconductor material. 3,092,591, 6–4–63, Cl. 252—518.

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McKibben, Horace E., and Jones. 3,099,115.

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Jones, Preston A., ½ to W. D. Runswick. Protective cage construction for light fixtures. 3,087,054, 4–23–63, Cl. 240—102.

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Jones, Raymond C., and F. R. Woodward, to The Taylor-Winfield Corp. Strip welding apparatus. 3,102,189, 8–27–63, Cl. 219—82.

Jones, Richard De Forest. Liquid transferring apparatus. 3,091,252, 5–28–63, Cl. 137—392.

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Jones, Robert J. Holding fixture for Buick dynaflow transmissions. 3,083,003, 3–26–63, Cl. 269—47.

Jones, Robert L., to Phillips Petroleum Co. Stripping rich absorption oil. 3,116,235, 12–31–63, Cl. 208—341.

Jones, Robert T., to Jones Products Co. Method of imparting a permanent form to resin-impregnated webbing. 3,091,547, 5–28–63, Cl. 117—65.2.

Jones, Robert W. Gunsight. 3,112,566, 12–3–63, Cl. 33—47.

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Jones, Thomas C. Animated sign. 3,073,047, 1–15–63, Cl. 40—39.

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Josephson, Vernal, to Space Technology Laboratories, Inc. Apparatus for the generation and confinement of high kinetic energy gases. 3,113,088, 12–3–63, Cl. 204—193.2.

Josey, Aiden D., to E. I. du Pont de Nemours and Co. Organo-substituted monofluoromalono-nitriles and their preparation. 3,114,763, 12–17–63, Cl. 260—465.

Joslin, Carlos E. Safety device for mowers. 3,084,494, 4–9–63, Cl. 56—25.4.

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Ayer, William H., and Joslin. 3,098,951.

Joslyn, John, to The Luckland Co. Magnetic game and toy. 3,114,547, 12–17–63, Cl. 273—1.

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Fahey, James H., Jr. 3,083,847.
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Josse, Eugene M.: *See*—
Rosenfeld, Elisar B., Miagkich, Viliam-Vilmont, Josse, and Plotnikov. 3,096,756.

Jost, Ernest M., to Texas Instruments Inc. Solid-phase bonding of metals. 3,095,500, 6–25–63, Cl. 219—117.

Joswig, Fred W., and G. A. Minnich, to Gay-Bell Corp. Apparatus for bundling tobacco leaves. 3,112,831, 12–3–63, Cl. 214—5.5.

Jouin, Jacques: *See*—
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Jouille, Maurice, M. Laurre, G. Maillard, and P. Muller, to Recherches et Propagande Scientifiques. Aspirin-antacid polysiloxane tablet. 3,094,464, 6–18–63, Cl. 167—82.

Journapak Corp., The: *See*—
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Joy, Ardo W. Multiple mobile auction arena. 3,115,684, 12–31–63, Cl. 20—1.

Joy Mfg. Co.: *See*—
Baechli, George. 3,077,974.
Ball, Charles F. 3,077,342.
Ball, Charles F. 3,110,482.
Bendixen, Alf H. 3,072,203.
Benish, George P. 3,072,827.
Blanchet, Lucien. Re. 25,442.
Calder, Alexander W. 3,107,902.
Densmore, Neal W. 3,078,081.
Dilgard, Lemoyne W. 3,089,580.
Gordon, John E. 3,108,514.
Hay, William J., and Larson. 3,085,755.
Hoover, Merle L. 3,073,464.
Hughes, Robert W. 3,092,973.
Hughes, Robert W., and Leist. 3,074,434.
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Koontz, James H. 3,100,416.
Osgood, Charles F. 3,074,381.
Osgood, Charles F. 3,081,894.
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Price, Howard W. 3,085,439.
Robinson, Donald B. 3,087,135.
Rollins, Lester G. 3,103,275.
Stark, Ernest H. 3,074,433.
Wachsmuth, Erich A. 3,072,315.
Wagner, John H. 3,095,080.
Warner, Edmund M., and Johnson. 3,095,570.

Joyce, Allan L., and N. H. McClelland. Adaptor plate for paper towel dispensing cabinet. 3,115,998, 12–31–63, Cl. 225—34.

Joyce, Cecil R., to Burroughs Corp. Electrostatic recording head. 3,071,685, 1–1–63, Cl. 250—49.5.

Joyce-Cridland Co., The: *See*—
Hott, Ion V. K. 3,106,988.

Joyce, Donald E.: *See*—
Short, Robert J., Hammond, and Joyce. 3,108,853.

Joyce, Glover C., to Norton Co. Grinding machine. 3,076,296, 2–5–63, Cl. 51—165.

Joyce, Richard F. Check-out counter. 3,074,511, 1–22–63, Cl. 186—1.

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Voreaux, Claude, Joyeux, and Cople. 3,114,424.

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Coover, Harry W., Jr., and Joyner. 3,102,869.
Coover, Harry W., Jr., Joyner, and Shearer. 3,075,952.
Shearer, Newton H., Jr., and Joyner. 3,103,501.

Joyner, Frederick B., to Eastman Kodak Co. Polymerization of α olefins with three component soluble catalysts in liquid phase. 3,072,631, 1–8–63, Cl. 260—94.9.

Joyner, Frederick B., and N. H. Shearer, Jr. to Eastman Kodak Co. Catalytic polymerization of α-olefins to solid polymers with catalyst mixtures of a metal, a metal tetraalkyl and a titanium tetrahalide. 3,086,964, 4–23–63, Cl. 260—93.7.

Joyner, Frederick B., and N. H. Shearer, Jr., to Eastman Kodak Co. Poly-α-olefins containing thiobisphenols and butylated hydroxy toluene. 3,091,598, 5–28–63, Cl. 260—45.95.

Joyner, Herbert, ½ to W. L. Fisher. Utilizing vehicle air-conditioning system for internal combustion engine. 3,071,934, 1–8–63, Cl. 62—89.

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Coover, Harry W., Jr., and Joyner. 3,090,769.
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Kenney, Malcolm E., and Joyner. 3,094,536.

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Jucker, Ernst, and A. Ebnöther, to Sandoz A.G. N-methyl-2-[2'-(alpha-methyl-para-halo-benzhydryloxy)-ethyl]pyrrolidine. 3,097,212, 7–9–63, Cl. 260—326.5.

Jucker, Ernst, A. J. Lindenmann, and J. Gmunder to Sandoz Ltd. (also known as Sandoz A.G.). Diazacyclooctane derivatives. 3,104,238, 9–17–63, Cl. 260—239.

Jucker, Ernst, A. J. Lindenmann, and J. Gmunder, to Sandoz Ltd. 1-[N-lower alkyl-piperidyl-(4')]-3-phenyl-4-(parasubstituted benzyl)-pyrazolones-(5). 3,108,110, 10–22–63, Cl. 260—294.

Jucker, Ernst, and A. J. Lindenmann, to Sandoz Ltd. Acetals of 5-nitro-2-furaldehyde. 3,108,118, 10–22–63, Cl. 260—338.

Jucker, Hans: *See*—
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Jucknies, Paul R., G. B. Cobel, and D. S. Chisholm, to The Dow Chemical Co. Apparatus for melting metals. 3,075,263, 1–29–63, Cl. 22—57.2.

Juda, Walter, to Ionics, Inc. Method for the electrochemical reduction of compounds. 3,103,473, 9–10–63, Cl. 204—77.

Juda, Walter, to Ionics, Inc. Electrowinning of metals from electrolytes. 3,103,474, 9–10–63, Cl. 204—104.

Juda, Walter, and T. A. Kirkham, to Ionics, Inc. Electroplating of metals. 3,072,545, 1–8–63, Cl. 204—112.

Judd, Chester K., Jr., to The Fletcher-Terry Co. Axle for glass cutters. 3,106,018, 10–8–63, Cl. 30—164.95.

Judd, Claude I.: *See*—
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Hickner, Richard A., and Judd. 3,072,672.

Judd, Donald F., to The Babcock & Wilcox Co. Nuclear vapor generating apparatus. 3,114,414, 12–17–63, Cl. 165—31.

Judd, Edwin B., and M. W. Hellar, to General Electric Co. Hermetically-sealed timed actuator. 3,075,394, 1–29–63, Cl. 74—18.1.

Judd, Edwin B., and J. D. Young, to General Electric Co. Electric circuit breaker. 3,076,882, 2–5–63, Cl. 200—146.

Judd, Harold, to Champion Papers Inc. Method of preparing TiO_2. 3,112,178, 11–26–63, Cl. 23—202.

Judd, John E.: *See*—
Warner, Thomas C., Jr., and Judd. 3,100,292.

Judd, Tyler W.: *See*—
Harmon, William C., and Judd. 3,112,642.

Judd, Vaughn T.: *See*—
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Judice, Carlton A., and L. E. Pirkle, to Esso Research and Engineering Co. Weak sulfuric acid process for converting ethyl ether to ethanol. 3,095,458, 6–25–63, Cl. 260—639.

Judovits, Martin. Drape and drape hanging device. 3,082,818, 3–26–63, Cl. 160—344.

Judy, Glen E. Fluid Dispenser. 3,078,016, 2–19–63, Cl. 222—181.

Juenge, Eric C., to Ethyl Corp. Vinyllead compounds. 3,071,607, 1–1–62, Cl. 260—437.

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Juergens, William A., to Juergens Mfg. Co., Inc. Mounting of flanged appliances in countertops. 3,080,569, 3–12–63, Cl. 4—187.

Juffa, Richard, and W. Kallert, to Farbenfabriken Bayer Aktiengesellschaft. Process for simultaneously measuring changes in the viscosity and elasticity of a substance undergoing a chemical or physical change. 3,0090,223, 5–21–63, Cl. 73—59.

Jugle, Leonard L., D. J. Smith, and J. J. Saul, to Reliable Electric Co. Line splices and analogous connectors. 3,072,989, 1–15–63, Cl. 24—126.

Juillard, Yves, to Societe Alsacienne de Constructions Mecaniques. Means for handling roving of fiber material. 3,084,399, 4–9–63, Cl. 19—157.

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Julian, Thomas A., and H. A. R. Wiggins, to Hazeltine Research, Inc. Automatic-gain-control apparatus. 3,081,380, 3–12–63, Cl. 178—7.3.

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Julich, Werner, to Precisa Rechenmaschinenfabrik, A.G. Dividend-divisor aligning mechanism for computing machines. 3,097,790, 7–16–63, Cl. 235—63.

Julie, Loebe, to Julie Research Laboratories, Inc. Precision resistance apparatus and methods of making. 3,104,311, 9–17–63, Cl. 219—107.

Julie Research Laboratories, Inc.: *See*—
Julie, Loebe. 3,104,311.

Julien, Louis P. Automatic mechanism operated by a preset pressure. 3,089,512, 5–14–63, Cl. 137—460.

Julien, Maurice F. A., to Safege-Transport. Installations of the type of suspended railways. 3,106,171, 10–8–63, Cl. 104—94.

Julin, Wesley R. Sectional sheet metal bed construction. 3,072,927, 1–15–63, Cl. 5—131.

Julio, James P., to Chrysler Corp. Glass bending mold. 3,115,403, 12–24–63, Cl. 65—290.

Jullien-Davin, Jean, to Compagnie Crouzet. Cameras including a diaphragm and a photoelectric cell. 3,077,154, 2–12–63, Cl. 95—64.

Julow, Thomas M., to The Bendix Corp. Means for fastening telescoping members. 3,109,846, 11–5–63, Cl. 92—98.

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Juncker, Flemming G., J. Damgaard, V. K. Jacobsen, P. Henk, and J. Schmidt, to Junckers Savvaerk A/S. Method of simultaneous stabilization and drying of wood. 3,090,411, 5–21–63, Cl. 144—320.

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Jung, Melvin A., to Invincible Metal Furniture Co. Desk with interchangeable panels. 3,105,726, 10–1–63, Cl. 312—195.

Jung, Robert C., to Westinghouse Electric Corp. Refrigeration apparatus. 3,075,366, 1–29–63, Cl. 62—382.

Jung, Robert C., and J. H. Tupper, to Westinghouse Electric Corp. Refrigeration air flow arrangement. 3,077,749, 2–19–63, Cl. 62—419.

Jung, Werner, and G. M. Pavell. Method and apparatus for preserving and transporting live fish. 3,076,432, 2–5–63, Cl. 119—3.

Jungbauer, John J.: *See*—
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Junger, Miguel C., to Acoustica Associates, Inc. Pulse-echo gauging system. 3,100,994, 8–20–63, Cl. 73—290.

Junger, Miguel C., to Acoustica Associates, Inc. Low frequency resonant transducers. 3,111,595, 11–19–63, Cl. 310—8.2.

Jungersen, Thoger G., Jr.: *See*—
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Jurecka Edwin A. Pole shoe assembling and securing machine. 3,093,894, 6–18–63. Cl. 29—205.

Jurelt, John C., and Automated Building Components, Inc. Concrete press. 3,079,607, 3–5–63, Cl. 1—149.

Jurgeleit, Herbert F., to United States Rubber Co. Injection molding machine. 3,070,843, 1–1–63, Cl. 18—20.

Jurgeleit, Herbert F., to United States Rubber Co. Process of baling particulate material. 3,098,695, 7–23–63, Cl. 18—48.

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Jurkowski, Fred S. Covers for small organs or pianos. 3,072,006, 1–8–63, Cl. 84—183.

Jurs, Peter C., A. R. Champion, and B. A. Thule, to Shand and Jurs Co. Cover construction. 3,074,590, 1–22–63, Cl. 220—46.

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Just, George H. Wrist watch guard. 3,111,247, 11–19–63, Cl. 224—4.

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Just, Richard, to Specialty Engineering & Electronics Co. Radiation dosimeter reader. 3,093,734, 6–11–63, Cl. 250—71.5.

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Justice Co., The: *See*—
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Justice, Donald S. 3,088,882.

Justice, Donald S., to The Justice Co. Process of making elongated stressed concrete structures. 3,088,187, 5–7–63, Cl. 25—154.

Justice, Donald S., to The Justice Co. Solar still. 3,088,882, 5–7–63, Cl. 202—205.

Justis, Charles E. Mobile drafting apparatus with replaceable units. 3,106,783, 10–15–63, Cl. 33—80.

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Justus, Edgar J., to Beloit Iron Works. Automatic control and drive for mills. 3,074,300, 1–22–63, Cl. 80—54.

Justus, Edgar J., to Beloit Iron Works. Web coating and doctoring apparatus. 3,080,847, 3–12–63, Cl. 118—126.

Justus, Edgar J., to Beloit Iron Works. Roll structure. 3,082,683, 3–26–63, Cl. 100—93.

Justus, Edgar J., to Beloit Iron Works. Stock screen. 3,082,874, 3–26–63, Cl. 210—333.

Justus, Edgar J., to Beloit Iron Works. Web breaking control in drying apparatus. 3,085,347, 4–16–63, Cl. 34—49.

Justus, Edgar J., to Beloit Iron Works. Anti-deflection roll. 3,097,590, 7–16–63, Cl. 100—155.

Justus, Edgar J., to Beloit Iron Works. Anti-deflection roll. 3,097,591, 7–16–63, Cl. 100—155.

Justus, Edgar J., to Beloit Iron Works. Web forming method and apparatus. 3,102,066, 8–27–63, Cl. 162—209.

Justus, Edgar J., to Beloit Iron Works. Method and means for dispensing fibrous slurries. 3,103,463, 9–10–63, Cl. 162—341.

Justus, Edgar J., to Beloit Iron Works. Porous belt drying apparatus. 3,110,575, 11–12–63, Cl. 34—111.

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Kaashoek, John. Strip-positioning mechanism. 3,073,542, 1–15–63, Cl. 242—67.5.

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Kabak, Daniel M., to American Machine & Foundry Co. Elapsed time indicator. 3,090,914, 5–21–63, Cl. 324—68.

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Dietert, Harry W. and R. L., Graham, and Kabel. 3,090,091.

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Kabi, Ab: *See*—
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Käbisch, Gerhard, and S. Laufer, to FMC Corp. Process for the manufacture of hydrogen peroxide. 3,098,715, 7–23–63, Cl. 23—207.
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Kabushiki Kaisha Okuma Tekkosha: *See*—
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Kacsuta, George, to Jones & Laughlin Steel Corp. Apparatus for introducing fluids into pipes. 3,085,549, 4–16–63, Cl. 118—317.
Kadas, Charles F. Lubricating tool. 3,098,541, 7–23–63, Cl. 184—1.
Kadel, Karl, to Daimler-Benz Aktiengesellschaft. Casting installation with automatic lubrication system. 3,110,931, 11–19–63, Cl. 18—12.
Kaden, Milton, to Valen Mfg. Co. Transfer device. 3,075,651, 1–29–63, Cl. 214—1.
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Kaden, Willy, and A. Winkler, to Agfa Aktiengesellschaft. Automatic cameras. 3,086,433, 4–23–63, Cl. 95—10.
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Kadlec, Ladislav, to Avien, Inc. Indicator employing torsion bar support. 3,074,060, 1–15–63, Cl. 340—373.
Kadlec, Zdeněk, and M. Lebeda, to Meopta-Praha, narodni podnik. Arrestment arrangement for precision balance. 3,093,204, 6–11–63, Cl. 177—157.
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Kaenel, Reginald A., to Bell Telephone Laboratories, Inc. Bipolar bistable selective regenerative amplifier. 3,116,424, 12–31–63, Cl. 307—88.5.
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Kaess, Franz, E. Vogel, and R. Bauer, to Suddeutsche Kalkstickstoff-Werke A.G. Preparation of magnesium-containing silicon alloys. 3,094,412, 6–18–63, Cl. 75—135.
Kaestner, Paul T., and F. B. Maclaren, to J. W. Fecker, Inc. Differential motor drive for rate determining system. 3,104,348, 9–17–63, Cl. 318—13.
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Kägi, Jakob, to Sulzer Freres, S.A. Method and device for locating leaks in a heat exchanger. 3,087,327, 4–30–63, Cl. 73—40.7.
Kahkonen, Roy G., and R. A. Bartlett, to United States of America, Air Force. Omni-directional vibration and acceleration sensing transducer. 3,094,864, 6–25–63, Cl. 73—71.2.
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Kahler, Harry L., and J. K. Brown, to Betz Laboratories, Inc. Amine, alcohol and emulsifier corrosion inhibiting composition and process. 3,088,796, 5–7–63, Cl. 21—2.7.
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Borup, Herbert H. 3,111,206.
Dobbins, Grover L. 3,074,823.
Donaldson, Donald J. 3,112,994.
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Henry, Jack L. 3,100,338.
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Kaiser, Carl, and C. L. Zirkle, to Smith Kline & French Laboratories. 1-aralkylcyclopropylamines and carbamates. 3,081,336, 3–12–63, Cl. 260—471.
Kaiser, Carl, and C. L. Zirkle, to Smith Kline & French Laboratories. N-(2-phenylcyclopropyl)carbamates. 3,106,576, 10–8–63, Cl. 260—471.
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Kaiser, Conrad J., Jr., to Lockheed Aircraft Corp. Elimination of coincident ambiguity. 3,103,632, 9–10–63, Cl. 328—92.
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Baldwin, Richard H., Spiller, and Kalfadelis. 3,115,520.
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Kalfaian, Meguer V. Frequency-conversion time base generator for speech sound waves. 3,106,701, 10–8–63, Cl. 340—173.
Kalfaian, Meguer V. Symmetric saw tooth wave generator for frequency conversion systems. 3,114,055, 12–10–63, Cl. 307—88.5.
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Cecil, Lawrence K., and Kalinske. 3,084,120.
Kalinsky, Harry. Safety catch structure. 3,110,073, 11–12–63, Cl. 24—241.
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Kaller, Sigurd J., to B. G. Nilsson. Wire carrier for hand-operated electric tools. 3,082,983, 3–26–63, Cl. 248—51.
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Hoffmeister, Erich, and Rohm. 3,078,576.

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Ellis, Charles W., III, Bossler, and Bosco. 3,109,496.
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Kamborian, Albert, to International Shoe Machine Corp. Method of attaching insoles to lasts for lasting. 3,106,-729, 10-15-63, Cl. 12—142.

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Dunlap, Robert B. 3,097,288.
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Kamen, Emanuel G. Automatic towel machine. 3,083,481, 4-2-63, Cl. 38—2.

Kamentsky, Louis A., to Bell Telephone Laboratories, Inc. Spatially oriented data processing apparatus. 3,106,699, 10-8-63, Cl. 340—172.5.

Kamentsky, Louis A., to Bell Telephone Laboratories, Inc. Character recognition system. 3,112,468, 11-26-63, Cl. 340—146.3.

Kamera- und Kinowerke Dresden, VEB: *See*—
Böhm, Siegfried, Hahn, Hennig, Hintze, and Weise. 3,072,031.
Hahn, Erich. 3,072,032.
Hahn, Erich. 3,073,224.
Hahn, Werner, and Noack. 3,072,033.
Reiher, Wolfgang, and Hintze. 3,098,418.
Wiessner, Manfred. 3,072,034.
Wiessner, Manfred, Hennig, and Loose. 3,072,030.

Kamide, Harris P., to General Electric Co. Electronic cooking apparatus. 3,083,284, 3-26-63, Cl. 219—10.55.

Kamienski, Conrad W., and D. H. Lewis, to Lithium Corp. of America, Inc. Preparation of stable non-pyrophoric alkyllithium compositions. 3,087,896, 4-30-63, Cl. 252—192.

Kaminski, Gunther: *See*—
Wallbaum, Rudolf, Mangel, Frank, and Kaminski. 3,106,-161.

Kaminski, Richard K., to Bell Aerospace Corp. Acoustical vibration test device. 3,104,543, 9-24-63, Cl. 73—69.

Kaminsky, Otto A. Calculator. 3,081,559, 3-19-63, Cl. 35—29.

Kaminsky, Stanley J. Means for heat sealing synthetic materials. 3,111,447, 11-19-63, Cl. 156—497.

Kamlet, Edna Y.: *See*—
Kamlet, Jonas. 3,115,518.

Kamlet, Jonas, deceased, by E. Y. Kamlet, executrix, to E. I. du Pont de Nemours and Co. Production of cyclohexylideneaminooxyacetic acid, its esters, and its salts. 3,115,-518, 12-24-63, Cl. 260—468.

Kamm, Gilbert G., to American Can Co. Method for improving acid tin plate quality. 3,087,871, 4-30-63, Cl. 204—36.

Kammerer, Archer W., ⅝ to said A. W. Kammerer, ⅛ to J. K. Lamphere, and ⅛ to A. W. Kammerer, Jr. Retrievable drilling apparatus for bore holes. 3,074,494, 1-22-63, Cl. 175—260.

Kammerer, Archer W. Method and apparatus for conditioning bore holes. 3,083,765, 4-2-63, Cl. 166—21.

Kammerer, Archer W., ⅝ to said Kammerer, ⅛ to J. K. Lamphere, and ⅛ to A. W. Kammerer, Jr. Retrievable well bore apparatus. 3,097,706, 7-16-63, Cl. 175—258.

Kammerer, Archer W. Apparatus for drilling well bores with casing. 3,097,707, 7-16-63, Cl. 175—258.

Kammerer, Archer W. Rotary expansible drill bits. 3,101,-124, 8-20-63, Cl. 175—290.

Kammerer, Archer W. Liner hanger and liner milling tool. 3,114,416, 12-17-63, Cl. 166—55.7.

Kammerer, Archer W., A. W. Kammerer, Jr., and J. K. Lamphere; ⅝ to A. W. Kammerer, ⅛ to A. W. Kammerer, Jr., and ⅛ to J. K. Lamphere. Retrievable drilling apparatus. 3,097,708, 7-16-63, Cl. 175—260.

Kammerer, Archer W., Jr.: *See*—
Kammerer, Archer W. 3,074,494.
Kammerer, Archer W. 3,097,706.
Kammerer, Archer W., A. W. Kammerer, Jr., and Lamphere. 3,097,708.

Kammerer, Edwin G., to Storrac, Inc. Receptacle filling apparatus. 3,091,903, 6-4-63, Cl. 53—260.

Kamp, Earl A., and H. E. Moore. Electric control device for welding instruments. 3,111,618, 11-19-63, Cl. 323—60.

Kamp, Ewald A., to The Englander Co., Inc. Corner bed structure. 3,106,724, 10-15-63, Cl. 5—8.

Kamp, Ewald A., to The Englander Co., Inc. Convertible furniture structure. 3,113,325, 12-10-63, Cl. 5—17.

Kamp, Ewald A., T. G. Morrison, and A. H. Solarski, to United States of America, Air Force. Spin-cone stabilized projectile. 3,081,703, 3-19-63, Cl. 102—50.

Kamp, Ewald A., and C. A. Pink, to The Englander Co., Inc. Convertible bed. 3,113,324, 12-10-63, Cl. 5—3.

Kämper-Morton G.m.b.H.: *See*—
Bartholomaus, Werner. 3,092,034.

Kampert, Keith W., to The Frank G. Hough Co. Tractor tow bar construction. 3,101,854, 8-27-63, Cl. 214—86.

Kämpf, Erhard: *See*—
Kraft, Alfred, and Kämpf. 3,096,779.

Kampfe, Kenneth E., and J. W. Summers, to Paul A. Willsie Co. Tassel construction. 3,105,243, 10-1-63, Cl. 2—244.

Kampmeier, Frederick J., to The Ingersoll Milling Machine Co. Machine tool. 3,097,568, 7-16-63, Cl. 90—11.

Kamps, Reinhold G., and W. J. Bartholomaus, to Daimler-Benz Aktiengesellschaft. Hydraulic axial piston engine. 3,073,252, 1-15-63, Cl. 103—162.

Kamru Products Co.: *See*—
Hovekamp, John C., and Russell. 3,111,896.

Kamyr Aktiebolaget: *See*—
Richter, Johan C. F. C. 3,088,306.
Richter, Johan C. F. C., and O. 3,078,703.

Kanady, William E.: *See*—
Woods, Jay C., and Kanady. 3,107,742.

Kanaga, Amos R. Portion control holding bag or container. 3,077,410, 2-12-63, Cl. 99—171.

Kanai, Masakuni. Method for culturing pearls. 3,113,554, 12-10-63, Cl. 119—4.

Kanamuller, Franz X., to Sperry Rand Corp. Magnetic bead positioning system. 3,105,964, 10-1-63, Cl. 340—174.1.

Kanarek, Jesse J. Waterproof electrical connector adapter. 3,096,134, 7-2-63, Cl. 339—150.

Kanarek, Joseph S., to Ziff-Davis Publishing Co. Spraying mechanism. 3,074,650, 1-22-63, Cl. 239—215.

Kanazawa, Ken-Ichi: *See*—
Tatsuoka, Sueo, Kanazawa, Araki, Nakazawa, Miyake, Hitomi, Ueyanagi, Shibata, Hiraiwa, Tsuchiya, Iwasaki, and Yamaguchi. 3,112,341.

Kanda Tsushin Kogyo Kabushiki Kaisha: *See*—
Shoji, Saburo. 3,111,562.
Shoji, Saburo, and Hasegawa. 3,076,872.

Kander, Abdenoor: *See*—
Crosby, Ralph M., Kander, and Mortonson. 3,088,451.

Kane, Daniel E., to Fibreboard Paper Products Corp. Paperboard corrugating medium treatment. 3,103,459, 9-10-63, Cl. 156—342.

Kane, Ernest M. Mixing device. 3,104,867, 9-24-63, Cl. 259—30.

Kane, Frank A., Jr., ¼ to G. F. Oberrender, ¼ to E. R. Posnack, and ¼ to the estate of F. A. Kane. Device for controlling the admission of fuel into an internal combustion engine. 3,080,858, 3-12-63, Cl. 123—102.

Kane, Gale L., 50% to E. P. Huff. Planter. 3,099,355, 7-30-63, Cl. 211—75.

Kane, Hugh: *See*—
Dowdle, Walter F., and Kane. 3,110,874.

Kane, James R.: *See*—
Berthold, Cornelius E., and Kane. 3,112,169.

Kane, John J.: *See*—
Sahlmann, Louis H., and Kane. 3,095,713.

Kane, Maurice J. Piston ring groove cleaner. 3,112,506, 12-3-63, Cl. 15—104.01.

Kane, Neil G., to H. K. Porter Co. (Delaware). Flexible tape rule. 3,114,515, 12-17-63, Cl. 242—107.3.

Kane, Robert J. Means for introducing chlorine into water. 3,096,780, 7-9-63, Cl. 137—209.

Kanegafuchi Spinning Co., Ltd.: *See*—
Ozawa, Toshio, Yamashita, and Hayashi. 3,092,600.

Kaneko, Hisashi, to Nippon Electric Co. Ltd. Multiplex pulse code modulation system. 3,087,996, 4-30-63, Cl. 179—15.

Kaneko, Kazuo, C. Hisatsune, T. Kuwako, and T. Kobayashi, to Kobe Steel Works, Ltd., Hisatsune, C., and The Yokohama Rubber Co., Ltd. Method of die-casting screws by using screw coils. 3,112,540, 12-3-63, Cl. 22—203.

Kaneko, Saburo: *See*—
Iwaki, Masao, and Kaneko. 3,111,045.

Kaneko, Yuichiro, to Kabushiki Kaisha Tokai Rika Denki Seisakusho. Watertight dimmer switch. 3,093,715, 6-11-63, Cl. 200—67.

Kaneko, Yukio: *See*—
Hata, Junji, and Kaneko. 3,084,841.

Kanes, Murray, to The Bendix Corp. Pressure-responsive device. 3,083,576, 4-2-63, Cl. 73—409.

Kang, Bun P., to Anaconda Wire and Cable Co. Power cables. 3,077,514, 2-12-63, Cl. 174—120.

Kang, Bun P., to Anaconda Wire and Cable Co. High voltage power cable. 3,078,333, 2-19-63, Cl. 174—120.

Kanitz, Roy E.: *See*—
Kanzelberger, Claude G., and Kanitz. 3,101,064.

Kanitz, Roy E., to Hamilton Mfg. Co. Table and bench assembly. 3,112,954, 12-3-63, Cl. 297—159.

Kanno, Iwao: *See*—
Kato, Tsuneo, Ito, Kanno, and Takeo. 3,075,828.

Kano, Hideo, I. Kikkawa, Y. Makisumi, S. Takahashi, and M. Ogata, to Shionogi & Co., Ltd. Novel process for preparing 3-aminoisoxazole. 3,073,839, 1-15-63, Cl. 260—307.

Kano, Hideo, M. Ogata, R. Kido, and K. Yamamoto, to Shionogi & Co., Ltd. Benz[D]isoxazole derivatives. 3,073,-840, 1-15-63, Cl. 260—307.

Kanoh, Seizaburo: *See*—
Takamatsu, Hideji, Umemoto, Kanoh, and Sozaki. 3,110,-728.

Kansas University Endowment Assn., The: *See*—
Tiedemann, James B., and Wall. 3,091,307.

Kantar, Raymond G., to General Motors Corp. Gear assembly. 3,103,800, 9-17-63, Cl. 64—27.

Kantarian, Edward T.: *See*—
Staub, Donald F., and Kantarian. 3,080,813.

Kanter, Jerome J., to Crane Co. Flexible metal pipe. 3,086,-556, 4-23-63, Cl. 138—131.

Kanter, Jerome J., to Crane Co. Resinous coating of siliconized iron. 3,091,549, 5-28-63, Cl. 117—75.

Kanter, Lawrence E.: *See*—
Buchholz, Werner, and Kanter. 3,108,256.

Kanthal, Aktiebolaget: *See*—
Malm, Anders E. 3,092,681.

Kantor, Jack: *See*—
Shepard, Mark, Munch, and Kantor. 3,109,775.

Kantor, Martin L., and S. Tubis, to American Home Products Corp. Method for preparing phenothiazine derivatives. 3,100,772, 8-13-63, Cl. 260—243.

Kantorowiez, Gerard: *See*—
Henry-Bezy, Georges, Kantorowiez, and Palluel. 3,101,461.

Kantrowitz, Louise A., now by change of name L. A. Kay. Talking book. 3,086,297, 4-23-63, Cl. 35—35.

Kantz, William P. Toy. 3,082,573, 3-26-63, Cl. 46—118.

Kanzaki, Toshihiko: *See*—
Nakazawa, Koiti, Shibata, Higashide, Kanzaki, Yamamoto, Miyake, Hitomi, Horii, Yamaguchi, Araki, Tsuchiya, Oka, and Imai. 3,089,827.

Kanzelberger, Claude G., to Hamilton Mfg. Co. Folding table and bench constructions. 3,101,062, 8-20-63, Cl. 108—37.

Kanzelberger, Claude G., and R. E. Kanitz, to Hamilton Mfg. Co. Folding table construction. 3,101,064, 8-20-63, Cl. 108—113.

Kao, John Y. L., to F. D. Farnam Co. Process for preparing cork and fiber compositions. 3,082,145, 3-19-63, Cl. 162—158.

Kao, Paul W., and C. H. Brannen, to Cen-Vi-Ro Pipe Corp. Annular track member for a spinning cylindrical pipe core during interior lining operation. 3,098,764, 7-23-63, Cl. 118—55.

Kapanowski, Edward C. Safety handgrip. 3,084,938, 4-9-63, Cl. 273—72.

Kapany, Narinder S., and D. F. Capellaro, to American Optical Co. Apparatus for drawing fibers. 3,088,297, 5-7-63, Cl. 65—13.

Kapeker, Martin. Automatic refrigeration and defrost system. 3,071,935, 1-8-63, Cl. 62—155.

Kapell, Sidney M.: *See*—
Forsha, Herbert E., and Kapell. 3,099,784.

Kapff, Sixt F.: *See*—
Bulkley, William L., and Kapff. 3,086,993.

Kapff, Sixt F., to Standard Oil Co. Pour point instrument. 3,077,764, 2-19-63, Cl. 73—17.

Kapff, Sixt F., to Standard Oil Co. Viscosity measuring system. 3,086,386, 4-23-63, Cl. 73—23.

Kapff, Sixt F., and D. D. Lo Giurato, to Standard Oil Co. Oxygen analyzer-standardizer. 3,070,988, 1-1-63, Cl. 73—1.

Kapilow, Marvin. Motion picture viewer. 3,074,311, 1-22-63, Cl. 88—17.

Kapilow, Marvin, to Kamar Products Inc. Viewer attachment for motion picture projectors. 3,094,037, 6-18-63, Cl. 88—24.

Kapitula, John. Breech block. 3,071,044, 1-1-63, Cl. 89—17.

Kaplan, Allan L.: *See*—
Starr, Louis, Kaplan, Greenberg, and Cox. 3,100,986.

Kaplan, Claude, to Electricite de France (Service National). Device for the handling of aligned objects. 3,081,124, 3-12-63, Cl. 294—87.

Kaplan, David. Body support garment. 3,115,879, 12-31-63, Cl. 128—641.

Kaplan, David H., to Convertawings, Inc. Differential gear transmission mechanism. 3,076,354, 2-5-63, Cl. 74—675.

Kaplan, Frances: *See*—
Kaplan, Yale, and Jaquiery. 3,115,072.

Kaplan, Karl. Burglar alarm for vending machines and the like. 3,110,892, 11-12-63, Cl. 340—274.

Kaplan, Leo I., to Poby Industries, Inc. Clamp having stamped hook bolt. 3,079,660, 3-5-63, Cl. 24—279.

Kaplan, Lloyd A.: *See*—
Rice, Rip G., Geib, Kaplan, and Hooker. 3,108,989.

Kaplan, Louis: *See*—
Kaplan, Murray and L. 3,087,415.

Kaplan, Louis G., to Cullen-Friestedt Co. Leg assembly for coil lifters. 3,086,808, 4-23-63, Cl. 294—67.

Kaplan, Louis G., to Cullen-Friestedt Co. Control mechanism for electrically operated lifters. 3,097,875, 7-16-63, Cl. 294—67.

Kaplan, Louis G., and D. J. Moro, to Cullen-Friestedt Co. Lifter mechanism with horizontally extensible jaw-supporting arms. 3,076,673, 2-5-63, Cl. 294—85.

Kaplan, Martin, ½ to L. S. Singer and ½ to B. R. Lewis. Room spray deodorizer. 3,093,835, 6-18-63, Cl. 4—228.

Kaplan, Morris: *See*—
Brown, Harold, Tuft, and Kaplan. 3,107,372.

Kaplan, Murray and L. Automatic coffee brewer. 3,087,415, 4-30-63, Cl. 99—281.

Kaplan, Murray A.: *See*—
Buckwalter, Frank H., Kaplan, and Granatek. 3,074,849.

Kaplan, Murray A., and F. H. Buckwalter, to Bristol-Meyers Co. Tetracycline formulations. 3,105,008, 9-24-63, Cl. 167—65.

Kaplan, Sam H., to The Rauland Corp. Color reproducing cathode-ray tube. 3,109,117, 10-29-63, Cl. 313—92.

Kaplan, Sam H. Color image reproducer. 3,114,065, 12-10-63, Cl. 313—92.

Kaplan, Seymour. Carrier for boxed tissues. 3,089,597, 5-14-63, Cl. 211—88.

Kaplan, Seymour. Extrusion cross-head for plastic material. 3,111,713, 11-26-63, Cl. 18—14.

Kaplan, Yale, deceased, by F. Kaplan, executrix, and W. Jaquiery, to Monsanto Chemical Co. Bag forming and sealing machine. 3,115,072, 12-24-63, Cl. 93—8.

Kaplany, Narinder S., to Optics Technology, Inc. Photorefractometer. 3,103,546, 9-10-63, Cl. 88—14.

Kappel, Henry C., to Uni Valve Corp. Dispenser valve. 3,114,483, 12–17–63, Cl. 222—394.

Kappeler, Heini: *See*—
Schwyzer, Robert, and Kappeler. 3,093,627.

Kappelmeyer, Rudolf, to Siemens and Halske Aktiengesellschaft. Apparatus for drawing semiconductor bodies from a melt. 3,078,151, 2–19–63, Cl. 23—273.

Kappen, John W. Lifting unit. 3,096,895, 7–9–63, Cl. 214—674.

Kappen, John W. Material handling mechanism. 3,104,910, 9–24–63, Cl. 296—51.

Kapreilan, Edward K. Electrophotographic printers. 3,100,426, 8–13–63, Cl. 95—1.7.

Kapreilan, Edward K. Offset electrophotography. 3,115,814, 12–31–63, Cl. 95—1.7.

Kapur, Kishen N., to International Business Machines Corp. Recording and printing apparatus. 3,106,881, 10–15–63, Cl. 95—4.5.

Karabinos, Joseph V., and R. B. Colaric, to Olin Mathieson Chemical Corp. Preparation of pentaerythritol polyglycols. 3,082,257, 3–19–63, Cl. 260—615.

Karabinos, Joseph V., and E. J. Quinn, to Olin Mathieson Chemical Corp. Inhibited alkaline detergent solutions. 3,105,822, 10–1–63, Cl. 252—156.

Karabinos, Joseph V., and A. T. Ballun, to Olin Mathieson Chemical Corp. Chlorinated trisodium phosphate. 3,110,677, 11–12–63, Cl. 252—99.

Karacsonyi, Paul: *See*—
Ulmer, Hans, Karacsonyi, Schimmelschmidt, and Baier. 3,100,673.

Karalus, John J. Coffee can opener. 3,081,903, 3–19–63, Cl. 220—52.

Karalus, Lew W. Adhesive tape with permanent magnets therein. 3,078,183, 2–19–63, Cl. 117—122.

Karapinka, George L., and W. L. Carrick, to Union Carbide Corp. Aluminum free alkyl titanium trihalides and process for producing same. 3,072,692, 1–8–63, Cl. 260—429.5.

Karasch, Morris S., and W. Nudenberg, to Shell Oil Co. Production of halo-substituted carbonylic compounds. 3,090,808, 5–21–63, Cl. 260—539.

Karasiuski, Edward S. Steering means for space vehicles, missiles and high altitude flying craft. 3,096,049, 7–2–..., Cl. 244—52.

Karcher, John C., and C. L. Canfield, to Concho Petroleum Co. Method of forming a granular ammonium humate fertilizer. 3,111,404, 11–19–63, Cl. 71—24.

Kardash, Walter A., and M. F. Nathan, to The M. W. Kellogg Co. Desulfurization process. 3,077,448, 2–12–63, Cl. 208—210.

Kardorff, Leon, and C. M. Gold, to Yardney International Corp. Fluid-discharge device. 3,075,035, 1–22–63, Cl. 136—90.

Kardos, Otto: *See*—
Foulke, Donald G., Stoddard, Kardos, and Kleiner. 3,111,466.

Karesek, Frank J.: *See*—
Bean, Charles H., and Karesek. 3,075,637.

Kargl, Godfried, to Schnellpressenfabrik Koenig & Bauer Aktiengesellschaft. Device for producing halftone patterns. 3,109,059, 10–29–63, Cl. 178—6.6.

Kariba, Edwin A.: *See*—
Johnson, Arnold E. W., Swift, and Kariba. 3,110,152.

Karig, Horace E., to United States of America, Navy. Closed cycle torpedo power plant. 3,109,401, 11–5–63, Cl. 114—20.

Kariss, John, and H. L. Newmark, to Hoffmann-La Roche Inc. Oleaginous systems. 3,116,203, 12–31–63, Cl. 167—65.

Karkoska, Frank D. Method and apparatus for transversely slitting sheet material. 3,071,175, 1–1–63, Cl. 153—2.

Karl, Clarence O., to United Shoe Machinery Corp. Fiber containers. 3,106,327, 10–8–63, Cl. 229—4.5.

Karl, Clarence O., to United Shoe Machinery Corp. Burst open containers. 3,109,576, 11–5–63, Cl. 229—51.

Karlan, Sidney I.: *See*—
Cohen, Murray S., and Karlan. 3,106,446.

Karlby, Henning: *See*—
Hague, Robert Z., Karlby, and Newbury. 3,093,307.

Karlby, Henning, and W. P. Caywood, Jr. High temperature electrical machines. 3,090,878, 5–21–63, Cl. 310—166.

Karlen, Harvey R.: *See*—
Wagner, Herbert E., Karlen, and Elsendrath. 3,075,453.

Karlen, Harvey R., and D. C. Elsendrath, to Cory Corp. Hot water dispenser. 3,082,915, 3–26–63, Cl. 222—146.

Karlgaard, Wayne A., to General Motors Corp. Shock absorber with sleeved piston. 3,088,555, 5–7–63, Cl. 188—88.

Karlgaard, Wayne A., to General Motors Corp. Method of producing a shock absorber with sleeved piston. 3,093,891, 6–18–63, Cl. 29—156.5.

Karlgaard, Wayne A., to General Motors Corp. Shock absorber piston valving. 3,098,546, 7–23–63, Cl. 188—88.

Karlin, Irving P. Integral cable clamp construction for electrical connection box. 3,112,938, 12–3–63, Cl. 285—128.

Karlinski, Robert M.: *See*—
Romesberg, Floyd E., and Karlinski. 3,108,984.

Karll, Robert E.: *See*—
Klass, Donald L., Watson, and Karll. 3,089,851.
Sabol, Albert R., Blaha, and Karll. 3,086,941.
Sabol, Albert R., Cook, and Karll. 3,073,780.
Sabol, Albert R., and Karll. 3,072,570.
Tichelaar, George R., and Karll. 3,086,939.

Karlson, John H.: *See*—
Hansen, Hans R. A., and Karlson. 3,093,779.

Karlsson, Elof K., to International Harvester Co. Husking roll construction. 3,101,720, 8–27–63, Cl. 130—5.

Karlsson, Elof K., and E. L. Stevens, to International Harvester Co. Corn picker. 3,101,579, 8–27–63, Cl. 56—18.

Karlsson, Karl-Erik, to AB Svenska Jarnvagsverkstaderna. Hopper car pivoted closure latching mechanism. 3,109,389, 11–5–63, Cl. 105—253.

Karlstads Mekaniska Werkstad, Aktiebolaget: *See*—
Wagner, Rudolf E. 3,112,080.

Karlstrom, Karl A. S., and K. G. Ostberg, deceased (I. J. C. Allard and E. A. M. Ostberg, heirs of said K. G. Ostberg). Holding device for vibrators. 3,081,980, 3–19–63, Cl. 259—72.

Karlström, Karl A. S., and K. G. Östberg, deceased (I. J. C. Allard, and E. A. M. Östberg, sole heirs), to said K. A. S. Karlström. Mounting device for vibrating tables. 3,104,868, 9–24–63, Cl. 259—72.

Karlyn, William M. Stenciling apparatus. 3,109,365, 11–5–63, Cl. 101—124.

Karmat, Heinz: *See*—
Von Grotthuss, Johann, Jaeger, and Karmat. 3,090,672.

Karmel, Israel. Chair unit for children. 3,101,970, 8–27–63, Cl. 297—119.

Karnath, Jack D.: *See*—
Crain, Roy L., and Karnath. 3,103,915.

Karnaugh, Maurice, to Bell Telephone Laboratories, Inc. Pulse repeating system. 3,093,815, 6–11–63, Cl. 340—173.

Karnaugh, Maurice to Bell Telephone Laboratories, Inc. Logic circuit employing magnetic cores. 3,094,611, 6–18–63, Cl. 235—175.

Karnie, Anthony J., to United States of America, Atomic Energy Commission. Covering a core by extrusion. 3,098,022, 7–16–63, Cl. 204—154.2.

Karnow, Paul, and A. Schwartz, to United States of America, Navy. Omnidirectional manipulator. 3,087,630, 4–30–63, Cl. 214—1.

Karns, James A., to Fawick Flexi-Grip Co. Weighted golf club and method of weighting same. 3,075,768, 1–29–63, Cl. 273—81.

Karns, James A., to Fawick Flexi-Grip Co. Method for making a hand grip. 3,090,999, 5–28–63, Cl. 18—59.

Karon, Gerald: *See*—
Reifel, Harry, and Karon. 3,084,235.

Karp, Albert E.: *See*—
Kofsky, Melvin H., and Karp. 3,076,433.

Karp, Edward C., to Sanitary Seale Co. Indicating device index. 3,106,186, 10–8–63, Cl. 116—129.

Karpeles, Mark A., to International Telephone and Telegraph Corp. Instrument landing system. 3,115,634, 12–24–63, Cl. 343—108.

Karplus, Walter J., to Electronic Measurement Systems, Inc. Television system. 3,093,706, 6–11–63, Cl. 178—5.6.

Karplus, Walter J. Transient field simulator. 3,093,731, 6–11–63, Cl. 235—185.

Karpovich, John, to The Dow Chemical Co. Method of production of multi-celled extruded foamed polystyrene, polyethylene and polypropylene. 3,072,584, 1–8–63, Cl. 260—2.5.

Karpovich, John, to The Dow Chemical Co. Forming of metals. 3,090,113, 5–21–63, Cl. 29—421.

Karpovich, John, and R. J. Dufresne, to The Dow Chemical Co. Foamed plastic sound absorbing material. 3,106,983, 10–15–63, Cl. 181—33.

Karr, Gerald W., to Beloit Eastern Corp. Pneumatic core shaft. 3,104,074, 9–17–63, Cl. 242—72.

Karr, Gerald W., to Beloit Eastern Corp. Compound bowed "D" bar spreader. 3,106,365, 10–8–63, Cl. 242—76.

Karr Ake, Wendell: *See*—
Austin, James M., Garvin, and Karr-Ake. 3,073,295.

Karrash, Anna M.: *See*—
Russell, Donald H., and Karrash. 3,108,092.

Karrer, Paul: *See*—
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Kartinos, Nicholas J., to Baxter Laboratories, Inc. α-dimethylaminopropyl isothiourea and acid addition salts thereof. 3,116,327, 12–31–63, Cl. 260—564.

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Karwat, Ernst, to Gesellschaft fur Linde's Elsmaschinen Aktiengesellschaft. Process for removing solid carbon dioxide from air during its rectification. 3,109,726, 11–5–63, Cl. 62—13.

Karwat, Ernst, to Gesellschaft fur Linde's Elsmaschinen Aktiengesellschaft. Process and apparatus for the prevention of fires in oxygen high-pressure compressors. 3,115,296, 12–24–63, Cl. 230—13.

Kasbaum, Felix E., to H. J. Mayer & Sons Co., Inc. Method of grinding spices. 3,096,180, 7–2–63, Cl. 99—140.

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Kashihara, Manabu. Infinitely variable speed change gear. 3,108,496, 10–29–63, Cl. 74—796.

Kashihara, Manabu. Infinitely variable speed change gear. 3,108,497, 10–29–63, Cl. 74—796.

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Kaspaul, Erika E., to Minnesota Mining and Mfg. Co. Magnetic transducer device. 3,098,126, 7–16–63, Cl. 179—100.2.

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Kass, Theodore C. and J. R. 3,089,619.

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Darrow, Wendell L., and Kass. 3,076,248.

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Kasten, Walter, to The Bendix Corp. Fuel filtering and heater combination. 3,097,165, 7–9–63, Cl. 210—133.

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Katakura, Sampei, K. Tachiki, and M. Sata. Refining material for iron and steel and method of producing same. 3,107,995, 10–22–63, Cl. 75—57.

Katan, Reid L., to Anaconda American Brass Co. Extruded cross sections for architectural screens. 3,103,264, 9–10–63, Cl. 189—82.

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Kate, Willard A., to The W. A. Kates Co. Adjustable orifice for use in differential pressure apparatus. 3,100,620, 8–13–63, Cl. 251—208.

Kateley, Francis W., to Rockwell-Standard Corp. Service and emergency brake. 3,112,959, 12–3–63, Cl. 303—6.

Kater, Karl-Heinz, to Theodor Wuppermann, G.m.b.H. Overload protection means between connected rotary members. 3,111,823, 11–26–63, Cl. 64—28.

Kates, Phillip: *See*—
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Kates, Richard. Supporting leg structure for barbecue bowls and the like. 3,111,337, 11–19–63, Cl. 287—20.

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Kathrein, Henry R., to Grain Processing Corp. Treatment and use of enzymes for the hydrolysis of starch. 3,108,928, 10–29–63, Cl. 195—31.

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Kato, Tsuneo, M. Ito, I. Kanno, and K. Takeo, to Asahi Kasei Kogyo Kabushiki Kaisha. Treatment of sea water. 3,075,828, 1–29–63, Cl. 23—201.

Katogir, Michael. Muffler. 3,087,579, 4–30–63, Cl. 181—57.

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Katterle, Rudolph J.: *See*—
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Katz, Alex J., to Super Sagless Spring Corp. Reclining beds. 3,105,247, 10–1–63, Cl. 5—67.

Katz, Alexander, to EFKA Plastic Corp. Tablecloths and the like and method for making. 3,105,322, 10–1–63, Cl. 45—68.3.

Katz, Bernard: *See*—
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Katz, Jacob. Fatty derivatives of aminoalkyl and hydroxyalkyl heterocyclic amine bases as asphalt additives. 3,114,649, 12–17–63, Cl. 106—273.

Katz, Joseph M., to Le Page's, Inc. Tape dispenser. 3,086,309, 4–23–63, Cl. 40—309.

Katz, Leon, to General Aniline & Film Corp. Acid milling of phthalocyanine pigments. 3,080,375, 3–5–63, Cl. 260—314.5.

Katz, Leonhard, to Astro Dynamics, Inc. Vapor lamp and radiator. 3,087,083, 4–23–63, Cl. 313—44.

Katz, Leonhard. Direct-current motor and the like. 3,098,958, 7–23–63, Cl. 318—138.

Katz, Leonhard, to Astro Dynamics, Inc. Heat sink. 3,101,114, 8–20–63, Cl. 257—263.

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Katzman, Lawrence. Vaporizer and heating chamber. 3,098,926, 7–23–63, Cl. 219—40.

Katzmann, Fred L., to Fairchild Camera and Instrument Corp. Read-out injection and polarity inversion. 3,108,204, 10–22–63, Cl. 315—23.

Katzschmann, Ewald, to Chemische Werke Witten, Gesellschaft mit beschrankter Haftung. Process for the production of p-mono-chloromethyl benzoic acid. 3,109,799, 11–5–63, Cl. 204—158.

Kaudewitz, Fritz, to Behringwerke Aktiengesellschaft. Process for the production of mutants of vegetable bacteria and spores of lower fungi. 3,085,946, 4–16–63, Cl. 195—78.

Kauer, George C., Jr., to Jelrus Technical Products Corp. Valved apparatus of the fluid-pressure responsive type. 3,100,504, 8–13–63. (Cl. 137—494.

Kauer, James C., to E. I. du Pont de Nemours and Co. Derivatives of bicyclo [2.2.2.] oct-2-ene-1,4-dicarboxylic acid and a process for their formation. 3,071,597, 1–1–63, Cl. 260—346.3.

Kauer, James C., to E. I. du Pont de Nemours and Co. Bicyclo-[2.2.2]oct-2-ene-1,4-dicarboxylic acid, its preparation and functional derivatives. 3,081,334, 3–12–63, Cl. 260—468.

Kauer, John. Anti-skid attachment for a vehicle wheel. 3,112,138, 11–26–63, Cl. 301—47.

Kauer, Kenneth C., to The Dow Chemical Co. Symmetrical dialkyl diamidodithiopyrophosphates. 3,095,438, 6–25–63, Cl. 260—461.

Kauer, Walter. Sheet applying apparatus. 3,097,986, 7–16–63, Cl. 156—497.

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Käufer, Helmut, to Agfa A.G. Process and apparatus for the separation of solid particles from developing solutions for exposed films and the like. 3,099,623, 7–30–63, Cl. 210—167.

Kauffeld, Don B., to Folls Packaging Corp. Filling and sealing method. 3,077,709, 2–19–63, Cl. 53—37.

Kauffeld, Don B., to Folls Packaging Corp. Reclosure lock. 3,078,031, 2–19–63, Cl. 229—51.

Kauffeld, Don B., to Folls Packaging Corp. Cartons. 3,085,734, 4–16–63, Cl. 229—23.

Kauffeld, Don B., to Folls Packaging Corp. Box structure. 3,107,839, 10–22–63, Cl. 229—17.

Kauffeld, Theodore J., and A. D. Stern, to Devenco Inc. Signalling apparatus. 3,109,067, 10–29–63, Cl. 179—2.

Kauffman, Glenn L., and J. W. Williams. Baton ball games. 3,083,018, 3–26–63, Cl. 273—95.

Kauffman, Ivan L., and D. L. Annett, to Ex-Cell O Corp. Method and apparatus for side seaming carton blanks. 3,085,480, 4–16–63, Cl. 93—52.

Kauffman, Robert S., R. E. Baarson, and H. B. Treweek, to Armour and Co. Ore flotation collector and ore flotation process. 3,114,704, 12–17–63, Cl. 209—166.

Kauffman, Samuel H., R. L. Detwiler, and M. B. Moore, to United States of America, Navy. Recovery pack for air dropped test weapons. 3,088,136, 5–7–63, Cl. 9—9.

Kauffmann, John A., to International Business Machines Corp. Magnetic partial switching circuits. 3,090,036, 5–14–63, Cl. 340—174.

Kauffmann, John A., and R. M. Tomasulo, to International Business Machines Corp. Binary trigger. 3,104,325, 9–17–63, Cl. 307—88.

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Kauffmann, William M., M. C. Metzger, and D. E. Schultz, to Worthington Corp. Control system for multi-fuel engine. 3,114,358, 12–17–63, Cl. 123—120.

Kaufman, Alvin B. Temperature compensated transistor sensing circuit. 3,106,645, 10–8–63, Cl. 307—88.5.

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Kaufman, Bruce A. Voltage limit comparator. 3,072,895, 1–8–63, Cl. 340—248.

Kaufman, Cassel R. Meat compressing machine for rolling roasts. 3,082,682, 3–26–63, Cl. 100—3.

Kaufman, Daniel, and B. H. McMullen, to National Lead Co. 3 TiCl$_3$.AlCl$_3$ catalyst composition. 3,109,822, 11–5–63, Cl. 252—429.

Kaufman, Edward, and G. Seiff. Antenna bracket for portable or mobile radio communication. 3,071,338, 1–1–63, Cl. 248—43.

Kaufman, George, to Carter Products, Inc. Deodorant device. 3,111,703, 11–26–63, Cl. 15—572.

Kaufman, Harold B., Jr.: *See*—
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Kaufman, Herbert A., Jr., and R. E. Caplan, to Midland Industrial Finishes Co. Coating compositions. 3,114,725, 12–17–63, Cl. 260—32.8.

Kaufman, Herman S., to Minnesota Mining and Mfg. Co. Extrudable blend of fluorinated polymer compositions and wire coated therewith. 3,105,827, 10–1–63, Cl. 260—45.5.

Kaufman, Irving. Case for bowling equipment or similar device. 3,080,951, 3–12–63, Cl. 190—48.

Kaufman, Jack, A. R. Lund, and M. W. Schwartz, to Markstone Mfg. Co. Recessed lighting fixtures. 3,099,404, 7–30–63, Cl. 240—78.

Kaufman, Jack, and A. Lund, to Markstone Mfg. Co. Recessed lighting fixture support with attached junction box. 3,100,579, 8–13–63, Cl. 220—3.94.

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Kaufman, John J., and P. R. Templin, to Gulf Research & Development Co. Treating soils to reduce erosion. 3,094,809, 6–25–63, Cl. 47—9.

Kaufman, L. S., & Sons Inc.: *See*—
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Kaufman, Lawrence, to Sperry Rand Corp. Flight control system. 3,073,554, 1–15–63, Cl. 244—77.

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Kaufman, Morris, and C. F. Luders, to Ekco Products Co. Rack unit. 3,112,034, 11–26–63, Cl. 211—148.

Kaufman, Robert I. Method of milling corn to simulate rice. 3,088,827, 5–7–63, Cl. 99—80.

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Kaufman, Samuel J. Golf swing groover and indicator. 3,075,773, 1–29–63, Cl. 273—186.

Kaufmann, Albert R., to Nuclear Metals, Inc. Method and apparatus for making powder. 3,099,041, 7–30–63, Cl. 18—2.6.

Kaufmann, Alfred. Hose guide assembly. 3,081,978, 3–19–63, Cl. 254—190.

Kaufmann, Dale W., to International Salt Co. Method and means for inhibiting freezing of wetted granular materials. 3,090,756, 5–21–63, Cl. 252—71.

Kaufmann, Hans P., to Deutsche Advance Produktion G.m.b.H. Preparation of polyisoindolenines. 3,080,376, 3–5–63, Cl. 260—314.5.

Kaufmann, John J., Jr. Textile bobbin. 3,076,620, 2–5–63, Cl. 242—118.3.

Kaufmann, Karl: *See*—
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Kaufmann, Michael, to Bolkow-Entwicklungen Kommanditgesellschaft. Rotary pump. 3,112,708, 12–3–63, Cl. 103—88.

Kaufmann, Waldemar, and W. Huh, to Siemens-Planiawerke Aktiengesellschaft fur Kohlefabrikate. Screw nipple joint for carbon electrodes. 3,088,762, 5–7–63, Cl. 287—127.

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Kaufmann, Wilfried, and K. Bauer, to Farbenfabriken Bayer Aktiengesellschaft. Process for the enzymatic acylation of 6-amino-penicillanic acid. 3,079,307, 2–26–63, Cl. 195—36.

Kaufmann, Wilfried, and K. Bauer, to Farbenfabriken Bayer Aktiengesellschaft. Process for the production of penicillin-splitting enzyme preparations. 3,116,218, 12–31–63, Cl. 195—36.

Kaufmann, William F., Jr., and H. S. Lipinski, to United States of America, Army. Ignition system for propellants. 3,084,601, 4–9–63, Cl. 89—1.7.

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Kaup, Otmar, to Gesellscnaft fur Linde's Eismaschinen Aktiengesellschaft. Piston construction. 3,095,221, 6–25–63, Cl. 287—21.

Kaup, Otmar, and F. Forster, to Gesellschaft fur Linde's Eisenmaschinen Aktiengesellschaft. Improved hydraulic transmission of energy. 3,107,491, 10–22–63, Cl. 60—53.

Kaupp, Bette K., to Maidenform, Inc. Girdle. 3,094,992, 6–25–63, Cl. 128—548.

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Kautz, Harry P., to Mine and Smelter Supply Co. Toggle assembly. 3,075,712, 1–29–63, Cl. 241—285.

Kautz, Harry P., to Mine and Smelter Supply Co. Crusher jaws. 3,075,713, 1–29–63, Cl. 241—291.

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Stuart, Frank A., Stewart, Lowe, and Kavanagh. 3,083,188.

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Kavanagh, Robert: *See*—
Kavanagh, James J., R. and W. G. 3,089,258.

Kavanagh, Thomas J. Christmas nativity stable with a Christmas tree stand. 3,116,096, 12–31–63, Cl. 312—204.

Kavanagh, William G.: *See*—
Kavanagh, James J., R. and W. G. 3,089,258.

Kavanaugh, Richard J.: *See*—
Haydon, Arthur W., Kavanaugh, and Reder. 3,113,231.
King, Phillip W., Kavanaugh, and Knecht. 3,088,270.

Kawabata, James S. Automatic window closer. 3,104,870, 9–24–63, Cl. 268—123.

Kawaguchi, Shinichi, to Riccar Sewing Machine Co., Ltd. Stitch pattern control means for zigzag sewing machine. 3,085,526, 4–16–63, Cl. 112—158.

Kawahara, Fred K.: *See*—
Mickel, Blanchard L., and Kawahara. 3,086,355.

Kawahara, Fred K., to Standard Oil Co. Motor fuel. 3,098,470, 7–23–63, Cl. 123—1.

Kawai, Atsushi: *See*—
Owashi, Toshiro, Onoe, Ito, and Kawai. 3,108,849.

Kawai, Kigen: *See*—
Fukushima, Osamu, Kurashige, and Kawai. 3,101,991.

Kawai, Kigen, and K. Tanabe, ¾ to Kurashiki Rayon Co., Ltd., and ¼ to Air Reduction Co., Inc. Heat treating polyvinyl alcohol fibers in a molten metal bath. 3,079,640, 3–5–63, Cl. 18—48.

Kawamura, Masanao: *See*—
Kubo, Tsunesuke, and Kawamura. 3,077,083.

Kawamura, Saburo: *See*—
Tanimura, Katsuo, Kawamura, Suzumura, Sakakibara, and Nagano. 3,080,249.

Kawamura, Yurio, T. Tamuki, A. Nagata, S. Terishima, T. Matsumoto, S. Onishi, S. Konishi, K. Yoshimura, H. Yamamoto, and S. Ikawa, to Ajinomoto Kabushiki Kaisha. Process for refining of vegetable protein. 3,099,649, 7–30–63, Cl. 260—123.5.

Kawano, Hatsuo. Heat exchanger elements. 3,081,825, 3–19–63, Cl. 165—182.

Kawasaki, Chikataro, I. Utsumi, T. Fujita, and H. Kobayashi, to Tanabe Seiyaku Co., Ltd. O-benzoylthiamine disulfide. 3,109,000, 10–29–63, Cl. 260—256.5.

Kawecki, Eugene, to Sturdevant Mfg. Corp. Cap and gauge structure for crankcase fill opening. 3,103,816, 9–17–63, Cl. 73—323.

Kawecki, Eugene, and D. G. Anderson, to Clinton Engines Corp. Starter. 3,075,510, 1–29–63, Cl. 123—179.

Kawneer Co.: *See*—
Hubbard, S. Eugene. 3,081,849.
Hubbard, S. Eugene. 3,081,850.
Hubbard, S. Eugene. 3,081,851.

Kay, Edward L.: *See*—
Knowles, Edwin C., and Kay. 3,102,131.

Kay, Edward L., and E. C. Knowles, to Texaco Inc. Amine salts of boron acids and esters. 3,076,835, 2–5–63, Cl. 260—462.

Kay, Edward L., and E. C. Knowles, to Texaco Inc. Adducts of alkarylborates with trialkylphosphites or alkyl sulforide. 3,082,169, 3–19–63, Cl. 252—46.3.

Kay, Edward L., and E. C. Knowles, to Texaco Inc. Amine salts of boron acids. 3,100,221, 8–6–63, Cl. 260—462.

Kay, James A., to Rose Brothers (Gainsborough) Ltd. Feeding and opening of collapsed cartons. 3,093,036, 6–11–63. Cl. 93—53.

Kay, James A., and C. E. Bishop, to Celanese Corp. of America. Spinneret. 3,092,873, 6–11–63, Cl. 18—8.

Kay, John: *See*—
Fancher, Ray C., Kay, and Lacoursiere. 3,078,978.
Graham, James T., and Kay. 3,071,240.
Lane, Clayton A., and Kay. 3,071,031.

Kay, John G., and A. L. Osinski, to F. Jos. Lamb Co. Escapement assembly for workpieces. 3,094,242, 6–18–63, Cl. 221—241.

Kay, Louis A.: *See*—
Kantrowitz, Louise A. 3,086,297.

Kay Mfg. Corp.: *See*—
Krakauer, Edwin G. 3,096,086.
Riebel, William K. and F. J. 3,078,087.
Simon, George. 3,099,843.

Kay, Nicholas L.: *See*—
Stiles, Vernon E., and Kay. 3,071,536.

Kay, Norman D., to Radio Corp. of America. Iso-contour circuits. 3,085,244, 4–9–63, Cl. 343—11.

Kay, Solomon E.: *See*—
Barnes, Philip C., and Kay. 3,084,063.

Kay, Ronald W.: *See*—
McKay, Arthur F., Garmaise, and Kay. 3,105,853.

Kayan, Carl F., to Columbia University, Dept. of Mechanical Engineering, Engineering Center. Method for calculating performance of refrigeration apparatus. 3,082,951, 3–26–63, Cl. 235—184.

Kaydon Engineering Corp., The: *See*—
Anderson, Howard W. 3,111,350.

Kaye, Irving A.: *See*—
Rosen, Milton J., and Kaye. 3,092,618.

Kaye, Joseph & Co., Inc.: *See*—
Feldman, Charles L., Fields, and Bergin. 3,091,940.

Kaye, Michael C., to Freightliner Corp. Mattress. 3,100,305, 8–13–63, Cl. 5—345.

Kaye, Oliver, to Saunders Valve Co. Ltd. Method of making a diaphragm valve. 3,077,029, 2–12–63, Cl. 29—157.1.

Kaye, Philip: *See*—
Acton, Frank J., and Kaye. 3,102,627.

Kaye, Robert K.: *See*—
Berch, William H., Clement, Kaye, and Newitt. 3,102,166.
Confeld, James D., and Kaye. 3,079,590.

Kaye, Theodore J., Jr., and R. H. Vogt, to The Rauland Corp. Four zone transistor having integral diode formed on base remote from transistor. 3,092,733, 6–4–63, Cl. 307—88.5.

Kayko, Charles J., and W. B. Clevenger, to McGraw-Edison Co. Electrostatic filter apparatus. 3,105,750, 10–1–63, Cl. 55—103.

Kayler, Lloyd M. Indexing valves adaptable for use in lawn sprinkling systems and other liquid distribution systems. 3,096,787, 7–9–63, Cl. 137—624.13.

Kayler, Roy A. Syringe. 3,114,370, 12–17–63, Cl. 128—218.

Kaylin, Rubin R.: *See*—
Liss, Saul, and Kaylin. 3,098,969.

Kayser, Allan J. Pump for imparting movement to dry pulverulent material. 3,099,496, 7–30–63, Cl. 320—50.

Kayser, Daniel, and J. Laulhac, to Claude Paz et Visseaux. Device for marking with light a high voltage overhead line. 3,114,893, 12–17–63, Cl. 340—28.

Kayser, John F.: *See*—
Nicholson, John W., and Kayser. 3,082,862.

Kayser, Phillip C. Article rotating and advancing mechanism for cutting or grinding machine. 3,071,896, 1–8–63, Cl. 51—89.

Kayser-Roth Corp.: *See*—
Thurston, Paul L. 3,089,321.

Kazimier, Julian C., to Amos-Thompson Corp. Bottled beverage case. 3,106,308, 10–8–63, Cl. 220—21.

Kazimir, Charles E., to International Telephone and Telegraph Corp. Encircling tool. 3,093,943, 6–18–63, Cl. 53—198.

Kazuk, Walter F., and R. J. Pasco, to Sylvania Electric Products Inc. Gaseous discharge device. 3,111,599, 11–19–63, Cl. 313—188.

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Carney, Patrick E., and Keahey. 3,098,199.

Kearfott Co., Inc.: *See*—
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Kearney, James R., Corp.: *See*—
McDonald, Robert M. 3,090,853.

Kearney, John: *See*—
Albanese, Damian, Biesel, Kearney, and Norton. 3,090,957.

Kearney, Thomas J., to Detrex Chemical Industries, Inc. Continuous degreaser. 3,085,948, 4–16–63, Cl. 202—170.

Kearney, Thomas J., and B. A. Young, to Detrex Chemical Industries, Inc. Enclosed cold solvent spray cleaner. 3,079,286, 2–26–63, Cl. 134—12.

Kearney, Thomas J., F. J. Opolski, and G. O'Neal, Jr., to Detrex Chemical Industries, Inc. Sandwich type transducer and coupling. 3,094,314, 6–18–63, Cl. 259—72.

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Flannery, James N., and Becker. 3,094,885.
Hutchens, Morris L., and Riedel. 3,073,024.
Opferkuch, Heinz B. 3,106,432.
Sedgwick, Robert K., and Kippers. 3,104,989.
Senn, Jurg A. 3,106,110.

Kearns, John J., Jr., to Lever Bros. Co. Process for producing aerated shortening. 3,095,305, 6–25–63, Cl. 99—118.

Kearns, Raymond J., and J. J. Rolfe, to Lockheed Aircraft Corp. Static inverter. 3,085,190, 4–9–63, Cl. 321—45.

Keath, Howard B., to Wagner Electric Corp. Transformer protection system to insure load service operation. 3,106,664, 10–8–63, Cl. 317—15.

Keathley, E. L.: *See*—
La Pierre, Thomas H. 3,098,568.

Keating, Maurice H., and J. J. Kubinski, to H. D. Hudson Mfg. Co. Floating electric heater for stock watering tank. 3,096,425, 7–2–63, Cl. 219—38.

Keating, Raymond J.: *See*—
Orloff, Daniel L., and Keating. 3,097,392.

Keating, Richard T. High velocity oven. 3,074,393, 1–22–63, Cl. 126—21.

Keatley, Hobert B.: *See*—
Keatley, Lawrence E. 3,115,212.

Keatley, Lawrence E., 10% to H. E. Dickes, 10% to H. B. Keatley, and 5% to L. L. Taylor. Bonnet for window cleaners' ladder. 3,115,212, 12–24–63, Cl. 182—108.

Keay, Louis K., Jr., to Lukens Steel Co. Submerged arc weld metal composition. 3,110,798, 11–12–63, Cl. 219—73.

Kebler, Richard W.: *See*—
Drost, Wilfred, Kebler, and Dutchess. 3,077,752.

Keblys, Kestutis A., to Ethyl Corp. Organo manganese compounds and method of making same. 3,081,324, 3–12–63, Cl. 260—429.

Keblys, Kestutis A., to Ethyl Corp. Method of reacting hydrocarbonyl manganese polycarbonyls. 3,081,338, 3–12–63, Cl. 260—476.

Kebrle, Jindrich: *See*—
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Wettstein, Albert, Anner, Meystre, Wieland, Ehmann, Heusler, Hunger, and Kebrle. 3,098,085.
Wettstein, Albert, Heusler, Kebrle, Meystre, and Wieland. 3,072,686.

Keck, Harold P., ½ to J. W. Robbins, and ½ to B. Robbins. Self-inking hand stamp. 3,090,305, 5–21–63, Cl. 101—334.

Keck, Harold P., ½ to J. W. Robbins, and ½ to B. Robbins. Type band setting means in hand stamps. 3,099,955, 8–6–63, Cl. 101—105.

Keck, Norman A. Pump. 3,112,707, 12–3–63, Cl. 103—87.

Keck, Paul H., to Sylvania Electric Products Inc. Cryotron type switching device. 3,098,967, 7–23–63, Cl. 323—94.

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Gaule, Gerhart K., Kedesdy, and Rouge. 3,096,158.

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Keech, Roger A. 3,074,233.

Keech, Roger A., 25% to D. E. Keech. Positive displacement variable speed hydraulic power transmission with reverse. 3,074,233, 1–22–63, Cl. 60—53.

Keefe, Arthur. Inflation stem valve. 3,079,940, 3–5–63, Cl. 137—223.

Keefe, James V., to Speedlap Corp. Device for feeding abrasive mixture to a lapping machine. 3,110,992, 11–19–63, Cl. 51—263.

Keefe, Lincoln M., to The International Postal Supply Corp. Card vending machine. 3,095,117, 6–25–63, Cl. 221—152.

Keefer, David E., to Sperry Rand Corp. Memory updating. 3,111,580, 11–19–63, Cl. 235—175.

Keegan, James E., Jr., to Heinicke Instruments Co., Inc. Device for producing electrical muscle therapy. 3,083,712, 4–2–63, Cl. 128—423.

Keegan, Thomas E., and N. E. Sherer. Grooming device. 3,102,544, 9–3–63, Cl. 132—147.

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Barnes, Paul T., and Keegel. 3,072,020.

Keel, Donald K., to Congoleum-Nairn Inc. Urethane coating for cork surface and process therefor. 3,110,615, 11–12–63, Cl. 117—118.

Keelavite Co. Ltd., The: *See*—
Lee, Norman. 3,084,312.

Keelen, Thomas L.: *See*—
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Keeler, Dale E.: *See*—
Strainy, Edwin J., and Keeler. 3,094,558.

Keeler, Hugh P.: *See*—
Grable, Donovan B., and Keeler. 3,075,589.

Keeling, Kermit B., Sr., to General Electric Co. Removable door structure. Re. 25,326, 2–5–63, Cl. 126—191.

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Vann, Henry E., and Keeling. 3,095,771.

Keen, John M. S.: *See*—
Brown, David M., Keen, and Urmston. 3,092,205.

Keen Mfg. Corp.: *See*—
Siciliano, Anthony J. 3,097,735.

Keen, Norman L., to Hebermann Ltd. Sealed plug and socket assemblies. 3,076,168, 1–29–63, Cl. 339—60.

Keen, William R., R. C. Harris, L. W. Morton, and W. T. Satterfield, to Collins & Aikman Corp. Method and means for producing variable yarn. 3,086,347, 4–23–63, Cl. 57—38.3.

Keen, William R., H. J. Kerner, and J. Bauer, to Collins & Aikman Corp. Apparatus for molding plastic carpets. 3,115,678, 12–31–63, Cl. 18—19.

Keene, George W. Animal rubbing and liquid applying apparatus. 3,103,916, 9–17–63, Cl. 119—157.

Keene, William A., to Phillips Petroleum Co. Palletized container. 3,072,314, 1–8–63, Cl. 229—23.

Keeney, Edward W., Sr. Fragmentation bullet. 3,103,889, 9–17–63, Cl. 102—91.

Keeney, Robert B., to Eagle Iron Works. Control systems. 3,114,479, 12–17–63, Cl. 222—64.

Keeping, Patrick A. T.: *See*—
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Keeran, William C., to Vapor Corp. Control means. 3,085,179, 4–9–63, Cl. 317—124.

Keesling, Thomas B. Fruit feed outlet. 3,087,613, 4–30–63, Cl. 209—74.

Keessen, Harold E., and W. B. Morgan, Jr., to United States Gypsum Co. Automatic spraying apparatus. 3,072,095, 1–8–63, Cl. 118—6.

Keeton, William H. Knot tying device. 3,086,802, 4–23–63, Cl. 289—17.

Kefalas, A/S: *See*—
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Kegan, Albert I.: *See*—
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Kegelman, Thomas D., to United Aircraft Corp. Sensitivity compensator for scanned displays. 3,078,342, 2–19–63, Cl. 178—7.2.

Kegg, Robert R., R. E. La Brecque, and R. C. Warnke, to Owens-Illinois Glass Co. Fenestration structure for control of daylighting. 3,096,684, 7–9–63, Cl. 88—60.

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Kehaly, William J. Universal portable tool. 3,103,676, 9–17–63, Cl. 10—89.

Kehe, Henry J., R. T. Johnson, W. J. Driscoll, and R. R. Bloor, to The B. F. Goodrich Co. Preparation of secondary aryl amines. 3,071,619, 1–1–63, Cl. 260—576.

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Kehlet, Alan B., D. F. Hasson, and W. W. Petrynia, to United States of America, National Aeronautics and Space Administration. Space and atmospheric re-entry vehicle. 3,090,580, 5–21–63, Cl. 244—1.

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Kehn, Donald M., to Jersey Production Research Co. Downhole heater. 3,107,728, 10–22–63, Cl. 166—59.

Kehoe, Edward C. Methods and apparatus for generating electricity. 3,080,515, 3–5–63, Cl. 322—2.

Kehoe, James W., to The Shelly Salesbook Co. Snap-out manifolding unit. 3,081,111, 3–12–63, Cl. 282—22.

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Keifer, William L., to The Borden Co. Method for blanching food products. 3,086,868, 4–23–63, Cl. 99—103.

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Keil, Havard L., to Armour and Co. Double coating of food products to prevent moisture loss. 3,092,500, 6–4–63, Cl. 99—166.

Keil, Havard L., and E. F. Cavanaugh, to Armour and Co. Water dispersible collagen. 3,073,702, 1–15–63, Cl. 99—169.

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Kelly, Vincent C., to The Orr Felt & Blanket Co. Paper makers felt. 3,094,149, 6–18–63, Cl. 139—383.

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Kelper, Francis P., Jr., to Philco Corp. Elimination of signal-induced phase error from index signal. 3,103,552, 9–10–63, Cl. 178—5.4.

Keir, Roy A., to The Bendix Corp. Binary multiplication system utilizing a zero mode and a one mode. 3,116,411, 12–31–63, Cl. 235—164.

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Keltel, William, to Engelhard Industries Inc. Furnace. 3,075,757, 1–29–63, Cl. 266—5.

Keltel, William, to Engelhard Industries, Inc. Electrical contacts. 3,086,285, 4–23–63, Cl. 29—199.

Kelter, Robert W., to General Electric Co. Roller assembly for operation on a rail. 3,111,912, 11–26–63, Cl. 105—141.

Kelter, Robert W., and B. S. Nahigyan, to General Electric Co. Tube sizing tool. 3,112,026, 11–26–63, Cl. 205—4.

Keith, Carl D.: *See*—
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Keith, Carl D., and H. Erickson, to Sinclair Research, Inc. Process for converting an asphalt containing petroleum residual oil by catalytic hydrocracking. 3,079,327, 2–26–63, Cl. 208—58.

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Keith, Frederick W., Jr., to The Sharples Corp. Production of organic acids. 3,109,839, 11–5–63, Cl. 260—97.7.

Keith, John T., and F. G. Maston, to Cannon Electric Co. Electrical connector with contact retention sleeve. 3,090,937, 5–21–63, Cl. 339—217.

Keith, John V., to Leesona Corp. Initial strand and snagger. 3,081,044, 3–12–63, Cl. 242—18.

Keith, Percy A., to Allis-Chalmers Mfg. Co. Cotton harvester. 3,082,590, 3–26–63, Cl. 56—42.

Keith, Philip, to International Harvester Co. Flow control valve mechanism. 3,075,550, 1–29–63, Cl. 137—599.

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Keith, Willis C., to Sinclair Research, Inc. Process for producing olefin polymers. 3,098,884, 7–23–63, Cl. 260—683.15.

Keith, Willis C., and S. M. Cotton, to Sinclair Refining Co. Oxidation of alkylbenzene carboxylic acids. 3,075,009, 1–22–63, Cl. 260—524.

Keith, Willis C., and R. R. Chambers, to Sinclair Research Inc. Preparation of halopolycarboxy benzene by oxidation of halopolyalkyl benzene. 3,086,991, 4–23–63, Cl. 260—524.

Keith, Willis C., J. A. Verdol, and R. P. Zmitrovia, to Sinclair Research, Inc. Decarboxylation of aromatic acids. 3,099,686, 7–30–63, Cl. 260—521.

Keith, Willis C., and R. P. Zmitrovia, to Sinclair Research, Inc. Preparation of 2-phenyl-allyl chloride. 3,100,232, 8–6–63, Cl. 260—650.

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Keithahn, Julian D., to Baker Oil Tools, Inc. Retrievable subsurface well tool. 3,112,795, 12–3–63, Cl. 166—120.

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Kelchner, Harley E., to Burroughs Corp. Sheet feeding mechanism. 3,072,397, 1–8–63, Cl. 271—58.

Kelemen, Frank K., and L. P. English, to KSM Products, Inc. Capacitance discharge stud welding apparatus. 3,108,178, 10–22–63, Cl. 219—98.

Kelemen, Frank K., and R. K. Ritter, to KSM Products, Inc. Stud welding method and apparatus. 3,114,827, 12–17–63, Cl. 219—99.

Kell, Nathaniel B., to General Motors Corp. Variable pitch propeller. 3,105,558, 10–1–63, Cl. 170—160.51.

Kell, Nathaniel B., to General Motors Corp. Accessory drive mechanism. 3,108,494, 10–29–63, Cl. 74—752.

Kell, Waldo R., to The Lawrence Paper Co. Apparatus for use in forming concrete slabs. 3,109,217, 11–5–63, Cl. 25—131.5.

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Keller, Emil, to Luwa A.G. Feeding device for falling-film evaporators. 3,082,815, 3–26–63, Cl. 159—6.

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Keller, Robert G. Carton for packaging and heating subsistence items. 3,071,307, 1–1–63, Cl. 229—33.

Keller, Robert R. Multiple-panel load-bearing building walls and load-bearing panel units therefor. 3,082,848, 3–26–63, Cl. 189—34.

Keller, Robert R. Panel unit wall. 3,082,849, 3–26–63, Cl. 189—34.

Keller, Wolfgang, to Siemens-Schuckertwerke Aktiengesellschaft. Device for floating zone-melting of semiconductor rods. 3,108,169, 10–22–63, Cl. 219—10.49.

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Kelley, Benjamin F. Transfer platform for drill pipe elevators. 3,099,323, 7–30–63, Cl. 175—85.

Kelley, Charles P., to National Rubber Supply, Inc. Removable section for making vehicle tires. 3,108,795, 10–29–63, Cl. 269—321.

Kelley, Douglas M., to General Motors Corp. Scraper bowl hoist assembly. 3,073,045, 1–15–63, Cl. 37—129.

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Kelley, Fred W., Jr., G. R. E. Lezan, and C. E. Rettig, to General Electric Co. Saturable reactor pulse generator triggered by switch with adjustable bias for plural de-phased A.C. inputs. 3,086,129, 4–16–63, Cl. 307—88.5.

Kelley, Gilbert A., H. E. Rahm, and F. B. Oates, to Midland-Ross Corp. Apparatus for extruding gelatinous materials. 3,106,747, 10–15–63, Cl. 18—12.

Kelley, Hugh, to The J. B. Ehrsam & Sons Mfg. Co. Vehicle dumping apparatus. 3,075,660, 1–29–63, Cl. 214—49.

Kelley, Irvin M. Aging vats. 3,106,885, 10–15–63, Cl. 99—277.1.

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Kelley, John L., and C. E. Runyan, to United States of America, Atomic Energy Commission. Bomb stabilizing structure. 3,113,517, 12–10–63, Cl. 102—3.

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Kelley, Oliver K., to General Motors Corp. Transmission. 3,090,474, 5–21–63, Cl. 192—85.
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Kelly, Earl M., to Process Engineers, Inc. Clarification. 3,077,991, 2–19–63, Cl. 210—523.
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Kelly, Gordon D., to Outboard Marine Corp. Clamp for mounting outboard motors. 3,112,092, 11–26–63, Cl. 248—4.
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Kelly, Thomas J., and R. H. Rommel, to Sun Oil Co. Process for thickening liquid hydrocarbons. 3,084,033, 4–2–63, Cl. 44—7.
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Kelly, Victor Q., to United States of America, Navy. Processing tank. 3,095,798, 7–2–63, Cl. 95—94.
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Kennedy, Buford K., to Minneapolis-Honeywell Regulator Co. Tape feeding device. 3,099,376, 7-30-63, Cl. 226—108.

Kennedy, Douglas J., and N. B. Shine, to Shawinigan Chemicals Ltd. Production of hydrogen cyanide. 3,097,-921, 7-16-63, Cl. 23—151.

Kennedy, Everett P., to Ford Motor Co. Synchronized transmission mechanism. 3,080,028, 3-5-63, Cl. 192—53.

Kennedy, Garth P., C. M. Corken, and E. D. Heim, to Corken's Inc. Pump. 3,072,066, 1-8-63, Cl. 103—136.

Kennedy, Harry E., to Union Carbide Corp. Gas shielded metal arc welding torch. 3,083,290, 3-26-63, Cl. 219—130.

Kennedy, Harry M., to The Superior Equipment Co. Winch unit. 3,092,370, 6-4-63, Cl. 254—185.

Kennedy, Harry R., C. J. Anderson, and C. V. Jones, Sr., to Southern Machinery Co. Automatic tip bunch building mechanism for spinning frames. 3,074,224, 1-22-63, Cl. 57—54.

Kennedy, Harry R., and C. J. Andersen, to Southern Machinery Co. Ring rail lowering mechanism for textile spinning frames. 3,080,701, 3-12-63, Cl. 57—54.

Kennedy, James M., Jr., to Revere Copper and Brass, Inc. Induction welding of tubes. 3,072,771, 1-8-63, Cl. 219—8.5.

Kennedy, James M. Jr., to Revere Copper and Brass Inc. High frequency inductor. 3,077,528, 2-12-63, Cl. 219—10.79.

Kennedy, John H., to E. I. du Pont de Nemours and Co. Process for separating niobium and tantalum. 3,092,448, 6-4-63, Cl. 23—15.

Kennedy, John R.: *See*—
Sanders, Hiram R., Jr., Kennedy, and Schroeder. 3,110,-584.

Kennedy, Joseph B., to Sperry Rand Corp. Helix assembly for travelling wave tubes. 3,107,312, 10-15-63, Cl. 315—3.5.

Kennedy, Merritt T., Jr. Pipe coupling with intermeshing teeth and combined camming and locking key. 3,104,-896, 9-24-63, Cl. 285—18.

Kennedy, Richard R.: *See*—
Genter, Albert L., and R. R. and R. M. Kennedy. 3,105,-041.

Kennedy, Richard T., to Ekco Products Co. Knife assembly. 3,114,973, 12-24-63, Cl. 30—342.

Kennedy, Robert, to R. Kennedy d.b.a. Sevilla Co. Pants hanger. 3,077,291, 2-12-63, Cl. 223—88.

Kennedy, Robert M.: *See*—
Genter, Albert L., and R. R. and R. M. Kennedy. 3,105,-041.

Kennedy, Robert W.: *See*—
Converse, George F., Kennedy, and Clegg. 3,106,438.

Kennedy, S. F., New Products, Inc.: *See*—
Kennedy, Samuel F. 3,114,538.

Kennedy, Samuel F., to S. F. Kennedy New Porducts, Inc. Portable forced heat dryer. 3,114,538, 12-17-63, Cl. 263—19.

Kennedy, Sherman C.: *See*—
Landrum, Ira T., Kennedy, Shanklin, Cummins, Steward, Boulware, Kleypas, and Evans. 3,106,735.

Kennedy, Truman H., to United States Steel Corp. Method for making steel by oxygen blowing. 3,096,173, 7-2-63, Cl. 75—60.

Kennedy, Vernal K., to Lockheed Aircraft Corp. Pressure and thermal material forming device. 3,080,473, 3-5-63, Cl. 219—149.

Kennedy, Walter V., to Fram Corp. Manufacture of metal spools. 3,083,752, 4-2-63, Cl. 153—13.

Kennedy, Walter W., to Barber-Colman Co. Air conditioning apparatus. 3,114,505, 12-17-63, Cl. 236—13.

Kennedy, William P. Adjustable pattern sprinkler. 3,081,-037, 3-12-63, Cl. 239—97.

Kennedy, William P. Adjustable pattern impulse sprinkler. 3,081,039, 3-12-63, Cl. 239—230.

Kennedy, William P. Adjustable pattern sprinkler. 3,091,-399, 5-28-63, Cl. 239—231.

Kennedy, William P. Plural switch combination control for entrance light and bell having pneumatic delay means for opening the entrance light switch. 3,101,396, 8-20-63, Cl. 200—34.

Kennedy, Wilson R., and R. E. Spencer, to Westinghouse Electric Corp. Sequentially energized plural motor control system. 3,099,778, 7-30-63, Cl. 318—102.

Kennel, Hans F., to United States of America, Army. Torque compensation device. 3,074,682, 1-22-63, Cl. 248—415.

Kennepohl, Kenneth K. Liquid level indicator for L. P. gas tanks. 3,098,386, 7-23-63, Cl. 73—297.

Kenner, Conard: *See*—
Anderson, Roy N. 3,096,718.
Anderson, Roy N. 3,108,440.

Kenner, Irvin J.: *See*—
Burthe, Jack H., Kenner, and Woermbke. 3,098,172.

Kenner Products Co.: *See*—
Haas, Justin. 3,111,497.
Kuhn, James O. 3,100,420.

Kennerly, George W., D. S. Hoffenberg, and J. S. Noland, to American Cyanamid Co. Polymerization of acetylenic compound with alkali-metal borohydride and Ni or Co salt. 3,092,613, 6-4-63, Cl. 260—94.1.

Kennerly, George W., D. S. Hoffenberg, and G. C. Gleckler, to American Cyanamid Co. Polymerization of acetylene compounds. 3,097,195, 7-9-63, Cl. 260—94.1.

Kenney, Albert M. Apparatus for the guiding of trim stripe from box making machines or the like. 3,080,780, 3-12-63, Cl. 83—105.

Kenney, Christopher N., to Imperial Chemical Industries Ltd. Process for preparing polymers of vinyl phosphorus monomeric compounds. 3,083,995, 4-16-63, Cl. 260—80.

Kenney, Emil J., to The Craftint Mfg. Co. Sketching device. 3,090,587, 7-9-63, Cl. 33—64.

Kenney, Harold E.: *See*—
Wall, Monroe E., Serota, and Kenney. 3,076,002.

Kenney, James T., and C. J. O'Loughlin, 33⅓% to J. E. Becker. Arithmetical teaching aid game. 3,104,106, 9-17-63, Cl. 273—134.

Kenney, Malcolm E. and R. D. Joyner. Germanium phthalocyanines. 3,094,535, 6-18-63, Cl. 260—314.5.

Kenney, Malcolm E., and R. D. Joyner. Silicon phthalocyanines. 3,094,536 6-18-63, Cl. 260—314.5.

Kenney, Philip J. Can and reclosure lid and tape seal therefor. 3,096,905, 7-9-63, Cl. 220—53.

Kenney, Robert W., to A. O. Smith Corp. Releasable balanced fluid coupling. 3,092,140, 6-4-63, Cl. 137—594.

Kenney, William D., to Lilliston Implement Co. Tandem disc harrow. 3,106,255, 10-8-63, Cl. 172—568.

Kenney, William D., and W. O. Vernon, to Columbus Iron Works Co. Disc harrow. 3,098,530, 7-23-63, Cl. 172—591.

Kennis, Matheus J., to Blikman & Sartorius N.V. Apparatus for processing decimal numbers. 3,072,331, 1-8-63, Cl. 235—146.

Kennison, Robert E.: *See*—
Desjardins, John L., and Kennison. 3,075,285.

Kennon, John B., ½ to C. E. Wright. Light responsive device for producing sounds. 3,110,814, 11-12-63, Cl. 250—214.

Kenny, Charles R.: *See*—
Boles, Sol, and Kenny. 3,090,921.

Kenny, Charles R., and J. Reed, to General Precision, Inc. Transistor power supply circuit. 3,102,225, 8-27-63, Cl. 323—22.

Kenny, James P., and J. J. Grant, to Power Spray Co., Inc. Liquid dispensing device for floor machines. 3,094,152, 6-18-63, Cl. 141—19.

Kenny, Robert J.: *See*—
Belicka, Michael E., Kenny, and Rodney. 3,101,505.

Kenreich, Richard R., to Whirlpool Corp. Method and apparatus for shaking a garment and applying cleaning liquid and drying fluid thereto. 3,114,919, 12-24-63, Cl. 8—147.

Kenrich, Chester M.: *See*—
Leeming, John H., Jr., Kenrich, and Rice. 3,115,635.

Kenron Awning and Window Corp.: *See*—
Deddo, Daniel G. 3,092,171.

Kenshol, Kenneth W., to Metallizing Co. of America, Inc. Molten material spray gun with laterally deflecting air cap. 3,085,750, 4-16-63, Cl. 239—84.

Kent, Allen H., to Frary & Clark. Energy storing means. 3,080,017, 3-5-63, Cl. 185—40.

Kent, Allen H., to Landers, Frary & Clark. Pencil sharpener blade changing means. 3,083,691, 4-2-63, Cl. 120—93.

Kent, Allen H., to Landers, Frary & Clark. Floating mounting for pencil sharpener blade. 3,104,535, 9-24-63, Cl. 64—15.

Kent, Francis J., and G. W. Sibler, to Baldwin-Lima-Hamilton Corp. Tool assembly for a metal working press. 3,074,549, 1-22-63, Cl. 207—19.

Kent, James W.: *See*—
Denison, George H., Bolt, Kent, and Christiansen. 3,115,-462.
Denison, George H., Bolt, Kent, Christiansen, and Carroll. 3,115,467.

Kent, John A.: *See*—
Cole, Gordon E., and Kent. 3,112,936.

Kent Mfg. Co., The: *See*—
Basile, Rocco F. 3,102,444.
Schneck, Martin. 3,102,767.

Kent Mfg. Corp.: *See*—
Batcheller, Hugh W. 3,096,136.
Batcheller, Hugh W. 3,101,765.

Kent, Melvin L.: *See*—
Johnson, Robert D., and Kent. 3,077,796.

Kent-Moore Organization, Inc.: *See*—
Bishop, Robert W., and O'Grady. 3,078,904.
Deming, Roy. 3,098,385.

Kent, Nelson H.: *See*—
Beale, Richard D., Kent, and Wilde. 3,074,432.
McLean, Donald, Kent, and Steel. 3,095,010.
Pope, Geoffrey A. K., Brealey, and Kent. 3,107,690.

Kent, Nelson H., and S. F. Smith, to Rolls-Royce Ltd. Gas turbine engine with gas starter. 3,085,396, 4-16-63, Cl. 60—39.14.

Kent, Nelson H., R. D. Beale, and R. V. Blackhurst, to Rolls-Royce Ltd. Annular valve device. 3,094,270, 6-18-63, Cl. 230—114.

Kent, Nelson H., and G. O. Eccles, to Rolls-Royce Ltd. Turbine and compressor blades. 3,112,557, 12-3-63, Cl. 29—156.8.

Kent-Owens Machine Co.: *See*—
Tremblay, Albert F. 3,096,669.

Kent, R. O., Corp.: *See*—
Ness, James M. 3,083,824.

Kent, Ray W., Jr., and F. H. Bolton, to The Dow Chemical Co. Graft copolymer of monovinyl aromatic hydrocarbon and a copolymer of butadiene and isopropenylbiphenyl or vinylbiphenyl. 3,097,186, 7-9-63, Cl. 260—45.5.

Kent, Stephen D.: *See*—
Crane, Samuel P., and Kent. 3,107,368.

Kent, Stephen D., and S. P. Crane. Making a dished polishing buff. 3,086,821, 4-23-63, Cl. 300—21.

Kentes, Frances M. Portable baby's bath and cabinet unit. 3,094,711, 6-25-63, Cl. 4—176.

Kentfield, John A. C., to Power Jets (Research & Development) Ltd. Aircraft systems incorporating pressure exchangers. 3,106,073, 10-8-63, Cl. 62—402.

Kentfield, John A. C., to Power Jets (Research & Development) Ltd. Pressure exchangers. 3,109,580, 11-5-63, Cl. 230—69.

Kentor, William E. Meat cubing machine. 3,077,215, 2-12-63, Cl. 146—78.

Kenwood Mfg. (Woking) Ltd.: *See*—
Knight, Peter D. 3,100,661.

Kenyon, Harold F., to Metropolitan-Vickers Electrical Co. Ltd. Electrical connections between relatively rotating electrical conductors. 3,078,432, 2-19-63, Cl. 339—8.

Kenyon, Ralph W., and D. A. Regan. Pallet superstructure. 3,091,195, 5-28-63, Cl. 108—53.

Kenyon, Ronald E.: *See*—
Hammond, Wayne S., Defries, and Kenyon. 3,101,689.

Keogh, Hedley B., and L. D. E. Ebeling. Road sweeping machines. 3,102,283, 9-3-63, Cl. 15—87.

Keogh, Howard G., Jr., to Daystrom, Inc. Control circuit. 3,087,066, 4-23-63, Cl. 250—206.

Keon, Edward F.: *See*—
Cox, Wilbur C., Meyers, and Keon. 3,097,122.

Keon, Edward F., to Raytheon Co. Re-entry body nose cones. 3,095,162, 6-25-63, Cl. 244—1.

Keon, Edward F., to Raytheon Co. Anisotropic heat-controlling body and method for manufacture thereof. 3,096-083, 7-2-63, Cl. 263—2.

Keough, Patricia A.: *See*—
Grayson, Martin, and Keough. 3,116,317.

Kepka, Frank: *See*—
Heyer, William T. and Kepka. 3,104,861.

Kepkay, Leslie L.: *See*—
Horne, Donald S., Ashton, and Kepkay. 3,108,703.

Kepkay, Leslie L., to Massey-Ferguson Ltd. Auxiliary rethresher for a combine. 3,115,142, 12-24-63, Cl. 130—27.

Keppler, Arnold G. Disposable broiling tray. 3,113,505, 12-10-63, Cl. 99—425.

Kerber, Stanley M.: *See*—
Randall, Grant M., Anderson, and Kerber. 3,071,769.

Kerby, John L.: *See*—
Griffiths, Kenneth F. 3,083,126.

Kerch, Ronald C., and G. D. Hilker, to Phelps Dodge Copper Products Corp. Magnet wire tensioning device. 3,099,419, 7-30-63, Cl. 242—147.

Kercher, Mary L.: *See*—
Free, Alfred H., and Kercher. 3,095,277.

Kerfoot, Bartlett: *See*—
Oldham, Wilbur N., Granito, and Kerfoot. 3,114,930.

Kerfoot, Oliver C.: *See*—
Carden, Robert L., Kerfoot, and Supernaw. 3,110,664.

Kerkhoffs, Pieter L.: *See*—
Bigot, Johan A., and Kerkhoffs. 3,114,748.

Kerkhove, Maurice. Birdhouses. 3,108,570, 10-29-63, Cl. 119—23.

Kerkmann, Walter: *See*—
Rawe, Martin, and Kerkmann. 3,103,856.

Kerkow, Herbert. Picture projection and photography. 3,077,814, 2-19-63, Cl. 88—16.

Kerley Engineering, Inc.: *See*—
Kerley, James J., Jr. 3,074,681.
Kerley, James J., Jr. 3,086,600.
Kerley, James J., Jr. 3,087,313.

Kerley, James J., Jr., to Kerley Engineering, Inc. Protective enclosure shock and vibration type isolator mount. 3,074,-681, 1-22-63, Cl. 248—358.

Kerley, James J., Jr., to Kerley Engineering, Inc. Mechanical impulse filter type shock mount. 3,086,600, 4-23-63, Cl. 175—155.

Kerley, James J., Jr., to Kerley Engineering, Inc. Isolator type shaft coupling devices. 3,087,313, 4-30-63, Cl. 64—12.

Kerlin, John H., to North American Aviation, Inc. Multiple land seal. 3,104,884, 9-24-63, Cl. 277—206.

Kerman, Mark. Positioning hinge mechanism for rotatably and pivotally mounted barriers. 3,089,184, 5-14-63, Cl. 16—141.

Kerman, Nathan. Window lock. 3,082,617, 3-26-63, Cl. 70—90.

Kermode, David W. Synchronous counter system. 3,104,374, 9-17-63, Cl. 340—168.

Kern, Fritz, to Ciba Ltd. Process for the electrolytic deposition of niobium or tantalum. 3,093,554, 6-11-63, Cl. 204—64.

Kern, George R., Jr., to Fairfax Mfg. Co., Inc. Miniature fluid drill. 3,083,946, 4-2-63, Cl. 253—2.

Kern, Loyd R., to The Atlantic Refining Co. Increasing permeability of subsurface formations. 3,075,581, 1-29-63, Cl. 166—42.

Kern, Luther N.: *See*—
Gadd, Francis O., Sanderson, Kern, and Parshall. 3,104,-746.
Schjolin, Hans O., Kern, and Parshall. 3,090,257.

Kern, Paul E. Disk type cutter. 3,078,573, 2-26-63, Cl. 30—347

Kern, Walter, and J. Koch, to Ciba Ltd. Anthraquinone vat dyestuffs derived from 1-aminoanthraquinone-2''-carboxylic acid esters. 3,079,389, 2-26-63, Cl. 260—249.

Kern, Walter P., H. F. Stoddart, and J. B. Williams, to Baird-Atomic, Inc. Apparatus for measuring nuclear radiation. 3,085,155, 4-9-63, Cl. 250—71.5.

Kern, Werner K.: *See*—
Barker, Charles L., Jr., and Kern. 3,077,144.

Kern, Werner K., to United States of America, Air Force. Wind tunnel droplet dispenser. 3,087,332, 4-30-63, Cl. 73—147.

Kerner, Herman J.: *See*—
Keen, William R., Kerner, and Bauer. 3,115,678.

Kerney, Myron L., to Eastman Kodak Co. Reel. 3,097,810, 7-16-63, Cl. 242—71.8.

Kernoski, John. Thread dial gauge. 3,090,126, 5-21-63, Cl. 33—149.

Kerns, Bernard A.: *See*—
Flinn, Richard A., Kerns, and Larson. 3,105,812.

Kerns, David R., to AMP Inc. Transfer device. 3,071,174, 1-1-63, Cl. 153—1.

Kerns, Fred R., and R. R. Mease, to The Electric Storage Battery Co. Molding devices. 3,095,623, 7-2-63, Cl. 22—155.

Kerns, Homer. Laminated panel means and electrical conduit systems therefor. 3,108,750, 10-29-63, Cl. 240—51.11.

Kerns, Homer. Bellows pump for blood transfusions. 3,111,-145, 11-19-63, Cl. 141—26.

Kerns, Max E.: *See*—
Clayborne, Norman F., Kerns, and Hamlin. 3,074,562.

Kerns, Quentin A., to United States of America, Atomic Energy Commission. Pulse synthesizing generator. 3,100,-284, 8-6-63, Cl. 331—55.

Kero, Arthur L., to Boeing Airplane Co. Axonometric computer and process. 3,074,630, 1-22-63, Cl. 235—61.

Kerr, Charles E., to FMC Corp. Filling mechanism. 3,096,-914, 7-9-63, Cl. 222—333.

Kerr, Fred S.: *See*—
Bettoni, Eugene C., and Kerr. 3,076,064.

Kerr, Fred S., to Holley Carburetor Co. Engine speed governor. 3,099,254, 7-30-63, Cl. 123—102.

Kerr, George T.: *See*—
Frilette, Vincent J., and Kerr. 3,071,434.

Kerr, George T., to Socony Mobil Oil Co., Inc. 1,4-dialkyl-1,4-diazonlabicyclo[2.2.2]octane di(distlicate). 3,101,337, 8-20-63, Cl. 260—268.

Kerr, James G. Transfer assembly. 3,112,126, 11-26-63, Cl. 282—22.

Kerr, Kenneth C. Arm rest for dental chairs. 3,103,386, 9-10-63, Cl. 297—416.

Kerr, Kenneth P., to Butler Bin Co. Cement feeder for concrete mixing plants. 3,102,603, 9-3-63, Cl. 177—123.

Kerr, Kingdon, and M. Swensson, to Seeco, Inc. Apparatus for electronic programming of three channel machine tool automatic control tape. 3,072,833, 1-8-63, Cl. 318—162.

Kerr-McGee Oil Industries, Inc.: *See*—
Goren, Mayer B. 3,082,059.
Goren, Mayer B. 3,109,732.
Goren, Mayer B. 3,115,388.
Wolff, Paul A. 3,099,912.

Kerr, Paul F., to Texaco Inc. Recovering hydrocarbons from subsurface formations. 3,091,292, 5-28-63, Cl. 166—11.

Kerr, Ralph O.: *See*—
Bowman, William G., and Kerr. 3,094,539.

Kerr, Ralph O., W. R. Decker, and C. M. Dorsett, to Pittsburgh Plate Glass Co. Method of preparing maleic anhydride. 3,074,969, 1-22-63, Cl. 260—346.8.

Kerr, Ralph O., and W. G. Bowman, to Petro-Tex Chemical Corp. Preparation of cis-4-cyclohexene-1,2-dicarboxylic acid anhydride. 3,085,096, 4-9-63, Cl. 260—346.6.

Kerr, Ralph W., to Corn Products Co. Sulfation of cellulose. 3,077,373, 2-12-63, Cl. 8—120.

Kerr, Ralph W. Car top trunk luggage carrier. 3,095,129, 6-25-63, Cl. 224—42.1.

Kerr, Robert A., W. L. Richardson, and W. R. H. Springford, to Northern Electric Co., Ltd. Excessive extrusion pressure prevention apparatus. 3,091,806, 6-4-63, Cl. 18—13.

Kerr, Robert E.: *See*—
Madak, Paul D., Cuthbert, and Kerr. 3,083,700.

Kerr, Walter C. Dowel pin. 3,102,746, 9-3-63, Cl. 287—127.

Kerr, William J., to Chicago Lock Co. Lock assembly for a refrigerated cabinet or the like. 3,089,329, 5-14-63, Cl. 70—135.

Kerr, William J., to Chicago Lock Co. Lock assembly for a refrigerated cabinet or the like. 3,089,330, 5-14-63, Cl. 70—140.

Kerr, William J., to Chicago Lock Co. Quick-release means for securing lock assemblies in fitted door openings. 3,095,-727, 7-2-63, Cl. 70—451.

Kerrell, Richard C. Reusable coin wrapper. 3,092,304, 6-4-63, Cl. 229—87.2.

Kerridge, Norman E., to Stothert & Pitt, Ltd. Fluid operated ram. 3,082,746, 3-26-63, Cl. 121—46.

Kerridge, Norman E., to Stothert & Pitt, Ltd. Tubular jib crane structure. 3,106,298, 10-8-63, Cl. 212—13.

Kerrigan, James E., to Chicago Printed String Co. Package binding apparatus. 3,104,606, 9-24-63, Cl. 100—4.

Kerrigan, James E., and R. Grikis, to Chicago Printed String Co. Hank forming machine and method. 3,097,771, 7-16-63, Cl. 223—46.

Kerrigan, James E., and R. Grikis, to Chicago Printed String Co. Bow forming machine. 3,097,772, 7-16-63, Cl. 223—46.

Kerrigan, James W. Safety adapter kit for electric light socket. 3,107,134, 10-15-63, Cl. 339—96.

Kerrison, Oscar C., and K. Senior, to The Paterson Engineering Co. Ltd. Filters for liquids. 3,104,224, 9-17-63, Cl. 210—497.1.

Kerschbaum, Walter E., to Mergenthaler Linotype Co. Matrix magazine for linecasting machines. 3,110,395, 11-12-63, Cl. 199—44.

Kerschner, Paul M., and B. W. Greenwald, to Cities Service Research and Development Co. Polyesters. 3,074,988, 1-22-63, Cl. 260—448.2.

Kerschner, Paul M., and B. W. Greenwald, to Cities Service Research and Development Co. Method of preparing complex diesters of a dibasic acid with a dish and an excess of a monohydric alcohol. 3,086,044, 4-16-63, Cl. 260—485.

Kerschner, Rex R. Tool box. 3,092,428, 6-4-63, Cl. 312—218.

Kershaw, John K., to Jackson Mfg. Co., Inc. Automatic bagging machine. 3,094,181, 6-18-63, Cl. 177—1.

Kershaw, Peter L.: *See*—
Steghart, Fritz L. F., Kershaw, and Harvey.

Kershaw, Royce G. Apparatus for tamping ballast on a railroad track. 3,096,724, 7-9-63, Cl. 104—12.

Kershaw, Stanley S., Jr.: *See*—
Schultz, Fred J., and Kershaw.

Kershner, Osborn A.: *See*—
Zindler, Roger R., and Kershner.

Kershner, Osborn A., to Lambert Brake Corp. Friction device. 3,094,194, 6-18-63, Cl. 188—72.

Kershner, Osborn A., to Lambert Brake Corp. Disc brake. 3,106,990, 10-15-63, Cl. 188—72.

Kershner, Osborn A., and V. A. Matrau, to Lambert Brake Corp. Disc brake. 3,088,553, 5-7-63, Cl. 188—72.

Kershner, Richard B., and T. W. Sheppard, to United States of America, Navy. Radar antenna positioning device. 3,107,543, 10-22-63, Cl. 74—99.

Kerst, Herman, to Dearborn Chemical Co. Corrosion test specimen. 3,080,747, 3-12-63, Cl. 73—53.

Kerst, Herman, to Dearborn Chemical Co. Zinc-sodium polyphosphate, sodium polyphosphate, chelating agent corrosion inhibiting composition. 3,116,105, 12-31-63, Cl. 21—2.7.

Kerstan, Heinz-Ulrich, to Werner Kammann, Maschinen-Fabrik. Screen stencil printing machine. 3,078,792, 2-26-63, Cl. 101—126.

Kersten, Bruno W., to M. S. Pump. Dispensing device. 3,100,068, 8-6-63, Cl. 222—207.

Kersten, Donald J. Chemical toilet structure. 3,074,076, 1-22-63, Cl. 4—115.

Kersting, Arno: *See*—
Reuschel, Konrad, and Kersting.

Kersting, George A. Record holding file. 3,114,459, 12-17-63, Cl. 211—40.

Kertcher, Robert S. Radar range predictor. 3,106,342, 10-8-63, Cl. 235—61.

Kerti, Jozsef. Recovering metals from aqueous sulfate solutions. 3,111,468, 11-19-63, Cl. 204—112.

Kerver, John K.: *See*—
Graham, John W., and Kerver.

Kerver, John K., to Jersey Production Research Co. Injection of fluids into earth formations. 3,087,551, 4-30-63, Cl. 166—224.

Kerver, John K., to Jersey Production Research Co. Hydraulic fracturing process. 3,097,694, 7-16-63, Cl. 166—42.

Kerver, John K., W. E. Holland, and W. O. Winsauer, to Jersey Production Research Co. Method for consolidating incompetent formations. 3,090,435, 5-21-63, Cl. 166—29.

Kervin, Willis D., to Carbonic Development Corp. Combustion burner. 3,096,812, 7-9-63, Cl. 158—108.

Kerwin, Daniel: *See*—
Nowak, Leon J., Jr., and Kerwin.

Kerwin, Edward M., Jr., to Bolt Beranek and Newman Inc. Apparatus for damping. 3,087,565, 4-30-63, Cl. 181—33.

Kerwin, Edward M., Jr., to Bolt Beranek and Newman Inc. Apparatus for damping. 3,087,571, 4-30-63, Cl. 181—33.

Kerwin, James F., to Smith Kline & French Laboratories. B-norsteroid derivatives. 3,072,681, 1-8-63, Cl. 260—343.2.

Kerzerian, Charles: *See*—
Ramsey, William M., and Kerzerian.

Kesel, Thomas A., F. A. Hodgson, and A. E. Flemming, to Chrysler Corp. Flexible strip installation device. 3,081,532, 3-19-63, Cl. 29—235.

Keskkula, Henno: *See*—
Lee, Lieng-Huang, and Keskkula.
Lee, Lieng-Huang, and Keskkula.

Keskkula, Henno, to The Dow Chemical Co. Compositions of copolymers of vinyl aromatic hydrocarbons and methacrylic acid and rubbery copolymers containing vinylpyridine. 3,072,598, 1-8-63, Cl. 260—45.5.

Kesling Harold D. Pin and spring for light wire bracket. 3,093,903, 6-18-63, Cl. 32—14.

Kesling, Keith K., to General Motors Corp. Refrigerating apparatus. 3,077,644, 2-19-63, Cl. 20—69.

Kesling, Keith K., to General Motors Corp. Refrigerator cabinet construction. 3,078,003, 2-19-63, Cl. 220—9.

Kesling, Keith K., to General Motors Corp. Cabinet and process for making same. 3,091,946, 6-4-63, Cl. 62—465.

Kesling, Paul, to Bell Aerospace Corp. Helicopter engine failure warning system. 3,104,721, 9-24-63, Cl. 170—160.22.

Kesling, Peter C. Orthodontic lock pin and bracket appliance. 3,085,335, 4-16-63, Cl. 32—14.

Kesling, Peter C. Orthodontic appliance. 3,085,336, 4-16-63, Cl. 32—14.

Kessler, Claus: *See*—
Anke, Klaus, Ertel, Frohr, Kessler, Pritsching, and Sinn.

Kessler, Claus, and G. Moltgen, to Siemens-Schuckertwerke Aktiengesellschaft. Means for controlling valve-action rectifiers. 3,099,785, 7-30-63, Cl. 321—18.

Kessler, Edwin, III. Meteorological display system. 3,116,482, 12-31-63, Cl. 343—5.

Kessler, George W.: *See*—
Ammon, Johannes H., Braddy, and Kessler.

Kessler, Gerald: *See*—
Skeggs, Leonard T., and Kessler.

Kessler, Harry S. and S. A. Cabinet construction. 3,074,772, 1-22-63, Cl. 312—204.

Kessler, Hyman: *See*—
Eshbaugh, Robert W., and Kessler.

Kessler, Kenneth Q., to Deere & Co. Rotating reel type forage harvester. 3,087,294, 4-30-63, Cl. 56—24.

Kessler, Louis: *See*—
Malkin, Simon, and Kessler.

Kessler, Milton. Plastic spring. 3,081,992, 3-19-63, Cl. 267—1.

Kessler, Richard P., to West Virginia Pulp and Paper Co. Closure for bags. 3,079,065, 2-26-63, Cl. 229—57.

Kessler, Seymour A.: *See*—
Kessler, Harry S. and S. A.

Kessling, Thomas B., to Canning Equipment Co. Fruit preparation machine. 3,086,638, 4-23-63, Cl. 198—33.

Kessman, Maurice. Disposable film splicing package. 3,082,866, 3-26-63, Cl. 206—46.

Kestel, Heinrich, to H. and P. Wacker. Swing system for a motor-driven and manually-guided working device. 3,090,286, 5-21-63, Cl. 94—49.

Kestell, Thomas A.: *See*—
Annis, Charles H., Kestell, and Tipper.

Kester, Margaret K. Artificial breast brassiere. 3,099,839, 8-6-63, Cl. 3—36.

Kester, Melvin E., to Package Products Co., Inc. Linen display package. 3,087,605, 4-30-63, Cl. 206—45.33.

Kester, William H., to United States Steel Corp. Spreader beam and weigh scale for teeming ladles. 3,081,833, 3-19-63, Cl. 177—147.

Kestermann, Gerhard, K.G.: *See*—
Selbach, Hans W.

Kestner, William N., to Esso Research and Engineering Co. Partial hydrogenation of C_4 acetylenes prior to CAA prewash. 3,091,654, 5-28-63, Cl. 260—681.5.

Keszler, Ernest. Slide calipers. 3,113,384, 12-10-63, Cl. 33—143.

Keszler, Hugo, and J. Bernreiter, to Chirana Praha, narodni podnik. Automatic resuscitating pressure apparatus. 3,099,278, 7-30-63, Cl. 137—64.

Ketcham, Harry L., Jr.: *See*—
White, Donald L., Ketcham, and Horn.

Ketcham & McDougall, Inc.: *See*—
Bosland, James M.

Ketchledge, Raymond W., to Bell Telephone Laboratories, Inc. Coincident flux memory device. 3,078,447, 2-19-63, Cl. 340—174.

Ketchledge, Raymond W., to Bell Telephone Laboratories, Inc. Optical storage system. 3,099,820, 7-30-63, Cl. 340—173.

Ketchum, John A.: *See*—
Lemyre, Joseph R., Burtonshaw, and Ketchum.

Ketler, Albert E., Jr., to United States of America, Navy. Pressure regulator. 3,108,611, 10-29-63, Cl. 137—494.

Kettenhofen, Adrian J.: *See*—
Goman, Robert L., and Kettenhofen.

Ketterer, Stanley J., to The Singer Mfg. Co. Lubricating devices for sewing machine loop taker. 3,084,648, 4-9-63, Cl. 112—256.

Ketterer, Stanley J., to The Singer Co. Control mechanism for lock stitch sewing machines. 3,103,189, 9-10-63, Cl. 112—184.

Ketterer, Stanley J., to The Singer Co. Bobbin thread wiping device for lock stitch sewing machines. 3,105,451, 10-1-63, Cl. 112—186.

Ketterer, Stanley J., to The Singer Co. Control mechanism for sewing machine thread tension device. 3,113,539, 12-10-63, Cl. 112—255.

Ketterer, Stanley J., to The Singer Co. Lock stitch sewing machine with locking thread replenishing means. 3,115,110, 12-24-63, Cl. 112—181.

Ketterer, Stanley J., to The Singer Co. Bobbin thread replenishing means in sewing machine loop taker. 3,115,855, 12-31-63, Cl. 112—184.

Kettler, Charles L.: *See*—
Baker, George T., Kettler, and Sarrafian.
Francis, Thomas L., Kettler, and Sarrafian.

Kettler, Charles L., and G. P. Sarrafian, to Texas Instruments Inc. Computer microprogramming system. 3,088,667, 5-7-63, Cl. 235—157.

Keuffel & Esser Co.: *See*—
Baker, Allister L.
Beeber, Allan R. A., and Kosar.
Herrmann, Otto, Miller, and Selbel.
Hildebrand, Klaus.
Selbel, Bobby H., and Hillman.

Keun, Friedrich: *See*—
Waskönig, Karlheinz, and Keun.

Kevelin, Bruce E., to General Motors Corp. Method of dielectrically embossing a metallic element to a thermoplastic. 3,107,190, 10-15-63, Cl. 156—219.

Kevorkian, Jack. Algesimeter. 3,074,395, 1-22-63, Cl. 128—2.

Kewanee Machinery & Conveyor Co.: *See*—
Mighell, Russell L.

Kewaunee Mfg. Co.: *See*—
Saunders, George T.
Saunders, George T.

Key Data Machines Corp.: *See*—
Welsh, William B.

Key Equipment Co.: *See*—
McCoy, Lawrence B.

Key, Gilbert R. Heating system. 3,106,914, 10-15-63, Cl. 126—93.

Key, Lawrence M., Jr. Portable oil heating unit. 3,106,915, 10-15-63, Cl. 126—343.5.

Key, Lawrence M., Jr. Metallic building structures. 3,113,648, 12-10-63, Cl. 189—1.

Key, Lee P. High gain radio receiver. 3,077,562, 2-12-63, Cl. 325—319.

Key Pharmaceuticals, Inc.: *See*—
Shepard, Mark.
Shepard, Mark, Munch, and Kantor.

Keyes, Jack: *See*—
Harker, John H., Janetz, and Keyes.

Keyes, Jack, E. Oehlerking, and L. J. Smith, to Bell & Gossett Co. Self-fired heater and fan unit. 3,109,422, 11-5-63, Cl. 126—110.

Keyser, Johann J. Hobbin holder for spinning machines and the like. 3,074,667, 1-22-63, Cl. 242—131.

Keyser, Johann J. Spindle belt drive. 3,086,349, 4-23-63, Cl. 57—104.

Keyser, Johann J. Balloon separator for spinning or twisting machine. 3,086,350, 4-23-63, Cl. 57—108.

Keyser, Johann J. Lubricating holder for spinning and twisting rings. 3,095,689, 7-2-63, Cl. 57—120.

Keyser, Johann J. Spinning or twisting machine. 3,103,095, 9-10-63, Cl. 57—1.

Keyser, Johann J. Cop carrier. 3,107,879, 10-22-63, Cl. 242—118.3.

Keyser, John G. Method of sealing a porous formation traversed by a well bore. 3,114,418, 12-17-63, Cl. 166—29.

Keystone Chemurgic Corp.: *See*—
Rubinstein, Harry, and Schenck.

Keystone Engineering Co.: *See*—
Olson, Lester A.
Olson, Lester A.

Keystone Ferrule & Nut Corp.: *See*—
Jacob, Norman B.

Keystone Steel & Wire Co.: *See*—
Yaeger, Adolph H.

Keystone Valve Corp.: *See*—
Clark, Samuel S.

Keywell, Frank: *See*—
Denney, Joseph M., Friedland, and Keywell.

Khoury, Georgette S., to Nasco American Inc. Game apparatus with tethered ball movable on helical member. 3,107,094, 10-15-63, Cl. 273—95.

Khamis, Joseph T.: *See*—
Ravve, Abraham, and Khamis.

Khan, Aman U., and C. I. Platt, to Whirlpool Corp. Method for eliminating adhesion of fabrics to centrifugal extractors. 3,116,243, 12-31-63, Cl. 210—78.

Khanbeglan, Harry N., to United States of America, Army. Hood over all. 3,100,896, 8-20-63, Cl. 2—5.

Kharasch, Morris S., and W. Nudenberg, to Shell Development Co. Production of halo-substituted carbonylic compounds. 3,090,808, 5-21-63, Cl. 260—539.

Khawam, Antoine, and M. Koenigsberg. Method of molding a reinforced foam article. 3,082,486, 3-26-63, Cl. 18—59.

Khelghatian, Habet M.: *See*—
Jezl, James L., Khelghatian, and Hague.
Jezl, James L., Khelghatian, and Hague.

Khol, Frantisek. Apparatus for evaluating X-ray diffraction records. 3,113,381, 12-10-63, Cl. 33—1.

Khoury Bros., Inc.: *See*—
Abramowski, Hans J.

Khoury, Henri A., to International Business Machines Corp. Method and apparatus for obtaining and maintaining spacing of a transducer. 3,081,682, 3-19-63, Cl. 95—45.

Khoury, Henri A., and R. K. Wilmer, to International Business Machines Corp. Pneumatically operated document sensing station. 3,103,850, 9-17-63, Cl. 88—24.

Kiang, John C. K. Stencil printer. 3,099,207, 7-30-63, Cl. 101—124.

Kiashek, George: *See*—
Barker-Bland, Harry.

Kiashek, George. Scent sprays. 3,092,331, 6-4-63, Cl. 239—350.

Kibbey, Harry S., to The Cincinnati Milling Machine Co. Filler for grinding wheels. 3,113,006, 12-3-63, Cl. 51—298.

Kibby, Howard. Combination flashlight and key holder. 3,099,399, 7-30-63, Cl. 240—6.4.

Kibi, Masajiro: *See*—
Sakaguchi, Kinichiro, Kibi, and Kuninaka.

Kibinger, Fritz, and H. Eder; said Eder assor. to said Kibinger. Hop picker. 3,073,316, 1-15-63, Cl. 130—30.

Kibler, Charles J., M. B. Knowles, and J. W. Tamblyn, to Eastman Kodak Co. Dibenzoylresorcinol stabilizer in cellulose esters. 3,075,850, 1-29-63, Cl. 106—187.

Kibler, Charles J., and J. W. Tamblyn, to Eastman Kodak Co. Ultraviolet light stabilized cellulose ester plastic composition. 3,100,716, 8-13-63, Cl. 106—187.

Kibler, Lynden U., to Bell Telephone Laboratories, Inc. Solid state diode surface wave traveling wave amplifier. 3,094,664, 6-18-63, Cl. 325—373.

Kibsgaard, John. Grain cleaner. 3,111,483, 11-19-63, Cl. 209—10.

Kidd, Vernon E. Honing tool. 3,070,926, 1-1-63, Cl. 51—184.1.

Kidde Mfg. Co., Inc.: *See*—
Kronheim, John H.

Kidde, Walter, Co. Ltd., The: *See*—
Refell, Brian R. A.

Kidder, Warren B. Pressure detecting method and apparatus. 3,105,952, 10-1-63, Cl. 340—38.

Kido, Ryonosuke: *See*—
Kano, Hideo, Ogata, Kido, and Yamamoto.

Kidwell, Elizabeth N. Immunological method. 3,097,141, 7-9-63, Cl. 167—78.

Kidwell, Jay F.: *See*—
Fouse, Frederick Z., and Kidwell.
Fouse, Frederick Z., and Kidwell.

Kidwell, John H., to The Babcock & Wilcox Co. Liquid fuel burner. 3,091,283, 5-28-63, Cl. 158—76.

Kiebler, John W.: *See*—
Bogle, Robert W., and Kiebler.

Kieckhefer, Robert J., Jr., to Litho-Strip Corp. Register control for printing continuous metal strip. 3,081,700, 3-19-63, Cl. 101—177.

Kieckhefer, Robert J., Jr., to Litho-Strip Corp. Rotary printing press for apertured continuous metal strip. 3,102,472, 9-3-63, Cl. 101—228.

Kiefer, Harry J., G. E. Pekarek, and A. Zier, to The Glidden Co. Metal coating composition, method for preparing same and coated metal sheet. 3,080,246, 3-5-63, Cl. 106—285.

Kiefer, Howard H. Sun hat. 3,089,145, 5-14-63, Cl. 2—177.

Kiefer, Howard H. Amphibious vehicle. 3,112,727, 12-3-63, Cl. 115—1.

Kiefer, John: *See*—
Simonson, Lowden, Wieman, Reamey, and Kiefer.

Kiefer, John E.: *See*—
Touey, George P., and Kiefer.
Touey, George P., and Kiefer.
Touey, George P., and Kiefer.

Kiefer, John E., and G. P. Touey, to Eastman Kodak Co. Process of manufacturing water-soluble plastic objects from water-soluble salts of a cellulose acyl sulfate. 3,082,107, 3-19-63, Cl. 106—180.

Kiefer, John E., and G. P. Touey, to Eastman Kodak Co. Composition comprising sodium cellulose acetate sulfate and a polymer and unit package prepared therefrom. 3,113,674, 12-10-63, Cl. 206—84.

Kiefer, Otto. Plastic wheels or runners. 3,095,822, 7-2-63, Cl. 103—114.

Kiefer, Reginald R.: *See*—
Langdon, Samuel W.

Kieffer, Fred W. Spring lifter. 3,091,448, 5-28-63, Cl. 267—60.

Kieffer, Richard, and K. Sedlatschek, to Schwarjkopf Development Corp. Process of providing oxidizable refractory-metal bodies with a corrosion-resistant surface coating. 3,086,886, 4-23-63, Cl. 117—102.

Kieffer, Richard, and K. Sedlatschek, to Schwarzkopf Development Co. Method for welding bodies of molybdenum, tungsten and bodies of their alloys. 3,110,101, 11-12-63, Cl. 29—487.

Kiehl, Heinrich. Frames, particularly for ladies' handbags. 3,077,912, 2-19-63, Cl. 150—29.

Kiekhaefer Corp.: *See*—
Alexander, Charles F., Jr.
Kiekhaefer, Elmer C.
Kiekhaefer, Elmer C.
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Kiekhaefer, Elmer C.
Thompson, George F.

Kiekhaefer, Elmer C., to Kiekhaefer Corp. Suspension system for outboard motors. 3,084,657, 4-9-63, Cl. 115—18.

Kiekhaefer, Elmer C., to Kiekhaefer Corp. Outboard motor remote steering control. 3,091,977, 6-4-63, Cl. 74—501.

Kiekhaefer, Elmer C., to Kiekhaefer Corp. Outboard motor propeller construction. 3,102,506, 9-3-63, Cl. 115—17.

Kiekhaefer, Elmer C. Residential water storing and supply apparatus. 3,102,799, 9-3-63, Cl. 55—227.

Kiekhaefer, Elmer C., to Kiekhaefer Corp. Two-cycle internal-combustion engine. 3,105,474, 10-1-63, Cl. 123—59.

Kieler Howaldtswerke Aktiengesellschaft: *See*—
Schröer, Karl, and Bratumyl.

Kielhorn, Werner: *See*—
Breuer, Erich, and Kielhorn.

Kienast Alfred. Electrical communication system. 3,094,588, 6-18-63, Cl. 179—2.

Kienel, Joseph E., to Callaway Mills Co. Towel dispensing machine. 3,095,998, 7-2-63, Cl. 221—213.

Kieninger, Joseph E.: *See*—
Feng, I-Ming, Kieninger, and Hinkamp.

Kienzle Apparate G.m.b.H.: *See*—
Antritter, Werner.
Bertrang, Hermann.
Gille, Paul, Hettich, Lorenz, and Schörner.
Haupt, Wilhelm.
Haupt, Wilhelm, and Neymeyer.
Kassel, Martin, and Martens.
Kittel, Hermann, Kohmann, and Kasper.
Maier, Lorenz, and Tofp.

Kienzle Uhrenfabriken A.G.: *See*—
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Kiernan, Bruce E. Cutting tool. 3,078,546, 2-26-63, Cl. 29—95.

Kieronski, John P., to Leesona Corp. Textile apparatus. 3,074,606, 1-22-63, Cl. 226—11.

Kies, Elliott J.: *See*—
Frey, Edward, and Kies. 3,089,268.

Kies, Elliott J., to The Massillon-Cleveland-Akron Sign Co. Wind operated sign. 3,088,235, 5-7-63, Cl. 40—37.

Kies, Elliott J., to The Massillon-Cleveland-Akron Sign Co. Banner mounting construction. 3,102,353, 9-3-63, Cl. 40—128.

Kiesel, Karl, to Escher Wyss G.m.b.H. Reel starter for winding of webs. 3,094,294, 6-18-63, Cl. 242—65.

Kiesel, Kenneth A., to Westinghouse Electric Corp. X-ray apparatus. 3,075,082, 1-22-63, Cl. 250—95.

Kiesel, Kenneth A., E. L. Webb, D. V. Smith, and Z. L. Collins, to Westinghouse Electric Corp. Radio fluid detector. 3,076,093, 1-29-63, Cl. 250—71.5.

Kieselbach, Richard, to E. I. du Pont de Nemours and Co. Shielded resistor. 3,106,088, 10-8-63, Cl. 73—27.

Kiesler, Allan J.: *See*—
Landig, Thomas W., and Kiesler. 3,099,552.

Kiesling, John D.: *See*—
Blewett, John P., and Kiesling. 3,093,733.

Kiesow, Lothar: *See*—
Hartwig, Fritz, Kaspar, Kiesow, and Gehrmann. 3,109,949.

Kiesslich, Klaus: *See*—
Raspe, Gerhard, Kiesslich, Ollvar, Muller, and Wagner. 3,102,080.

Kiessling, Hans-Joachim, and H. Unruh, to Deutsche Solvay-Werke G.m.b.H. Polybenzyl derivatives and process for the production thereof. 3,076,785, 2-5-63, Cl. 260—61.

Kietz, Hans, and H. G. Schloen, to Atlas-Werke Aktiengesellschaft. Non-linear recording amplifier. 3,094,681, 6-18-63, Cl. 340—3.

Kiewitt, Gustel R.: *See*—
Deicke, Elmer L. 3,077,961.

Kiff, Ben W.: *See*—
Guest, Howard R., and Kiff. 3085,121.
Guest, Howard R., and Kiff. 3,088,970.
Guest, Howard R., and Kiff. 3,116,338.
Guest, Howard R., Kiff, and Halstead. 3,087,918.
Guest, Howard R., Kiff, and Halstead. 3,110,703.

Kihara, Nobutoshi, to Sony Corp. Signal amplifying device. 3,112,365, 11-26-63, Cl. 179—1.

Kiherl, Allen E.: *See*—
Johnson, Ernest H., Bremigan, and Kiherl. 3,090,019.

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Kihn, Harry: *See*—
Barnette, William E., and Kihn. 3,110,016.

Kihn, Harry, and W. E. Barnette, to Radio Corp. of America. Decoder circuits. 3,082,404, 3-19-63, Cl. 340—164.

Kihn, Harry, and W. E. Barnette, to Radio Corp. of America. Decoder circuits. 3,114,047, 12-10-63, Cl. 307—88.

Kikas, Leonhard. Beauty beach kit. 3,115,638, 12-31-63, Cl. 2—48.

Kikas, Leonhard. Adjustable mop head. 3,115,657, 12-31-63, Cl. 15—150.

Kikendall, Ralph E. Snap acting safety valve. 3,074,425, 1-22-63, Cl. 137—477.

Kiker, Charles W., Jr. Teaching and testing machine. 3,082,545, 3-26-63, Cl. 35—9.

Kikkawa, Ikuo: *See*—
Kano, Hideo, Kikkawa, Makisumi, Takahashi, and Ogata. 3,073,839.

Kikta, John M., to Grayhill, Inc. Test clip. 3,116,101, 12-31-63, Cl. 339—258.

Kikuchi, Akio. Size-adjustable rake. 3,073,103, 1-15-63, Cl. 56—400.18.

Kikuna Electric Co., Ltd.: *See*—
Takahashi, Toshio. 3,078,207.

Kilayko, Enrique L., to Precision Chemical Pump Corp. Dual seating ball check valve. 3,091,254, 5-28-63, Cl. 137—516.29.

Kilboy, Lambert J., Jr.: *See*—
Irwin, James S., and Kilboy. 3,075,833.

Kilburg, James, to Perini Electronic Corp. Support and drive means for adjustable tapes. 3,081,047, 3-12-63, Cl. 242—55.

Kilburn, John E., and F. Morrone, to International Tool & Research, Inc. Adjustable head welding torch. 3,109,916, 11-5-63, Cl. 219—75.

Kilburn, William C., and W. P. Somers, to General Electric Co. Electric heating pad. 3,114,825, 12-17-63, Cl. 219—46.

Kilbury, Paul D., Jr.: *See*—
Nickl, Franklyn G., and Kilbury. 3,103,073.

Kilby, Jack S., to Texas Instruments Inc. Semiconductor structure fabrication. 3,072,832, 1-8-63, Cl. 317—235.

Kilby, Jack S., to Texas Instruments Inc. Miniature semiconductor integrated circuit. 3,115,581, 12-24-63, Cl. 307—88.5.

Kilby, William, and C. Hitchen, to Standfast Dyers & Printers Ltd. Dyeing of cellulosic material with vat dyestuffs. 3,077,370, 2-12-63. Cl. 8—34.

Kilcup, Dillon K. Intermittent motion mechanism. 3,095,749, 7-2-63, Cl. 74—84.

Kilduff, Herbert: *See*—
Lewis-Smith, Charles P., and Kilduff. 3,071,293.

Kilduff, Timothy J., and A. A. Benderly, to United States of America, Army. Polytetrafluoroethylene waveguide window construction. 3,095,550, 6-25-63, Cl. 333—98.

Kile, Otho, and B. J. Golbeck, to R. R. Donnelly & Sons Co. Method of and apparatus for cutting and feeding wrappers for magazines. 3,101,164, 8-20-63, Cl. 225—2.

Kilheffer, Lawrence D.: *See*—
Close, Patrick B., Coulter, Ditmer, Fabrenbruck, Goldammer, Goodrick, Gulden, Holloran, Jenkins, Kilheffer, Kinker, Lyons, Manor, Marvin, Miller, O'Brian, Randall, Garner, Sather, Yost, and Braden. 3,112,394.

Kilian, Georg, and F. Mains, to Libbey-Owens-Ford Glass Co. Apparatus for producing double sheet glazing units. 3,100,148, 8-6-63, Cl. 65—152. 4

Killark Electric Mfg. Co.: *See*—
Zavertnik, Marshall G. 3,093,703.

Kille, Leonard A., and W. D. Teague, to Polaroid Corp. Camera construction. 3,077,152, 2-12-63, Cl. 95—10.

Killen, Charles W.: *See*—
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Killen, Duncan C. Folding easel. 3,095,665, 7-2-63, Cl. 45—129.

Killen, Duncan C. Wide frame folding easel. 3,095,666, 7-2-63, Cl. 45—129.

Killen, Duncan C. Convertible easel and table. 3,095,834 7-2-63, Cl. 311—3.

Killen, William R.: *See*—
Cacella, Arthur F., and Killen. 3,115,384.

Killian, Henry R., to Henry Pratt Co. Pipe expansion joint. 3,107,931, 10-22-63, Cl. 285—108.

Killias, Rudolf, to A. Lins. Mixing valve. 3,112,879, 12-3-63, Cl. 236—12.

Killick, Merrill W.: *See*—
Callear, Thomas E., and Killick. 3,091,531.

Killinger, George. Animal trap. 3,114,985, 12-24-63, Cl. 43—83.5.

Killoran, Joseph L., and N. L. Larue, to Canadian Celanese Ltd. Extrusion jet. 3,078,509, 2-26-63, Cl. 18—8.

Kilmer, Earl E.: *See*—
Kabik, Irving, Kilmer, and Leopold. 3,088,006.

Kilmer, Earl E., and R. A. Montgomery, to United States of America, Navy. Method and apparatus using an exploding piston in a shock tunnel. 3,100,305, 11-5-63, Cl. 73—147.

Kilner, George, to Filper Corp. Device for cutting around pits in drupes; coring and segmenting fruit bodies. 3,108,624, 10-29-63, Cl. 146—52.

Kilness, Luther E. Ratchet mechanism. 3,078,973, 2-26-63, Cl. 192—43.2.

Kilpatrick, David G., to Cenco Instruments Corp. Cardiac electrode means. 3,087,486, 4-30-63, Cl. 128—2.1.

Kilroy, Henry P., and J. O. McDonough, to Giddings & Lewis Machine Tool Co. Phase-responsive servosystem control of a variable condition having positive or negative values. 3,078,400, 2-19-63, Cl. 318—28.

Kilsheimer, John R., and H. H. Moorefield, to Union Carbide Corp. Dihydronaphthyl N-methyl-carbamates. 3,081,340, 3-12-63, Cl. 260—479.

Kilsheimer, John R., and H. H. Moorefield, to Union Carbide Corp. 5-lower acylamino 1-naphthyl N-methylcarbamates. 3,099,681, 7-30-63, Cl. 260—479.

Kim, Alfred M. H. Venetian blind. 3,100,113, 8-20-63, Cl. 160—168.

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Kimball, A., Co.: *See*—
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Clemens, John E., and Johnstone. 3,108,799.
Mühlbach, Anton, and Schlitt. 3,115,827.
Ross, Thaddeus C. 3,098,606.

Kimball, Donald G., to General Electric Co. Rocker-operated switch. 3,071,659, 1-1-63, Cl. 200—5.

Kimball, Eugene C. Telescoping column structure. 3,087,626, 4-30-63, Cl. 212—34.

Kimball, George R., and N. L. Etten, deceased (by E. Etten, executrix), to Chamberlain Corp. Metal shelf construction. 3,105,595, 10-1-63, Cl. 211—153.

Kimball, Harold W. Combustion engine valve. 3,090,370, 5-21-63, Cl. 123—188.

Kimball, Richard H., and E. Leon, to Hooker Chemical Corp. Stabilization of 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-6,9-methano-2,4,3-benzodioxathiepin-3-oxide with water. 3,105,081, 9-24-63, Cl. 260—327.

Kimball, Richard H., and G. W. Darling, to Hooker Chemical Corp. Process for the manufacture and recovery of a chlorine-containing carboxylic acid. 3,112,339, 11-26-63, Cl. 260—514.

Kimball, Rollow C.: *See*—
Kimball, Rollow D. and R. C. 3,079,045.

Kimball, Rollow D. and R. C. Control for fluid dispensers. 3,079,045, 2-26-63, Cl. 222—20.

Kimbell, Marion J., and C. V. Fields, to Westinghouse Electric Corp. Temperature responsive resistance device. 3,113,458, 12-10-63, Cl. 73—362.

Kimber, Ray L., Jr., to Corning Glass Works. Handle-band assembly. 3,105,714, 10-1-63, Cl. 294—31.2.

Kimberlin, Charles N., Jr.: *See*—
Ellert, Henry G., and Kimberlin. 3,113,162.
Ellert, Henry G., and Kimberlin. 3,113,981.
Mattox, William J., and Kimberlin. 3,104,270.

Kimberlin, Charles N., Jr., W. J. Mattox, and C. E. Adams, to Esso Research and Engineering Co. Treatment of petroleum residua with sodium alloys. 3,093,575, 6-11-63, Cl. 208—208.

Kimberlin, Charles N., Jr. and W. F. Arey, to Esso Research and Engineering Co. Universal caustic regeneration process. 3,104,157, 9-17-63, Cl. 23—184.

Kimberlin, Charles N., Jr., and W. J. Mattox, to Esso Research and Engineering Co. Hydrocarbon separation process. 3,106,591, 10-8-63, Cl. 260—676.

Kimberley, John A.: *See*—
Hurley, Roy T., Bentele, and Kimberley. 3,081,753.

Kimberly-Clark Corp.: *See*—
Altree, Arthur F., Bass, and Goldsholl. 3,090,483.
Bletzinger, John C. 3,110,609.
Day, Winterton U., Donnelly, and Rohs. 3,096,228.
Dickens, William A. 3,077,675.
Dickens, William A., and Sager. 3,097,994.
Grobe, Ralph E., and Allen. 3,077,629.
Harwood, Kenneth J. 3,072,511.
Harwood, Kenneth J. 3,115,877.
Johnson, Charles G., and Sager. 3,113,890.
Kellett, William R. 3,091,241.
Kellogg, Harry B., and Dickens. 3,097,933.
Kuhnel, Paul T. 3,088,842.
Leotta, Samuel S. 3,116,030.
Lincoln, David, Rightor, and Wilson. 3,072,051.
Malmstrom, Homer E., and Donaldson. 3,099,543.
Martinek, Richard W. 3,097,107.
Minarik, Rudolf G. 3,086,416.
Nobbe, Bernard. 3,074,324.
Perkins, Fred D., Jr. 3,071,962.
Harwood, Kenneth J. 3,105,491.
Stanczak, Frank J., and Wolterding. 3,075,260.
Tretheway, Donald G., and Hansen. 3,089,409.
Waters, John W. 3,074,303.
Zabel, Lowell W., Eastwood, and Moen. 3,114,791.

Kimble, Creighton B., to Lockheed Aircraft Corp. Latch. 3,111,338, 11-19-63, Cl. 292—111.

Kimble Glass Co.: *See*—
Hinson, Arthur L. 3,071,497.
Kosak, John, and Soubier. 3,078,695.
Torok, Julius J. 3,078,696.

Kimble, Kenneth G., and C. W. Ferguson, to Libby-Owens-Ford Glass Co. Method and apparatus for handling sheets or plates. 3,075,327, 1-29-63, Cl. 53—36.

Kimbleton, Cecil, to Curtiss-Wright Corp. Capacitance tuning circuit for variable speed alternator current control. 3,089,997, 5-14-63, Cl. 322—95.

Kimbleton, Cecil, to Curtiss-Wright Corp. Voltage regulating system. 3,099,783, 7-30-63, Cl. 320—40.

Kimbrell, Hershel E. Practice device. 3,105,683, 10-1-63, Cl. 273—1.5.

Kimbro Mfg. Corp.: *See*—
Kimbro, Robert M. 3,114,385.

Kimbro, Robert M., to Kimbro Mfg. Corp. Replacement valve unit. 3,114,385, 12-17-63, Cl. 137—315.

Kimbrough, Jacob C., to Cumberland Case Co. Doorstep box. 3,081,898, 3-19-63, Cl. 220—9.

Kimbrough, Lud H., Jr., to Ideal Fishing Float Co., Inc. Box with slide cover and hang-up device. 3,082,902, 3-26-63, Cl. 220—18.

Kime, Elwood H.: *See*—
Jensen, Alfred P. 3,079,963.

Kimel, Walter: *See*—
Eichmann, Garry G., and Kimel. 3,093,681.

Kimel, Walter, and M. Montavon, to Hoffmann-La Roche Inc. Process of making nuclearly unsaturated ionone and irone. 3,110,734, 11-12-63, Cl. 260—587.

Kimm, Ewald J., to United Aircraft Products, Inc. Combined shut-off and flow regulating valve. 3,115,891, 12-31-63, Cl. 137—495.

Kimmel, Clifford J., and R. R. Bawabe, to Heat-X, Inc. Refrigeration system, including oil separator and muffler unit and oil return arrangement. 3,070,977, 1-1-63, Cl. 62—473.

Kimmel, Henry A., ½ to J. W. Haubner. Bandage scissors. 3,084,433, 4-9-63, Cl. 30—254.

Kimmel, Paul J. Golf bag holder. 3,075,733, 1-29-63, Cl. 248—96.

Kimmlinger, Kenneth T.: *See*—
Hoshein, Louis H., and Kimmlinger. 3,109,702.

Kimoto, Koji: *See*—
Inaba, Yanosuke, and Kimoto. 3,113,935.

Kimpel, Robert F., to Aerojet-General Corp. Refractory cement composition. 3,102,037, 8-27-63, Cl. 106—57.

Kimsey, William A., to The R. K. Le Blond Machine Tool Co. Hydraulic screw feed mechanism. 3,075,503, 1-29-63, Cl. 121—45.

Kimura, Kazuo: *See*—
Kinoshita, Shukuo, Tanaka, and Kimura. 3,086,917.

Kimura, Masami, to Howa Kogyo Kabushiki Kaisha (known as Howa Machinery Ltd.). Weft end extractor. 3,086,561, 4-23-63, Cl. 139—257.

Kimura, Tak. Aqua-sled. 3,082,443, 3-26-63, Cl. 9—310.

Kin, Myron: *See*—
Hedlund, Robert C., and Kin. 3,093,494.

Kincaid, Donald E., and E. W. White, to General Motors Corp. Lamp basing apparatus. 3,077,849, 2-19-63, Cl. 113—128.

Kincaid, George F.: *See*—
Schoen, Roger W., and Kincaid. 3,075,388.

Kincaid, John F.: *See*—
Dobrin, Saxe, and Kincaid. 3,099,963.

Kincaid, Norman L., to Westinghouse Electric Corp. Strip thickness control apparatus. 3,081,653, 3-19-63, Cl. 80—56.

Kincaid, Thomas J., to Aeromarine Mfg. Co. Lever actuated valve with notched latching means. 3,107,081, 10-15-63, Cl. 251—89.

Kincl, Fred A.: *See*—
Djerassi, Carl, Kincl, and Irlarte. 3,088,953.
Edwards, John A., Ringold, and Kincl. 3,093,664.
Knox, Lawrence H., and Kincl. 3,102,119.
Ringold, Howard J., and Kincl. 3,082,217.

Kincl, Fred A., to Syntex Corp. 21-amino-3β,20-dihydroxy-allopregnanes. 3,074,933, 1-22-63, Cl. 260—239.5.

Kincl, Fred A., to Syntex Corp. [2,3]-cyclohex-4'-en-3'-one derivatives of 17 hydroxy-androstanes. 3,077,483, 2-12-63, Cl. 260—397.4.

Kincl, Fred A., and H. J. Ringold, to Syntex Corp. 2-substituted testololactones. 3,080,379, 3-5-63, Cl. 260—343.2.

Kincl, Fred A., and H. J. Ringold, to Syntex Corp. Steroidol lactones. 3,099,659, 7-30-63, Cl. 260—343.2.

Kincl, Fred A., and M. Velasco, to Syntex Corp. $\Delta^{5(10)}$-pregnene compounds. 3,102,125, 8-27-63, Cl. 260—397.4.

Kincl, Fred A., to Syntex Corp. 17-aminoandrostanes. 3,097,200, 7-9-63, Cl. 260—239.5.

Kinder, Gotthard, to Voigtlander A.G. Photographic camera with electrical exposure meter. 3,093,043, 6-11-63, Cl. 95—10.

Kinderman, Walter J., to Yarnall-Waring Co. Transmission mechanism. 3,077,792, 2-19-63, Cl. 74—640.

Kindig, Arnie J., to Jeffrey Galion Mfg. Co. Segmented wheel structure. 3,097,541, 7-16-63, Cl. 74—243.

Kindig, Guilford E.: *See*—
Hutchison, Miller R., Jr., and Kindig. 3,094,051.

Kindler, Georg: *See*—
Hofmeister, Werner, Godenrath, and Kindler. 3,091,186.

Kindler, Hubert: *See*—
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Kindred, Raymond L., to Phillips Petroleum Co. Fluid stream analyzer. 3,106,087, 10-8-63, Cl. 73—23.

Kindred, Raymond L., and M. M. Fourroux, to Phillips Petroleum Co. Fluid mixture analysis. 3,095,728, 7-2-63, Cl. 73—23.

Kindseth, Harold V. Method of producing open mesh sheeting of thermoplastic resin. 3,085,292, 4-16-63, Cl. 18—55.

Kindseth, Harold V., to Bemis Bro. Bag Co. Probe and spout with lock assembly. 3,108,717, 10-29-63, Cl. 222—89.

Kindseth, Harold V., to Bemis Bro. Bag Co. Transporting and dispensing container. 3,113,712, 12-10-63, Cl. 229—14.

Kindseth, Harold V., and D. D. Wendt, to Bemis Bro. Bag Co. Container structure and method. 3,074,617, 1-22-63, Cl. 229—55.

Kine, Benjamin B.: *See*—
Harren, Richard E., and Kine. 3,106,486.
Matlin, Nathaniel A., and Kine. 3,074,834.

Kine, Benjamin B., and N. A. Matlin, to Rohm & Haas Co. Stabilization of protein-containing textiles with nitrogen containing polymers. 3,078,185, 2-19-63, Cl. 117—141.

Kine, Benjamin B., and J. Kucsan, to Rohm & Haas Co. Copolymers of alkyl acrylate, methoxymethyl vinyl sulfide, comonomer containing functional groups and coating compositions thereof. 3,084,073, 4-2-63, Cl. 117—161.

Kine, Benjamin B., and N. A. Matlin, to Rohm & Haas Co. Method for making bonded non-woven fibrous products and the products obtained. 3,101,292, 8-20-63, Cl. 154—46.

Kineflow Corp.: *See*—
Stewert, Norman R. 3,093,580.

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Bucalo, Louis. 3,111,838.

Kinetics Corp.: *See*—
Elliott, Louis J., and Ward. 3,096,472.
Ward, Thomas C. 3,082,330.

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Uc, Eduard, and Kopriva. 3,089,066.

King, Adolph C. Portable blind for hunters and soldiers. 3,075,252, 1-29-63, Cl. 20—2.

King, Alan G.: *See*—
Whittemore, Osgood J., Jr., King, and Logan. 3,093,498.

King, Andrew J. Jr., and A. B. Fain; said Fain assor. to said King. Mosaic flooring block and method of forming the same. 3,084,406, 4-9-63, Cl. 20—78.6.

King, Austin H.: *See*—
Fowler, Peter H., and King. 3,079,786.

King, Baldwin. Drapery suspension device. Re. 25,310, 1-1-63, Cl. 160—346.

King, Bartley E.: *See*—
Polonsky, Samuel, and King. 3,101,586.

King, Ben E., and G. M. Sherman, to United States of America, Navy. Missile transfer coupling. 3,077,145, 2-12-63, Cl. 89—1.7.

King, Benny I. Relaxing couch. 3,108,293, 10-29-63, Cl. 5—348.

King, Bernie E., to Rohr Corp. Unitized bathroom structure. 3,110,907, 11-19-63. Cl. 4—2.

King, Charles B.: *See*—
Brown, Donald N., and King. 3,113,009.
Carlsen, Leonard O., and King. 3,110,225.

King, Charles R.: *See*—
Ford, George E., and King. 3,100,502.

King, Charles S.: *See*—
Penny, Robert N., and King. 3,085,619.

King, Charles W. Ellipse compass. 3,104,466, 9-24-63, Cl. 33—27.

King, Clarence V. H., Jr., and J. W. Margraf, to A. H. L. Klemme. Portable glue sealers for carton bottoms. 3,104,597, 9-24-63, Cl. 93—44.1.

King, Clarence W., to Conveyor Systems, Inc. Belt conveyor system. 3,082,858, 3-26-63, Cl. 198—108.

King, Clyde O. Dual flush valve. 3,080,567, 3-12-63, Cl. 4—57.

King, Daniel L., and E. G. Hitch, to Associated Electrical Industries Ltd. Inter-communication systems. 3,100,244, 8-6-63, Cl. 179—17.

King, Denver R. Air compressor. 3,108,737, 10-29-63, Cl. 230—72.

King, Donald R.: *See*—
Miller, Raymond J., Erwin, and King. 3,080,764.

King, Donald M. Conveyor systems. 3,102,631, 9-3-63, Cl. 198—177.

King, Edward G., III. Insulated container for carrying or storing heated food and the like. 3,093,238, 6-11-63, Cl. 206—4.

King, Edward J.: *See*—
Hudson, James W., and King. 3,104,774.
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King, Ellis G., and C. Adolphson, to Puget Sound Pulp & Timber Co. Drilling fluid composition and process. 3,087,923, 4-30-63, Cl. 260—124.

King, Ellis G., and C. Adolphson, to Puget Sound Pulp & Timber Co. Acid treated sulfonated lignin-containing material and process for the production thereof. 3,095,409, 6-25-63, Cl. 260—124.

King, Ellis G., and C. Adolphson, to Puget Sound Pulp & Timber Co. Gypsum composition and method. 3,108,008, 10-22-63, Cl. 106—111.

King, Ellis G., and C. Adolphson, to Puget Sound Pulp & Timber Co. Structural clay and method. 3,109,742, 11-5-63, Cl. 106—72.

King, Elmer M.: *See*—
Korgesch, Karl V., and King. 3,077,507.

King, Everett L., and J. L. Wishart, to Vermont American Corp. Tap having a leading rough cutting portion followed by a finish cutting portion on each cutting tooth. 3,113,330, 12-10-63, Cl. 10—141.

King, Ferdinand P. Pit plow. 3,072,199, 1-8-63, Cl. 172—86.

King, Ferdinand P. Pit plow. 3,100,541, 8-13-63, Cl. 172—86.

King, Forrest H.: *See*—
Fisher, Byron L., and King. 3,090,195.

King, Frank W., to E. I. du Pont de Nemours and Co. Process for wet spinning aromatic polyamides. 3,079,219, 2-26-63, Cl. 18—54.

King, Garner W. Safety attachment for rear view vehicle mirrors. 3,104,274, 9-17-63, Cl. 88—87.

King, George E., to Westinghouse Electric Corp. Electric motor control system. 3,107,322, 10-15-63, Cl. 318—443.

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King, Gilbert M., to Seekonk Lace Co. Lace fabric. 3,088,362, 5-7-63, Cl. 87—4.

King, Henry V., to The Plessey Co. Ltd. Control valves for reversible air motors. 3,115,749, 12-31-63, Cl. 60—39.14.

King, Irving R.: *See*—
Barnes, Vernon M., Jr., Burke, King, and Wolf. 3,114,318.

King, Jack C., to The Shaw-Walker Co. Card guides. 3,074,411, 1-22-63, Cl. 129—16.8.

King, Jack E. Apparatus and method of clearing ditches. 3,097,466, 7-16-63, Cl. 56—25.4.

King, James C., to Bell Telephone Laboratories, Inc. High temperature quartz piezoelectric devices. 3,113,224, 12-3-63, Cl. 310—9.5.

King, James D., to Daniel Orifice Fitting Co. Multiple integration flow computer. 3,096,434, 7-2-63, Cl. 235—151.

King, James F., Jr.: *See*—
Bahnson, Agnew H., Jr., and King. 3,088,266.
Bahnson, Agnew H., Jr., and King. 3,089,176.

King, James F., Jr. Universally mounted ceiling cleaner for textile work rooms. 3,072,321, 1-8-63, Cl. 230—255.

King, James F., Jr. Scavenger roll and flute holder. 3,072,948, 1-15-63, Cl. 15—256.52.

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King, James R.: *See*—
Laakso, Thomas M., Buckley, and King. 3,110,698.

King, John C.: *See*—
Jennings, Roscoe C., Jr., and King. 3,114,245.

King, Kahl V., and R. E. Wilson, to General Motors Corp. Dynamoelectric machine. 3,093,764, 6-11-63, Cl. 310—214.

King, Kenneth J.: *See*—
Totaro, Thomas C., and King. 3,071,264.

King, Laurence F., and C. T. Steele, to Esso Research and Engineering Co. Process for improving the odor of paraffinic hydrocarbons. 3,080,436, 3-5-63, Cl. 260—676.

King, Louis D.: *See*—
Smith, Pierre F., and King. 3,082,091.

King, Marvin M.: *See*—
Craddock, Ronald G., and King. 3,115,108.

King, Marvin M., to Shwayder Bros., Inc. Kneeler attachment for chairs. 3,107,943, 10-22-63, Cl. 297—426.

King, Milton E., to Automatic Welding Co. Roller resurfacing machine. 3,109,918, 11-5-63, Cl. 219—76.

King, Milton E., to Automatic Welding Co. Welding method and apparatus. 3,109,920, 11-5-63, Cl. 219—125.

King, Murray A., and B. J. Dennison, to Pittsburgh Plate Glass Co. Method of laminating polyvinyl resin sheets. 3,074,841, 1-22-63, Cl. 156—325.

King, Paul B., Jr., to Aircraft Radio Corp. Motor control for selecting shaft positions. 3,098,961, 7-23-63, Cl. 318—467.

King, Paul E., and R. F. Mallina, to Thompson Ramo Wooldridge Inc. Dictating machine. 3,079,159, 2-26-63, Cl. 274—14.

King, Phillip W., to The Sessions Clock Co. Repeat alarm device. 3,099,127, 7-30-63, Cl. 58—16.

King, Phillip W., R. J. Kavanaugh, and W. A. Knecht, to Consolidated Electronics Industries Corp. Laboratory stop clock. 3,088,270, 5-7-63, Cl. 58—39.5.

King, Ralph E.: *See*—
Schumacher, Frank A., and King. 3,111,814.

King, Robert R., to Daystrom, Inc. Balance weight. 3,073,283, 1-15-63, Cl. 116—136.5.

King, Robert W., to Owens-Illinois Glass Co. Apparatus for producing plastic containers. 3,106,745, 10-15-63, Cl. 18—5.

King, Roderick V., to The Joseph Dixon Crucible Co. Tray for water color paint box. 3,089,584, 5-14-63, Cl. 206—1.8.

King, Roland C. Dielectric ceramic and method of preparing same. 3,089,779, 5-14-63, Cl. 106—39.

King Seeley Thermos Co.: *See*—
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Darmstadt, Louis J., and Fuller. 3,115,981.
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Sivacek, Emil E. 3,110,954.
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King, Terence C., to The Toronto Iron Works, Ltd. Door locking mechanism for high pressure autoclaves. 3,107,810, 10-22-63, Cl. 220—55.5.

King, Thomas F.: *See*—
Farnsworth, Lee P., King, and Hannoosh. 3,088,559.

King, Thomas H., to Socony Mobil Oil Co., Inc. Catch and burn tank assembly. 3,107,494, 10-22-63, Cl. 61—.5.

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Enz, Walter F., and King. 3,081,233.

King, William B. Cleaning and transporting device for a radioactive source. 3,102,958, 9-3-63, Cl. 250—106.

King, William F., to General Motors Corp. Balancing means. 3,087,357, 4-30-63, Cl. 77—5.

King, William M., L. Neltner, and T. C. Bahr. Small animal feeder. 3,114,350, 12-17-63, Cl. 119—51.

King, William R., to Jas. H. Matthews & Co. Circular marking device. 3,080,812, 3-12-63, Cl. 101—36.

King, William R., to Minneapolis-Honeywell Regulator Co. Molded electrical cord connector. 3,093,432, 6-11-63, Cl. 339—59.

King, William R., to Phillips Petroleum Co. Pressure control in cyclic pneumatic conveyor systems. 3,101,909, 8-27-63, Cl. 241—25.

King, William R., and J. S. Ayers, to Jas. H. Matthews & Co. Machine for embossing container lids and placing them on containers. 3,100,957, 8-20-63, Cl. 53—67.

King Bee Mfg. Co.: *See*—
Morgan, Paul A. 3,107,061.
Morgan, Paul A. 3,109,598.

Kingdon, Ralph H.: *See*—
Stanback, Harris I., and Kingdon. 3,098,136.

Kingdon, Ralph H., to Square D Co. Electrical panelboard. 3,105,173, 9-24-63, Cl. 317—119.

Kinghorn, Charles M., and H. G. Hendrickson, to Kaiser Aluminum & Chemical Corp. Metal foil container. 3,088,624, 5-7-63, Cl. 220—54.

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Bennett, Richard A., and Kron. 3,090,360.

Kings Brush Co.: *See*—
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Kings, Leonard W.: *See*—
Redmayne, Leonard, Wilson, and Kings. 3,077,246.

Kings, Leonard W., to Girling Ltd. Universal joints. 3,071,943, 1-8-63, Cl. 64—21.

Kings, Leonard W., to Girling Ltd. Universal joints. 3,075,370, 1-29-63, Cl. 64—32.

Kingsbury Machine Works, Inc.: *See*—
Lakey, Arthur B., and Spiegel. 3,107,130.

Kingsford-Smith, Charles A., to General Precision, Inc. Responder device. 3,088,106, 4-30-63, Cl. 343—6.8.

Kingsland, James M.: *See*—
Burroughs, Cyril E., Topp, and Kingsland. 3,089,642.

Kingsley, Lewis A. Method and apparatus for marking polytetrafluoroethylene. 3,071,486, 1-1-63, Cl. 117—8.

Kingsley, Lewis A. Wire pre-feeder. 3,088,642, 5-7-63, Cl. 226—43.

Kingsley, Lewis A. Take-up mechanism for use on a roll leaf hot stamping machine. 3,092,347, 6-4-63, Cl. 242—67.2.

Kingsley, Richard O. Mower having helical cutter blade. 3,073,100, 1-15-63, Cl. 56—26.

Kingsley, Walter J.: *See*—
Kallmeyer, Alvin R. and Kingsley. 3,084,687.

Kingsmore, Harry V., Sr. Fire alarm signal box having hydraulic delay of operating handle and having a preliminary signal at the box for discouraging false alarms. 3,116,479, 12-31-63, Cl. 340—304.

Kingston, Arthur W. Apparatus for making records and/or reproducing records from strip material and magazines for such strip material. 3,075,717, 1-29-63, Cl. 242—55.13.

Kingston, Donald L.: *See*—
Audet, Henry J., Dwinell, James, and Kingston. 3,109,751.
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Kingston Products Corp.: *See*—
Bowman, Joe. 3,091,673.
Bowman, Joe. 3,094,593.
Woolley, Lee A. 3,071,017.
Woolley, Lee A. 3,112,818.

Kingston, Robert H., and A. L. McWhorter, to Massachusetts Institute of Technology. Semiconductor switching matrix. 3,077,578, 2-12-63 Cl. 340—166.

Kingston, Walter E., B. Kopelman, and H. H. Hausner, to United States of America, Atomic Energy Commission. Nuclear reactor fuel elements and method of preparation. 3,096,263, 7-2-63, Cl. 204—154.2.

Kinkaid, Robert J.: *See*—
Ullman, Robert, and Kinkaid. 3,076,164.

Kinkaid, Robert J., to AMP Inc. Panel connector with flag-type terminals. 3,075,167, 1-22-63, Cl. 339—176.

Kinkead Industries Inc.: *See*—
Kochanowski, George A. 3,102,581.

Kinker, Clarence C.: *See*—
Olson, Ralph H., and Kinker. 3,077,096.

Kinker, Karl A.: *See*—
Close, Patrick B., Coulter, Ditmer, Fahrenbruck, Goldammer, Goodrick, Gulden, Holloran, Jenkins, Kilheffer, Kinker, Lyons, Manor, Marvin, Miller, O'Brian, Randall, Garner, Sather, Yost, and Braden. 3,112,394.

Kinkle, Robert A., to General Electric Co. Temperature sensor for roasting oven. 3,089,407, 5-14-63, Cl. 99—340.

Kinnard, Wolcott. Textured finish on photographic prints. 3,110,235, 11-12-63, Cl. 95—1.

Kinnear, Harold L., and R. C. Ankrum, to The Standard Oil Co. Outdoor lighting fixture. 3,107,864, 10-22-63, Cl. 240—3.

Kinnear Mfg. Co., The: *See*—
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Kinney, Aldon M., to Parke, Davis & Co. Explosion venting construction for buildings. 3,112,535, 12-3-63, Cl. 20—56.4.

Kinney, Alfred W.: *See*—
Carew, Herman, and Kinney. 3,079,683.
Carew, Herman, and Kinney. 3,080,078.
Carew, Herman, and Kinney. 3,115,991.

Kinney, Cecile M. Portable device for hydrotherapy. 3,092,101, 6-4-63, Cl. 128—66.

Kinney, Howard A., to Crescent Machine & Nipple Co. Tube shaping machine. 3,098,461, 7-23-63, Cl. 113—52.

Kinney, John F., to The Bendix Corp. Bellows arrangement providing failure protection. 3,094,839, 6-25-63, Cl. 60—39.09.

Kinney, John T., to Caterpillar Tractor Co. Weld rod guide. 3,089,022, 5-7-63, Cl. 219—130.

Kinney, Patrick J., and L. C. Kahre, to Phillips Petroleum Co. Helium recovery from natural gas. 3,097,924, 7-16-63, Cl. 23—209.

Kinney, Robert E.: *See*—
Turner, Robert H., and Kinney. 3,115,847.

Kinney, Robert E., to Crossley Machine Co., Inc. Spiral tape winding machine. 3,112,895, 12-3-63, Cl. 242—7.

Kinney, S. P., Engineers, Inc.: *See*—
Carr, Hugh B., and Kinney. 3,113,589.
Kinney, Selwyne P. 3,074,560.
Kinney, Selwyne P. 3,086,582.
Kinney, Selwyne P. 3,113,168.
Kinney, Selwyne P., and Carr. 3,105,672.
Kinney, Selwyne P., and Carr. 3,113,585.
Osborne, Fred. 3,104,164.

Kinney, Selwyne P.: *See*—
Carr, Hugh B., and Kinney. 3,113,589.

Kinney, Selwyne P., to S. P. Kinney Engineers, Inc. Positive pressure backwash strainer. 3,074,560, 1-22-63, Cl. 210—330.

Kinney, Selwyne P., to S. P. Kinney Engineers. Gas burner for blast furnace stoves. 3,086,582, 4-23-63, Cl. 158—109.

Kinney, Selwyne P., to S. P. Kinney Engineers, Inc. Furnace gas cleaning and cooling apparatus. 3,113,168, 12-3-63, Cl. 261—22.

Kinney, Selwyne P., and H. B. Carr, to S. P. Kinney Engineers, Inc. Butterfly valve with a rubber seat. 3,105,672, 10-1-63, Cl. 251—306.

Kinney, Selwyne P., and H. B. Carr, to S. P. Kinney Engineers, Inc. Valves and operating mechanism therefor. 3,113,585, 12-10-63, Cl. 137—315.

Kinney, Theodore S.: *See*—
Hope, James H. 3,100,355.

Kinney, Thurlow R. Implement holder. 3,096,960, 7-9-63, Cl. 248—113.

Kinnicutt, Roger, Jr., and D. Sieurin, to Morgan Construction Co. Severed product switching means. 3,109,340, 11-5-63, Cl. 83—105.

Kinnison, John E. Impact wrench. 3,083,598, 4-2-63, Cl. 81—52.3.

Kinoshita, Shukuo, M. Tanaka, and Y. Kato, to Kyowa Hakko Kogyo Co., Ltd. Process for producing L-glutamic acid from racemic glutamic acid. 3,086,916, 4-23-63, Cl. 195—29.

Kinoshita, Shukuo, K. Tanaka, and K. Kimura, to Kyowa Hakko Kogyo Co., Ltd. Method for producing orotic acid by fermentation process. 3,086,917, 4-23-63, Cl. 195—47.

Kinoshita, Shukuo, H. Samejima, C. Fujita, and T. Nara, to Kyowa Hakko Kogyo Co., Ltd. Method of producing L-threonine by fermentation. 3,099,604, 7-30-63, Cl. 195—29.

Kinoshita, Shukuo, K. Nakayama, T. Suzuki, and Z. Sato, to Kyowa Hakko Kogyo Co., Ltd. Method for manufacturing xanthosine by fermentation. 3,102,079, 8-27-63, Cl. 195—42.

Kinsell, Earl, and C. W. Harris. Clip and guard for cigarette package. 3,112,028, 11-26-63, Cl. 206—41.

Kinsella, John J., to Xerox Corp. Immediate image formulation process and apparatus therefor. 3,091,767, 5-28-63, Cl. 346—74.

Kinsey, Andrew H. Container cooling apparatus. 3,092,125, 6-4-63, Cl. 134—125.

Kinsey, Charles M.: *See*—
Saba, Nicholas. 3,070,904.

Kinsworthy, Donald D., to The Lau Blower Co. Control system for plural speed fan motors. 3,096,468, 7-2-63, Cl. 318—224.

Kinter, Mark R., and C. R. Pfeifer, to The Dow Chemical Co. Preparation of alkyl aluminum compounds. 3,076,006, 1-29-63, Cl. 260—448.

Kintzel, Henry M.: *See*—
Blass, Judd, and Kintzel. 3,112,459.

Kintzinger, Warren H.: *See*—
Brown, Donald K. 3,084,935.

Kinugawa, Jiro, H. Yamamoto, M. Ochiai, and I. Sumina, to Takeda Pharmaceutical Industries, Ltd. Antimicrobial thio pyridazine compositions for agricultural use. 3,089,809, 5-14-63, Cl. 167—33.

Kinyon, Brice W., and G. D. Whitman, to United States of America, Atomic Energy Commission. Steam generator. 3,097,630, 7-16-63, Cl. 122—34.

Kinzbach, Robert B., to Bowen-Itco, Inc. Whipstock and anchoring mechanism therefor. 3,095,039, 6-25-63, Cl. 166—117.6.

Kinzbach, Robert B. Piloted milling tool. 3,110,084, 11-26-63, Cl. 29—105.

Kinzie, Ora A., and H. J. Watts, to Continental Oil Co. Grease dispensing apparatus. 3,115,906, 12-31-63, Cl. 141—253.

Kinzie, Ora, and H. J. Watts, to Continental Oil Co. Unitary ring insert sealing face and adapter assembly. 3,116,067, 12-31-63, Cl. 277—170.

Kinzo Tajima: *See*—
Kumai, Hiroyuki. 3,089,729.

Kiper, Gerd: *See*—
Winkler, Alfred, and Kiper. 3,087,396.

Kiper, Gerd, to Agfa Aktiengesellschaft. Timing mechanism for camera shutters. 3,073,232, 1-15-63, Cl. 95—63.

Kiper, Gerd, to Agfa Aktiengesellschaft. Camera shutter assembly. 3,075,445, 1-29-63, Cl. 95—63.

Kiper, Gerd, to Agfa Aktiengesellschaft. Manually and automatically controllable exposure assembly for cameras. 3,078,774, 2-26-63, Cl. 95—10.

Kiper, Gerd, to Agfa Aktiengesellschaft. Timing mechanism for camera shutters. 3,083,629, 4-2-63, Cl. 95—63.

Kiper, Gerd, to Agfa Aktiengesellschaft. Camera shutter assembly. 3,089,400, 5-14-63, Cl. 95—63.

Kiper, Gerd, to Agfa Aktiengesellschaft. Retarding device for photographic shutter. 3,092,003, 6-4-63, Cl. 95—63.

Kiper, Gerd, to Agfa Aktiengesellschaft. Automatic cameras. 3,093,040, 6-11-63, Cl. 95—10.

Kiper, Gerd, to Agfa Aktiengesellschaft. Central photographic shutter. 3,099,197, 7-30-63, Cl. 95—63.

Kiper, Gerd, and H. D. Sauermann, to Agfa Aktiengesellschaft. Self-timer for cameras. 3,103,862, 9-17-63, Cl. 95—53.3.

Kippenhan, Dean O., to United States of America, Atomic Energy Commission. Coaxial filament transformers for pulse circuits. 3,071,734, 1-1-63, Cl. 328—270.

Kippers, Harold W.: *See*—
Sedgwick, Robert K., and Kippers. 3,104,989.

Kiraly, Tibor. Apparatus for cutting off lengths of glass tubing. 3,114,621, 12-17-63, Cl. 65—272.

Kirby, Dean E., Sr. Combination spinning and fly reel. 3,089,663, 5-14-63, Cl. 242—84.1.

Kirby, Frederick G. Ash tray. 3,084,789, 4-9-63, Cl. 206—19.5.

Kirby, James B. Tooth cleaning device. 3,106,216, 10-8-63, Cl. 132—92.

Kirby, James D.: *See*—
Dayton, Charles A., and Kirby. 3,106,732.

Kirch, William: *See*—
Solvik, Ragnar S., Kirch, and Lessells. 3,114,742.

Kirch, William P.: *See*—
Varga, Henry J., Haig, and Kirch. 3,088,031.

Kircher, John E.: *See*—
Durr, Albert M., Jr., Kircher, Thompson, and Wright. 3,080,416.

Kircher, Paul J., to Landers, Frary & Clark. Coffee basket assembly. 3,103,872, 9-17-63, Cl. 99—275.

Kircher, Paul J., to Landers, Frary & Clark. Steam iron with dual heating means. 3,110,975, 11-19-63, Cl. 38—77.

Kircher, Rene: *See*—
Meybeck, Jean, Kircher, and Leclerc. 3,085,854.

Kircher, René, and R. Périat, to Societe d'Etudes Chimiques pour L'Industrie et L'Agriculture. Process for producing alkaline earth metal bromites. 3,095,267, 6-25-63, Cl. 23—85.

Kirchhof, Hans: *See*—
von Buchholtz, Bernhard, Fischer, Grotrian, Kirchhof, Mildner, and Mann. 3,072,166.

Kirchner, Frederick K., to Sterling Drug Inc. N,N'-bis(di-lower-alkylamino-lower-alkyl) dicarboxilic acid amides. 3,096,373, 7-2-63, Cl. 260—558.

Kirchner, Paul H., to General Electric Co. Electronic contact analog simulator. 3,098,929, 7-23-63, Cl. 235—187.

Kirchoff, George F., Jr.: *See*—
Webster, Roland C., and Kirchoff. 3,084,599.

Kiriltsev, George M., and N. I. Lazarenko. Electro-spark (spark-erosion) apparatus for precision machining of metals. 3,092,710, 6-4-63, Cl. 219—69.

Kirk, Calvin K.: *See*—
Backer, William R., Kirk, Wespi, and Stevens. 3,107,550.

Kirk, Chester H., Jr. Combination fill valve and expansion tank. 3,089,513, 5-14-63, Cl. 137—505.34.

Kirk, David N., and V. Petrow, to The British Drug Houses Ltd. 4-methyl-3-oxo-Δ^4 steroids and methods for preparing same. 3,076,822, 2-5-63, Cl. 260—397.4.

Kirk, David N., and V. Petrow, to The British Drug Houses Ltd. 3-enol ethers of 3-oxo-Δ^4-6-aminomethyl steroids and process for preparing same. 3,084,159, 4-2-63, Cl. 260—239.55.

Kirk, David N., and V. Petrow, to The British Drug Houses Ltd. 3-enol ethers of 6-hydroxymethyl-3-oxo-Δ^4-steroids and process for their preparation. 3,095,411, 6-25-63, Cl. 260—239.55.

Kirk, David N., and V. Petrow, to The British Drug Houses Ltd. 6-methylene-3-oxo-Δ^4-steroids and process for their preparation. 3,112,305, 11-26-63, Cl. 260—239.55.

Kirk, David N., and V. Petrow, to The British Drug Houses Ltd. 3-enol ethers of 6-formyl-3-oxo-Δ^4-steroids and process for their preparation. 3,114,750, 12-17-63, Cl. 260—239.55.

Kirk, Delbert J. Boom control devices. 3,077,964, 2-19-63, Cl. 192—12.

Kirk, Hugh A.: *See*—
Plassman, Herbert A. 3,111,196.

Kirk, James H., to Sinclair Research, Inc. Method of filtering a fuel oil. 3,077,449, 2-12-63, Cl. 208—251.

Kirk, Larry D.: *See*—
Mustakas, Gus C., and Kirk. 3,106,460.

Kirk, Morris P., & Son, inc.: *See*—
Larrien, Leslie J. 3,083,096.

Kirk, Robert A., to Eastman Kodak Co. Control system for a motion picture camera. 3,106,126, 10-8-63, Cl. 88—16.

Kirk, Thomas E.: *See*—
Raver, Louis J., and Kirk. 3,089,111.

Kirk, Thomas E., to General Motors Corp. Internal combustion engine ignition system. 3,072,823, 1-8-63, Cl. 315—205.

Kirk, Walter B., to Westinghouse Air Brake Co. Brake beam with integrally formed brake cylinder. 3,088,550, 5-7-63, Cl. 188—52.

Kirkel, Leo. Shovel with pivotally adjustable head. 3,074,752, 1-22-63, Cl. 294—53.5.

Kirkham, Robert C., to International Telephone and Telegraph Corp. Multi-line telephone station. 3,114,801, 12-17-63, Cl. 179—99.

Kirkham, Thomas A.: *See*—
Juda, Walter, and Kirkham. 3,072,545.

Kirkman, Frederick J., to Servel, Inc. Club swing momentum indicator. 3,106,403, 10-8-63, Cl. 273—186.

Kirkowski, Stan A., to The Western Union Telegraph Co. Perforator chad disposal attachment. 3,104,804, 9-24-63, Cl. 234—131.

Kirkpatrick, Alan R., to C. A. Parsons & Co. Ltd. Nuclear reactors. 3,074,872, 1-22-63, Cl. 204—193.2

Kirkpatrick, Alan R., to C. A. Parsons & Co. Ltd. Nuclear reactors. 3,110,654, 11-12-63, Cl. 204—193.2.

Kirkpatrick, Craig G.: *See*—
Novy, Virgil F., and Kirkpatrick. 3,074,829.

Kirkpatrick, George M., to General Electric Co. Signal processing arrangement with filters in plural channels minimizing undesirable interference to narrow and wide pass bands. 3,112,452, 11-26-63, Cl. 328—167.

Kirkpatrick, James S., and G. Ban, to Brooks & Perkins, Inc. Method and apparatus for shaving metal plates. 3,077,819, 2-19-63, Cl. 90—25.

Kirkpatrick, James S., and R. R. Studer, to Brooks & Perkins, Inc. Method and apparatus for providing accessible containers for high altitude or space use. 3,103,294, 9-10-63, Cl. 220—53.

Kirkpatrick, Kenneth L., to Deere & Co. Power driven hoe. 3,092,053, 6-4-63, Cl. 111—11.

Kirkpatrick, Robert J.: *See*—
Christens, John M., Gintis, and Kirkpatrick. 3,104,450.

Kirkpatrick, Willard H., to Nalco Chemical Co. Process of breaking petroleum emulsions. 3,112,276, 11-26-63, Cl. 252—338.

Kirkpatrick, Willard H., and V. L. Seale, to Nalco Chemical Co. Processes for breaking petroleum emulsions of the oil-in-water type. 3,084,124, 4-2-63, Cl. 252—332.

Kirkpatrick, Willard H., V. L. Seale, A. Walker, and R. E. Law, to Nalco Chemical Co. Demulsification of petroleum oil emulsions. 3,098,827, 7-23-63, Cl. 252—341.

Kirkpatrick, Willard H., and V. L. Seale, to Nalco Chemical Co. Dicarboxy acid esters of sulfated oxyalkylated alkyl phenol-formaldehyde resins. 3,108,087, 10-22-63, Cl. 260—44.

Kirkpatrick, William J.: *See*—
Pugh, James O., and Kirkpatrick. 3,099,069.

Kirkpatrick, William J., and E. S. Funston, to General Electric Co. Method of making high purity, substantially spherical discrete particles of beryllium hydroxide or oxide. 3,099,532, 7-30-63, Cl. 23—183.

Kirkpatrick, Wylie C.: *See*—
Dreyfus, Robert L., and Kirkpatrick. 3,095,677.
Lowry, Robert D., Kirkpatrick, and Harrison. 3,076,542.

Kirkpatrick, Wylie C., to W. R. Grace & Co. Plastic multiple pack carrier. 3,087,610, 4-30-63, Cl. 206—65.

Kirkpatrick, Wylie C., to W. R. Grace & Co. Shrinkable film as a structural aid. 3,089,283, 5-14-63, Cl. 50—80.

Kirkpatrick, Wylie C., W. G. Baird, Jr., and T. E. Ford, to W. R. Grace & Co. Encapsulation of electrical components and other articles. 3,093,448, 6-11-63, Cl. 18—59.

Kirkpatrick, Wylie C., J. W. Harrison, and R. D. Lowry, to W. R. Grace & Co. Process for securing a shrinkable fastener to a container. 3,113,408, 12-10-63, Cl. 53—30.

Kirsch Co.: *See*—
Sloan, Paul H. 3,076,222.
Wills, Bob W. 3,083,760.

Kirsch, Francis W., and S. E. Shull, to Air Products and Chemicals Inc. Selective hydrogenation of diolefins. 3,113,983, 12-10-63, Cl. 260—677.

Kirsch, Howard A.: *See*—
Jordan, Terence B., and Kirsch. 3,072,571.

Kirsch, Jerry. Constant-speed reciprocable hydro-pneumatic motor. 3,079,897, 3-5-63, Cl. 121—38.

Kirsch, Jerry. Pressure-responsive fluid flow control valve. 3,104,673, 9-24-63, Cl. 137—71.

Kirsch, Karl, and S. Ohl, to Keller & Knappich G.m.b.H. Apparatus for making barbed wire barriers. 3,070,946, 1-1-63, Cl. 57—1.

Kirsch, Kurt: *See*—
Burkhardt, Gisbert, and Kirsch. 3,105,908.

Kirsch, Wilhelm, to Bolkow-Entwicklungen KG. Ignition means for reaction motors used in connection with missiles. 3,073,994, 1-15-63, Cl. 317—79.

Kirsch, William A. Boat ladder. 3,113,654, 12-10-63, Cl. 193—35.

Kirschenbaum, Samuel. Whiskey pourer or similar device. 3,091,373, 5-28-63, Cl. 222—420.

Kirschenmann, Harold L., to A & B Wig Co., Inc. Hair rooting chain-stitch sewing machine. 3,109,396, 11-5-63, Cl. 112—79.5.

Kirschey, Gerhard. Continuously controllable friction wheel-epicyclic gear drive. 3,089,350, 5-14-63, Cl. 74—796.

Kirschner, Robert K.: *See*—
Byrne, James D. Bergford, and Kirschner. 3,116,395.

Kirshenbaum, David. Shower curtain and installation therefor. 3,101,485, 8-27-63, Cl. 4—146.

Kirshenbaum, Isidor, E. M. Amir, and E. J. Inchalik, to Esso Research and Engineering Co. Oxidation of alcohols. 3,080,426, 3-5-63, Cl. 260—596.

Kirshenbaum, Isidor, J. H. Bartlett, and R. M. Hill, to Esso Research and Engineering Co. Hydroxylation of polymers of mono-olefins. 3,082,192, 3-19-63, Cl. 260—88.2.

Kirshler, Lewis, to International Harvester Co. Tilt and pitch dozer construction. 3,083,480, 4-2-63, Cl. 37—144.

Kirst, Werner: *See*—
Dryer, Ulrich, and Kirst. 3,096,319.
Gross, Richard, Hertel, Kirst, and Mohr. 3,099,651.
Gross, Richard, Hertel, Kirst, Mohr, and Staab. 3,084,-151.
Gross, Richard, Hertel, Kirst, Mohr, and Staab. 3,116,-277.
Gross, Richard, Kirst, and Mohr. 3,071,428.
Orthner, Ludwig, Horst, Scharf, Kirst, Oxé, and Gross. 3,101,235.

Kirstahler, Alfred: *See*—
Willmund, Wolf-Dieter, and Kirstahler. 3,084,163.

Kirstein, Keith: *See*—
Omigian, Peter K., and Kirstein. 3,105,938.

Kirsten, Erhard. Truck crane. 3,111,226, 11-19-63, Cl. 212—59.

Kirwan, John O., to Wallace & Tiernan Inc. Differential pressure instrument. 3,095,745, 7-2-63, Cl. 73—412.

Kiser, Duane E.: *See*— Kiser, Orville R. and D. E. 3,083,057.

Kiser, Kenneth M.: *See*—
Agens, Maynard C., and Kiser. 3,115,476.

Kiser, Orville R. and D. E. Gravity grain box. 3,083,057, 3-26-63, Cl. 298—7.

Kish, Michael, Jr., to Atlantic Products Corp. Band receiving device. 3,099,975, 8-6-63, Cl. 112—262.

Kish, Steven P. Plastic fixture and method of making the same. 3,072,971, 1-15-63, Cl. 18—59.

Kishi, Shuzo: *See*—
Utsumi, Isamu, Ida, Kishi, and Hashimoto. 3,073,748.

Kisling, James W., III, to Schlumberger Well Surveying Corp. Fluid samplers. 3,095,930, 7-2-63, Cl. 166—163.

Kiss, Ferenc: *See*—
Barabas, Janos, Zselyonka, Kiss, and Libik. 3,078,764.

Kiss, Howard. Boat hull construction. 3,078,819, 2-26-63, Cl. 114—61.

Kissane, Richard W., to Speed Fastener, Inc. Powder actuated tool. 3,075,197, 1-29-63, Cl. 1—106.

Kissel, John W., to Mead Johnson & Co. Apparatus for measuring animal activity. 3,100,473, 8-13-63, Cl. 119—1.

Kissel, William J., to Interchemical Corp. Thermosetting resins formed by reacting formaldehyde with resins produced from benzoguanamine and diepoxy materials. 3,075,-945, 1-29-63, Cl. 260—45.2.

Kissin, Gerald H., and R. L. Smith, to Kaiser Aluminum & Chemical Corp. Sealing anodized aluminum. 3,098,018, 7-16-63, Cl. 204—35.

Kistiakowsky, George B.: *See*—
Hamilton, Paul M. and Kistiakowsky. 3,094,428.

Kistler, Walter P., to United States of America, Air Force. Inverted pendulum accelerometer. 3,111,036, 11-19-63, Cl. 73—517.

Kisumi, Masahiko: *See*—
Chibata, Ichiro, Kisumi, Ashikaga, and Kato. 3,086,918

Kitagawa, Seiichi: *See*—
Kodama, Shinjiro, Ando, and Kitagawa. 3,113,972.

Kitai, Atsuo: *See*—
Motozaki, Shinichi, Tsunoda, Okumura, Tsugawa, Matsui, Kitai, and Miyachi. 3,096,252.

Kitamura, Nobuo, to Sony Corp. Television receiver cabinet apparatus. 3,105,110, 9-24-63, Cl. 178—7.9.

Kitaoka, Hiroo: *See*—
Hunpal, Harold H., and Kitaoka. 3,094,638.

Kitasaki, Kiyoshi: *See*—
Hunter, Don L., Kitasaki, and Willcockson. 3,074,885.

Kitasaki, Kiyoshi, A. L. McCloskey, and W. G. Woods, to United States Borax & Chemical Corp. Preparation of thioaryloxides and alkyl aluminum thioaryloxides. 3,082,-234, 3-19-63, Cl. 260—448.

Kitchell, Thorne C., to Union Bag-Camp Paper Corp. Twin compartmented container for shipping long stemmed flowers. 3,087,666, 4-30-63, Cl. 229—15.

Kitchen Master Appliance, Inc.: *See*—
Posener, Armand L. A., and Elmore. 3,101,107.

Kitchens, Garry C., to The Givaudan Corp. Myrcene-methyl isopropenyl ketone adducts, derivatives thereof. 3,076,022. 1-29-63, Cl. 260—488.

Kitchens, William L.: *See*—
Gilson, Paul R., and Kitchens. 3,114,054.

Kitchens, William T. Rotary jet engine. 3,085,399, 4-16-63, Cl. 60—39.35.

Kitching, Geoffrey W. Cable hauling gear. 3,106,325, 10-8-63, Cl. 226—171.

Kitching, John C.: *See*—
Conner, Richard E., and Kitching. 3,112,772.

Kitko, Bartholomew J.: *See*—
Wolansky, John, and Kitko. 3,081,822.

Kitley, Fred L., to Foldomatic Door Co., Inc. Aircraft hangar door. 3,103,969, 9-17-63, Cl. 160—193.

Kito, Miyoshi, and R. Yamamoto. Wire gripper. 3,108,345, 10-29-63, Cl. 24—134.

Kitscha, Hector, to Cutler-Hammer, Inc. Latching mechanism for electroresponsive relay. 3,101,434, 8-20-63, Cl. 317—187.

Kitselman, Harry L., to Indiana Steel & Wire Co., Inc. Apparatus and method for filament feed control. 3,106,354. 10-8-63, Cl. 242—47.08.

Kitson, Gerald L. Automatic collection system for poultry nests. 3,107,652, 10-22-63, Cl. 119—48.

Kitson, Gerald L. Conveyor and loader for bulk materials. 3,113,663, 12-10-63, Cl. 198—218.

Kitson, Harold, Jr., W. L. Marshall, and H. E. Mazanek, to General Electric Co. Coil and method of insulating same. 3,079,519, 2-26-63, Cl. 310—208.

Kitson, Joseph R.: *See*—
Casavina, Paul R., and Kitson. 3,075,240.
Casavina, Paul R., and Kitson. 3,081,488.

Kitsopoulos, George N. Multiple purpose chair. 3,075,810, 1-29-63, Cl. 297—270.

Kitsopoulos, Sotirios C., to Bell Telephone Laboratories, Inc. Bandwidth reduction system. 3,071,727, 1-1-63, Cl. 325—44.

Kittanning Brick Co.: *See*—
Yerrick, William B. 3,097,405.

Kittel, Hermann, W. Kohmann, and B. Kasper, to Kienzle Apparate G.m.b.H. Carriage motion control arrangement. 3,104,002, 9-17-63, Cl. 197—177.

Kittel, John H., to United States of America, Atomic Energy Commission. Dimensionally stable, corrosion resistant nuclear fuel. 3,089,768, 5-14-63, Cl. 75—122.7.

Kittel, Walter. Contact plate structure for use in a rectifying or contacting column. 3,105,105, 9-24-63, Cl. 261—79.

Kittle, Keith B.: *See*—
Atwood, Seth G., Kittle, Slattery, and Simpson. 3,071,-292.

Kittock, James A. Device to aid pilots in entering and maintaining a holding pattern from a preset holding fix. 3,110,-965, 11-19-63, Cl. 33—1.

Kittrell, Richard L., to Collins Radio Co. Aircraft guidance control signal development system. 3,099,007, 7-23-63, Cl. 343—107.

Kitz, Norbert: *See*—
Condy, John H., and Kitz. 3,089,058.

Kitz, Norbert, H. L. Mannford, and J. G. Lloyd, to Bell Punch Co. Ltd. Multiple-output generator system. 3,095,522, 6-25-63, Cl. 315—84.6.

Kitzer, Richard W. Automatic mechanism for stripping and ejecting tin-type heat exchange units from an assembly press. 3,102,330, 9-3-63, Cl. 29—202.

Kitzrow, Herbert, to Rheinische Kalksteinwerke GmbH. Supply apparatus for shaft furnaces and the like. 3,077,-274, 2-12-63, Cl. 214—35.

Kiuchi, Yahei. Universal speed converter. 3,108,480, 10-29-63, Cl. 74—196.

Kivenson, Gilbert, to Westinghouse Electric Corp. Magnetic shaft damper. 3,110,481, 11-12-63, Cl. 259—107.

Kivett, Jerome S., to Regal Plastic Co. Bowling equipment carrier. 3,092,225, 6-4-63, Cl. 190—48.

Kiwi Codera Corp.: *See*—
Gill, Bernard J. 3,086,461.

Kiwi, Walter, to R. H. Hood Co. Apparatus for applying a cord in encircling relation to an article. 3,070,929, 1-1-62, Cl. 53—135.

Kiwi, Walter, to R. H. Hood Co. Securing apparatus. 3,115,-734, 12-31-63, Cl. 53—135.

Kixmiller, Frank C., and D. J. Petro. Shoes or sandals. 3,099,884, 8-6-63, Cl. 36—2.5.

Kiyonaga, Kazuo, and M. L. Suval, to Union Carbide Corp. Purification of light gases with molecular sieves. 3,085,379, 4-16-63, Cl. 55—23.

Kiyuna, Paul C., to Paul's of Hawaii, Inc. Missile projector. 3,095,867, 7-2-63, Cl. 124—5.

Kizer, Austin E., O. E. H. Klopfer, and O. W. Burke, Jr., to Continental Oil Co. Continuous polymerization apparatus. 3,091,518, 5-28-63, Cl. 23—285.

Kizer, Austin J., O. E. H. Klopfer, and O. W. Burke, Jr., to Continental Oil Co. Continuous polymerization process. 3,074,924, 1-22-63, Cl. 260—95.

Kizzek, Roger A.: *See*—
Froehlich, Harold E., Kizzek, Melton, and Schwoebel. 3,077,779.

Kjellberg, Göran: *See*—
Svala, Carl G., Åro, and Kjellberg. 3,100,820.

Kjellman, Thomas K., to The Bendix Corp. Snap switch having presetting means responsive to current flow. 3,100,-826, 8-13-63, Cl. 200—113.

Kjellman, Thomas K., to The Bendix Corp. Humidistat adaptable for response to changes in relative or absolute humidity or function as a thermostat. 3,115,557, 12-24-63, Cl. 200—61.06.

Klaas, Emil B. Adjustable threshold. 3,072,976, 1-15-63, Cl. 20—64.

Klaas Machine and Mfg. Co.: *See*—
Meyers, Ellwood H. 3,104,836.

Klaas, Ruth E. B. Treatment of plants with light-affecting compositions. 3,089,280, 5-14-63, Cl. 47—58.

Klaassen, Hendrik, to Lips N.V. Control device for variable pitch propellers. 3,089,548, 5-14-63, Cl. 170—135.74.

Klaczynski, Alex C.: *See*—
Rowell, Douglas C., Klaczynski, and Flinn. 3,070,993.

Klager, Karl: *See*—
Frankel, Milton B., and Klager. 3,098,873.

Klages, Christian L., and H. E. Konopka, to Wesson Corp. Interchangeable head boring bar. 3,112,659, 12-3-63, Cl. 77—58.

Klages, John W., to The Columbus Auto Parts Co. Rope ladder. 3,077,241, 2-12-63, Cl. 182—196.

Klamm, Carl E., to Parker-Hannifin Corp. Bracket mounting of tube fittings. 3,088,755, 5-7-63, Cl. 285—64.

Klamp, Paul: *See*—
Bishop, Leonard J., Klamp, and Krammer. 3,099,966.

Klamp, William, to Cleveland-Detroit Corp. Sealing apparatus. 3,106,630, 10-8-63, Cl. 219—19.

Klampferer, Golda G. Stand with adjustably mounted head. 3,089,028, 5-7-63, Cl. 240—81.

Klancnik, Adolph V. Positioning fixtures. 3,091,363, 5-28-63, Cl. 221—243.

Klancnik, Adolph V. Parts feeder for machine tools. 3,109,-557, 11-5-63, Cl. 221—238.

Klancnik, Frank J., to Hi-Lo Mfg. Corp. Hinged lock for connecting antenna rod to boom. 3,083,044, 3-26-63, Cl. 287—99.

Klang, Marcel: *See*—
Drimus, Iosif, Matasa, and Klang. 3,115,527.

Klapdohr, Hans, H. Binder, F. Horn, and O. Peus, to Firma Rheinmetall G.m.b.H. Gun loading mechanism. 3,106,-866, 10-15-63, Cl. 89—45.

Klapes, Michael C., and E. G. Cleveland, to Delta Engineering Corp. Apparatus for conveying and filling containers. 3,081,588, 3-19-63, Cl. 53—78.

Klapheke, August A.: *See*—
Duggan, Robert B., and Klapheke. 3,086,187.

Klapp, Arnold, to Koppers Co., Inc. Apparatus for gasification of finely divided solid fuels. 3,104,020, 9-17-63, Cl. 214—17.

Klappert, Helmut, and O. Bayer, to Farbenfabriken Bayer Aktiengesellschaft. Process for the production of water-soluble dyestuffs and dyeing cellulose therewith. 3,076,-687, 2-5-63, Cl. 8—54.2.

Klapproth, John F., to General Electric Co. Wave type pressure exchanger with overall pressure rise. 3,084,511, 4-9-63, Cl. 60—39.45.

Klasek, Frank A., to Western Electric Co., Inc. Apparatus for knurling articles. 3,101,633, 8-27-63, Cl. 78—45.

Klasen, Charles J.: *See*—
Cosby, John N., and Klasen. 3,074,923.

Klass, Donald L., to The Pure Oil Co. Method and apparatus for lubricating bearing-journal assemblies. 3,072,444, 1-8-63, Cl. 308—1.

Klass, Donald L., to The Pure Oil Co. Diarylethanes by reaction of aromatics with carbyl sulfate. 3,092,672, 6-4-63, Cl. 260—668.

Klass, Donald L., to The Pure Oil Co. Process for preparing cyclic lower alkylene sulfates. 3,100,780, 8-13-63, Cl. 260—327.

Klass, Donald L., to The Pure Oil Co. Surfactant compositions containing salts of vinylsulfonanilides. 3,116,257, 12-31-63, Cl. 252—355.

Klass, Donald L., to The Pure Oil Co. B-hydroxy-sulfanamides. 3,116,325, 12-31-63, Cl. 260—556.

Klass, Donald L., R. W. Watson, and R. E. Karll, to Standard Oil Co. Lubricant additive and composition containing same. 3,089,851, 5-14-63, Cl. 252—32.7.

Klass, Donald L., and V. Brozowski, to The Pure Oil Co. Method for treating hydrocarbon mixtures. 3,091,587, 5-28-63, Cl. 208—293.

Klass, Donald L., and R. W. Watson, to Standard Oil Co. Lubricant additive and composition containing same. 3,108,958, 10-29-63, Cl. 252—32.7.

Klass, Donald L., and R. W. Watson, to Standard Oil Co. Lubricant additive and composition containing same. 3,108,959, 10-29-63, Cl. 252—32.7.

Klass, Donald L., and V. Brozowski, to The Pure Oil Co. Colored reaction products produced by reaction of sulfato betaines with alkali. 3,109,846, 11-5-63, Cl. 260—294.8.

Klass, Donald L., W. L. Sieker, and R. W. Watson, to Standard Oil Co. Rust inhibited lubricants. 3,113,106, 12-3-63, Cl. 252—49.6.

Klasse, Fritz: *See*—
Heinz, Adolf, and Klasse. 3,089,655.

Klassen, Edward J. Stack chair. 3,095,236, 6-25-63, Cl. 297—239.

Klasson, George A.: *See*—
Browning, James A., and Klasson. 3,116,405.

Klatt, Paul: *See*—
Archer, Alva R., Jr. 3,084,056.

Klauber Games, Inc.: *See*—
Hirsch, James C. 3,091,196.

Klausner, Melvin W., to Engelhard Hanovia, Inc. Photoelectric device for measuring light output valves in photoprinting machines. 3,105,107, 9-24-63, Cl. 88—23.

Klauss, Ralph E.: *See*—
Swarthout, Richard J., and Klauss. 3,099,750.

Klavehn, Wilfrid, and H. Kraft, to Knoll A.-G. Chemische Fabriken. Esters and amides of 2-phenyl-bicyclo (2.2.1) heptane-2-carboxylic acid, 2-phenyl-bicyclo (2.2.1)-5-heptene-2-carboxylic acid, 2-phenyl-bicyclo (2.2.2)-5-octene-2-carboxylic acid and 2-phenyl-bicyclo (2.2.2) octane carboxylic acid. 3,083,204, 3-26-63, Cl. 260—292.

Klean-Kote Inc.: *See*—
McCune, James D. 3,073,687.
McCune, James D. 3,073,688.

Kleber, Eugene V., to Nuclear Corp. of America. Method of tagging bulk materials. 3,113,991, 12-10-63, Cl. 88—14.

Kleeberg, Gunther K. E., and F. L. Perry, Jr., to Infrared Industries, Inc. Plug-in terminal board. 3,083,346, 3-26-63, Cl. 339—64.

Kleekamm, Fritz: *See*—
Siggel, Erhard, and Kleekamm. 3,099,872.

Kleemann, Karl: *See*—
Gross, Helmut, and Kleemann. 3,074,363.

Kleemann, Karl, and W. Irmscher, to G. M. Pfaff, A.G. Protected cutting device for sewing machines. 3,111,921, 11-26-63, Cl. 112—261.

Kleen-Stik Products, Inc.: *See*—
Cole, Gerald E. 3,087,850.
Reich, Robert L. 3,093,528.

Kleer-Pak Machinery & Packaging, Inc.: *See*—
Natelli, Mario. 3,109,784.

Klees, George N., to North American Aviation, Inc. Transistor circuit overload protective device. 3,074,006, 1-15-63, Cl. 323—9.

Kleesattel, Claus: *See*—
Balamuth, Lewis, Kleesattel, and Kuris. 3,089,790.

Kleesattel, Claus, to Cavitron Ultrasonics Inc. Amplitude-measuring devices for high frequency vibrations. 3,089,333, 5-14-63, Cl. 73—71.4.

Kleesattel, Claus, L. Balamuth, and A. Kuris, to Cavitron Corp. Acoustically vibrated material cutting and removing devices. 3,076,904, 2-5-63, Cl. 310—26.

Kleesattel, Claus, L. Balamuth, and A. Kuris, to Cavitron Ultrasonics Inc. Magnetostrictive vibratory apparatus. 3,100,853, 8-13-63, Cl. 310—26.

Kleesattel, Claus, L. Balamuth, and A. Kuris, to Cavitron Ultrasonics Inc. Ultrasonic vibration generator. 3,113,225, 12-3-63, Cl. 310—26.

Klehm, William G., Jr., and L. L. Tanguy, Jr., to Burroughs Corp. Magnetic recording system. 3,080,560, 3-5-63, Cl. 346—74.

Kleiber, Carl E., to Esso Research and Engineering Co. Fluidized solids recovery system. 3,083,082, 3-26-63, Cl. 23—284.

Kleiber, Donald J.: *See*—
Kohrn, Robert C., Kleiber, and Romine. 3,070,817.

Kleiber, John C.: *See*—
Zagar, Peter G., Burns, Falcioni, and Kleiber. 3,070,970.

Kleiber, Walter: *See*—
Brandl, Ernst, and Kleiber. 3,100,779.

Kleiman, George J. Adjustable wheel support for sidewalk snow sweeper. 3,086,789, 4-23-63, Cl. 280—43.

Kleimeyer, Vernon T., to The Cincinnati Time Recorder Co. Time clock having charge computing means. 3,116,102, 12-31-63, Cl. 346—20.

Klein, Alec. Ball runway toy. 3,105,689, 10-1-63, Cl. 273—109.

Klein, Alexander: *See*—
Blythe, William R., and Klein. 3,105,214.

Klein, Arthur J.: *See*—
Bogart, George A. 3,091,426.

Klein, Charles H., to The National Telephone Supply Co. Compression tool. 3,084,575, 4-9-63, Cl. 81—15.

Klein, Charles H., to The National Telephone Supply Co. Splice separator. 3,095,468, 6-25-63, Cl. 174—88.

Klein, Claude A., and W. D. Straub, to Raytheon Co. Semiconductive dosimeters. 3,086,117, 4-16-63, Cl. 250—83.1.

Klein, David M., to United States of America, Navy. Annular stream variable area injector. 3,074,231, 1-22-63, Cl. 60—35.6.

Klein, David X., to Heyden Newport Chemical Corp. Recovery of trimethylolpropane. 3,076,854, 2-5-63, Cl. 260—637.

Klein, Elias, H. Wise, and W. C. Richardson, to Courtaulds North America Inc. Method for making high tenacity regenerated cellulosic staple fiber. 3,109,698, 11-5-63, Cl. 18—54.

Klein, Elias, D. S. Nelson, and B. E. M. Bingham, to Courtaulds North America Inc. Method for making rayon filaments. 3,109,700, 11-5-63, Cl. 18—54.

Klein, Fritz. Internal combustion engine. 3,097,633, 7-16-63, Cl. 123—79.

Klein, Fritz. Vertical take off and landing aircraft. 3,104,853, 9-24-63, Cl. 244—12.

Klein, Fritz. Aircraft propeller with centrifugally induced air flow control features. 3,109,499, 11-5-63, Cl. 170—172.

Klein, George I.: *See*—
Beck, Thomas M., and Klein. 3,071,608.

Klein, George L., R. E. Newby, and L. R. Post, to Stauffer Chemical Co. Method for recovering phosphoric acid anhydride. 3,077,382, 2-12-63, Cl. 23—165.

Klein, George L., R. E. Newby, and L. R. Post, to Stauffer Chemical Co. Apparatus for processing phosphoric acid anhydride. 3,100,693, 8-13-63, Cl. 23—262.

Klein, George S. Portable interval timer having relay control time motor and signalling means. 3,104,386, 9-17-63, Cl. 340—309.1.

Klein, Gerald, to Siemens-Schuckertwerke Aktiengesellschaft. Space reference gyro of the restrained type. 3,071,011, 1-1-63, Cl. 74—5.7.

Klein, Heinz G.: *See*—
Zirngiebl, Eberhard, and Klein. 3,090,734.

Klein, Helene. Ballet stretch device. 3,109,646, 11-5-63, Cl. 272—79.

Klein, Howard C.: *See*—
Horn, Herman, Klein, and Griffith. 3,084,188.

Klein, Howard C., and D. R. Grassetti, to Nopco Chemical Co. Production of vitamin A aldehyde. 3,097,244, 7-9-63, Cl. 260—598.

Klein, Iven W., to Sioux Steel Co. Dump wagon hoist. 3,084,908, 4-9-63, Cl. 254—8.

Klein, John E., to Goodrich-Gulf Chemicals, Inc. Process for polymerizing ethylene in the process of aluminum alkyl, titanium tetrachloride, and carboxylic acid. 3,082,198, 3-19-63, Cl. 260—94.9.

Klein, John S.: *See*—
McElroy, Charles W., and Klein. 3,098,455.

Klein, Keith W., and D. B. Powell, to General Electric Co. Electric circuit breaker. 3,084,236, 4-2-63, Cl. 200—106.

Klein, Leonard: *See*—
Kuzell, Charles R., Fowler, Klein, and Davis. 3,071,454.
Kuzell, Charles R., Fowler, Klein, and Hawkins. 3,081,163.

Klein, Murray J. Volumetric positive displacement flow meter. 3,101,616, 8-27-63, Cl. 73—263.

Klein, Norman E., to Deering Milliken Research Corp. Apparatus for coating a moving web. 3,082,734, 3-26-63, Cl. 118—7.

Klein, Norman E., to Deering Milliken Research Corp. Fiber handling arrangement and process. 3,090,081, 5-21-63, Cl. 19—288.

Klein, Norman E., and F. E. Rowe, Jr., to Deering Milliken Research Corp. Methods and apparatus for processing yarn. 3,081,510, 3-19-63, Cl. 28—1.

Klein, Norman E., and C. G. Evans, to Deering Milliken Research Corp. Methods for processing thermoplastic yarns. 3,102,321, 9-3-63, Cl. 28—72.

Klein, Oscar R. Door construction. 3,079,987, 3-5-63, Cl. 160—113.

Klein, Paul S., to Products, Ltd., Inc. Bottle cap. 3,085,709, 4-16-63, Cl. 220—23.

Klein, Paul S., to "42" Products Ltd., Inc. Portable wire rack for bottles. 3,094,219, 6-18-63, Cl. 211—77.

Klein, Paul S., to "42" Products Ltd., Inc. Package. 3,107,007, 10-15-63, Cl. 206—1.

Klein, Peter M., and G. D. Murray III, to Natser Corp., d.b.a. Acco Products. Loose-leaf binders. 3,078,853, 2-26-63, Cl. 129—41.

Klein, Robert L. Window structure with removable sashes. 3,086,259, 4-23-63, Cl. 20—52.2.

Klein, Roy W.: *See*—
Clauss, Richmard J., Klein, and Planowski. 3,081,239.

Klein, Schanzlin & Becker Aktiengesellschaft: *See*—
Buschhorn, Walther. 3,082,695.
Hartnagel, Robert. 3,101,199.

Klein, Sidney, and H. Hockemeyer. Rotary mixing blade. 3,071,353, 1-1-63, Cl. 259—134.

Klein, Vernon W., and E. C. Jones, Jr., deceased (C. Jones, administratrix), to Great Lakes Pipe Line Co. Hazardous atmosphere detecting and signalling system. 3,090,038, 5-14-63, Cl. 340—237.

Klein, William F.: *See*—
Fitch, Ellery R., and Klein. 3,084,567.

Klein, William H. Heel lift. 3,074,187, 1-22-63, Cl. 36—42.

Kleine, Werner K. M. Trepanning and boring head. 3,094,016, 6-18-63, Cl. 77—69.

Kleiner, Helmut: *See*—
Wagner, Kühn, Schwaebel, Kiss, Graulich, and Kleiner. 3,099,635.

Kleiner, Walter B.: *See*—
Foulke, Donald G., Stoddard, Kardos, and Kleiner. 3,111,466.

Kleinerman, Benjamin B. Tape recorder. 3,090,536, 5-21-63, Cl. 226—48.

Kleinfeld, Martin J., and B. A. Hunter, to United States Rubber Co. Low temperature expansion of liquid organic polysulfide polymer with sodium azodicarboxylate. 3,095,387, 6-25-63, Cl. 260—2.5.

Kleinhans, Schuyler, and C. A. Weise, to Douglas Aircraft Co., Inc. Jet engine sound suppressor and reverser. 3,084,507, 4-9-63, Cl. 60—35.54.

Kleinman, David A.: *See*—
Batdorf, Robert L., Dacey, and Kleinman. 3,109,758.

Kleinman, David A., and A. L. Schawlow, to Bell Telephone Laboratories, Inc. Hall-effect apparatus. 3,089,995, 5-14-63, Cl. 321—2.

Kleinman, Jacob L. Motor structure having movable connecting elements. 3,080,493, 3-5-63, Cl. 310—68.

Kleinman, Jacob L. Electric shavers having hingeable shearing section. 3,091,850, 6-4-63, Cl. 30—43.

Kleinman, Jacob L. Shaver having a removable assembled shaving unit. 3,101,537, 8-27-63, Cl. 30—43.

Kleinman, Jacob L. Scale-washing machine combination. 3,101,802, 8-27-63, Cl. 177—144.

Kleinman, Jacob L. Adjustable illuminated scale structure. 3,101,803, 8-27-63, Cl. 177—177.

Kleinman, Leonard, and A. D. Berk, to Hughes Aircraft Co. Harmonic generator. 3,076,132, 1-29-63, Cl. 321—69.

Kleinschmidt, Albert W.: *See*—
Higashiuchi, Kazuo, Kleinschmidt, and Ferrari. 3,108,878.

Kleinschmidt, Roger F.: *See*—
Kruse, Carl W., and Kleinschmidt. 3,094,563.

Kleinschmidt, Walter J.: *See*—
Stark, William M., Kleinschmidt, and Probst. 3,108,047.

Kleis, Derk, G. Schenkel, and A. Bierens, to North American Philips Co., Inc. Electrodynamic device. 3,088,001, 4-30-63, Cl. 179—115.5.

Kleiss, Louis D., to Phillips Petroleum Co. Fractionation control system. 3,085,050, 4-9-63, Cl. 202—160.

Kleiss, Louis D., and S. J. Murray, to Phillips Petroleum Co. Control of a distillation column with plural heating media. 3,115,445, 12-24-63, Cl. 202—160.

Kleist, Robert A., to General Precision, Inc. Interrogator-responder signalling system. 3,092,829, 6-4-63, Cl. 343—6.5.

Kleist, Robert A., to General Precision, Inc. Conveyor sorting. 3,100,040, 8-6-63, Cl. 198—38.

Kleist, Robert A., and C. S. Jones, to General Precision, Inc. Remote interrogator-responder signalling system communications channel apparatus. 3,072,899, 1-8-63, Cl. 343—6.5.

Kleist, Robert A., and J. Scarbrough, to General Precision, Inc. Interrogator-responder signalling system. 3,090,042, 5-14-63, Cl. 343—6.5.

Kleitman, David, and J. E. Ruedy, to Radio Corp. of America. Image amplifying device. 3,075,083, 1-22-63, Cl. 250—213.

Klekot, Jan: *See*—
Rybicki, Zbigniew, Kopa, Wejner, Klekot, and Wroclawski. 3,094,742.

Klem, Stanley J., Jr.: *See*—
Frantz, Frederick H., and Klem. 3,110,241.

Klemchuk, Peter P.: *See*—
Lippincott, Samuel B., Klemchuk, and Bartlett. 3,089,904.

Klement, John F., to Ampco Metal, Inc. Method of making a composite metal structure. 3,094,753, 6-25-63, Cl. 22—204.

Klement, John F., and Q. F. Ingerson, to Ampco Metal, Inc. Method of heat treating copper base alloy. 3,072,508, 1-8-63, Cl. 148—160.

Klemm, Herman G., A. H. Mark, and W. G. Colestock, to Massey-Ferguson Inc. Endless track driving assembly. 3,082,044, 3-19-63, Cl. 305—12.

Klemm, Herman G., and W. A. Wethen, to Massey-Ferguson Inc. Baling machines. 3,099,203, 7-30-63, Cl. 100—19.

Klemme, A. H. L.: *See*—
King, Clarence V. H., Jr., and Margraf. 3,104,597.

Klemme, William W., to Chain Belt Co. Conveyor chain attachment. 3,091,325, 5-28-63, Cl. 198—174.

Klemp Metal Grating Corp.: *See*—
Greenhill, Hy. 3,084,604.

Klempt, Walter: *See*—
Grosskinsky, Otto, Huck, and Klempt. 3,104,959.

Klenk, Willy, to Werner & Pfleiderer G.m.b.H. Device for feeding units of material to continuously moving carriers. 3,093,233, 6-11-63, Cl. 198—20.

Klenke, Edward F., Jr., to E. I. du Pont de Nemours and Co. Mica pigment. 3,107,173, 10-15-63, Cl. 106—291.

Klenke, Edward F., Jr., and A. J. Stratton, to E. I. du Pont de Nemours and Co. Micaceous flake pigment. 3,087,827, 4-30-63, Cl. 106—291.

Klepper, Herbert: *See*—
Abbott, William B., Klepper, and Marsicano. 3,086,644.

Kleppin, Roland P., to Display Corp. Display stand. 3,116,027, 12-31-63, Cl. 240—81.

Klerer, Julius, to Radio Corp. of America. Method of providing semiconductor wafers with protective and masking coatings. 3,114,663, 12-17-63, Cl. 148—179.

Klessig, Ernst F., to Vickers Inc. Divided flow control valve system. 3,077,901, 2-19-63, Cl. 137—621.

Kleven, Lowell A., to Rosemount Engineering Co. Bearing. 3,107,950, 10-22-63, Cl. 308—36.

Klevens, Howard B. Process of forming collagen articles. 3,071,477, 1-1-63, Cl. 99—176.

Kleypas, Wilfred H.: *See*—
Landrum, Ira T., Kennedy, Shanklin, Cummins, Steward, Boulware, Kleypas, and Evans. 3,106,735.

Klie, Robert H.: *See*—
Blaha, Albert L., Feiner, Feldman, and Klie. 3,075,059.

Klier, Gregor: *See*—
Doetsch, Ernst, and Klier. 3,084,419.

Kliever, Waldo H.: *See*—
Briney, Gerald S., and Kliever. 3,079,084.

Kliger, Jack: *See*—
Munushian, Jack, and Kliger. 3,084,293.

Klima, Karel: *See*—
Waniak, Ludvik, Klima, and Vaněk. 3,100,998.

Klimann, Gustav D. Apparatus and method for converting and restoring oil paintings and the like. 3,096,194, 7-2-63, Cl. 117—2.

Klimas, Joseph J.: *See*—
Bettoll, Phillip S., and Klimas. 3,096,196.

Klimaytis, Anthony G., to United States of America, Army. Test device. 3084,445, 4-9-63, Cl. 33—174.

Klimkova, Antonina F.: *See*—
Saplilevsky, Piotr F., Filimoshina, Klimkova, Zilpert, and Garkavi. 3,087,224.

Klimpl, Fred E., to Owens-Corning Fiberglas Corp. Textile shipping package. 3,109,540, 11-5-63, Cl. 206—65.

Klimstra, Paul D.: *See*—
Counsell, Raymond E., and Klimstra. 3,078,284.
Counsell, Raymond E., and Klimstra. 3,084,156.
Counsell, Raymond E., and Klimstra. 3,098,851.
Counsell, Raymond E., and Klimstra. 3,104,244.
Counsell, Raymond E., and Klimstra. 3,107,255.

Kline, Albert K. Bridge plug. 3,115,186, 12-24-63, Cl. 166—135.

Kline, Charles M., H. J. Hofmeister, Jr., W. Hobbs, Jr., and A. M. Best, to Sperry Rand Corp. Grain bin. 3,090,133, 5-21-63, Cl. 34—174.

Kline, Gale D., and J. M. Blair, to Amour and Co. Method of preparing freeze-dehydrated meat mixes. 3,083,108, 3-26-63, Cl. 99—208.

Kline, Granville B.: *See*—
Cannon, William N., Kline, Cochran, and Soper. 3,105,005.

Kline, Granville B., and R. Q. Thompson, to Eli Lilly and Co. Growth-promoting method employing 3,3-bis(4-hydroxyphenyl) pentane. 3,098,745, 7-23-63, Cl. 99—2.

Kline, Henry: *See*—
Murphy, Frank P., and Kline. 3,083,074.

Kline, Leo, J. J. Meehan, and T. F. Sugihara, to United States of America, Agriculture. Process of spray drying eggs. 3,115,413, 12-24-63, Cl. 99—210.

Kline, Marvin E., and R. C. Reilly, to Phillips Petroleum Co. Control of rates of flow in pipeline loop. 3,095,888, 7-2-63, Cl. 137—10.

Kline, Mary E., to Mile Hi Tackle Co. Fish hook holder. 3,115,723, 12-31-63, Cl. 43—57.5.

Kline, Merle J.: *See*—
Schernekau, Gustav A. 3,073,341.

Kline, Ralph W.: *See*—
Niblack, Robert L., and Kline. 3,073,701.

Kline, Richard G., J. B. Reid, and R. A. Spence, to Bain Corp. Method for magnetically retaining an insole and last in assembled alignment. 3,097,381, 7-16-63, Cl. 12—142.

Kline, Richard M., and K. R. Pitcher. Valve opening structure. 3,077,875, 2-19-63, Cl. 124—11.

Kline, Richard M., and K. R. Pitcher. Valve operator tension mechanism. 3,084,833, 4-9-63, Cl. 222—509.

Kline, Robert E.: *See*—
Gilbert, William I., Kline, and Montgomery. 3,073,860.

Kline, Robert E., W. C. Starnes, and R. C. Zabor, to Gulf Research & Development Co. Hydroisomerization process. 3,078,323, 2-19-63, Cl. 260—683.65.

Kline, Robert E., and W. C. Starnes, to Gulf Research & Development Co. Removal of oxygen and water from hydroconversion feed stocks. 3,095,867, 6-25-63, Cl. 208—89.

Kline, William M., and N. C. Jeckel, to United States Catheter & Instrument Corp. Synthetic blood vessel grafts. 3,106,483, 10-8-63, Cl. 117—62.2.

Kling, Harry P., and E. Meyer, to Sylvania Electric Products Inc. Nuclear reactor fuel element comprising a plurality of concentric cylinders. 3,074,873, 1-22-63, Cl. 204—193.2.

Kling, Herman, to M. Steingart. Chumming sinker. 3,083,492, 4-2-63, Cl. 43—43.13.

Kling, Nelson G.: *See*—
Antrim, Doron S., Kling, and Gill. 3,097,666.

Kling, Robert G.: *See*—
Saunders, Hugh E., and Kling. 3,073,246.

Kling, Robert W., to Athey Products Corp. Bottom dumping hopper vehicle. 3,071,414, 1-1-63, Cl. 298—35.

Klingelhofer, Frederick C.: *See*—
Johnson, Clas E., and Klingelhofer. 3,088,542.

Klinger, Gunther H., to General Aniline & Film Corp. Non-diffusing color formers in which the long aliphatic chain thereon is provided with a terminal sulfo group. 3,112,198, 11-26-63, Cl. 96—55.

Klinger, Guy G.: *See*—
Gongoll, Vernon F., and Klinger. 3,109,425.

Klinger, Hughlin E. Filler spout and safety closure for mobile water systems. 3,090,410, 5-21-63, Cl. 141—302.

Klinger, John C., Jr.: *See*—
Neal, Harry B., and Klinger. 3,101,135.

Klinger, Karl A. Oil seal assembly. 3,087,734, 4-30-63, Cl. 277—59.

Klingerman, Milo W. Paste dispenser for collapsible tubes. 3,084,722, 4-9-63, Cl. 141—362.

Klingler, Fritz, to Maschinenfabrik Augsburg-Nurnberg A.G. Ink nozzle for pump-type ink motions. 3,084,875, 4-9-63, Cl. 239—424.

Klingler, Josef F., to F. J. Curran, Co. Bowl deodorant hanger. 3,088,126, 5-7-63, Cl. 4—231.

Klingler, Karl: *See*—
Kohlstaedt, Erwin, and Klingler. 3,112,313.

Klingler, Karl A., to Vapor Heating Corp. Steam conduit joint structure. 3,076,667, 2-5-63, Cl. 285—98.

Klingler, Karl A. Railroad car axle journal boxes. 3,097,025, 7-9-63, Cl. 308—41.

Klingner, Carl E., to Warning Lites, Inc. Collapsible barricade for streets and highways. 3,092,826, 6-4-63, Cl. 340—366.

Klinkhamer, Jacob F., to North American Philips Co., Inc. Memory matrices including magnetic cores. 3,105,959, 10-1-63, Cl. 340—174.

Klinzing, A. F., Co., Inc.: *See*—
Prentice, George D. 3,095,856.

Kliphuis, Jans, to Cutler-Hammer, Inc. Parametric amplifier with balanced self-resonant diodes. 3,105,941, 10-1-63, Cl. 330—4.9.

Kliss, Charles J. Automobile body dent repair device. 3,091,983, 6-4-63, Cl. 81—15.

Kliss, Robert M., to Monsanto Research Corp. Azapentadienenitriles. 3,095,441, 6-25-63, Cl. 260—465.5.

Klockgether, Helfried, W. Himmelmann, and O. Wahl, to AGFA Aktiengesellschaft. Photographic silver halide films comprising an anchoring layer. 3,071,466, 1-1-63, Cl. 96—87.

Klockner-Humboldt-Deutz Aktiengesellschaft: *See*—
Bergmann, Artur E. H. 3,082,872.
Decker, Hanns, Maeder, and Wehren. 3,082,965.
Decker, Johannes B., and Meder. 3,072,043.
Deussner, Herbert. 3,073,576.
Finsterwalder, Albert. 3,107,552.
Herterich, Oskar, and Huttner. 3,083,789.
Homola, Friedrich, and Witt. 3,096,073.
Moller, Hermann. 3,088,543.
Muller, Reinhard. 3,094,075.

Klockner-Werke Aktiengesellschaft: *See*—
Hardt, Paul E. 3,098,740.
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Klohn, Friedel, to Continental Gummi-Werke Aktiengesellschaft. Vehicle tire. 3,094,157, 6-18-63, Cl. 152—209.

Klomp, Alfred W., to Process Gear & Machine Co. Universal joint. 3,107,506, 10-22-63, Cl. 64—17.

Klonoski, Stephen W., to The Torrington Mfg. Co. Fan with slinger ring. 3,111,173, 11-19-63, Cl. 170—168.

Klopfer, Anton M., to North American Philips Co., Inc. Mass spectrometer. 3,086,110, 4-16-63, Cl. 250—41.9.

Klopfer, Oskar E. H.: *See*—
Kizer, Austin E., Klopfer, and Burke. 3,091,518.
Kizer, Austin J., Klopfer, and Burke. 3,074,924.

Klopp Engineering, Inc.: *See*—
Klopp, Mogens C. 3,086,536.

Klopp, Friedrich, Jr.: *See*—
Klopp, Friedrich, F. Klopp, Jr., and Lessenich. 3,096,687.

Klopp, Friedrich, F. Klopp, Jr., and F. Lessenich, to Klopp-Werke G.m.b.H. Milling machine. 3,096,687, 7-9-63, Cl. 90—17.

Klopp, Mogens C., to Klopp Engineering, Inc. Coin sorter-counter. 3,086,536, 4-23-63, Cl. 133—8.

Kloppel, Heinz, to Paasavant-Werke. Controlling liquid media including solid matter suspended therein. 3,106,933, 10-15-63, Cl. 137—89.

Klopping, Hein L.: *See*—
Gregory, Walter A., and Klopping. 3,078,298.

Klopp-Werke G.m.b.H.: *See*—
Klopp, Friedrich, F. Klopp, Jr., and Lessenich. 3,096,687.

Klopstock, Frederick W., and J. Samson, to G. B. Garrett. Boat construction. 3,092,850, 6-11-63, Cl. 9—6.

Klos, George B.: *See*—
Jones, John I., Noll, Nielson, Klos, and Brekelbaum. 3,083,837.

Klosa, Josef, to Delmar Chemicals Ltd. Caffeino-(8)-alkylenediamines. 3,094,529, 6-18-63, Cl. 260—247.2.

Klosa, Josef, to Delmar Chemicals Ltd. Caffeino-8-alkanolamines. 3,094,531, 6-18-63, Cl. 260—256.

Klosa, Josef, to Dr. med. Hans Voigt, Chem.-Pharm. Fabrik. Acid addition salts of basically substituted flavones and preparation thereof. 3,098,854, 7-23-63, Cl. 260—247.2.

Klosa, Josef, to Delmar Chemicals Ltd. Aminonitriles and process for their preparation. 3,116,311, 12-31-63, Cl. 260—465.

Klose, Albert A.: *See*—
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Klose, Alfred J., and R. V. Henry, to Wallace O. Leonard, Inc. Liquid level control apparatus for controlling independently of gravity and density. 3,114,381, 12-17-63, Cl. 137—101.25.

Klose, Manfred: *See*—
Hausmann, Werner, and Klose. 3,094,173.

Kloski, John F., to Royal McBee Corp. Typewriter ribbon spool. 3,087,593, 4-30-63, Cl. 197—175.

Klosowski, Stanley, to Celanese Corp. of America. Use of ammonia-yielding compounds in the pigmenting of thermoplastic resins and methods therefor. 3,080,335, 3-5-63, Cl. 260—41.

Kloss, John W., to Lord Mfg. Co. Car loading structure. 3,114,337, 12-17-63, Cl. 105—369.

Klostermann, Curt W., to Amphenol-Borg Electronics Corp. Electrical connectors. 3,101,231, 8-20-63, Cl. 339—176.

Klostermann, Helmut, and P. Beermann, to Richard Rinker Firma. Fire arms. 3,081,702, 3-19-63, Cl. 102—37.6.

Klostermann, Robert H., to Vita-Zyme Laboratories, Inc. Stabilizing composition for oil-in-water emulsions. 3,108,004, 10-22-63, Cl. 99—144.

Klotz, Herman J., F. J. Droege, and G. Krysluk, to International Business Machines Corp. Magnetic core sequence checking appratus. 3,084,856, 4-9-63, Cl. 235—61.7.

Klotzer, Wilhelm: *See*—
Bretschneider, Hermann, and Klötzer. 3,091,610.

Klozik, William M. Automatic safety flounder gig. 3,083,490, 4-2-63, Cl. 43—6.

Kluck, Louis. Slip over collar type centralizer. 3,072,195, 1-8-63, Cl. 166—241.

Kluck, Wallace A., to Texas Instruments Inc. Magnetic core matrices. 3,072,892, 1-8-63, Cl. 340—174.

Kluck, Wallace A., to Texas Instruments Inc. Magnetic switching core matrices. 3,110,888, 11-12-63, Cl. 340—174.

Kludas, Martin, and W. Schieferdecker, to Med. Fabrik Chemisch-Pharmazeutischer Praeparate J. Carl Pfuger. Ingestible dry microorganism preparations. 3,072,528, 1-8-63, Cl. 167—55.

Kluesener, Hugo H.: *See*—
Grover, Victor T., Jakob, Kluesener, and Borkmann. 3,111,874.

Klug, Ferdinand H. Cabinet for sound producing apparatus. 3,109,509, 11-5-63, Cl. 181—31.

Klug, Helmut, and H. Jochinke, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Esters of aliphatic halogenated carboxylic acids and process for preparing them. 3,080,404, 3-5-63, Cl. 260—408.

Kluge, Herman D.: *See*—
Lacoste, Roger G., Kluge, and Schallenberg. 3,087,956.

Kluge, Herman D., M. A. Wiley, and K. L. Kreus, to Texaco Inc. Method of forming metal complex-containing concentrates. 3,083,161, 3-26-63, Cl. 252—32.7.

Kluge, Herman D., and F. W. Moore, to Texaco Inc. Alkylation process. 3,091,635, 5-28-63, Cl. 260—515.

Kluge, Norbert M. Claw for milking machines. 3,072,096, 1-8-63, Cl. 119—14.54.

Kluge, Robert H., and H. Myers. Fishing device. 3,103,759, 9-17-63, Cl. 43—17.

Kluiber, Rudolph W.: *See*—
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Kluiber, Rudolph W., and W. L. Carrick, to Union Carbide Corp. Ethylene-1-olefin copolymers and process for producing same. 3,073,809, 1-15-63, Cl. 260—88.2.

Klump, Otto: *See*—
Andreas, Holger, Klump, and Menzel. 3,080,408.

Klumpp, Ferdinand, Jr. Self locking bushing. 3,079,581, 2-26-63, Cl. 339—128.

Klumpp, Ferdinand, Jr., and W. H. Jemison, to Heyman Mfg. Co. Mold for snap-in bushing. 3,099,046, 7-30-63, Cl. 18—42.

Klupfel, Kurt-Walter, H.-R. Stumpf, H. Behmenburg, S. Wilhelm, and M. Tomanek, to Azoplate Corp. Material for electrophotographic reproduction. 3,097,095, 7-9-63, Cl. 96—1.

Klutts Rings, Inc.: *See*—
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Klutts, Walter A., to Klutts Rings, Inc. Spinning rings. 3,084,501, 4-9-63, Cl. 57—120.

Klüver, Johan W., to Bell Telephone Laboratories, Inc. Cyclotron wave parametric amplifier with decreased magnetic bias. 3,074,154, 1-22-63, Cl. 330—43.

Klykken, Nils, to The Sandy Hill Iron & Brass Works. Mixing tank. 3,112,634, 12-3-63, Cl. 68—181.

Kmets, Elmer W.: *See*—
Chismar, Andrew B., and Kmetz. 3,100,150.

Kmiecik, Leopold J., and E. H. Stonich. Blow-off fitting. 3,072,140, 1-8-63, Cl. 137—428.

Knabusch, Edward M., and E. J. Shoemaker, to La-Z-Boy Chair Co. Reclining platform rocking chair. 3,096,121, 7-2-63, Cl. 297—269.

Knabusch, Edward M., and E. J. Shoemaker, to La-Z-Boy Chair Co. Spring anchor means. 3,098,646, 7-23-63, Cl. 267—112.

Knabusch, Edward M., and E. J. Shoemaker, to La-Z-Boy Chair Co. Leg rest fixture and supplemental holding mechanism. 3,099,487, 7-30-63, Cl. 297—429.

Knacke, Theodore W., and P. H. Young, to Itek Corp. Airborne target vehicle. 3,104,612, 9-24-63, Cl. 102—37.6.

Knacke, Theodore W., and P. A. Leonard, to Itek Corp. Parachute. 3,104,856, 9-24-63, Cl. 244—145.

Knacke, Theodore W., and J. H. McClow, Jr., to Itek Corp. Glide parachute. 3,104,857, 9-24-63, Cl. 244—145.

Knag, A., A/S: *See*—
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Knaggs, Edward A.: *See*—
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Knape, Herbert F., and P. M. Geren, to Knape & Vogt Mfg. Co. Self closing drawer slide structure. 3,104,142, 9-17-63, Cl. 312—333.

Knape & Vogt Mfg. Co.: *See*—
Knape, Herbert F., and Geren. 3,104,142.

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Bomberger, Howard B., and Knapek. 3,113,227.

Knapp, Alfred P., to Knapp Mills Inc. Metallic powder composition. 3,102,024, 8-27-63, Cl. 75—.5.

Knapp, Andrew S., to Knapp-Monarch Co. Capillary tube restrictor with filter screen for use in an aerator. 3,079,954, 3-5-63, Cl. 138—41.

Knapp, Andrew S., to Knapp-Monarch Co. Humidifier heater. 3,105,892, 10-1-63, Cl. 219—38.

Knapp, Carroll L., Jr.: *See*—
Morway, Arnold J., and Knapp. 3,078,226.

Knapp, Earle L., to Armco Steel Corp. Molten metal trap for coating apparatus. 3,090,352, 5-21-63, Cl. 118—405.

Knapp, Eugene J., and H. P. Laffkas, to Corning Fibre Box. Multiple-piece frangible ware package. 3,113,667, 12-10-63, Cl. 206—46.

Knapp, Eugene J., and H. P. Laffkas, to Corning Fibre Box Corp. Cup and saucer tray. 3,114,457, 12-17-63, Cl. 206—72.

Knapp, George A., to R. E. Dietz Co. Lamp construction. 3,093,320, 6-11-63, Cl. 240—8.2.

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Orloff, Harold D., and Knapp. 3,115,463.
Orloff, Harold D., and Knapp. 3,115,464.
Orloff, Harold D., and Knapp. 3,115,465.
Orloff, Harold D., and Knapp. 3,115,466.

Knapp, Guenther, to National Co., Inc. Temperature control system. 3,107,285, 10-15-63, Cl. 219—20.

Knapp, Heinrich, R. Krauss, and J. Heiser, to Robert Bosch Gesellschaft mit beschrankter Haftung. Fuel injection valve. 3,091,405, 5-28-63, Cl. 239—453.

Knapp, Helmut, and K. Stork, to American Messer Corp. Gas separation process and system. 3,095,294, 6-25-63, Cl. 62—31.

Knapp, James G., to The Drackett Co. Compression sponge mop. 3,106,736, 10-15-63, Cl. 15—119.

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Knapp, Phillip M.: *See*—
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Knapp, Phillip M., to Aircraft Armaments, Inc. Hit indicator apparatus. 3,083,474, 4-2-63, Cl. 35—25.

Knapp, Ralph S., to Tri-Tix, Inc. Road markers. 3,099,244, 7-30-63, Cl. 116—63.

Knapp, Stanley J., to Joseph T. Ryerson & Son, Inc. Support for coiled cables or the like. 3,072,358, 1-8-63, Cl. 242—129.

Knapp, Stewart S.: *See*—
Brown, Robert R., and Knapp. 3,085,138.

Knapp, Wallace C., to C. H. Wheeler Mfg. Co. Hinged joints for coupling pipe sections. 3,112,128, 11-26-63, Cl. 285—166.

Knapp, Willard E., W. M. Bush, and R. H. Griffin. Tubular testing apparatus with expandable back-up members and method of using same. 3,071,960, 1-8-63, Cl. 73—40.5.

Knapp, William E.: *See*—
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Bolkcom, Wilbur T., and Knapp. 3,079,250.
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Knapp, William E., and W. T. Bolkcom, to American Metallurgical Products Co. Method of alloying. 3,072,476, 1-8-63, Cl. 75—129.

Knapp, William E., and E. F. Wadelton, to Deere & Co. Lift truck. 3,074,691, 1-22-63, Cl. 254—5.

Knapp, William E., W. S. Tsuchiya, and D. W. Cayton, to Deere & Co. Land leveler. 3,092,922, 6-11-63, Cl. 37—180.

Knapp, William F. Mechanical door stop means. 3,100,122, 8-6-63, Cl. 292—266.

Knapp, William F. Mechanical door stop means. 3,106,418, 10-8-63, Cl. 292—263.

Knapp, William J., and F. R. Shanley, to The Rand Corp. Process for making laminated material. 3,089,196, 5-14-63, Cl. 18—47.5.

Knappe, Herman E., to Cherry-Burrell Corp. Plug valve. 3,092,365, 6-4-63, Cl. 251—309.

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Sennewald, Kurt, Born, and Rehberg. 3,090,804.
Sennewald, Kurt, Gotz, and Kallrath. 3,096,360.
Sennewald, Kurt, Götz, and Kallrath. 3,113,959.
Sennewald, Kurt, Pohl, Meininger, and Vogt. 3,093,696.

Knauer, Hans-Ulrich, G. Vogel, and R. Bayer, to International Standard Electric Corp. Circuit arrangement for an intercom system with alternative operation. 3,098,122, 7-16-63, Cl. 179—1.

Knauf, Harry V., Jr., to Radio Corp. of America. Cathode assembly for electron tube. 3,085,175, 4-9-63, Cl. 313—270

Knauf, Harry V., Jr., to Radio Corp. of America. Brazing jig for electron tube fabrication. 3,094,957, 6-25-63, Cl. 113—99.

Knauth, Berthold A., to Rotron Mfg. Co., Inc. Gas mass metering device. 3,073,158, 1-15-63, Cl. 73—206.

Knecht, William A.: *See*—
King, Phillip W., Kavanaugh, and Knecht. 3,088,270.

Knechtli, Ronald C., and K. P. Grabowski, to Hughes Aircraft Co. Coupled-cavity traveling-wave parametric amplifier. 3,076,149, 1-29-63, Cl. 330—4.6.

Knedel, Maximilian. Fractionation of protein solutions. 3,074,851, 1-22-63, Cl. 167—78.

Kneip, E. W., Inc.: *See*—
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Knell, Martin, to Geigy Chemical Corp. Triaminopropane hex-acetic acid and metal chelates thereof. 3,107,260, 10-15-63, Cl. 260—439.

Knellwolf, Hans C. Shoe sole. 3,103,931, 9-17-63, Cl. 128—582.

Knepshield, Leroy H., to Allegheny Ludlum Steel Corp. Edge trimmer. 3,080,783, 3-12-63, Cl. 83—479.

Knerr, Carl J., and C. R. Waldrop, to Borg-Warner Corp. Drive assembly. 3,086,403, 4-23-63, Cl. 74—242.9.

Kneuss, Kenneth E., to Fawick Corp. Diaphragm and wear shoe assembly for clutch or brake. 3,092,231, 6-4-63, Cl. 192—107.

Knibb, Leroy H. Liquid dispensing apparatus. 3,078,471, 2-26-63, Cl. 4—159.

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Kniffin, Edgar A.: *See*—
Arnold, Francis T., Kniffin, Brewster, and Crouse. 3,107,596.

Kniffin, Walter G., to General Motors Corp. Freezing device. 3,075,364, 1-29-63, Cl. 62—353.

Kniffin, Walter G., Jr., to General Motors Corp. Method of molding prestressed elastomeric articles. 3,110,553, 11-12-63, Cl. 18—59.

Knight, Carl P. Pusher type carrier scraper. 3,083,479, 4-2-63, Cl. 37—126.

Knight, Donald S., Jr. Rescue toboggan. 3,104,116, 9-17-63, Cl. 280—18.

Knight, Douglas E. Fishing lure. 3,108,390, 10-29-63, Cl. 43—42.09.

Knight, Edward J., and E. D. Marlin, to The Garrett Corp. Temperature compensated compressor bleed control mechanism. 3,073,511, 1-15-63, Cl. 230—115.

Knight, Edward M. Fire starter for outside grills. 3,112,716, 12-3-63, Cl. 110—1.

Knight, George A., to National Co., Inc. Electrical connector. 3,112,976, 12-3-63, Cl. 339—110.

Knight, Herbert M.: *See*—
Greene, Benjamin F., Jr., Knight, Ernst, Slack, Ostroff, Cawley, and McManus. 3,109,170.

Knight, Homer A.: *See*—
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Knight, Houston W., to FMC Corp. Fluid handling apparatus. 3,099,297, 7-30-63, Cl. 141—207.

Knight, Howard R. J., to H. V. Schweitzer. Coating apparatus. 3,086,495, 4-23-63, Cl. 118—2.

Knight, J. B.: *See*—
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Purtell, Rufus J. 3,087,680.
Purtell, Rufus J. 3,094,282.

Knight, J. B., Co.: *See*—
Purtell, Rufus J. 3,072,268.
Purtell, Rufus J. 3,087,680.
Purtell, Rufus J. 3,094,282.

Knight, James T. Stand for paint pails, tools or the like. 3,107,636, 10-22-63, Cl. 108—102.

Knight, John E., to Halliburton Co. Apparatus for fluidizing and conveying pulverulent material. 3,103,389, 9-10-63, Cl. 302—53.

Knight, Peter D., to Kenwood Mfg. (Woking) Ltd. Quick release catches. 3,100,661, 8-13-63, Cl. 287—119.

Knight, Randall E., Jr., and G. V. Lewis, to American Truck Washing and Detergent Co. Vehicle washing apparatus. 3,102,545, 9-3-63, Cl. 134—45.

Knight, Ronald A., to The United Kingdom Atomic Energy Authority. Sintering processes. 3,115,408, 12–24–63, Cl. 75—200.

Knight, Robert B.: *See*—
Purtell, Rufus J. 3,072,268.
Purtell, Rufus J. 3,087,680.
Purtell, Rufus J. 3,094,282.

Knight, Sidney G., ½ to R. F. Oxley. Method of making a universal coupling. 3,089,232, 5–14–63, Cl. 29—423.

Knight, Sidney G., to Drott Mfg. Corp. Mobile crane. 3,112,035, 11–26–63, Cl. 212—55.

Knight, Stanley G., to Wisconsin Alumni Research Foundation. Process for preparing flavoring compositions. 3,100,153, 8–6–63, Cl. 99—116.

Knight, Stanley W. Cattle bunk feeder filler. 3,084,821, 4–9–63, Cl. 214—519.

Knight, William P.: *See*—
Armstrong, Don L., and Knight. 3,108,431.

Knighton, James B., to United States of America, Atomic Energy Commission. Production of actinide metal. 3,109,731, 11–5–63, Cl. 75—84.1.

Knights, Herbert C., and P. N. Munn, to United Kingdom Atomic Energy Authority. Graphite moderator structures for nuclear reactors. 3,085,958, 4–16–63, Cl. 204—193.2.

Knights, Richard N., A. R. Pitt, A. A. J. Willitt, and S. W. H. Wood, to Dowty Rotol Ltd. Bogie undercarriages for aircraft. 3,091,416, 5–28–63, Cl. 244—50.

Knipp, William C., to American Can Co. Carton opening means. 3,109,577, 11–5–63, Cl. 229—51.

Knobel, Max, to Pneumatic Scale Corp., Ltd. Electromagnetic control means for a weighing machine. 3,107,745, 10–22–63, Cl. 177—116.

Knobel, Max, to Pneumatic Scale Corp., Ltd. Weighing element embodying a resilient contact unit. 3,113,632, 12–10–63, Cl. 177—79.

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Macy, Donald R., Weaver, and Knoblauch. 3,086,260.

Knoblauch, Hans: *See*—
Fischer, Thomas, and Knoblauch. 3,093,454.

Knobloch, James O., to Standard Oil Co. Purification of aromatic acids. 3,071,614, 1–1–63, Cl. 260—525.

Knobloch, James O., J. W. Shepard, and H. P. Liao, to Standard Oil Co. Process for resolving aromatic polycarboxylic acids capable of forming intramolecular anhydrides. 3,098,095, 7–16–63, Cl. 260—525.

Knobloch, James O., and H. P. Liao, to Standard Oil Co. Separation of recoverable materials from oxidation byproducts. 3,105,851, 10–1–63, Cl. 260—525.

Knobloch, Walter: *See*—
Steinhofer, Adolf, Frey, and Knobloch. 3,097,935.

Knoblock, Frederick D. Folding table. 3,108,550, 10–29–63, Cl. 108—124.

Knoch, Max H. Contraceptive intra-uterine appliance. 3,077,879, 2–19–63, Cl. 128—130.

Knocke, Louis T., to Thompson Ramo Wooldridge Inc. Automatic brake adjuster. 3,115,955, 12–31–63, Cl. 188—79.5.

Knodel, Louis R.: *See*—
Rogers, William A., Jr., Latta, Knodel, and Gurgiolo. 3,072,605.

Knoebel, Alfred J., and M. B. Hall, to Acme Steel Co. Strap tensioning tool. 3,080,148, 3–5–63, Cl. 254—51.

Knoechel, Edwin L.: *See*—
De Boer, Herman R., King, and Knoechel. 3,071,513.

Knoechel, Thelma L.: *See*—
Zwoyer, Walter R., and Freebody. 3,081,832.

Knoedler, Roy E. Tailgate auger. 3,081,862, 3–19–63, Cl. 198—122.

Knoell, Oscar F., to United States Steel Corp. Self-dumping bucket with removable bail. 3,107,114, 10–15–63, Cl. 294—73.

Knoevenagel, Kurt, to C. F. Spiess & Sohn Chemische Fabrik. Sugar esters and process of preparing the same. 3,103,507, 9–10–63, Cl. 260—234.

Knoll A.-G.: *See*—
Buh, Oscar. 3,091,568.

Knoll A.G. Chemische Fabriken: *See*—
Klavehn, Wilfrid, and Kraft. 3,083,204.
Neumann, Horst. 3,072,525.

Knoll Associates, Inc.: *See*—
Knoll, Florence S., and Caffero. 3,102,763.
Pearson, Maxwell E. 3,111,343.
Savage, Robert H. 3,107,708.
Schultz, Moses R. 3,073,660.

Knoll, David, and A. Greenhaus, to Berko Electric Mfg. Corp. Panel type heating apparatus and air circulating means therefor. 3,097,287, 7–9–63, Cl. 219—39.

Knoll, Florence S., and V. J. Caffero, to Knoll Associates, Inc. Drawer structure. 3,102,763, 9–3–63, Cl. 312—234.1.

Knoll, Joseph, and I. J. Melman, to Servo Corp. of America. Image pickup devices and scanning circuits therefor. 3,111,556, 11–19–63, Cl. 178—7.1.

Knoll, Kenneth C., to United States of America, Atomic Energy Commission. Removal of cesium from aqueous solutions by adsorption. 3,097,920, 7–16–63, Cl. 23—25.

Knoller, Howard J.: *See*—
Trostel, Albert O., Jr., and Knoller. 3,111,795.

Knopf, Robert J., and L. F. Theiling, Jr., to Union Carbide Corp. Preparation of half-esters of aliphatic diols. 3,114,766, 12–17–63, Cl. 260—486.

Knopfle, Walter J., and H. G. Hagenah, to Perpetuum-Ebner, Fabrik fur Feinmechanik und Elektrotechnik Steldiner & Co., Kom.-Ges. Holding arm for record changer. 3,081,094, 3–12–63, Cl. 274—10.

Knoph, Nic L., and R. E. Sonneland, to Tysaman Machine Co., Inc. Long wire stone sawing apparatus. 3,098,475, 7–23–63, Cl. 125—21.

Knorr-Bremse Gesellschaft mit Beschrankter Haftung: *See*—
Riedl, Engelbert. 3,097,019.

Knosp, Robert N., and D. L. Gecks, to The Fosdick Machine Tool Co. Automatic control apparatus for spindles. 3,100,406, 8–13–63, Cl. 77—4.

Knosp, Robert N., and D. L. Gecks, to The Fosdick Machine Tool Co. Machine tool programming system. 3,109,329, 11–5–63, Cl. 77—4.

Knotex Maschinenbau G.m.b.H.: *See*—
Freudling, Erwin, Elsinger, Grönert, and Rauch. 3,080,811.

Knoth, Walter H., Jr.: *See*—
Aftandilian, Victor D., and Knoth. 3,093,660.

Knott, Carl, to M. Blatt. Bowling ball cleaning machine. 3,086,233, 4–23–63, Cl. 15—21.

Knott, Frederick T. Skyline carriage. 3,105,597, 10–1–63, Cl. 212—115.

Knott, Philip H. Bubbling amusement devices. 3,071,888, 1–8–63, Cl. 46—1.

Knowles, Carl H.: *See*—
Da Costa, Harry, and Knowles. 3,075,903.

Knowles, Carl H., to Motorola, Inc. Transistor device and method of manufacture. 3,108,209, 10–22–63, Cl. 317—234.

Knowles, Carl H., and H. Da Costa, to Motorola, Inc. Method and apparatus for use in the manufacture of transistors. 3,092,522, 6–4–63, Cl. 148—1.5.

Knowles, Charles M. Fulcrum attachment for bladed implements. 3,113,758, 12–10–63, Cl. 254—131.5.

Knowles, Edwin C.: *See*—
Cole, Edward L., Knowles, and Kuhn. 3,072,499.
Kay, Edward L., and Knowles. 3,076,835.
Kay, Edward L., and Knowles. 3,082,169.
Kay, Edward L., and Knowles. 3,100,221.

Knowles, Edwin C., E. L. Cole, and W. E. Kuhn, to Texaco, Inc. Method of tin plating copper. 3,072,498, 1–8–63, Cl. 117—113.

Knowles, Edwin C., and E. L. Kay, to Texaco Inc. Amine salts of tetra-covalent boron compounds. 3,102,131, 8–27–63, Cl. 260—462.

Knowles, Gregory W., to Fairchild Stratos Corp. Angular position control system. 3,111,290, 11–19–63, Cl. 244—75.

Knowles, James, to Ford Motor Co.: Power transmission mechanism. 3,113,470, 12–10–63, Cl. 74—677.

Knowles, James T. R. Stockton, and N. T. General, to Ford Motor Co. Power transmission mechanism. 3,083,589, 4–2–63, Cl. 74—677.

Knowles, John G. Hydraulic brake systems. 3,101,976, 8–27–63, Cl. 303—49.

Knowles, M. B.: *See*—
Kibler, Charles J., Knowles, and Tamblyn. 3,075,850

Knowles, Philip N. G.: *See*—
Matthews, Robert, and Knowles. 3,076,120.

Knowles, Robert H.: *See*—
Chusid, Edward, Greenberg, and Knowles. 3,076,537.

Knowles, William S.: *See*—
Bogle, Robert W., and Knowles. 3,088,112.

Knowles, William S., and A. J. Ellas, to Ampex Corp. Diode input NOR circuit including positive feedback. 3,083,303, 3–26–63, Cl. 307—88.5.

Knowles, William S., and A. E. Lippmann, to Monsanto Chemical Co. Method of preparing nitrophenetoles. 3,085,113, 4–9–63, Cl. 260—612.

Knowlton, David R., to United-Carr Fastener Corp. Clip member. 3,113,811, 12–10–63, Cl. 308—88.

Knowlton, James A., Jr., and R. H. Arndt, to General Electric Co. Method and apparatus for uniformly irradiating an object with electrons. 3,109,931, 11–5–63, Cl. 250—49.5.

Knox, Charles B., Gelatine Co., Inc.: *See*—
Tourtellotte, Dee, and Marks. 3,108,995.

Knox, Harold W., to The Firestone Tire & Rubber Co. Mold identification plug. 3,100,318, 8–13–63, Cl. 18—44.

Knox Instruments, Inc.: *See*—
Knox, William C., Jr. 3,082,572.

Knox, John A., A. B. Featherston, and R. M. Lasater, to Halliburton Co. Paraffin control composition and method. 3,076,757, 2–5–63, Cl. 252—8.3.

Knox, Lawrence H.: *See*—
Bowers, Albert, and Knox. 3,080,397.

Knox, Lawrence H., to Syntex S.A. 1',1'-dihalo and 1'-carboxy-cyclopropano androstane derivatives. 3,079,406, 2–26–63, Cl. 260—397.1.

Knox, Lawrence H., to Syntex S.A. 3α,4α and 5β,6β-cyclopropano-pregnene derivatives. 3,080,385, 3–5–63, Cl. 260—397.1.

Knox, Lawrence H., to Syntex S.A. 3α,4α and 5β,6β-cyclopropano-pregnene derivatives. 3,080,386, 3–5–63, Cl. 260—397.1.

Knox, Lawrence H., to Syntex S.A. 1',1'-dihalo and 1'-carboxy-cyclopropano-androstene derivatives. 3,080,387, 3–5–63, Cl. 260—397.1.

Knox, Lawrence H., and F. A. Kincl, to Syntex Corp. 2 and/or 16-aminomethylene-13, 17-secoandrostan-α-ol-17 oic (13-17) lactones. 3,102,119, 8–27–63, Cl. 260—294.3.

Knox, Leonard S.: *See*—
McCarthy, Jeremiah T. 3,098,316.

Knox, Roger E., to E. I. du Pont de Nemours and Co. Preparation of a cured polyurethane cellular material. 3,108,976, 10–29–63, Cl. 260—2.5.

Knox, Roger E., and J. A. Margedant, Jr., to E. I. du Pont de Nemours and Co. Process of molding a polyurethane foam by shaping it without compression. 3,079,641, 3–5–63, Cl. 18—48.

Knox, William C., Jr.: *See*—
Morrow, Merritt M., and Knox. 3,104,448.

Knox, William C., Jr., to Knox Instruments, Inc. Aerial toy. 3,082,572, 3–26–63, Cl. 46—82.

Knox, William H.: *See*—
Medwedeff, Fred M., and Knox. 3,092,721.

Knox, William J., Jr., and C. V. Wilson, to Eastman Kodak Co. Reaction products of isocyanato esters and alcohols. 3,091,623, 5–28–63, Cl. 260—404.5.

Knudsen, Harold S. Leader attachment for reels. 3,106,364, 10–8–63, Cl. 242—74.

Knudsen, John P., to Monsanto Chemical Co. Manufacture of shaped objects of acrylonitrile polymer by wet spinning. 3,088,188, 5–7–63, Cl. 28—82.

Knudsen, John P., and P. A. Ucci, to Monsanto Chemical Co. Spinning of acrylonitrile polymers. 3,088,793, 5–7–63, Cl. 18—54.

Knudsen, Knud J., to Lewis Engineering Co. Transistor amplifier and motor load using conductive circuit feedback. 3,090,903, 5–21–63, Cl. 318—448.

Knudsen, Knud J., to Lewis Engineering Co. Electric temperature control. 3,116,396, 12–31–63, Cl. 219—20.

Knudsen, Lawrence B., to National Lead Co. Method of sulfating titaniferous materials. 3,071,435, 1–1–63, Cl. 23—117.

Knudsen, Mildred P.: *See*—
Ehrlich, John, Bartz, and Knudsen. 3,100,176.

Knudsen, Peter S., to de Danske Mejeriers Maskinfabrik, A.m.b.A. Plate for holding section in a plate heat exchanger. 3,106,243, 10–8–63, Cl. 165—167.

Knudsen, Vagn A., to Graybar Precast Ltd. Highway safety guard rail. 3,092,371, 6–4–63, Cl. 256—13.1.

Knudson, Giltner J., to The Bendix Corp. Fuel feed control for internal combustion engines. 3,076,447, 2–5–63, Cl. 123—119.

Knudson, Melvin R., and D. G. Bowen, to St. Regis Paper Co. Wood drying method. 3,070,896, 1–1–63, Cl. 34—26.

Knudtson, Donald W.: *See*—
Paper, Meyer, Knudtson, Olson, and Rouser. 3,076,358.

Knusli, Enrico: *See*—
Gysin, Hans, and Knusli. 3,078,154.

Knüsli, Enrico, K. Rüfenacht, and H. Gysin, to J. R. Geigy A.G. Herbicidal composition and method. 3,086,855, 4–23–63, Cl. 71—2.5.

Knuth, Eugene W. Scaffold horse. 3,103,988, 9–17–63, Cl. 182—226.

Knuth, Harvey G., to Lyon Metal Products, Inc. Shelving structure. 3,088,424, 5–7–63, Cl. 108—108.

Knuth, Paul E., E. F. Collins, and H. J. Smith. Cover for lawn mowers. 3,087,585, 4–30–63, Cl. 189—2.

Knutson, Andrew T., and M. O. Kalleberg, to Minnesota Mining and Mfg. Co. Pressure sensitive adhesive tape in which the adhesive is a mixture of synthetic rubber and acrylate. 3,092,250, 6–4–63, Cl. 206—59.

Knutson, Gerald L. Relief station for cats. 3,111,932, 11–26–63, Cl. 119—1.

Knutson, Kelsey N. Fork lift-loader attachment for mobile lifting vehicles. 3,075,661, 1–29–63, Cl. 214—140.

Knutson, Merritt. Back-up warning signal for automotive vehicles. 3,076,960, 2–5–63, Cl. 340—392.

Kob, Elisabeth: *See*—
Sauer, Hubert, and Kob. 3,113,933.

Kobayashi, Akio: *See*—
Matsui, Masanao, Kobayashi, and Watanabe. 3,108,112.

Kobayashi, Akira, T. Aoyagi, and S. Ishihara, to Nippon Electric Co. Ltd. Tape feed mechanism. 3,106,357, 10–8–63, Cl. 242—55.12.

Kobayashi, Hidehiko: *See*—
Fujisaki, Yoshisato, Kobayashi, and Tazaki. 3,073,669.

Kobayashi, Hiroshi: *See*—
Kawasaki, Chikataro, Utsumi, Fujita, and Kobayashi. 3,109,000.

Kobayashi, Minoru: *See*—
Sasaki, Junichi, Soda, Nakamatsu, Kobayashi, and Tochikura. 3,077,672.

Kobayashi, Takashi, and A. Higuchi, to Sumitomo Kinzoku Kogyo Kabushiki Kaisha. Ring for spinning machine. 3,114,234, 12–17–63, Cl. 57—124.

Kobayashi, Takatoshi, to Toyo Rayon Kabushiki Kaisha and Toyo Nylon Nenshi Kako Kabushiki Kaisha. Process for preparation of stretch yarn. 3,108,430, 10–29–63, Cl. 57—157.

Kobayashi, Takizo. Fluorescent lamp circuit and starting means therefor. 3,114,076, 12–10–63, Cl. 315—100.

Kobayashi, Tatsuo: *See*—
Kaneko, Kazuo, Hisatsune, Kukako, and Kobayashi. 3,112,540.

Kobayashi, Tatsuo, to Chiyoda Kogaku Seiko Kabushiki Kaisha. Lens shutter for camera. 3,084,608, 4–9–63, Cl. 95—64.

Kobe, Inc.: *See*—
Coberly, Clarence J. 3,075,553.
Coberly, Clarence J. 3,075,554.
Coberly, Clarence J. 3,082,749.
Coberly, Clarence J. 3,113,522.
Coberly, Clarence J., and Brown. 3,114,566.
Coberly, Clarence J., Brown, and Williams. 3,077,836.
McArthur, Ralph F., and Mecusker. 3,078,804.

Kobe Steel Works, Ltd.: *See*—
Kaneko, Kazuo, Hisatsune, Kuwako, and Kobayashi. 3,112,540.
Takao, Zenichiro, Inomata, and Nakano. 3,111,434.

Kobee, Frank R. Pneumatic jack. 3,092,366, 6–4–63, Cl. 254—93.

Kober, Ehrenfried H., to Olin Mathieson Chemical Corp. Tertiary amine salts of 2,4-bis-haloalkyl-6-hydroxy-1,3,5-triazines. 3,090,784, 5–21–63, Cl. 260—247.5.

Kober, Ehrenfried H., to Olin Mathieson Chemical Corp. Method for preparing 2, 4-bis-alkyl-6 hydroxyl-1, 3, 5-triazines. 3,106,554, 10–8–63, Cl. 260—248.

Köber, Fritz: *See*—
Sauer, Hans, Köber, Weiss, Grosser, and Wöhner. 3,098,420.

Kober, William: *See*—
Linscott, Austin B., Bellamy, and Kober. 3,072,365.

Kobetz, Paul, to Ethyl Corp. Complex bimetallic organometallic compounds and method for their preparation. 3,098,862, 7–23–63, Cl. 260—429.7.

Koble, Robert A.: *See*—
Hart, James L., and Koble. 3,104,941.

Koble, Robert A., to Phillips Petroleum Co. Fractional precipitation of uranium from uranium-vanadium containing carbonate leach solution. 3,078,141, 2–19–63, Cl. 23—14.5.

Koble, Robert A., to Phillips Petroleum Co. Control of carbonate concentration in carbonate leaching of uranium-bearing ores by calcium sulfate addition. 3,081,147, 3–12–63, Cl. 23—14.5.

Koble, Robert A., and H. W. Goard, to Phillips Petroleum Co. Method of carbonate leaching uranium ore. 3,099,525, 7–30–63, Cl. 23—14.5.

Koble, Robert L., Jr.: *See*—
Goettl, John, A. B., and Koble. 3,115,299.

Koblenz, Avrom M., P. B. Krishnaswamy, and R. H. Thomas, to Fischer & Porter Co. Magnetic flowmeter. 3,078,712, 2–26–63, Cl. 73—194.

Kobler, Richard: *See*—
Moore, Omar K., and Kobler. 3,112,569.

Kobler, Richard, to McGraw-Edison Co. Telephone dialing equipment. 3,104,285, 9–17–63, Cl. 179—90.

Kobler, Richard, to McGraw-Edison Co. Telephone calling equipment. 3,104,287, 9–17–63, Cl. 179—90.

Kobler, Richard, to McGraw-Edison Co. Telephone calling equipment. 3,104,288, 9–17–63, Cl. 179—90.

Kobler, Richard, and R. M. Silverman, to McGraw-Edison Co. Dial mechanism for automatic telephone dialing machines. 3,089,002, 5–7–63, Cl. 179—90.

Kobler, Victor and W. Shape and proportions of shearheads. 3,103,743, 9–17–63, Cl. 30—34.

Kobler, Victor and W. Dry shaver with hair collecting means. 3,103,744, 9–17–63, Cl. 30—41.

Kobler, Werner: *See*—
Kobler, Victor and W. 3,103,743.
Kobler, Victor and W. 3,103,744.

Kobryner, Herman H., to Murray Mfg. Corp. Polyphase load center bus bar mounting. 3,075,039, 1–22–63, Cl. 174—99.

Kocay, Witold R., and J. W. Preece, to American Cyanamid Co. Process of producing shaped structures from an acrylonitrile polymerization product. 3,104,938, 9–24–63, Cl. 18—54.

Koch, Adolf J. J.: *See*—
Hokkeling, Pieter, Koch, Marks, Van Der Steeg, De Vos, and Zijlstra. 3,116,181.

Koch, Anton, to Portland Zementwerke Heidelberg AG. Process and apparatus for the production of cement clinker, more especially for white cement. 3,085,022, 4–9–63, Cl. 106—101.

Koch, Carl. Photoelectric exposure metering device for photographic darkslide cameras. 3,100,429, 8–13–63, Cl. 95—10.

Koch, David, to Morris Kurtzon, Inc. Method and apparatus for making a screen or grille. 3,096,571, 7–9–63, Cl. 29—160.

Koch, Donald T., and W. R. Bohannan, to The Cooper-Bessemer Corp. Compressor control. 3,096,926, 7–9–63, Cl. 230—4.

Koch, Edward I. Simulated vehicle toy. 3,099,443, 7–30–63, Cl. 272—1.

Koch, Frederick A. Candles. 3,088,302, 5–7–63, Cl. 67—22.

Koch, Gawain B., to Polymer Processes, Inc. Synthetic article. 3,091,173, 5–28–63, Cl. 100—162.

Koch, George, to Allis-Chalmers Mfg. Co. Clutch and brake control. 3,080,026, 3–5–63, Cl. 192—13.

Koch, H., & Sons: *See*—
Gaylord, John A. 3,094,345.
Gaylord, John A. 3,107,370.
Gaylord, John A. 3,112,907.
Sheffield, Harold B. 3,102,503.

Koch, Heinrich, E. Pfeiffer, and A. Fuss, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning. Polymer dispersions containing metal powder and process for their manufacture. 3,085,985, 4–16–63, Cl. 260—17.

Koch, John E. Snowplow attachment for automobiles. 3,098,309, 7–23–63, Cl. 37—42.

Koch, Jacob: *See*—
Kern, Walter, and Koch. 3,079,389.
Moser, Eduard, and Koch. 3,088,949.

Koch, Klaus: *See*—
Leinhos, Roland, and Koch. 3,092,727.

Koch, Lawrence E., to L. A. M. Phelan. Cup lift serving valve for continuous freezers. 3,081,804, 3-19-63, Cl. 141—360.

Koch, Otto: *See*—
Zygan, Hieronymus, Koch, Schnell, Prietzschk, and Romling.

Koch, Paul H., to The Babcock & Wilcox Co. Forced flow fluid heating unit. 3,081,748, 3-19-63, Cl. 122—406.

Koch, Paul H., E. A. Plrsh, and H. S. Swenson, to The Babcock & Wilcox Co. Ribbed vapor generating tubes. 3,088,494, 5-7-63, Cl. 138—37.

Koch, Theodore A., I. M. Robinson, and W. L. Wiley to E. I. du Pont de Nemours and Co. Vapor phase oxidation of acrolein to acrylic acid. 3,087,964, 4-30-63, Cl. 260—530.

Koch, Stanley D., to Monsanto Research Corp. Tricyclic monospirane hydrocarbons as high energy fuels. 3,113,-419, 12-10-63, Cl. 60—35.4.

Koch, Stanley D., to Monsanto Research Corp. Dispirane hydrocarbons as high energy fuels. 3,113,421, 12-10-63, Cl. 60—35.4.

Koch, Stanley D., to Monsanto Research Corp. Tricyclo-[7.1.0.0]-deccane as a high energy fuel. 3,113,423, 12-10-63, Cl. 60—35.4.

Koch, Stanley D., and G. L. Greenfield, to Allied Chemical Corp. Vanadium compounds as promoters for tertiary aralkyl hydroperoxide catalysts of unsaturated polyester resins. 3,079,363, 2-26-63, Cl. 260—45.4.

Koch, Walter L.: *See*—
Krakauer, Merrill, and Koch. 3,093,918.

Koch, Werner, to Roland Offsetmaschinenfabrik Faber & Schleicher AG. Stacking device for printing machines. 3,106,393, 10-8-63, Cl. 271—64.

Kochanowski, George A., to Kinkead Industries Inc. Mounting structure for slidable doors. 3,102,581, 9-3-63, Cl. 160—196.

Kocher, Erich J., to Vilter Mfg. Corp. Refrigeration system having an atmospheric temperature responsive condenser. 3,088,292, 5-7-63, Cl. 62—196.

Kocher, Erich J., and J. N. Long, to Vilter Mfg. Corp. Defrosting system for refrigeration installation. 3,115,867, 12-24-63, Cl. 62—155.

Kocher, Fred W., and O. H. Rinne, to Pittsburgh Plate Glass Co. Sheet handling apparatus. 3,094,322, 6-18-63, Cl. 271—12.

Kocher, Francis, to Traitments Chimiques des Textiles, S.A. Process of wet and dry creaseproofing cellulose fabrics with a pyridinium salt of a di-chloromethyl ether and rubber latex, bleaching the fabrics, and fabrics produced thereby. 3,076,688, 2-5-63, Cl. 8—108.

Kocher, George K. Reducing and comminuting apparatus. 3,077,309, 2-12-63, Cl. 241—221.

Kocher, George K. Apparatus for turning an automobile on its side. 3,087,631, 4-30-63, Cl. 214—1.

Kocher, George K. Rubber and metal tire. 3,089,530, 5-14-63, Cl. 152—288.

Kocher, George K. Railroad tie and rail mounting combination thereof. 3,101,899, 8-27-63, Cl. 238—109.

Kocher, George K. Puncture resistant pneumatic tire. 3,105,785, 10-1-63, Cl. 156—128.

Kocher, George K. Apparatus for adapting railroad rails to pneumatic tired vehicles. 3,113,722, 12-10-63, Cl. 238—9.

Kocher, Hans, to Buren Watch Co. S.A. Self-winding watch movement. 3,106,818, 10-15-63, Cl. 58—82.

Kochey, Edward L., Jr., to Combustion Engineering, Inc. Vapor heater arrangement which protects the tubes from overheating and sootblower erosion. 3,101,698, 8-27-63, Cl. 122—392.

Kochl, Jay K.: *See*—
Castro, Charles E., and Kochl. 3,075,000.

Kochs Adlernahmaschinenwerke AG.: *See*—
Tölle, Hans G. 3,103,904.

Koci, Jerry C., to Tabet Mfg. Co., Inc. Electrical switch assembly. 3,072,756, 1-8-63, Cl. 200—11.

Koci, Jerry C., and A. Holz, to Chicago Dynamic Industries, Inc. Actuating mechanism for a thumb wheel type switch. 3,104,299, 9-17-63, Cl. 200—156.

Koci, Ludvik J., R. D. Andersen, and I. Jepson, to Sunbeam Corp. Remotely controlled electric heating and cooking vessels. 3,098,918, 7-23-63, Cl. 219—20.

Kocian, Richard H.: *See*—
Amundsen, Oliver O., and Kocian. 3,097,858.

Kock, Max, to P. Gossen & Co., G.m.b.H. Photoelectric diaphragm control devices. 3,072,027, 1-8-63, Cl. 95—10.

Kocks, Friedrich. Furnace charging apparatus. 3,103,286, 9-10-63, Cl. 214—31.

Kocks, Friedrich, G.m.b.H.: *See*—
Uebing, Heinrich, Bretschneider, Bindernagel, and Jurczyk. 3,114,276.

Kocsis, Miklós: *See*—
Szöts, Géza, Szetey, Kocsis, Kondor, Havasi, Ritter, Demter, Gulyás, and Ritter. 3,089,226.

Koda, Arthur J., to C. P. Clare & Co. Switching assembly. 3,076,878, 2-5-63, Cl. 200—93.

Koda, Arthur J., to C. P. Clare & Co. Switching assembly. 3,089,010, 5-7-63, Cl. 200—87.

Koda, Arthur J., to C. P. Clare & Co. Electromagnetic sealed reed printed circuit switching assembly. 3,114,-019, 12-10-63, Cl. 200—87.

Koda, Arthur J., to C. P. Clare & Co. Sealed switch unit mounted on printed circuit board. 3,114,807, 12-17-63, Cl. 200—87.

Koda, Arthur J., and D. R. Morrison, to C. P. Clare & Co. Switch assembly comprising a plurality of sealed units. 3,114,018, 12-10-63, Cl. 200—87.

Koda, Arthur J., and R. W. Ottman, to C. P. Clare & Co. Switching assembly including resilient switch mounting means. 3,114,080, 12-10-63, Cl. 317—101.

Kodama, Shinjiro, D. Komiyama, K. Mori, and T. Ando, to Sumitomo Chemical Co., Ltd. Method of rectifying a formaldehyde containing solution. 3,077,441, 2-12-63, Cl. 202—52.

Kodama, Shinjiro, T. Ando, and S. Kitagawa, to Sumitomo Chemical Co., Ltd. Process for producing a highly concentrated formaldehyde solution. 3,113,972, 12-10-63, Cl. 260—603.

Kodama, Yoshio: *See*—
Fujiyoshi, Tsuguhide, and Kodama. 3,074,227.

Kodaras, Michael J., to Elof Hansson, Inc. Ventilated ceiling construction. 3,103,868, 9-17-63, Cl. 98—40.

Kodiak, Inc.: *See*—
Bollefer, Dwight L. 3,112,622.

Kodis, Robert D.: *See*—
Guterman, Sadia S., and Kodis. 3,095,554.
Woo, Way D., Kodis, and Ruhman. 3,075,179.

Kodra, Esper, to Joy Mfg. Co. Multi-stage compressor. 3,072,317, 1-8-63, Cl. 230—182.

Kodras, Rudolph, to International Minerals & Chemical Corp. Process of dehydrating potatoes. 3,110,574, 11-12-63, Cl. 34—39.

Kody, Joseph D.: *See*—
Franck, George E., and Kody. 3,115,889.

Koe, Billie K.: *See*—
Sobin, Ben A., Celmer, and Koe. 3,113,074.

Koe, Billie K., and T. A. Seto, to Chas. Pfizer & Co., Inc. Derivatives of 6-amino penicillanic acid. 3,078,269, 2-19-63, Cl. 260—239.1.

Koebel, Karl, and R. Egli, to Ciba-Chemie Ltd. Process for the production of N₂-arylsulfonyl-N₂-alkyl ureas. 3,075,-012, 1-22-63, Cl. 260—553.

Koebele, Alfred: *See*—
Weiss, Walter, Kowalski, and Koebele. 3,090,395.

Koehl, Anton, G. Fuellemann, and E. Kaegi, to Ciba Ltd. Cells for the electrolysis of fused salts. 3,071,532, 1-1-63, Cl. 204—243.

Koehler, Frank: *See*—
MacGill, John C., and Koehler. 3,086,558.

Koehler, James O., and H. Lamprey, to Union Carbide Corp. Lubricating composition. 3,098,041, 7-16-63, Cl. 252—35.

Koehler, Joseph: *See*—
Conover, George W., Hulsing, and Koehler. 3,094,190.

Koehler, Robert L., to Calavar Corp. Tong assembly. 3,071,-405, 1-1-63, Cl. 294—88.

Koehly, Paul F., and E. C. Walters, Jr., to General Motors Corp. Protective means for insulation. 3,097,320, 7-9-63, Cl. 310—217.

Koehn, Wilbur R. Injection set and flow meter for parenteral fluids. 3,101,710, 8-27-63, Cl. 128—214.

Koehring Co.: *See*—
Appel, Theodore B., Jr., and Roberts. 3,085,641.
Flaherty, Gene P. 3,086,684.
Huelskamp, Donald A. 3,084,512.
Johnson, Kenneth V., and Burkhardt. 3,094,229.
Lindner, Philip J. 3,095,804.
Lindner, Philip J. 3,107,567.
Nelson, Wayne F. 3,072,145.

Koehring-Waterous Ltd.: *See*—
Hamilton, Alan R. 3,081,821.

Koeijmans, Gerard D., to Socony Mobil Oil Co., Inc. Sequential seismic correction means. 3,092,805, 6-4-63, Cl. 340—15.5.

Koelega, Willem: *See*—
Jetten, Evert J. 3,086,567.

Koelle, Otto, to Will Scientific, Inc. Recording apparatus for measuring small changes in gas volume in reaction vessels. 3,108,476, 10-29-63, Cl. 73—401.

Koeller, William N., to Huck Mfg. Co. Spacer applying and removing tool. 3,105,291, 10-1-63, Cl. 29—227.

Koelliker, James E., to Chicago Rawhide Mfg. Co. Bowling pin impact curtain. 3,079,155, 2-26-63, Cl. 273—53.

Koelmans, Hein: *See*—
Grimmeiss, Hermann G., and Koelmans. 3,092,725.

Koelmans, Hein, and H. G. Grimmeiss, to North American Philips Co., Inc. Photoconductor device. 3,104,229, 9-17-63, Cl. 252—501.

Koelmans, Hein, W. L. Wanmaker, A. P. M. Cox, and A. S. Emmens, to North American Philips Co., Inc. Orthophosphate phosphor compositions. 3,110,680, 11-12-63, Cl. 252—301.6.

Koelndorfer, Frederick J. Lawn mower sharpening device. 3,101,629, 8-27-63, Cl. 76—82.1.

Koelsch, Emery F., to Royal Jet, a division of Royal Industries, Inc. Containers and interlocked pack thereof. 3,084,830, 4-9-63, Cl. 220—97.

Koenecke, Donald F.: *See*—
McKay, John F., and Koenecke. 3,110,413.

Koenen, John T. Support for clothes hangers. 3,084,894, 4-9-63, Cl. 248—278.

Koenig, Charles W.: *See*—
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Koenig, Eldo C., to Allis-Chalmers Mfg. Co. Rotating systems analyzer. 3,071,972, 1-8-63, Cl. 73—462.

Koenig, Harold R., to United States of America, Atomic Energy Commission. Confinement of high temperature plasma. 3,088,894, 5-7-63, Cl. 204—193.2.

Koenig, Herbert, and R. C. Sullivan, to Koenig Iron Works, Inc. Winch. 3,071,222, 1-1-63, Cl. 192—12.

Koenig Iron Works, Inc.: *See*—
Koenig, Herbert, and Sullivan. 3,071,222.

Koenig, John H., and E. L. Kastenbein, to Consolidated Electrodynamics Corp. Insulated electrical conductor. 3,110,-619, 11-12-63, Cl. 117—215.

Koenig, Martin F., A. J. Pastene, and L. D. Williams, to Cutler-Hammer, Inc. Circuit breakers. 3,081,386, 3-12-63, Cl. 200—88.

Koenig, Nathan H., to United States of America, Agriculture. Treatment of wool with acid anhydrides in the presence of dimethyl sulfoxide. 3,079,215, 2-26-63, Cl. 8—128.

Koenig, Nathan H., to United States of America, Agriculture. Treatment of wool with acid anhydrides in the presence of acetic acid. 3,097,052, 7-9-63, Cl. 8—128.

Koenig, Nathan H., to United States of America, Agriculture. Treatment of wool with epoxides in the presence of dimethylformamide. 3,102,774, 9-3-63, Cl. 8—128.

Koenig, Nathan H., to United States of America, Agriculture. Treatment of wool with benzyl halides in the presence of dimethylformamide. 3,107,969, 10-22-63, Cl. 8—128.

Koenig, Nathan H., to United States of America, Agriculture. Treatment of wool with acid chlorides in the presence of γ-butyrolactone. 3,110,542, 11-12-63, Cl. 8—128.

Koenig, Nathan H., to United States of America, Agriculture. Treatment of wool with isocyanates in the presence of γ-butyrolactone. 3,112,157, 11-26-63, Cl. 8—128.

Koenig, Nathan H., and R. A. Crass, to United States of America, Agriculture. Treatment of wool with acid chlorides in the presence of methylpyrrolidone. 3,110,543, 11-12-63, Cl. 8—128.

Koenig, Walter, Jr., to Bell Telephone Laboratories, Inc. Signaling system. 3,105,114, 9-24-63, Cl. 179—1.5.

Koenigkramer F. and F. Co.: *See*—
Johnson, Philip C. 3,096,059.
Johnson, Philip C. 3,104,402.

Koenigsberg, Max: *See*—
Khawam, Antoine, and Koenigsberg. 3,082,486.

Koenigsberger, Franz: *See*—
Rowden, Bertram V., Koenigsberger, and Royle. 3,090,-896.

Koeplinger, Ronald D., to The Dow Chemical Co. Dip brazing composition for magnesium and method of use. 3,108,369, 10-29-63, Cl. 29—488.

Koeppe, Hans H., to Adox Kamerawerk G.m.b.H. Pressure plate assembly for cameras or magazines. 3,103,861, 9-17-63, Cl. 95—31.

Koeppen, Jack A., to General Motors Corp. Valve seat and guide finishing machine. 3,073,023, 1-15-63, Cl. 29—566.

Koerber, Henry G.: *See*—
Peoples, Graydon, and Koerber. 3,084,682.

Koerner, Ernest L.: *See*—
Downing, James H., Gorski, and Koerner. 3,104,970.

Koerner, Ernest L., M. Smutz, and H. A. Wilhelm, to United States of America, Atomic Energy Commission. Niobium-tantalum separation. 3,107,976, 10-22-63, Cl. 23—19.

Koerner, Harry E., and E. W. Vaughn, to Westinghouse Electric Corp. Therapy unit. 3,082,322, 3-19-63, Cl. 250—61.5.

Koerner, Harry E., and E. P. Thomas, to Westinghouse Electric Corp. X-ray apparatus. 3,096,976, 7-9-63, Cl. 269—323.

Koerner, Walter J.: *See*—
Day, Donald B., and Koerner. 3,102,517.

Koers, Jacob O.: *See*—
Johnson, Paul D., Popin, and Koers. 3,073,270.

Koertge, Nobel H., to Cutler-Hammer, Inc. Electromagnetic relay. 3,088,007, 4-30-63, Cl. 200—87.

Koertge, Nobel H., and T. F. Rosing, to Cutler-Hammer, Inc. Electromagnetic relay. 3,109,904, 11-5-63, Cl. 200—87.

Koesling, Heinz, and O. Bohm, to North American Philips Co. Inc. Detachable connecting means for cooling agents and current. 3,075,163, 1-22-63, Cl. 339—16.

Koester, Claus, to Robert Bosch G.m.b.H. Adjustable fuel injection pump. 3,115,838, 12-31-63, Cl. 103—2.

Koff, Arnold, to Hoffmann-La Roche Inc. Stable pleasant-tasting vitamin B containing beadlets. 3,080,292, 3-5-63, Cl. 167—81.

Koff, Arnold, to Hoffmann-La Roche Inc. Process of making pleasant-tasting niacinamide beadlets. 3,080,293, 3-5-63, Cl. 167—81.

Koffie F. Rombouts N.V. in het Frans Cafes F. Rombouts S.A.: *See*—
Rombouts, Victor. 3,094,917.

Kofler, Max, A. Langemann, and R. Ruegg, to Hoffmann-La Roche Inc. Substituted benzoquinones and preparation thereof. 3,080,384, 3-5-63, Cl. 260—396.

Koffler, Maximillian. Vacuum evaporator with a climbing and falling film. 3,097,126, 7-9-63, Cl. 159—15.

Koffler, Sol. Car case. 3,104,740, 9-24-63, Cl. 190—43.

Koffskey, John M., Jr.: *See*—
Pelton, John F., and Koffskey. 3,071,489.

Kofink, Siegfried, to J. Eberspacher. Heating apparatus for automotive vehicles. 3,103,923, 9-17-63, Cl. 126—116.

Kofink, Siegfried, and F. Reuter, to J. Eberspächer. Control device for dampers. 3,089,647, 5-14-63, Cl. 236—48.

Kofsky, Melvin H., and A. E. Karp, to Cal-Cod Process Corp. Bird feeding device. 3,076,433, 2-5-63, Cl. 119—51.

Koga, Motoyuki. Lid means including a mixing chamber for a container with plural spaced outlets. 3,105,615, 10-1-63, Cl. 222—94.

Koga, Takoyshi: *See*—
Shimizu, Kanryo, Mori, and Koga. 3,086,199.

Kogan, Alexandre. Jet airplane engine mounting. 3,075,728, 1-29-63, Cl. 244—74.

Koh, Won Y., and R. A. Messing, to Ethicon, Inc. Enzyme production. 3,096,253, 7-2-63, Cl. 195—62.

Kohen, Sheldon L, and H. Ruskin, to Swingline Inc. Stapling device. 3,103,012, 9-10-63, Cl. 1—3.

Kohl, Arthur L.: *See*—
Porter, Joe A., and Kohl. 3,112,261.

Kohl, Arthur L., and A. L. Fuller, to The Fluor Corp, Ltd. Corrugated packing for counterflow cooling towers. 3,084,-918, 4-9-63, Cl. 261—112.

Kohl, Christoph, K. Schutz, H. Poppe, and E. Krusche, to Cassella Farbwerke Mainkur Aktiengesellschaft. Dyeing with sulfur dyes. 3,113,824, 12-10-63, Cl. 8—37.

Kohl, Douglas A., to General Mills, Inc. Humidity sensor having a decreased resistance range. 3,071,746, 1-1-63, Cl. 338—35.

Kohl, Everard F. Apparatus for providing gases at a desired pressure. 3,106,918, 10-15-63, Cl. 128—203.

Kohl, Karl. Knitted fabric. 3,106,079, 10-8-63, Cl. 66—193.

Kohl, Walter H., to Sylvania Electric Products Inc. Electrode spacer. 3,105,165, 9-24-63, Cl. 313—257.

Kohler Co.: *See*—
Reinemann, Wilfred W. 3,086,748.

Kohler, Charles F., to Telecontrol Corp. System for recording registered data. 3,099,512, 7-30-63, Cl. 346—34.

Kohler, Dale M.: *See*—
Jackson, John M., and Kohler. 3,115,430.

Kohler, Dale M., to Armco Steel Corp. Procedure for secondary recrystallization. 3,090,711, 5-21-63, Cl. 148—111.

Kohler, Fred: *See*—
Osterer, David G., and Kohler. 3,073,945.

Köhler, Hellfried, H. Güldner, W. Tell, G. Tippmann, and E. Heerklotz, to Buchungsmaschinenwerk Karl-Marx-Stadt, VEB. Bookkeeping or similar office machines with several counting mechanisms. 3,072,325, 1-8-63, Cl. 235—60.47.

Köhler, Jacob W. L.: *See*—
Van der Ster, Johannes, and Köhler. 3,078,684.

Kohler, John B. Method of and apparatus for splicing web rolls. 3,106,360, 10-8-63, Cl. 242—58.3.

Kohler, John B.; small percentages to various assignees. Coating means and method. 3,113,884, 12-10-63, Cl. 117—37.

Kohler, Lothar, to Rutl Machinery Works Ltd. Formerly Caspar Honegger. Pirn bunch removing and holding means. 3,108,619, 10-29-63, Cl. 139—257.

Kohler, Rudolf: *See*—
Pavel, Werther, and Kohler. 3,101,207.
Raecke, Bernhard, Kohler, and Pietsch. 3,073,803.
Raecke, Bernhard, Kohler, and Pietsch. 3,073,804.

Köhler, Rudolf, H.-H. Grun, and H. Kosche, to Henkel & Cie G.m.b.H. High molecular carbohydrate ether carboxylic acid esters. 3,092,619, 6-4-63, Cl. 260—231.

Kohler, Samuel H.: *See*—
McCarty, George W., and Kohler. 3,087,519.

Kohler, Werner: *See*—
Mosig, Willy, Meisezahl, Schilling, and Kohler. 3,115,-023.
Schimming, Walter, and Kohler. 3,097,280.

Kohler, Werner H., and H. Gutjahr, to Daimler-Benz Aktiengesellschaft. Starting mechanism for Diesel engine with incandescent heating means. 3,089,475, 5-14-63, Cl. 123—179.

Kohlhagen, Walter, to Amphenol-Borg Electronics Corp. Lubricated and vented shaft bearings for smaller motors and the like. 3,103,393, 9-10-63, Cl. 308—121.

Kohlhagen, Walter, and L. R. Burghoff, to Amphenol-Borg Electronics Corp. Journal-type staff bearings for movements and the like. 3,098,681, 7-23-63, Cl. 308—22.

Kohll, Lemley J., to Avco Corp. Brake mechanism for a shock testing machine. 3,103,116, 9-10-63, Cl. 73—12.

Kohll, Roland. Adjustment device for electro-mechanical brakes. 3,074,517, 1-22-63, Cl. 188—171.

Kohlik, Alexandre J.: *See*—
Gabler, Rudolf, Meyer, and Kohlik. 3,088,923.

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Hudgens, Bernard C., Hammond, and Kohlitz. 3,081,644.

Kohlman, John W. Brake system. 3,113,433, 12-10-63, Cl. 60—54.6.

Kohlmayer, Edward: *See*—
Johnson, Ralph E., and Kohlmayer. 3,074,364.

Kohlmeyer, Wilbur F. Portable dust eliminator. 3,078,845, 2-26-63, Cl. 128—141.

Kohlstaedt, Erwin, W. Schmidt, and H. Schneider, to Chemiewerk Homberg, Zweigniederlassung der Deutschen Gold- und Silber-Scheideanstalt, vorm. Roessler (Degussa). Concentrated water-soluble digoxin compositions. 3,077,436, 2-12-63, Cl. 167—67.

Kohlstaedt, Erwin, and K. Klingler, to Chemiewerk Homburg Zweigniederlassung der Deutschen Gold- und Silber-Scheideanstalt vorm. Roessler. Novel 7-theophylline derivatives and process for the production thereof. 3,112,313, 11-26-63, Cl. 260—256.

Kohlstrunk, Arthur T.: *See*—
Catallo, Leo, and Kohlstrunk. 3,079,905.

Kohman, Girard T., to Bell Telephone Laboratories, Inc. Reduction of sticking of mercury-wetted contacts. 3,114,-811, 12-17-63, Cl. 200—112.

Kohman, Wayne E., to Curtiss-Wright Corp. Propellor control system. 3,112,901, 12-3-63, Cl. 244—7.

Kohmann, Willi: *See*—
Kittel, Hermann, Kohmann, and Kasper. 3,104,002.
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Kohn, Gustave K.: *See*—
Moore, Joseph E., Ospenson, and Kohn. 3,110,726.
Kohn, Gustave K., J. E. Moore, and J. N. Ospenson, to California Research Corp. 3-sec. butyl-6-chlorophenyl n-methylcarbamate and use thereof as a pesticide. 3,076,741, 2–5–63, Cl. 167—30.
Kohn, Irwin A.: *See*—
Gardner, Frederick H., Kohn, and Rosenstock. 3,077,773.
Kohn, Marion N. Built-in clothes hamper. 3,109,586, 11–5–63, Cl. 232—43.1.
Kohne, Friedrich: *See*—
Ulrichs, Fritz, Heitkamp, and Kohne. 3,070,872.
Köhnke, Einar H., deceased; S. V. Köhnke, nee Ryd, and H. G. Köhnke, heirs. Portable bottle rack. 3,079,041, 2–26–63, Cl. 220—116.
Köhnke, Henrl G.: *See*—
Köhnke, Einar H. 3,079,041.
Köhnke, Sonja V.: *See*—
Köhnke, Einar H. 3,079,041.
Kohorst, Joseph and V. J. Scoop and loader attachment for tractors. 3,079,021, 2–26–63, Cl. 214—510.
Kohorst, Vernon J.: *See*—
Kohorst, Joseph and V. J. 3,079,021.
Kohout, Frank W., to Daniel, Mann, Johnson & Mendenhall. Safety derail preventer. 3,084,637, 4–9–63, Cl. 104—243.
Kohring, Wilbur M. Process for making carbon-metal resistors. 3,107,179, 10–15–63, Cl. 117—226.
Kohring, Wilbur M. Electrical element having a conductive film. 3,107,337, 10–15–63, Cl. 338—308.
Kohrn, Robert C., D. J. Kielber, and C. F. Romine, to United States Rubber Co. Laminated boat construction material. 3,070,817, 1–1–63, Cl. 9—6.
Koitzsch, Richard: *See*—
Von Schertel, Cassens, Koitzsch, and Plewa. 3,099,239.
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Yasawa, Masahide, Kojima, Takahashi, Asahi, and Doi. 3,107,971.
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Kokesh, Frank P., to Schlumberger Well Surveying Corp. Acoustic velocity logging system. 3,088,540, 5–7–63, Cl. 181—5.
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Kokorudz, Michael: *See*—
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Kokorzycki, Zenon: *See*—
Daniel, David W., and Kokorzycki. 3,071,862.
Daniel, David W., and Kokorzycki. 3,097,567.
Kokusai Denshin Denwa Co., Ltd.: *See*—
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Kokusai Denshin Denwa Kabushiki Kaisha: *See*—
Enomoto, Hajime, and Shirai. 3,098,157.
Oshima, Shintaro, and Enomoto. 3,116,475.
Oshima, Shintaro, Enomoto, Watanabe, and Amano. 3,116,426.
Kolaczewski, Mitchell S., R. W. Hobson, and J. J. Hamill, to The Goodyear Tire & Rubber Co. Method of increasing the particle size and solid content of synthetic rubber latex. 3,080,334, 3–5–63, Cl. 260—29.7.
Kolanowski, Stanley C., M. W. Plaza, and E. W. Ernst, to Stewart-Warner Corp. Railway car identification system. 3,106,706, 10–8–63, Cl. 340—345.
Kolany, Thomas E.: *See*—
Miller, Robert E., Kolany, and Soong. 3,102,294.
Ko-Lap-So-Carton Co.: *See*—
Simpson, Donald B. 3,084,829.
Kolb, Alan C., to United States of America, Navy. Method of producing high gas temperatures. 3,089,831, 5–14–63, Cl. 204—154.2.
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Logemann, Heino, Becker, and Kolb. 3,112,223.
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Kolb, Otto K.: *See*—
Hunnadiecker, Heins. 3,079,415.
Kolb, Paul, to C. A. Parsons & Co. Ltd. Gas turbine plants with heat exchangers. 3,079,754, 3–5–63, Cl. 60—39.51.
Kolb, Robert E. Device for detachably closing the open tops of plastic or like bags. 3,112,857, 12–3–63, Cl. 229—62.
Kolb, Robert H., to Shell Oil Co. Magnetostrictive drill string logging device. 3,115,774, 12–31–63, Cl. 73—151.
Kolb, Robert W., to Dominion Textile Co. Ltd. Water applying method and apparatus for tire cord fabric manufacture. 3,113,886, 12–10–63, Cl. 117—47.
Kolbas, John M., to Bristol-Myers Co. Syringe. 3,108,591, 10–29–63, Cl. 128—218.
Kolbe, Adelbert E., to General Motors Corp. Fuel pump drive. 3,106,168, 10–8–63, Cl. 103—205.
Kolbe, Carl L., and R. K. McKechnie, to General Electric Co. Method of forming ferrous alloys. 3,078,197, 2–19–63, Cl. 148—103.
Kolbe, Delbert W. Cabinet-toilet tissue dispenser. 3,095,116, 6–25–63, Cl. 221—151.
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Sindy, Clarence F., and Kolda. 3,084,721.
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Kolenko, Evgeny A. High-vacuum trap for diffusion pumps. 3,109,290, 11–5–63, Cl. 62—3.
Kolenko, Evgeny A., A. G. Tauber, and A. G. Czerbina. Method of soldering copper connection strips to cooling thermopile electrodes. 3,097,425, 7–16–63, Cl. 29—492.
Kolesh, Victor A., to Simonds Saw and Steel Co. Saw. 3,104,562, 9–24–63, Cl. 76—112.
Kolesh, Victor A., to Simonds Saw and Steel Co. Metal strip coil dispensing container pack. 3,115,242, 12–24–63, Cl. 206—52.
Kolesh, Victor A., and W. E. Lamlein, to Simonds Saw and Steel Co. Inserted tooth saws and holder elements therefor. 3,088,502, 5–7–63, Cl. 143—151.
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Penning, Hendricus M., and Kolijn. 3,108,935.
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Bruce, Donald S., Dickson, and Koljonen. 3,096,026.
Kolk, Stephen W. Holder for scrubbing and cleaning devices. 3,084,368, 4–9–63, Cl. 15—209.
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Ecke, George G., and Kolka. 3,093,587.
Koll, Roman: *See*—
Heil, Rudolf, Koll, and Zeyen. 3,099,706.
Kollander, Melvin M. Rotary jet engine. 3,089,307, 5–14–63, Cl. 60—39.34.
Koller, August, to Dr. Johannes Heidenhain, Feinmechanik und Optik, Prazisionstellungen. Device for the alignment and reading of distances and angles. 3,106,127, 10–8–63, Cl. 88—24.
Koller, Charles R., to E. I. du Pont de Nemours and Co. Porous flexible self-supporting sheet material and method of making same. 3,085,922, 4–16–63, Cl. 154—45.
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Koller, Eugen J., to Ciba Ltd. New phthalocyanine dyestuffs containing halogenated triazine nuclei. 3,082,201, 3–19–63, Cl. 260—146.
Koller, Eugen J., to Ciba Corp. New phthalocyanine dyestuffs. 3,082,207, 3–19–63, Cl. 260—242.
Koller, Lewis R., to General Electric Co. Method of forming an electric capacitor. 3,081,201, 3–12–63, Cl. 117—215.
Koller, Raymond E. Stern light reflector. 3,113,729, 12–10–63, Cl. 240—41.1.
Koller, Walter, and P. Schlack, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. 2-substituted-phenyl-Δ'-pyrrolines and Δ'-tetrahydropyridines and 4,4'-bis-(Δ-pyrrolinyl-2 and Δ'-tetrahydropyridyl-2)-phenoxy-lower alkanes. 3,078,276, 2–19–63, Cl. 260—326.5.
Kolling, Helmut: *See*—
Lattenkamp, Theodor, Rappen, Kolling, and Geiser. 3,082,199.
Schaub, Frans, Kolling, Notthoff, Stiebling, and Ruggeberg. 3,100,694.
Kolling, Helmut, and F. Rappen, to Ruhrchemie Aktiengesellschaft. Purification of solid high-molecular weight polyolefins. 3,112,302, 11–26–63, Cl. 260—94.9.
Kollman, M. L.: *See*—
Gage, Jerome M. 3,089,592.
Kollman, Robert C.: *See*—
Herman, Daniel F., and Kollman. 3,078,262.
Kollmann, Karl J. Sewer cleaning machine. 3,075,217, 1–29–63, Cl. 15—104.3.
Kollmann, Karl J. Sewer snake drive. 3,075,218, 1–29–63, Cl. 15—104.3.
Kollmeyer, Herman R., and J. Rabinow, to United States of America, Army. Split grenade. 3,072,056, 1–8–63, Cl. 102—64.
Köllner, Eduard: *See*—
Hugo, Jiří, Köllner, Novák, and Schreiber. 3,084,426.
Kollonitsch, Janos, to Merck & Co., Inc. Preparation of orthoborate esters and alcohols by cleavage of the corresponding cyclic ethers. 3,112,336, 11–26–63, Cl. 260—462.
Kollonitsch, János, O. Fuchs, and V. Gábor, to Gyogyszeripari Kutato Intezet. Complex borohydrides and a process for their preparation and use. 3,113,832, 12–10–63, Cl. 23—14.
Kollsman Instrument Corp.: *See*—
Andresen, John H., Jr. 3,100,999.
Golden, Vincent P. 3,107,507.
Hauptman, Frederic. 3,104,546.
Hauptman, Frederic. 3,108,276.
Schroeder, Everett H. 3,112,644.
Kollsman, Paul. Method of treating liquids by electrodialysis at elevated temperatures. 3,075,908, 1–29–63, Cl. 204—180.
Kollsman, Paul. Method of making permselective membranes. 3,087,880, 4–30–63, Cl. 204—162.
Kollsman, Paul. Electrodialysis involving periodic current reversal. 3,099,615, 7–30–63, Cl. 204—180.
Kolm, Harvard B., Jr., to Moog Servocontrols, Inc. Flow control servo valve with dynamic load pressure feedback. 3,095,906, 7–2–63, Cl. 137—625.62.
Kolmar Laboratories, Inc.: *See*—
Buth, William F. 3,088,876.

Kolmorgen, Edward L., to Anaconda Wire and Cable Co. Leakage monitoring means for electric power cables. 3,086,069, 4–16–63, Cl. 174—11.
Kolner, Samuel J., to Phillips Petroleum Co. Pyrolysis of polyolefins in a water slurry. 3,083,193, 3–26–63, Cl. 260—94.9.
Kolodny, Edwin R., to American Cyanamid Co. Oil well fracturing method. 3,089,542, 5–14–63, Cl. 166—42.
Kolodzeski, Lawrence J.: *See*—
Boccaccio, Anthony A., and Kolodzeski. 3,114,201.
Kolokythas, George B. Absorbent storage insert for container cup. 3,081,137, 3–12–63, Cl. 312—31.1.
Kolosky, Robert F.: *See*—
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Kolt, Paul, to General Motors Corp. Method of producing a reinforced plastic die. 3,088,174, 5–7–63, Cl. 18—59.
Kolthof, Jacob J., and M. Besier, to Koninklijke Machinenfabrik Gebr. Stork & Co. N.V. Apparatus for degasifying water, particularly boiler feed water. 3,096,166, 7–2–63, Cl. 55—198.
Kolthoff, C. Paul, Jr., to International Harvester Co. Rotary regenerator assembly having improved sealing means. 3,085,625, 4–16–63, Cl. 165—9.
Kolthoff, C. Paul, Jr., and M. M. Jones, to International Harvester Co. Rotor construction. 3,083,762, 4–2–63, Cl. 165—8.
Koltun, Solon M., to Hardwick Stove Co. Broiler oven with radiant gas burner. 3,114 363, 12–17–63, Cl. 126—41.
Kolze, Lawrence A., to The Horton Co. Control for fluid mixing valve. 3,078,874, 2–26–63, Cl. 137—624.18.
Kolzow, Karl-Heinz: *See*—
Behrens, Albert, Kolzow, and Brandt. 3,088,548.
Komar, William. Mink pelt drying plate. 3,082,565, 3–26–63, Cl. 45—24.
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Komarek, Gustav and K. R. 3,077,634.
Komarek, Gustav and K. R., to Komarek-Greaves Co. Briquetting roll structure with mold inserts. 3,077,634, 2–19–63, Cl. 18—21.
Komarek, Karl R.: *See*—
Komarek, Gustav and K. R. 3,077,634.
Komarewsky, Jessie B.: *See*—
Moulton, Karl J., Findley, and Komarewsky. 3,079,413.
Komarewsky, Vasili I.: *See*—
Moulton, Karl J., Findley, and Komarewsky. 3,079,413.
Komatar, Frederick A.: *See*—
Ernest, Ralph D., Nibbelink, and Komatar. 3,112,067.
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Komenda, Erwin, to Dr. Ing. h.c.F. Porsche, K.G., Firma. Bearing for a rotatable window. 3,088,781, 5–7–63, Cl. 308—15.
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Komeno, Taichiro, to Shionogi & Co., Ltd. 2β,3α-dimercapto-17β-hydroxy-5α-androstane and derivatives thereof. 3,105,831, 10–1–63, Cl. 260—239.5.
Komeno, Taichiro, and N. Tokutake, to Shionogi & Co., Ltd. 16,17-cyclic acetals of 16β-mercapto 17β-hydroxy estrogen derivatives and intermediates in the preparation thereof. 3,105,069, 9–24–63, Cl. 260—239.55.
Kominami, Tsugio, and S. Imoto, to Kurashiki Rayon Co., Ltd. Homo polymerization of vinyl acetate with a catalyst of mercuric acetate. 3,114,738, 12–17–63, Cl. 260—89.1.
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Kodama, Shinjiro, Komiyama, Mori, and Ando. 3,077,441.
Komline-Sanderson Engineering Corp.: *See*—
Komline, Thomas R. 3,096,279.
Komline, Thomas R., and Siries. 3,090,488.
Komline, Thomas R., to Komline-Sanderson Engineering Corp. Flexible belt filter unit. 3,096,279, 7–2–63, Cl. 210—391.
Komline, Thomas R., and A. R. Siries, to Komline-Sanderson Engineering Corp. Filter belt regulating means and process. 3,090,488, 5–21–63, Cl. 210—77.
Komori, Saburo, and M. Okahara. Polyoxyethylene derivatives of esters of sucrose with long-chain fatty acids. 3,102,114, 8–27–63, Cl. 260—234.
Kompanek, Harry W., to Acoustica Associates, Inc. Elastic wave vibrator. 3,101,421, 8–20–63, Cl. 310—9.6.
Kompellen, Arlon D., to Minneapolis-Honeywell Regulator Co. Medical body function recorder. 3,081,765, 3–19–63, Cl. 128—2.
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Fonó, Albert. 3,107,482.
Komter, Jan M. Apparatus for adding a quantity of a liquid to another liquid. 3,073,488, 1–15–63, Cl. 222—394.
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Konazewski, William P.: *See*—
Taylor, Arthur S., and Konazewski. 3,076,365.
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Hafner, Alexander, and Koncen. 3,102,985.
Konchan, Anton W. Push button radiator pressure cap. 3,086,677, 4–23–63, Cl. 220—44.
Kondo, Nagomi: *See*—
Kubota, Ryomei, Saito, Kondo, and Odomari. 3,112,361.
Kondo, Seiji, and S. Okajima, to Toyoda Automatic Loom Works, Ltd. Bunch remover. 3,108,618, 10–29–63, Cl. 139—257.

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Motosaki, Shinichi, Tsunoda, Aoki, Okumura, Kondo, Muramatsu, Momose, and Tamagawa. 3,111,459.
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Kondor, Imre: *See*—
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Kondur, Nicholas, Jr.: *See*—
Templeton, William B., and Kondur. 3,107,090.
Kondur, Nicholas, Jr., to Burroughs Corp. Ink-ribbon control mechanism. 3,100,560, 8–13–63, Cl. 197—157.
Konecky, Milton S., to Esso Research and Engineering Co. Process for preparation of succinic acid. 3,100,798, 8–13–63, Cl. 260—530.
Konenklijke Nederlandse Vliegtuigenfabriek Fokker, N.V.: *See*—
Schliekelmann, Robert J. 3,085,925.
Kongelbeck, Sverre, to United States of America, Navy. Mercury actuated G-triggered time delay. 3,078,722, 2–26–63, Cl. 73—503.
Kongelbeck, Sverre, to United States of America, Navy. Rotary actuator. 3,112,902, 12–3–63, Cl. 244—14.
Kongelbeck, Sverre, to United States of America, Navy. Turret launcher. 3,113,486, 12–10–63, Cl. 89—1.7.
Konlewiez, Paul (now by change of name Paul Korwin), and G. R. James, to Chemical Construction Corp. Sealing unit for rotary kiln. 3,087,798, 4–30–63, Cl. 23—284.
König, Friedrich: *See*—
Biernatzki, Anton T., and König. 3,112,381.
Konig, Oskar. Device for drawing fibers. 3,070,848, 1–1–63, Cl. 19—236.
Konig, Otto, to National Lead Co. Rosin and bromonated diphenolic acid flux. 3,086,893, 4–23–63, Cl. 148—23.
Konig, Reiner, to G. Schmidt. Hair clipper. 3,100,342. 8–13–63, Cl. 30—200.
König, Theodor: *See*—
Holzrichter, Hermann, König, and Dierichs. 3,092,662.
Konigl, Georg: *See*—
Baur, Carl, and Konigl. 3,089,380.
Konigslow, Otto, Mfg. Co., The: *See*—
Blumenstein, Walter K., and David. 3,094,121.
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Wruble, Milton, Rundman, and Koning. 3,085,939.
Koninklijk Vereenigde Tabaksindustrieen Mignot & de Block N.V.: *See*—
Verbakel, Martinus. 3,111,950.
Koninklijke Machinenfabriek Gebr. Stork & Co. N.V.: *See*—
Busquet, Jan C. 3,090,543.
Kolthof, Jacob J., and Besier. 3,096,166.
Koninklijke Metaalwarenfabrieken: *See*—
Daalderop, Wilhelmus H. J. D. 3,088,358.
Koninklijke Nederlandsche Hoogonens en Staalfabrieken: *See*—
Schuttevaer, Jurrianus. 3,096,549.
Koninklijke Nederlandsche Zoutindustrie, N.V.: *See*—
Schinkel, Gerrit. 3,095,281.
Koninklijke Pharmaceutische Fabrieken v/h Brocades-Stoheeman & Pharmacia, N.V.: *See*—
Harms, August F. 3,106,587.
Nauta, Wijbe T. 3,103,513.
Konishi, Shimpechi: *See*—
Kawamura, Yurio, Tamuki, Nagata, Terishima, Matsumoto, Onishi, Konishi, Yoshimura, Yamamoto, and Ikawa. 3,099,649.
Nagata, Aikichi, Yamamoto, Terashima, Matsumoto, Onishi, and Konishi. 3,082,093.
Kōno, Shirō: *See*—
Inaba, Sōbei, Kōno, Iwamura, and Mikami. 3,090,839.
Konopa, Richard L.: *See*—
Johnson, Robert E., and Konopa. 3,082,461.
Short, Brooks H., and Konopa. 3,087,001.
Konopa, Richard L., to General Motors Corp. Ignition system. 3,087,090, 4–23–63, Cl. 315—205.
Konopicke, Henry A., and J. C. Cunningham, to Olin Mathieson Chemical Corp. Film extrusion apparatus having improved film thickness control means. 3,096,543, 7–9–63, Cl. 18—12.
Konopik, Vlastislav: *See*—
Mladek, Biedrich, Konopik, Vodrazka, Jindrich, and Lamac. 3,111,913.
Konopka, Henry E.: *See*—
Klages, Christian L., and Konopka. 3,112,659.
Konrad, Alexander, 20% each to L. Hahn, M. J. Konrad, M. B. Felder, and W. A. Konrad. Bathroom diaper shower. 3,081,613, 3–19–63, Cl. 68—181.
Konrad, Alexander, 20% each to L. L. Hahn, M. J. Konrad, M. B. Felder, and W. A. Konrad. Power mower with rotary and vibratory cleaning disc. 3,097,467, 7–16–63, Cl. 56—25.4.
Konrad, Howard E., to Johns-Manville Corp. Bonding agent for dry air setting mortars. 3,085,021, 4–9–63, Cl. 106—84.
Konrad, Howard E., and W. L. Stafford, to Johns-Manville Corp. Light weight castable refractories. 3,079,267, 2–26–63, Cl. 106—64.
Konrad, Kenneth K., to Union Carbide Corp. Corona cell. 3,105,918, 10–1–63, Cl. 313—231.
Konrad, Margaret J.: *See*—
Konrad, Alexander. 3,081,613.
Konrad, Alexander. 3,097,467.

Konrad, Peter, Aktiengesellschaft: *See*—
Horn, Hans, and Stern. 3,104,932.
Konrad, Siegfried: *See*—
Smith, Harold A., Konrad, and Bagdon. 3,079,956.
Konrad, Warren A.: *See*—
Konrad, Alexander. 3,081,613.
Konrad, Alexander. 3,097,467.
Konstant, Anthony N., and B. E. Schell, Jr., to Speedrack Inc. Storage rack. 3,102,641, 9-3-63, Cl. 211—148.
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Kooijman, Pieter L., and H. Buesink, to Shell Oil Co. Sulfonates of hydroxyalkyl esters of tertiary alkanoic acids. 3,097,218, 7-9-63, Cl. 260—400.
Kooiman, Pieter L., to Avedko N.V. Integrator to be used in a calorimeter. 3,110,179, 11-12-63, Cl. 73—193.
Kooiman, Robert R.: *See*—
Werner, Frank D., Kooiman, and Novak. 3,114,125.
Kooiman, Robert R., and F. D. Werner, to Rosemount Engineering Co. Digital rotating pressure reference. 3,111,847, 11-26-63, Cl. 73—386.
Kooistra, Anne: *See*—
Timmerman, Jan, Kooistra, Starre, and Driessen. 3,078,571.
Kooistra, John A., to Davis & Furber Machine Co. Means for mounting a yarn spool in a spinning frame. 3,077,069, 2-12-63, Cl. 57—127.5.
Kooistra, John A., to Davis & Furber Machine Co. Tension regulator for spinning frame. 3,107,479, 10-22-63, Cl. 57—73.
Kooistra, Lambert F., to The Babcock & Wilcox Co. Nuclear reactor control rod and method of making same. 3,103,478, 9-10-63, Cl. 204—193.2.
Koolhaas, Dirk R., to Tervalon Maatschappij voor voedingsmiddelen op wetenschappelijke basis. Method of preparing a baking dough and baked product thereof. 3,076,710, 2-5-63, Cl. 99—90.
Kools Brothers, Inc.: *See*—
Jacobsen, Alexander. 3,095,916.
Koonce, George W.: *See*—
Koonce, John L. and G. W. 3,110,460.
Koonce, John L. and G. W. Kite. 3,110,460, 11-12-63, Cl. 244—153.
Koons, Dick M.: *See*—
Raulins, George M., and Koons. 3,087,547.
Koontz, Charles G.: *See*—
Gatewood, Sidney U., and Koontz. 3,090,475.
Koontz, James H., to Joy Mfg. Co. Safety hook for drilling apparatus. 3,106,416, 10-8-63, Cl. 287—100.
Koontz, John D.: *See*—
Eidt, Clarence M., Jr., and Koontz. 3,093,695.
Koontz, Marshall D. Load-distributing device for tractor-trailer combinations. 3,116,074, 12-31-63, Cl. 280—405.
Koontz, Ray: *See*—
Ott, Robert H., and Koontz. 3,109,420.
Koontz, Robert D., to Minnesota Mining and Mfg. Co. Pressure vessel. 3,074,585, 1-22-63, Cl. 220—3.
Koontz, Robert D., to Minnesota Mining and Mfg. Co. Ribbed sheet structure. 3,096,958, 7-9-63, Cl. 244—123.
Koontz, Robert D., to Minnesota Mining and Mfg. Co. Wall securement. 3,110,064, 11-12-63, Cl. 20—4.
Koontz, Victor F., and J. A. Anthes, to Dravo Corp. Cooler for sinter and the like. 3,092,473, 6-4-63, Cl. 34—164.
Koontz, Victor F., and D. D. Phelps, to Dravo Corp. Method of and apparatus for conditioning finely-divided solids. 3,110,570, 11-12-63, Cl. 23—313.
Koonz, Carl H.: *See*—
Silliker, John H., Koons, and Jansen. 3,075,887.
Kooperativa Forbundet Ekonomisk Forening: *See*—
Ivarson, Nemo S. M. 3,101,161.
Ivarson, Nemo S. M. 3,113,701.
Koopmans, Martinus J.: *See*—
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Uhlenbroek, Jan H., and Koopmans. 3,095,352.
Koopmans, Martinus J., to North American Philips Co., Inc. Organo tin compositions and method for treating plants. 3,097,999, 7-16-63, Cl. 167—22.
Koopmans, Martinus J., J. Meltzer, H. O. Huisman, B. G. van den Bos, K. Wellinga, and C. J. Schoot, to North American Philips Co., Inc. Certain phosphorus amide derivatives of imidazoles. 3,111,526, 11-19-63, Cl. 260—309.2.
Koopmans Meelfabrieken N.V.: *See*—
Giddey, Claude R. 3,116,151.
Koorland, Henry. Golf putter. 3,077,350, 2-12-63, Cl. 273—164.
Kooy, Cornelis: *See*—
Gorter, Evert W., Lotgering, Jonker, Wijn, and Kooy. 3,072,575.
Kopa, Miroslaw A.: *See*—
Rybicki, Zbigniew, Kopa, Wejner, Klekot, and Wroclawski. 3,094,742.
Kopare, Kauko O. Filing device for sharpening and fixing the tooth chain of the motor saw. 3,071,987, 1-8-63, Cl. 76—36.
Kopelman, Bernard: *See*—
Kingston, Walter E., Kopelman, and Hausner. 3,096,263.
Kopetz, Kurt: *See*—
Wick, Georg, Niedenbruck, and Kopetz. 3,075,944.
Kopf, John C.: *See*—
Tellefsen, Walter G. 3,100,842.
Kopietz, Karl-Heinz, to Houghton-Chemie G.m.b.H. Quenching and cutting oil composition. 3,072,506, 1-8-63, Cl. 148—18.
Kopito, Louis: *See*—
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Koplar, Solomon E., and I. R. Quiroz, to Rubber Products, Inc. Rewinding mechanism for clock springs. 3,113,639, 12-10-63, Cl. 185—40.
Kopp, Ernest A., to St. John & Co. Abattoir apparatus. 3,111,706, 11-26-63, Cl. 17—24.
Kopp, Philip E. Signaling arrangement for a rural mailbox. 3,084,853, 4-9-63, Cl. 232—35.
Kopp, Wenzel P.: *See*—
Conley, Weld E., and Kopp. 3,105,589.
Kopp, Wilhelm, to Dr. C. Schleussner Adox-Fotowerke G.m.b.H. Automatic shutter. 3,115,080, 12-24-63, Cl. 95—53.
Koppehele, Hugo P.: *See*—
McDermott, Henry J., and Koppehele. 3,072,962.
Koppehele, Hugo P., to American Viscose Corp. Method and apparatus for biaxial stretching of beaded edge film. 3,078,504, 2-26-63, Cl. 18—1.
Koppehele, Hugo P., and J. Zink, to Airsun Corp. Film stretching apparatus. 3,110,927, 11-19-63, Cl. 18—1.
Koppel, Harold H.: *See*—
Gorrie, Harvard H., Hornfeck, Koppel, and Luhrs. 3,076,097.
Koppel, Harold H. to Bailey Meter Co. Motor control system. 3,077,552 2-12-63, Cl. 318—28.
Koppel, Harold H., and J. R. Louis, to Bailey Meter Co. D.C. stabilizing amplifier. 3,080,531, 3-5-63, Cl. 330—69.
Koppel, Harold H., and J. R. Louis, to Bailey Meter Co. Control apparatus. 3,105,182, 9-24-63, Cl. 318—446.
Koppel, Victor: *See*—
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Koppelman, Edward, and A. R. Campman, to Raymond Development Industries, Inc. Woven panel and method of making same. 3,090,406, 5-21-63, Cl. 139—384.
Koppelman, Edward, and A. R. Campman, to Raymond Development Industries, Inc. Woven honeycomb cellular fabrics. 3,102,559, 9-3-63, Cl. 139—384.
Köppen, Heinz, to Zeiss Ikon Aktiengesellschaft. Photographic cameras. 3,074,331, 1-22-63, Cl. 95—10.
Köppen, Heinz, to Zeiss Ikon Aktiengesellschaft. Photographic camera with an automatic flash operating mechanism. 3,102,461, 9-3-63, Cl. 95—10.
Koppen, Heinz, and W. Gunther, to Zeiss Ikon Aktiengesellschaft. Photographic camera provided with interchangeable lens system. 3,075,442, 1-29-63, Cl. 95—10.
Koppensteiner, James V.: *See*—
Lord, John M., and Koppensteiner. 3,106,626.
Koppenwallner, Georg, to Fortuna-Werke Spezialmaschinenfabrik Aktiengesellschaft. Control system for grinding machines. 3,112,583, 12-3-63, Cl. 51—165.
Koppers Co., Inc.: *See*—
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Aamot, Olav C. 3,099,553.
Ceresa, Raymond J. 3,110,695.
Chamberlain, Merle D. 3,094,447.
Chamberlain, Merle D. 3,111,787.
Cummings, Harry B., Drenning, McKewen, and Morgret. 3,109,720.
Dobratz, Elmer H. 3,078,305.
Dobratz, Elmer H. 3,102,911.
Ecke, George G., and Jacobs. 3,114,752.
Gildard, James H., and Lemmerman. 3,078,948.
Gildard, James H., III, and Lemmerman. 3,103,987.
Gildard, James H., III, and Lemmerman. 3,115,948.
Goldstein, Irving S., and Weaver. 3,094,431.
Gollmar, Herbert A. 3,097,065.
Hooker, George W. 3,107,228.
Humphreys, Victor T. 3,071,494.
Immel, Richard H. 3,104,424.
Immel, Richard H. 3,110,349.
Ingram, Alvin R. 3,097,188.
Klapp, Arnold. 3,104,020.
Lagarias, John S. 3,114,615.
Leston, Gerd. 3,091,646.
Lund, Anders E., Dennis, and Irvine. 3,103,449.
Myers, Charles R., and Hedler. 3,098,519.
Nichols, William R. 3,100,630.
Niebergall, Heins. 3,078,304.
Oberley, William J., and Goldstein. 3,080,212.
Pottenger, Carl H. 3,089,857.
Rea, James E. 3,114,648.
Rudner, Bernard. 3,091,627.
Rudner, Bernard, and Harris. 3,100,791.
Sanders, Guy J. 3,114,431.
Shepler, Paul R. 3,098,659.
Spooner, Robert B. 3,099,744.
Stewart, Warren A. 3,102,402.
Stewart, Warren A., and Drenning. 3,104,997.
Stirling, Harold T. 3,083,956.
Stirling, Harold T., and Hartzell. 3,089,791.
Sturrock, Murray G., Cline, and Robinson. 3,091,620.
Thorn, Harry F. 3,071,999.
Tucker, Linwood G., Jr. 3,102,846.
Ward, Henry D., Jr. 3,093,037.
Wartik, Thomas, and Barnes. 3,080,427.
Wille, Hans, Schuhmann, and Jellinek. 3,092,602.
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Foucar, Harry G. 3,112,324.
Royer, Leslie W., and Wainwright. 3,107,223.

Kopplus, Otto G., to Semicon Associates, Inc. Impregnated tungsten cathode structures and methods for fabricating same. 3,076,916, 2-5-63, Cl. 313—346.
Kopplus, Wibrandus J.: *See*—
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Kopplus, Wibrandus J., to Gits Bros. Mfg. Co. Mating ring and seal. 3,116,066, 12-31-63, Cl. 277—38.
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Korach, Malcolm, and J. K. Thomas III; said Korach assor. to Pittsburgh Plate Glass Co., and said Thomas assor. to Columbia-National Corp. Method of separating silica from zirconium sulphate solutions. 3,095,270, 6-25-63, Cl. 23—117.
Koralesky, Edwin F. Rope clamp. 3,075,267, 1-29-63, Cl. 24—134.
Koranda, Clarence J., and W. E. Fritz, to Enterprise Railway Equipment Co. Hopper outlet construction. 3,090,519, 5-21-63, Cl. 220—46.
Körber, Kurt. Device for providing cigarettes with an axial air duct. 3,096,772, 7-9-63, Cl. 131—66.
Korda, John W.: *See*—
De Carbo, Charles J., and Korda. 3,086,161.
Korda, John W., to The Leece-Neville Co. Electric generating system regulation. 3,072,839, 1-8-63, Cl. 322—25.
Kordesch, Karl V., and E. M. King, to Union Carbide Corp. Fuel cell electrode. 3,077,507, 2-12-63, Cl. 136—86.
Kordesch, Karl V., and R. E. Stark, to Union Carbide Corp. Cathodes for primary and rechargeable cells. 3,113,050, 12-3-63, Cl. 136—123.
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Koretzky, Herman, to International Business Machines Corp. Electrodeposition of cobalt phosphorus alloys. 3,073,762, 1-15-63, Cl. 204—43.
Koretzky, Herman, to International Business Machines Corp. Preparation of hard magnetic coatings of nickel-phosphorus alloys. 3,077,442, 2-12-63, Cl. 204—37.
Korf, Christiaan, and F. H. W. Wachholtz, to W. Dorst. Zinc oxide pigments and their production. 3,083,113, 3-26-63, Cl. 106—254.
Korf, Otto: Rotary piston internal combustion engine. 3,108,579, 10-29-63, Cl. 123—17.
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Haack, Erich, Hagedorn, Adolf, Ruschig, and Korger. 3,100,208.
Korger, Gerhard, H. Wagner, W. Aumuller, and H. Ruschig, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. N-cyclohexane-sulphonyl-N'-(B-phenylethyl)-urea. 3,097,241, 7-9-63, Cl. 260—553.
Korman, Bernard. Ornamental breast cup and method of making. 3,101,717, 8-27-63, Cl. 128—463.
Korman, Jerome, to The Upjohn Co. α,α-bis(p-aminophenyl)-lower alkanones. 3,102,146, 8-27-63, Cl. 260—590.
Korman, Samuel: *See*—
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Korn, Meyer. Highway traffic warning signal device. 3,113,551, 12-10-63, Cl. 116—63.
Korn, Robert. Adjusting means for swing lever suspensions. 3,085,778, 4-16-63, Cl. 248—399.
Kornacker, John J.: *See*—
Cappelle, Norman D., Kornacker, and Ma. 3,096,665.
Kornbluth, John H. Accessory device for bathtubs. 3,112,714, 12-3-63, Cl. 108—27.
Kornbluh, Abraham J., and E. L. Bruyning, to Transformers, Inc. Constant ratio transformers. 3,114,874, 12-17-63, Cl. 323—45.
Kornbluth, Martin E., to American Seating Co. Numbered theater chair seats. 3,116,090, 12-31-63, Cl. 297—217.
Körner, Erich. Spring-loaded cover mechanism for pyrophoric lighters. 3,083,555, 4-2-63, Cl. 67—7.1.
Kornylak, Andrew T. Conveyor belt. 3,082,861, 3-26-63, Cl. 198—195.
Kornylak, Andrew T. System for handling foamed plastic. 3,093,232, 6-11-63, Cl. 198—1.
Koropatkin, Stephen, and M. W. Noble. Convertible and disposable picnic basket and table top device. 3,097,782, 7-16-63, Cl. 229—31.
Korpman, Ralf, to Johnson & Johnson. Tape employing an adhesive comprising an epoxy resin and a polymer having carboxylic groups. 3,100,160, 8-6-63, Cl. 117—122.
Korr, Abraham L., to United States of America, Army. Systems for measuring moments of inertia. 3,106,091, 10-8-63, Cl. 73—65.
Korrell, Melvin H., and R. Crehore, to Whirlpool Corp. Vacuum cleaner. 3,090,181, 5-21-63, Cl. 55—376.
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Korsgren, Theodore Y., Sr., and T. Y. Korsgren, Jr. 3,105,887.
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Korsgren, Theodore Y., Sr., and T. Y. Korsgren, Jr., to Haydon Switch, Inc. Switch and parts thereof. 3,105,887, 10-1-63, Cl. 200—67.
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Hennemann, Raymond G., Rapplean, and Korte. 3,089,685.
Szwarguiski, Jesse L., Eickmann, Carlson, and Korte. 3,076,639.
Korte, Alfred C., to ACF Industries, Inc. Combined fuel pump and filter assembly. 3,082,875, 3-26-63, Cl. 210—416.
Korte, Alfred C., to ACF Industries, Inc. Carburetor. 3,105,861, 10-1-63, Cl. 261—72.
Korte, Alfred C., and J. M. White, to ACF Industries, Inc. Fuel treatment device. 3,106,527, 10-8-63, Cl. 210—223.
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Cahoon, Nelson C., and Korver. 3,092,518.
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Beeber, Allan R. A., and Kosar. 3,072,482.
Kosar, Peter: *See*—
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Robbins, James D., Kosch, and Uzarski. 3,110,415.
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Koser, Arthur J. Rotary barbecue grill. 3,092,013, 6-4-63, Cl. 99—397.
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Yoshida, Susumu, and Koshio. 3,114,664.
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Kosin, Ruediger E., and W. G. Stuart, to Northrop Corp. Variable thrust vectoring systems defining convergent nozzles. 3,081,597, 3-19-63, Cl. 60—35.54.
Kosin, Ruediger, E., and D. M. Heinze, to Northrop Corp. Deflecting means for jet aircraft and the like. 3,100,377, 8-13-63, Cl. 60—35.54.
Koski, Eino A., and H. A. Wilmeth, to Kennecott Copper Corp. Cable-supported belt conveyor. 3,101,145, 8-20-63, Cl. 198—203.
Koski, Oscar H., to United States of America, Atomic Energy Commission. Pulsed extraction column. 3,108,859, 10-29-63, Cl. 23—310.
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Kosmin, Milton, and R. L. Wasson, to Monsanto Chemical Co. Method of preparing halogenated diphenyl compounds. 3,072,728, 1-8-63, Cl. 260—612.
Kosonocky, Walter F., and L. S. Onyshkevych, to Radio Corp. of America. Switching systems. 3,084,264, 4-2-63, Cl. 307—88.
Kosonocky, Walter F., and L. S. Onyshkevych, to Radio Corp. of America. Readout circuit for parametric oscillator. 3,084,335, 4-2-63, Cl. 340—173.2.
Koss, Adrian, to Hague Mfg. Co. Universal joint. 3,107,504, 10-22-63, Cl. 64—7.
Koss, Adrian, to Hague Mfg. Co. Universal joint. 3,107,505, 10-22-63, Cl. 64—7.
Koss, George S., and L. E. Ringger, to United States Steel Corp. Automatic control system for continuous strip mill. 3,111,046, 11-19-63, Cl. 80—56.
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Kost, Nick. Shock absorbing fender. 3,096,116, 7-2-63, Cl. 293—85.

Kostelec, Joze, and H. F. Nitka, to General Aniline & Film Corp. Electrophotographic element. 3,095,301, 6-25-63, Cl. 96—1.

Kostelitz, Oscar, and G. Wetroff, to Pechiney Compagnie de Produits Chimiques et Electrometallurgiques. Stabilizer for styrene-acrylonitrile copolymers. 3,092,609, 6-4-63, Cl. 260—45.9.

Kostenowczyk, Stanley, to The Singer Mfg. Co. Automatic lubrication for a feed-off-the-arm sewing machine. 3,081,723, 3-19-63, Cl. 12—256.

Koster, Arthur H. Fluid level control system. 3,091,676, 5-28-63, Cl. 200—83.

Koster, Frank, to Vogel Tool & Die Corp. Apparatus for notching the ends of tubing in the preparation of tubular assemblies. 3,073,195, 1-15-63, Cl. 83—191.

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Koster, Roland, to Studiengesellschaft Kohle m.b.H. Process for the exchange of hydrocarbon groups between aluminum and boron hydrocarbon compounds. 3,087,953, 4-30-63, Cl. 260—448.

Köster, Roland, to Studiengesellschaft Kohle m.b.H. Improvements in the preparation of aluminum hydride containing materials. 3,092,648, 6-4-63, Cl. 260—448.

Koster, Roland, to Studiengesellschaft Kohle m.b. H. Process for the production of alkali metal and alkaline earth metal borohydrides. 3,111,372, 11-19-63, Cl. 23—14.

Köster, Roland, W. R. Kroll, and K. Ziegler; said Köster and said Kroll assor. to said Ziegler. Process for the production of aluminum trialkyls from dialkyl aluminum halides. 3,074,986, 1-22-63, Cl. 260—448.

Koster, Roland, G. Bruno, and H.-H. Lehmkuhl, to Studiengesellschaft Kohle m.b.H. Process for the production of boron and aluminium compounds containing hydrocarbon radicals and/or hydrogen. 3,097,066, 7-9-63, Cl. 23—204.

Koster, Roland, and W. Larbig, to Studiengesellschaft Kohle m.b.H. Organo aluminum compounds containing cycloalkyl groups of the neopentyl type and production thereof. 3,100,219, 8-6-63, Cl. 260—448.

Kostka, Charles. Combined ratchet and direct drive hand operated rotary tools. 3,099,177, 7-30-63, Cl. 81—63.2.

Kostur, J. Edward. Machines for automatically skin packaging mechandise articles and for cutting into separate packages. Re. 25,466, 10-22-63, Cl. 53—112.

Kostur, J Edward. Automatic vacuum forming machine for plastics. Re. 25,484, 11-26-63, Cl. 18—19.

Kostur, J Edward. Device for expanding polystyrene in piece form. 3,073,036, 1-15-63, Cl. 34—57.

Kostyrka, Alfred. Chuck. 3,076,662, 2-5-63, Cl. 279—4.

Kostyun, Paul M., to United States of America, Navy. Counter rotating propeller drive. 3,087,553, 4-30-63, Cl. 170—135.28.

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Kotarsky, Joseph F., and G. A. Franks. Mine roof warning device. 3,111,655, 11-19-63, Cl. 340—213.

Kotas, Donald E., to Minneapolis-Honeywell Regulator Co. Variable frequency telemetering apparatus. 3,071,759, 1-1-63, Cl. 340—206.

Koteles, Stephen A., and C. J. Berg, to The Sherwin-Williams Co. Variable thickness wet film applicator. 3,114,165, 12-17-63, Cl. 15—236.

Kotne, Ewald, to Coors Porcelain Co. Slurry diffusing machine. 3,073,531, 1-15-63, Cl. 239—223.

Kotheimer, William C., to General Electric Co. Protective relay. 3,079,533, 2-26-63, Cl. 317—36.

Kotkins, Henry L. Tray and pin cushion combination. 3,107,832, 10-22-63, Cl. 223—109.

Kotlin, James J., and J. R. Ware, to General Motors Corp. Cylinder head for internal combustion engine. 3,081,755, 3-19-63, Cl. 123—41.77.

Kotowick, Joseph L. Collapsible container. 3,115,291, 12-24-63, Cl. 229—41.

Kotraba, Jack. Endless magnetic-type conveyor. 3,107,001, 10-15-63, Cl. 198—41.

Kotte, Jan J., and E. Netten, to North American Philips Co. Inc. Film projector film gate. 3,074,310, 1-22-63, Cl. 88—17.

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Seeger, Ernst, and Kottler. 3,109,845.

Köttner, Antonin. Conveyor assembly for conveying of carcasses to a cutting device. 3,078,811, 2-26-63, Cl. 104—72.

Köttner, Antonin. Device for halving the bodies of slaughtered animals. 3,095,602, 7-2-63, Cl. 17—23.

Koueiter, Michel N. High frequency cavity tuned by both telescoping sleeves and voltage variable diode means. 3,108,239, 10-22-63, Cl. 333—8.3.

Koullcovitch, Maurice, to Societe Genervoise d'Instruments de Physique. Dynamic coders. 3,089,133, 5-7-63, Cl. 340—347.

Koump, Vladimir I. Autohelicopter. 3,096,953, 7-9-63, Cl. 244—17.19.

Kounovsky, Edward F., and H. T. Lange, to Sporlan Valve Co., Inc. Thermostatic charge for motor system of expansion valve and method of charging. 3,091,120, 5-28-63, Cl. 73—368.2.

Kouri, Joseph J. Self-sealing roll film. 3,099,560, 7-30-63, Cl. 96—78.

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Matuska, Stephen A., and Koury. 3,115,471.

Koury, Frederic, to Sylvania Electric Products Inc. Electroluminescent device. 3,104,339, 9-17-63, Cl. 313—108.

Koury, Frederic, to Sylvania Electric Products, Inc. Method for increasing the brightness of electroluminescent phosphors. 3,113,929, 12-10-63, Cl. 252—301.6.

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Koutnik, Roderick J., to Clary Corp. Vacuum pulsator. 3,077,207, 2-12-63, Cl. 137—622.

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Koutz, Stanley L., R. B. Duffield, R. B. Minogue, W. A. Compton, and H. R. Lynch, to General Dynamics Corp. Neutronic reactor. 3,072,549, 1-8-63, Cl. 204—193.2.

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Kovach, John E., to Bergen Machine & Tool Co., Inc. Apparatus for curing molded building blocks. 3,091,833, 6-4-63, Cl. 25—143.

Kovach, John E., to Bergen Machine & Tool Co., Inc. Automatic off bearing equipment for block molding machine. 3,115,974, 12-31-63, Cl. 214—16.4.

Kovach, Stephen M., to Sinclair Research, Inc. Alkylation of aromatics with azinc oxide, chromium oxide, copper oxide, silica-alumina catalyst. 3,104,268, 9-17-63, Cl. 260—671.

Kovács, Theodor. Propelling pencil having an eraser adjustable therein by a screw action. 3,072,101, 1-8-63, Cl. 120—14.9.

Kovanic, Pavel, and M. Kulka, to Zavody V.I. Lenina Plzen, narodni podnik. Equipment for automatic control of atomic reactor. 3,105,029, 9-24-63, Cl. 204—193.2.

Kovanic, Pavel, and M. Kulka, to Zavody V.I. Lenina Plzen, narodni podnik. Equipment for automatic control of an atomic reactor. 3,112,253, 11-26-63, Cl. 204—154.2.

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Kovatch, Robert J., to Bethlehem Steel Co. Printing roll. 3,081,495, 3-19-63, Cl. 18—47.5.

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Kowal, Leonard J., to Imperial-Eastman Corp. Tube forming apparatus. 3,086,575, 4-23-63, Cl. 153—80.5.

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Mockrin, Isadore, and Kowalski. 3,112,207.

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Kozacka, Frederick J., to The Chase-Shawmut Co. Cartridge fuses. 3,080,463, 3-5-63, Cl. 200—120.

Kozacka, Frederick J., to The Chase-Shawmut Co. Electric fuse having improved cap link connection. 3,094,600, 6-18-63, Cl. 200—132.

Kozacka, Frederick J., to The Chase-Shawmut Co. Fuse structures for elevated circuit voltages. 3,113,195, 12-3-63, Cl. 200—131.

Kozak, John, and L. D. Soubier, to Kimble Glass Co. Apparatus for extruding glass. 3,078,695, 2-26-63, Cl. 65—183.

Kozicki Henry J., to Ford Motor Co. Interconnected torsion bar suspension. 3,086,793, 4-23-63, Cl. 280—104.

Kozicki, Henry J., to Ford Motor Co. Motor vehicle suspension. 3,089,689, 5-14-63, Cl. 267—11.

Kozicki, Henry J., to Ford Motor Co. Torsion bar mounting construction. 3,104,097, 9-17-63, Cl. 267—57.

Kozikowski, Edward S. First aid kit. 3,088,584, 5-7-63, Cl. 206—12.

Kozinski, Joseph, to H. G. Fischer & Co. Electric resistor. 3,105,218, 9-24-63, Cl. 338—214.

Kozinski, Joseph, to H. G. Fischer & Co., Inc. Electric resistor. 3,105,219, 9-24-63, Cl. 338—214.

Kozlik, Robert F., to General Mills, Inc. Brown sugar flavor concentrate and method of making the same. 3,093,484, 6-11-63, Cl. 99—141.

Kozlik, Roland A., and C. J. Novak, to The International Nickel Co., Inc. Unfired pressure vessel. 3,107,997, 10-22-63, Cl. 75—124.

Kozlowski, Edward C., and F. W. Winton, to The Warner Brothers Co. Receptacle and handle therefor. 3,104,796, 9-24-63, Cl. 229—52.

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Kozlowski, Robert H., H. F. Mason, and J. W. Scott, Jr., to California Research Corp. Low temperature hydrocracking process. 3,092,567, 6-4-63, Cl. 208—57.

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Kozma, Joseph A., Jr.: *See*—
Rearwin, Earle W. 3,077,015.

Kozul, Theodore L. Protective device for radar receiving apparatus including crystal diode detector means. 3,092,781, 6-4-63, Cl. 329—162.

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Krueling, John B., to Drafto Corp. Traveling block weighing device. 3,095,057, 6-25-63, Cl. 177—147.

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Krafft, Frederick G., to The Thompson Grinder Co. Feeding method and apparatus. 3,087,286, 4-30-63, Cl. 51—165.

Krafft, Frederick G., and W. Ernst, to Thompson Grinder Co. Hydraulic servo system. 3,083,535, 4-2-63, Cl. 60—52.

Kraft, Alfred, and E. Klimpf. Dual characteristic additive feeding system. 3,096,779, 7-9-63, Cl. 137—101.19.

Kraft, Arthur A., to Cleveland Controls, Inc. Steam boiler combustion control unit. 3,096,020, 7-2-63, Cl. 236—14.

Kraft, Derald H., and D. W. Hitchings, to E. W. Bliss Co. Die clamp. 3,111,895, 11-26-63, Cl. 100—295.

Kraft, Donald L., and E. C. Beason, Jr., to Phillips Petroleum Co. Knife sealer for thermoplastic film or sheet. 3,083,757, 4-2-63, Cl. 156—515.

Kraft, Frank J.: *See*—
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Kraft, George H., to National Dairy Products Corp. Packaging method and apparatus. 3,090,174, 5-21-63, Cl. 53—22.

Kraft, George H., and H. G. Podlesak, to National Dairy Products Corp. Cheese package. 3,080,238, 3-5-63, Cl. 99—178.

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Revell, Donald H., and Kraft. 3,106,269.

Kraft, Hans-Gunther: *See*—
Schulte, Karl, Muller, and Kraft. 3,100,205.

Kraft, Harold D., and J. A. Kraft. Timing device. 3,090,192, 5-21-63, Cl. 58—39.5.

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Klavehn, Wilfrid, and Kraft. 3,083,204.

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Kraft, Harold D., and J. A. 3,090,192.

Kraft, Martin: *See*—
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Foltis, Anestis C., and Kraft. 3,106,902.

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Kragle, Ralph J., to Thompson Ramo Wooldridge Inc. Failure indicating circuit for slave driven unit. 3,097,333, 7-9-63, Cl. 318—467.

Krahler, Stanley E., to E. I. du Pont de Nemours and Co. Improved process for preparing resilient isocyanate foams. 3,073,787, 1-15-63, Cl. 260—2.5.

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Krakauer, Edwin G., to Kay Mfg. Corp. Sinuous wire spring. 3,096,086, 7-2-63, Cl. 267—103.

Krakauer, Merrill: *See*—
Leonard, Raymon R., and Krakauer. 3,087,649.

Krakauer, Merrill, and P. Katz, to Rowe Mfg. Co., Inc. Console cigarette merchandising machine. 3,074,593, 1-22-63, Cl. 221—13.

Krakauer, Merrill, and W. L. Koch, to Rowe Mfg. Co., Inc. Illuminated display assembly. 3,093,918, 6-18-63, Cl. 40—126.

Krakauer, Merrill, and H. E. Verbeke, to Rowe Mfg. Co., Inc. Coin-released locking mechanism. 3,107,000, 10-15-63, Cl. 194—2.

Kraker, George P.: *See*—
Stone, Richard S., and Kraker. 3,094,470.

Kral, Leonard: *See*—
Drake, Herbert E., and Kral. 3,100,815.

Kralovopolska Strojirna, zavody Chemickych zarizeni, narodni podnik: *See*—
Kugler, Tibor, and Miklossy 3,097,292.

Kralowetz, Bruno. Hydraulic positioning system for gripping heads of forging machines. 3,091,140, 5-28-63, Cl. 78—99.

Kralowetz, Bruno. Forging machine. 3,098,402, 7-23-63, Cl. 78—20.

Kraly, John. Tubeless tire repair tool. 3,079,818, 3-5-63, Cl. 81—15.7.

Kraly, John. Tire repair insert. 3,095,342, 6-25-63, Cl. 156—97.

Kramar, Ernst, and F. Steiner, to International Standard Electric Corp. Frequency modulated approach beacon. 3,094,697, 6-18-63, Cl. 343—106.

Kramar, Ernst, and F. Steiner, to International Standard Electric Corp. Omnidirectional radio bearing system. 3,115,633, 12-24-63, Cl. 343—106.

Kramcsak, Michael, Jr.: *See*—
Clinton, Edwin T., and Kramcsak. 3,070,828.

Kramcsak, Michael, Jr., to The Bassick Co. Caster glide. 3,080,601, 3-12-63, Cl. 16—42.

Kramer, Anton: *See*—
Busch, Dieter, Elcher, and Kramer. 3,098,783.

Kramer, Charles E.: *See*—
Ellis, Charles L., and Kramer. 3,103,984.

Kramer, Clarence F., to Ford Motor Co. Vehicle body and door header sealing means. 3,083,048, 3-26-63, Cl 296—44.

Kramer, Clarence F., to Ford Motor Co. Door handle assembly. 3,113,798, 12-10-63, Cl. 292—336.3.

Kramer, Don A., to Motorola, Inc. Noice cut-off of AGC and sync-separator tubes. 3,109,061, 10-29-63, Cl. 178—7.3.

Kramer, H., & Co.: *See*—
Schwartz, Earl S. 3,097,741.

Kramer, Hans: *See*—
Bohlmann, Ferdinand, Dexheimer, Fuchs, and Kramer. 3,083,125.

Kramer, Hans B. A., G. Messwarb, and W. Denk, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Polymers containing phosphorus. 3,105,064, 9-24-63, Cl. 260—80.

Kramer, Helmut: *See*—
Schellenberg, Wolf-Dietrich, Kramer, Bartl, and Hofer. 3,080,346.

Kramer, Hyman. Web-to-tube fastenings. 3,092,176, 6-4-63, Cl. 160—404.

Kramer, Hyman. Web-to-tube fastenings. 3,092,177, 6-4-63, Cl. 160—404.

Kramer, Hyman. Web-to-tube fastenings. 3,102,585, 9-3-63, Cl. 160—404.

Kramer, Hyman. Metal-frame furniture manufacture. 3,105,237, 10-1-63, Cl. 1—3.

Kramer, Jack, to Van Camp Sea Food Co. Method for preparing fish. 3,082,094, 3-19-63, Cl. 99—111.

Kramer, Johannes: *See*—
Le Poole, Jan B., and Kramer. 3,078,368.

Kramer, Leo, to Ingersoll-Rand Co. Pump or motor shaft and rotor coupling means. 3,113,527, 12-10-63, Cl. 103—136.

Kramer, Max J., to Aluminum Co. of America. Ground circuit supervisory system. 3,086,999, 4-23-63, Cl. 13—24.

Krämer, Rolf, E. Breitinger, and F. W. Gerber, to SKF Kugellagerfabriken Gesellschaft mit beschrankter Haftung. Spindle drive arrangement for a spinning machine and the like. 3,098,345, 7-23-63, Cl. 57—102.

Kramer, Theodore A., M. A. Leavitt, and A. Thom, to Telautograph Corp. Continuously slipping magnetic clutch. 3,092,984, 6-11-63, Cl. 64—30.

Kramer, Virgil F.: *See*—
Bushong, Robert J., Kramer, and Noll. 3,076,560.

Kramer, Walter E.: *See*—
Millikan, Allen F., and Kramer. 3,112,167.

Kramish, Arnold. Self-propelled nuclear radiometer. 3,110,811, 11-12-63, Cl. 250—106.

Krammer, Robert: *See*—
Bishop, Leonard J., Klamp, and Krammer. 3,099,966.

Krampf, Charles E., and J. H. Luther, to Aerovox Corp. Capacitor assembly machine. 3,087,229, 4-30-63, Cl. 29—25.42.

Kranak, John A. Apparatus for holding stone for facing. 3,086,510, 4-23-63, Cl. 125—35.

Krane, Herbert G., and W. H. Brader, Jr., to Standard Oil Co. Production of high octane gasoline. 3,085,972, 4-16-63, Cl. 208—99.

Kraner, Thomas E.: *See*—
Jackson, Harry L., and Kraner. 3,087,291.

Kranty, H., Firma: *See*—
Regenscheit, Bruno. 3,099,965.

Krantz, Curtis R. Carpet anchoring device and cover therefor. 3,086,262, 4-23-63, Cl. 20—74.

Krantz, Evert, to Svenska Flaktfabriken, Aktiebolaget. Distribution channel for supplying washing liquid. 3,112,352, 11-26-63, Cl. 261—36.

Krantz, H., Sohne: *See*—
Buysch, Heinrich. 3,074,631.

Kranz, Frederick H., to Allied Chemical Corp. Pressure sensitive sheet record material and method of making. 3,079,271, 2-26-63, Cl. 117—36.7.

Kranz, Frederick H., and F. L. Tewksbury, Jr., to Allied Chemical Corp. Duplicating sheet and colored coating compositions therefor. 3,096,189, 7-2-63, Cl. 106-236.

Kranz, Joachim: *See*—
Lange, Guenter, Luetzel, Wippel, Weidinger, and Kranz. 3,096,320.

Krapcho, John, to Olin Mathieson Chemical Corp. Benzothiazines. 3,075,967, 1-29-63, Cl. 260—239.3.

Krapcho, John, to Olin Mathieson Chemical Corp. Benzothiazepines. 3,075,968, 1-29-63, Cl. 260—239.3.

Krapcho, John, to Olin Mathieson Chemical Corp. Benzothiazine and benzothiazepine compounds. 3,089,872, 5-14-63, Cl. 260—239.3.

Krapf, George H., to United States Steel Corp. Apparatus for heating blast furnace stoves. 3,082,995, 3-26-63, Cl. 263—19.

Kraschinsky, Theodore, Jr.: *See*—
Fath, Douglas W., Kraschinsky, and Lutsch.

Krasin, Lester Q., to Lenkurt Electric Co., Inc. Carrier telephone systems. 3,116,371, 12-31-63, Cl. 179—15.

Krasinski, Walter F.: *See*—
Farrow, Ronald L., and Krasinski.

Kraskin, Kenneth S.: *See*—
Smythe, Carl V., and Kraskin.

Krasnahira, William. Apparatus for detecting engine failure. 3,097,352, 7-9-63, Cl. 340—236.

Krasne, Henry. Feather duster. 3,095,593, 7-2-63, Cl. 15—234.

Krasnoff, Gilbert: *See*—
Krasnoff, William and G.

Krasnoff, William and G. Animated toy tooth paste container. 3,105,612, 10-1-63, Cl. 222—78.

Krasnow, Shelley. Converters and circuits for high frequency fluorescent lighting. 3,083,311, 3-26-63, Cl. 310—156.

Krasny, John F., to American Enka Corp. Process for finishing rayon fabrics. 3,082,122, 3-19-63, Cl. 117—145.

Kratt, Henry J., to The Plastic Contact Lens Co. Toric lens tool. 3,079,736, 3-5-63, Cl. 51—217.

Kratt, Henry J., to The Plastic Contact Lens Co. Lens edging tool. 3,087,284, 4-30-63, Cl. 51—90.

Kratt, Henry J., to The Plastic Contact Lens Co. Apparatus for producing contact lenses. 3,100,955, 8-20-63, Cl. 51—217.

Kratt, Henry J., and L. Bronstein, to The Plastic Contact Lens Co. Toric lens tool. 3,079,737, 3-5-63, Cl. 51—217.

Kratz, Ernst: *See*—
Bielz, Heinrich.

Kratz, Howard R., to United States of America, Atomic Energy Commission. Method of fabricating a graphite-moderated reactor. 3,088,890, 5-7-63, Cl. 204—154.2.

Kratzer, Carole: *See*—
Cannon, Leona, and Kratzer.

Kraus, Charles E., to Excelermatic, Inc. Variable speed-ratio toroidal transmission. 3,087,348, 4-30-63, Cl. 74—200.

Kraus, Gerard, to Phillips Petroleum Co. Reinforcement of rubber with irradiated carbon black. 3,093,561, 6-11-63, Cl. 204—154.

Kraus, Gerard, and J. T. Gruver, to Phillips Petroleum Co. Method of curing polymeric materials and the product thereof. 3,084,141, 4-2-63, Cl. 260—85.1.

Kraus, Gerard, and J. N. Short, to Phillips Petroleum Co. Preparation of vulcanizates by irradiation of block copolymers. 3,113,912, 12-10-63, Cl. 204—154.

Kraus, Paul W. Lithographic composing frame. 3,081,551, 3-19-63, Cl. 33—184.5.

Kraus, Philip R., to E. I. du Pont de Nemours and Co. Melting furnace. 3,107,268, 10-15-63, Cl. 13—26.

Kraus, Thaddaus J., to Balzers Patent-und Lizenz-Anstalt High-vacuum plants. 3,088,219, 5-7-63, Cl. 34—15.

Krause, Albert. Twin screw power motor boat and transmission control. 3,112,728, 12-3-63, Cl. 115—37.

Krause, Charles E., to Bell Telephone Laboratories, Inc. Pulse resolution circuit with gated delay means and flip-flop providing selective separation between random inputs. 3,112,450, 11-26-63, Cl. 328—109.

Krause, David E., to J. I. Case Co. Agricultural implement. 3,114,995, 12-24-63, Cl. 56—1.

Krause, Georges, and R. F. Hubscher, to Georg Fischer, AG. Method of and device for stabilizing crank axles with pneumatic cushioning. 3,085,817, 4-16-63, Cl. 280—124.

Krause, Herbert, to Chicago Forging and Mfg. Co. Automobile hood latch housing. 3,081,118, 3-12-63, Cl. 292—226.

Krause, Herbert, to Chicago Forging and Mfg. Co. Lock assembly. 3,088,765, 5-7-63, Cl. 292—11.

Krause, Herbert, to Chicago Forging and Mfg. Co. Cammed hinge. 3,113,339, 12-10-63, Cl. 16—128.1.

Krause, Horst-Jürgen: *See*—
Dohr, Manfred, Krause, and Wulff.

Krause, Jack H.: *See*—
Milliken, Thomas H., Jr., Krause, and Donovan.

Krause, James N., to Anaconda Aluminum Co. Curl resistant foil to paper lamination and method of making same. 3,098,780, 7-23-63, Cl. 156—280.

Krause, James N., to The Anaconda Aluminum Co. Food package. 3,113,873, 12-10-63, Cl. 99—171.

Krause, Richard T.: *See*—
Just, Alex, Maximoff, and Krause.
Sola, John B., and Krause.

Krause, Richard T., H. B. Kalmar, and F. A. Kukla, to Malco Mfg. Co. Method of making a terminal. 3,071,844, 1-8-63, Cl. 29—155.55.

Krauss, Fred A., to United Mfg. Co. Over steering assembly for towed vehicles. 3,108,821, 10-29-63, Cl. 280—103.

Krauss, Kurt, and H. Diekmann, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Process for the production of high percentage nitric oxide. 3,110,563, 11-12-63, Cl. 23—162.

Krauss-Maffei Aktiengesellschaft: *See*—
Huhn, Wolfram, and Berndt.

Krauss, Rudolf: *See*—
Knapp, Heinrich, Krauss, and Heiser.

Krausz, Francois, to Sempa-Chimie. Method for the preparation of codeinone from thebaine. 3,112,323, 11-26-63, Cl. 260—285.

Krant, Max, to Western Machinery Co. Method and apparatus for concentration of ores. 3,087,619, 4-30-63, Cl. 209—456.

Krautheim, Leonard: *See*—
Leiss, Emil, Bayer, and Krautheim.

Krautkramer, Adam. Container. 3,088,617, 5-7-63, Cl. 215—42.

Krautwurst, Homer V.: *See*—
Snyder, Benjamin N., Krautwurst, McDonnell, and Williams.

Krautwurst, Homer V., to General Motors Corp. Brake lever. 3,109,320, 11-5-63, Cl. 74—529.

Kraver, Barnett L. Automobile hood lock. 3,115,764, 12-31-63, Cl. 70—240.

Kravig, Robert S., and A. E. Johnson, to Minnesota Mining and Mfg. Co. Decorative bows. 3,112,240, 11-23-63, Cl. 161—10.

Krawczak, William G.: *See*—
Elm, Robert A., Krawczak, Schley, and Levin.

Krawiec, Walter. Restaurants. 3,091,815, 6-4-63, Cl. 20—1.

Kray, Raymond J.: *See*—
De Fazio, Charles A., and Kray.

Kray, Raymond J., and C. A. De Fazio, to Celanese Corp. of America. Terpolymer latex of an unsaturated ester of a fatty acid, ethyl acrylate, and another acrylic ester or a vinyl aromatic monomer. 3,080,333, 3-5-63, Cl. 260—29.6.

Kray, Raymond J., and C. A. De Fazio, to Celanese Corp. of America. Copolymers of trioxane and vinyl ethers. 3,087,913, 4-30-63, Cl. 260—73.

Kraychy, Stephen, to G. D. Searle & Co. 12-carboxyethyl-12-hydroxypregn-4-ene-3,20-dione lactone and intermediates. 3,079,386, 2-26-63, Cl. 260—239.57.

Krayer, William L.: *See*—
Swartz, William E., and Krayer.

Krebaum, Lawrence J., to Monsanto Chemical Co. Process for the preparation of cyanoacetylene from acetylene and hydrogen cyanide. 3,079,424, 2-26-63, Cl. 260—465.3.

Krebs, Arthur L.: *See*—
Gershen, Irvin J., and Krebs.

Krebs & Co. Ltd.: *See*—
Lindenmaier, Ernst, Gollbach, and Fischel.

Krebs, Henry, to General Motors Corp. Vibration damper. 3,075,405, 1-29-63, Cl. 74—574.

Krebs, Leo. Musical instrument. 3,116,357, 12-31-63, Cl. 84—1.16.

Krebs, Theodor: *See*—
Wicki, Werner, Rothen, and Krebs.

Krebs, Willi. Hermetically sealed storage battery and method for its manufacture. 3,108,908, 10-29-63, Cl. 136—6.

Krefft, W., Aktiengesellschaft: *See*—
Frege, Johannes, and Sachse.

Kreger, John, Jr. Stirrup and adjustable suspension means therefor. 3,096,552, 7-9-63, Cl. 24—166.

Krehbiel, Guenther: *See*—
Elsele, Julius, Federkiel, Krehbiel, Krzikalla, Lange, and Pohlemann.

Kreidel, Hans, Jr.: *See*—
Kreidel, Hans, Sr., and H. Kreidel, Jr.

Kreidel, Hans, Sr., and H. Kreidel, Jr., to Inventex A.G. Rotary pipe coupling. 3,099,466, 7-30-63, Cl. 285—98.

Kreider, Peter A. Automobile trash disposal system. 3,081,937, 3-19-63, Cl. 232—43.2.

Kreidler's Metalli- und Drahtwerke G.m.b.H.: *See*—
Steinlein, Max.

Kreimendahl, William J., to West Virginia Pulp and Paper Co. Carton folding machine. 3,115,073, 12-24-63, Cl. 93—51.

Krein, John H.: *See*—
Ott, William F., Krein, Eickmann, and Carlson.

Kreisky, Kurt, E. G. Hurtz, and H. Frobeen, to Atlas Equipment (London) Ltd. Dough stamping machine. 3,071,087, 1-1-63, Cl. 107—15.

Kreithen, Alexander, and R. W. Bragg, to The Ohio Citizens Trust Co., trustee. Magazine loading magnetic tape recorder-reproducers. 3,080,101, 3-5-63, Cl. 226—174.

Krejci, Joseph C., to Phillips Petroleum Co. Production of carbon black. 3,103,418, 9-10-63, Cl. 23—209.4.

Krekel, Richard W., to Dadant & Son, Inc. Comb foundation. 3,105,978, 10-8-63, Cl. 6—11.

Krekeler, Claude B., to The Cincinnati Mine Machinery Co. Cutter chain joint. 3,086,404, 4-23-63, Cl. 74—254.

Krekeler, Claude B., to The Cincinnati Mine Machinery Co. Resilient controlling means. 3,088,721, 5-7-63, Cl. 262—33.

Krekeler, Claude B., to The Cincinnati Mine Machinery Co. Resilient engagement device. 3,092,374, 6-4-63, Cl. 262—33.

Krekeler, Claude B., to The Cincinnati Mine Machinery Co. Cutting bit holders. 3,093,365, 6-11-63, Cl. 262—33.

Krekeler, Claude B., to The Cincinnati Mine Machinery Co. Means for the removal and installation of cutter bits in mining machinery. 3,097,547, 7-16-63, Cl. 76—80.

Krekeler, Claude B., to The Cincinnati Mine Machinery Co. Cutter bit and socket construction. 3,101,933, 8-27-63, Cl. 262—33.

Krekeler, Claude B., to The Cincinnati Mine Machinery Co. Cutter bit to be used with resilient retaining member. 3,114,537, 12-17-63, Cl. 262—33.

Krembel, Frank, Jr., to Columbia Marking Tools, Inc. Marking tool. 3,111,997, 11-26-63, Cl. 121—11.

Kremen, Seymour S., and R. L. Southwood, to Leather Research Corp. Apparatus for treating animal hides. 3,099,149, 7-30-63, Cl. 69—32.

Kremer, Charles J., Jr. Liquid wiper packings for reciprocating rods. 3,076,650, 2-5-63, Cl. 277—192.

Kremer, Gilbert: *See*—
Sureau, Robert F. M., Kremer, and Obellianne.

Kremer, Marvin J., to David Feinson, Inc. Vacuum furnace for dental laboratories. 3,109,911, 11-5-63, Cl. 219—35.

Kremeyer, Ernest A.: *See*—
Anderson, Ralph F., and Kremeyer.

Kremiller, Arthur E.: *See*—
Beckman, William R., and Kremiller.
Goldring, John E., and Kremiller.
Goldring, John E., and Kremiller.

Kremp, Rudolf, P. Frost, and F. Hennig, to Agfa Aktiengesellschaft. Diaphragm assembly for photographic cameras. 3,084,605, 4-9-63, Cl. 95—10.

Kremp, Rudolf, F. Wagner, F. Biedermann, and A. Kuhitzek, to Agfa Aktiengesellschaft. Light meter assembly. 3,097,581, 7-16-63, Cl. 95—10.

Krems, Irving J.: *See*—
Aisop, William G., and Krems.

Kremzner, Leon T.: *See*—
Barnes, Harry M., Mitchell, and Kremzner.

Krenke, Vincent G.: *See*—
Mason, Stuart A., and Krenke.

Krense, Horst: *See*—
Kuhl, Bernard, and Krense.

Krenzke, Alfred J., and R. L. Fox, Sr., to Allover Clipper Products Co. Body massaging device.

Kreps, John F. Flat tire indicator. 3,072,759, 1-8-63, Cl. 200—61.24.

Kreps, Saul I., to Van Dyk & Co., Inc. Cosmetic compositions containing lactic acid esters of fatty alcohols. 3,098,795, 7-23-63, Cl. 167—90.

Kresel, Anton S., to M. A. Kresel. Toilet bowl plug. 3,105,975, 10-8-63, Cl. 4—257.

Kresel, Mary A.: *See*—
Kresel, Anton S.

Kresge, Alfred N., W. A. Pardee, and J. V. Ward, to Gulf Research & Development Co. Process for removing acetylenic hydrocarbon impurity. 3,105,858, 10-1-63, Cl. 260—681.5.

Krespan, Carl G., to E. I. du Pont de Nemours and Co. Fluorinated cyclic sulfides and their preparation. 3,073,814, 1-15-63, Cl. 260—327.

Krespan, Carl G., to E. I. du Pont de Nemours and Co. Tetrafluoroethylene-sulfur monomeric and polymeric compounds. 3,088,935, 5-7-63, Cl. 260—79.

Krespan, Carl G., to E. I. du Pont de Nemours and Co. Polythiorinated 1,4-dithiins compounds and the process of preparation. 3,096,342, 7-2-63, Cl. 260—327.

Krespan, Carl G., to E. I. du Pont de Nemours and Co. Fluorinated sulfenyl halides and disulfur halides. 3,099,688, 7-30-63, Cl. 260—543.

Krespan, Carl G., to E. I. du Pont de Nemours and Co. Selected 2-oxazolines and 2-thiazolines and their preparation. 3,108,114, 10-22-63, Cl. 260—306.7.

Kress, George H., and W. A. Menn, to General Precision, Inc. Reel mounting assembly. 3,099,413, 7-30-63, Cl. 242—68.3.

Kress, Ralph H., to LeTourneau-Westinghouse Co. Trailer dumping vehicle. 3,076,680, 2-5-63, Cl. 298—35.

Kresslein, Albert: *See*—
Beltlug, Franz, Kresslein, and Lossa.
Nintz, Klaus, and Kresslein.

Kressley, Leonard J.: *See*—
Frevel, Ludo K., and Kressley.
Frevel, Ludo K., and Kressley.

Kressman, John H.: *See*—
Glomb, Walter L., Campbell, and Kressman.

Kretsch, Hans W., and G. A. O'Sullivan, to Consolidated Controls Corp. Differential transformer regulation system. 3,079,545, 2-26-63, Cl. 323—48.

Krett, Orest J., and S. L. Gennuso, to National Dairy Products Corp. Salad dressing. 3,093,486, 6-11-63, Cl. 99—144.

Kretzmer, Ernest R., to Bell Telephone Laboratories, Inc. Information storage arrangement. 3,098,996, 7-23-63, Cl. 340—173.

Kretzmer, Minor G., Jr.: *See*—
Frishie, Marshall H., and Kretzmer.

Kretzmer, Minor G., Jr., to The A. C. Gilbert Co. Overcontrol preventer for miniature captive airplanes. 3,110,126, 11-12-63, Cl. 46—77.

Kretzschmar, Frederick, to Ward Leonard Electric Co. Permanent magnet blowout for a contactor. 3,090,854, 5-21-63, Cl. 200—147.

Kretzschmar, Karl H.: *See*—
Barroll, Alfred E., and Kretzschmar.

Kreuchen, Karl H. R. C., and M. J. Smith, to Electric & Musical Industries Ltd. Wave guide window having edge sealed in bottom of choke. 3,114,123, 12-10-63, Cl. 333—98.

Kreuter, Herbert: *See*—
Wagener, Siegfried, Kreuter, and Sommer.

Kreutzer, Conradin O., to Smith Research and Development Co., Inc. Method of and apparatus for electrifying trawl net fishing waters with impulse current. 3,110,978, 11-19-63, Cl. 43—4.5.

Kreutzer, William A.: *See*—
Legator, Marvin, Kreutzer, and Soloway.

Kreuz, Kenneth L.: *See*—
Kluge, Herman D., Wiley, and Kreuz.

Kreuz, Kenneth L., M. A. Wiley, and R. C. Givens, to Texaco Inc. Process for incorporating compounds of barium in oil. 3,085,064, 4-9-63, Cl. 252—18.

Krewer, William A.: *See*—
Ayers, George W., and Krewer.
Ayers, George W., and Krewer.
Ayers, George W., and Krewer.

Krey, Roger A., to Radio Corp. of America. Electron tube. 3,084,274, 4-2-63, Cl. 313—247.

Krezanoski, Joseph Z., to Barnes-Hind Laboratories, Inc. Dispensing package. 3,086,647, 4-23-63, Cl. 206—56.

Krezek, Donald, to Basic Products Corp. Shunt control circuit for controlling waveform. 3,089,965, 5-14-63, Cl. 307—88.5.

Kribbe, Harri: *See*—
Hartlapp, Gerhard, Bielenberg, and Kribbe.

Krichmar, Abraham. Sterilizable toothbrush. 3,103,680, 9-17-63, Cl. 15—167.

Krieger, Charles: *See*—
Brownfield, Robert B., and Krieger.

Krieps, Frank J., and H. H. Mattheis, to Container Corp. of America. Scouring pad holder. 3,090,065, 5-21-63, Cl. 15—209.

Kries, Donald A., to International Harvester Co. Power steering apparatus. 3,102,554, 9-3-63, Cl. 137—625.24.

Krieve, Walter F.: *See*—
Webb, James E.

Krikewall, William B., and T. J. Leston, to Premier Industrial Corp. Welding rod. 3,102,827, 9-3-63, Cl. 117—204.

Krikszens, Arthur E.: *See*—
Lundgren, Donald G., and Krikszens.

Krimm, Heinrich: *See*—
Schnell, Hermann, and Krimm.

Krimmel, Carl P., to G. D. Searle & Co. N-(diphenylmethylbenzoyl)aminoalkanoic acids. 3,086,979, 4-23-63, Cl. 260—389.

Krinov, Stanley, to Pittsburgh Plate Glass Co. Sampling device and method for analysis of furnace gases. 3,070,990, 1-1-63, Cl. 73—25.

Krinov, Stanley, to Pittsburgh Plate Glass Co. Method of preparing glass batch ingredients. 3,081,180, 3-12-63, Cl. 106—52.

Krinov, Stanley, to Pittsburgh Plate Glass Co. Pigment process. 3,108,892, 10-29-63, Cl. 106—309.

Kripak, Leonid: *See*—
Glass, Marvin I., and Kripak.
Glass, Marvin I., and Kripak.
Glass, Marvin I., and Kripak.

Kripke, Joseph B., to General Motors Corp. Humidity sensor. 3,110,005, 11-5-63, Cl. 338—35.

Kripke, Joseph B., and D. W. Turner, to General Motors Corp. Magnetically operated rotary motion detector. 3,108,163, 10-22-63, Cl. 200—61.46.

Krippahl, Günther: *See*—
Warburg, Otto, and Krippahl.

Kris, Samuel. Interchangeable arm rest for furniture. 3,074,762, 1-22-63, Cl. 297—416.

Krishnaswamy, Prathivadhi B.: *See*—
Koblenz, Avrom M., Krishnaswamy, and Thomas.

Krist, William F., and A. F. Gerlovich, ½ to Rheem Mfg. Co. Drum opener. 3,110,962, 11-19-63, Cl. 30—4.

Kristen, Frank, ½ to R. A. Timm. Painter's scaffold. 3,071,206, 1-1-63, Cl. 182—152.

Kristian Kirks Telefonfabriker A/S: *See*—
Ungar, Ernest.

Kritchever, Mathew F., to E. I. du Pont de Nemours and Co. Plastic tube forming method. 3,085,293, 4-16-63, Cl. 18—57.

Kritz, Jack, to American Bosch Arma Corp. High efficiency sonic generator. 3,085,167, 4-9-63, Cl. 310—9.1.

Kritz, Jack, to American Bosch Arma Corp. High efficiency sonic generator. 3,114,848, 12-17-63, Cl. 310—9.1.

Kritz, Orville H. Light assembly. 3,085,151, 4-9-63, Cl. 240—46.31.

Kritzer, Richard W. Pin stock feeding apparatus. 3,073,461, 1-15-63, Cl. 214—7.

Kritzer, Richard W. Apparatus for purifying air in inhabitable or product-confining enclosures. 3,100,679, 8-13-63, Cl. 21—74.

Kritzer, Richard W. Automatic apparatus for loading an assembly nest with fin strips in the production of heat exchange units. 3,114,963, 12-24-63, Cl. 29—202.

Kritzler, Helmuth, and K. Wagner, to Farbenfabriken Bayer Aktiengesellschaft. Polymerization of formaldehyde. 3,072,610, 1-8-63, Cl. 260—67.

Krivisky, Rubin: *See*—
Hillson, Frank, and Krivisky. 3,099,501.
Hillson, Frank, and Krivisky. 3,112,960.

Krizman Mfg. Co., Inc.: *See*—
Krizman, Steve. 3,103,370.
Krizman, Steve. 3,111,334.

Krizman, Steve. Ball joint assembly for wheel suspension. 3,074,736, 1–22–63, Cl. 280—96.1.

Krizman, Steve, to Krizman Mfg. Co., Inc. Front wheel suspension. 3,103,370, 9–10–63, Cl. 280—96.1.

Krizman, Steve, to Krizman Mfg. Co., Inc. Automobile idler arm construction. 3,111,334, 11–19–63, Cl. 280—95.

Krober, Klaus. Tone arm for phonographs. 3,078,100, 2–19–63, Cl. 274—23.

Krochta, Harry, to The Ducon Co., Inc. Gas scrubber. 3,093,468, 6–11–63, Cl. 55—238.

Krodel, Leander J., to General Motors Corp. Cylinder liner bore gauge. 3,090,125, 5–21–63, Cl. 33—143.

Kroeckel, Alfred J., to Viber Co. Laminated air turbine rotor and method of making the same. 3,074,151, 1–22–63, Cl. 29—156.8.

Kroekel, Rolf H. W., to Sealol Corp. Rotary shaft seal. 3,082,011, 3–19–63, Cl. 277—26.

Kroekel, Rolf H. W., to Sealol, Inc. Laminated metallic bellows. 3,090,403, 5–21–63, Cl. 137—793.

Kroeper, Hugo, W. Fuchs, and R. Platz, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Continuous production of phthalodinitriles. 3,076,014, 1–29–63, Cl. 260—465.

Kroeper, Hugo, and R. Platz, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Process and apparatus for the catalytic cracking of hydrocarbons. 3,082,165, 3–19–63, Cl. 208—120.

Kroff, Eugene, to Peterson Filters and Engineering Co. Drum filter. 3,113,926, 12–10–63, Cl. 210—391.

Kroffke, Kenneth K., to Airmatic valve, Inc. Pressure relief valve. 3,099,997, 8–6–63, Cl. 137—493.8.

Krogh Industries, Inc.: *See*—
Wroten, Don I. 3,083,390.

Krogh, Lester C., to Minnesota Mining and Mfg. Co. Method of splicing coated flexible films and product thereof. 3,074,789, 1–22–63, Cl. 51—293.

Krogman, Alfred W. Filter. 3,095,370, 6–25–63, Cl. 210—133.

Krogstad, Warren H.: *See*—
Smalley, Richard D., and Krogstad. 3,088,523.

Krohn, Fred A., to The Anderson Co. Tool. 3,071,849, 1–8–63, Cl. 29—270.

Krohn, Fred A., to The Anderson Co. Windshield wiper blade assembly. 3,083,395, 4–2–63, Cl. 15—250.42.

Krohn, Fred A., to The Anderson Co. Windshield wiper assembly. 3,084,372, 4–9–63, Cl. 15—250.36.

Krohn, Earl H., to Krohn Hite Laboratories, Inc. Power amplifier. 3,092,783, 6–4–63, Cl. 330—98.

Krohn, Fred W., to Walter Machine and Screw Co. Industrial type reel and balancer. 3,093,342, 6–11–63, Cl. 242—107.5.

Krohn-Hite Laboratories, Inc.: *See*—
Krohn, Earl H. 3,092,783.

Krohs, Walter, K. Schmitt, L. Ther, and E. Lindner, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning. N-aminophenylethyl-2,2-diphenyl-alkylamines. 3,116,330, 12–31–63, Cl. 260—570.

Kroko, Leonard J., to Link-Belt Co. Silicon rectifier assembly comprising a heat conductive mounting base. 3,116,442, 12–31–63, Cl. 317—234.

Krol, Harry J., and L. C. Hoy, to Indak Mfg. Corp. Multiple position rotary switch. 3,110,774, 11–12–63, Cl. 200—11.

Kroll, Cornelius and N. M., to Speed Park, Inc. Transferring apparatus. 3,071,016, 1–1–63, Cl. 74—102.

Kroll, Cornelius and N. M., to Speed Park, Inc. Drive mechanism. 3,087,346, 4–30–63, Cl. 74—102.

Kroll, Norman M.: *See*—
Kroll, Cornelius and N. M. 3,071,016.
Kroll, Cornelius and N. M. 3,087,346.

Kroll, Robert L., to E. I. du Pont de Nemours and Co. Apparatus for cold-drawing yarn. 3,073,001, 1–15–63, Cl. 28—71.3.

Kroll, William, to Lockheed Aircraft Corp. Synchronization means for decommutating a non-return to zero pam signal. 3,109,069, 10–29–63, Cl. 179—15.

Kroll, Wolf R.: *See*—
Köster, Roland, Kroll, and Ziegler. 3,074,986.
Ziegler, Karl, Köster, and Kroll. 3,074,987.

Krolopp, Rudolph W.: *See*—
Stastny, Edwin O., Reinertson, and Krolopp. 3,087,013.

Krom, Myron E., to Bell Telephone Laboratories, Inc. Telephone line concentrator system. 3,093,708, 6–11–63, Cl. 179—18.

Krombach, Walter: *See*—
Schmieder, Felix, Hildebrandt, and Krombach. 3,112,551.

Krombos, Donald R.: *See*—
Lambert, Richard H., and Krombos. 3,083,271.

Krömer, Karl: *See*—
Loose, Erhard, Krömer, and Hahn. 3,095,793.

Kromm, Alvin: *See*—
Hubbard, John L., and Kromm. 3,070,983.

Kromschroder, G., Aktiengesellschaft: *See*—
Hassa, Richard. 3,091,285.

Kron, Carl M., to Phillips Petroleum Co. Production of high energy fuel. 3,104,266, 9–17–63, Cl. 260—666.

Kron, Harold O.: *See*—
Bennett, Richard A., and Kron. 3,090,360.

Kron, Martin W., to Eastman Kodak Co. Tension control device. 3,081,961, 3–19–63, Cl. 242—75.47.

Kron, Saul. Golf game. 3,082,005, 3–19–63, Cl. 273—181.

Krone, Martin. Arm rest and storage receptacle. 3,104,131, 9–17–63, Cl. 297—414.

Krone, Russell R. Ignition system for combustion engines. 3,087,000, 4–23–63, Cl. 123—146.5.

Kronenberg, Marvin, and J. K. Moore, to Columbia Broadcasting System, Inc. Character generator apparatus. 3,109,166, 10–29–63, Cl. 340—324.

Kronheim, John H., to Kidde Mfg. Co., Inc. Apparatus for handling fluid under pressure. 3,085,599, 4–16–63, Cl. 141—18.

Kronig, Walter, A. Meckelburg, G. Scharfe, B. Schleppinghoff, and W. Schmidt, to Farbenfabriken Bayer Aktiengesellschaft. Process for the selective hydrogenation of hydrocarbon mixtures. 3,075,917, 1–29–63, Cl. 208—255.

Kronig, Walter, W. Bayer, H.-J. Wahl, and L. Bacher, to Farbenfabriken Bayer Aktiengesellschaft. Fittings for a fluidized bed reactor. 3,099,538, 7–30–63, Cl. 23—288.

Kroning, Robert D., and J. Orost, to Bell Telephone Laboratories, Inc. Intercepting trunk circuit. 3,090,835, 5–21–63, Cl. 179—6.

Kroninger, Nolan R., to United States of America, Navy. Multi-speed servo system crossover network. 3,093,777, 6–11–63, Cl. 318—30.

Kronoff, Clarence R., to Crompton & Knowles Corp. Shuttle checking means for loom. 3,096,794, 7–9–63, Cl. 139—185.

Kronogard, Sven-Olof, to Volvo, Aktiebolaget. Hydrodynamic transmission contrivances. 3,073,181, 1–15–63, Cl. 74—677.

Kronogard, Sven-Olof. Control system for hydraulically operated variable speed transmissions for motor vehicles. 3,095,763, 7–2–63, Cl. 74—754.

Kronsbein, Curt, to Eugen Bellmann Erben oHG. Form for stockings and the like. 3,096,007, 7–2–63, Cl. 223—75.

Kronstein, Alexandre. Tire. 3,084,732, 4–9–63, Cl. 152—212.

Kroon, James L., and R. D. Blue, to The Dow Chemical Co. Electrolytic preparation of sodium. 3,072,544, 1–8–63, Cl. 204—68.

Kropa, Edward L., to W. R. Grace & Co. Solid-phase polymerization process of methacrylate monomers, catalyzed by aluminum triethyl. 3,094,513, 6–18–63, Cl. 260—89.5.

Kropa, Edward L., to W. R. Grace & Co. Polymerization of methyl methacrylate using catalyst combination of trialkyl aluminum and pyromellitocyanine. 3,114,740, 12–17–63, Cl. 260—89.5.

Köpfl, Hans, to Siemens-Schuckertwerke Aktiengesellschaft. Detachably sealed closure for separating two fluid media, particularly in a nuclear reactor. 3,114,471, 12–17–63, Cl. 220—55.

Kropp Forge Co.: *See*—
Lengyel, Charles N. 3,095,753.

Kropp, Willis A.: *See*—
Roters, Herbert C., Kropp, and Harasym. 3,092,762.

Krotz, Alvin S., to Dexter Axle Co., Inc. Automatic trailer brake system. 3,109,521, 11–5–63, Cl. 188—112.

Krousch, Edward G.: *See*—
Schulze, Robert E., Dicktel, and Krousch. 3,078,224.

Krouse, John P.: *See*—
Vilnerding, John B., and Krouse. 3,082,742.

Krouse, John P., to Ingersoll-Rand Co. Pilot valve control reverse valve. 3,093,360, 6–11–63, Cl. 253—2.

Krowley, Cass. Hair curling rod. 3,113,578, 12–10–63, Cl. 132—40.

Kroyer, Karl K. K. Road construction materials. 3,073,708, 1–15–63, Cl. 106—52.

Kruck, Ralph E., to Metal Fabrications, Inc. Spray devices. 3,107,826, 10–22–63, Cl. 222—394.

Kruckenberg, Perry L., to McCulloch Corp. Two-cycle crossflow internal combustion engine with fuel injection. 3,074,388, 1–22–63, Cl. 123—32.

Krueger, Alfred P., to Minnesota Mining and Mfg. Co. Dispenser for tape having paper backing. 3,077,919, 2–19–63, Cl. 156—584.

Krueger, Alfred P., to Minnesota Mining and Mfg. Co. Tape dispensers. 3,102,670, 9–3–63, Cl. 225—43.

Krueger, Arthur C., to Tri-Tlx, Inc. Road line markers. 3,105,457, 10–1–63, Cl. 116—63.

Krueger, Clarence L.: *See*—
Carr, Duane B., and Krueger. 3,076,172.

Krueger, Harvey: *See*—
Farmer, John M. 3,096,167.

Krueger, Henry A., to Central Coil Co., Inc. Mechanical mileage recorder. 3,109,251, 11–5–63, Cl. 40—68.

Krueger, James R. Water softeners. 3,109,810, 11–5–63, Cl. 210—138.

Krueger, James S. Filter construction. 3,083,157, 3–26–63, Cl. 210—505.

Krueger, Loren L., to Minneapolis-Honeywell Regulator Co. Defrost control apparatus. 3,097,502, 7–16–63, Cl. 62—156.

Krueger, Oscar E., to Continental Freezers of Illinois, Division of F. H. Prince & Co., Inc. Portable conveyer path. 3,081,857, 3–19–63, Cl. 193—35.

Krueger, Robert C., to Pittsburgh Plate Glass Co. Resinous compositions comprising a styrene polymer and an aldehyde modified interpolymer of an acid amide and a vinyl monomer and articles coated therewith. 3,108,088, 10–22–63, Cl. 260—45.2.

Krueger, Roland F., to Union Oil Co. of California. Apparatus for underground retorting. 3,113,623, 12–10–63, Cl. 166—59.

Krueger, Roland F., and G. P. Maly, to Union Oil Co. of California. Subterranean well treatments using a vibrational field. 3,113,621, 12–10–63, Cl. 166—20.

Krueger, Stanley E., to U.S. Industries, Inc. Stocking stretch measuring machine. 3,099,152, 7–30–63, Cl. 73—95.

Krueger, Theodore H. Box size controlled tape dispenser. 3,076,587, 2–5–63, Cl. 226—135.

Krueger, Theodore H. Tape serving machine. 3,097,776, 7–16–63, Cl. 226—11.

Kruesi, Paul R.: *See*—
Bronnagh, Hugh J., and Kruesi. 3,089,759.

Kruesi, Paul R., to Vitro Corp. of America. Concentration of rare earths. 3,089,758, 5–14–63, Cl. 23—296.

Krug, Herbert A.: *See*—
Alexander, Norman J., and Krug. 3,070,870.

Krug, Herbert A. Thread removing apparatus. 3,105,284, 10–1–63, Cl. 26—11.

Krug, John E., and E. F. Hubacker, to Whirlpool Corp. Home appliance. 3,103,109, 9–10–63, Cl. 62—419.

Krug, Martin, and H. W. Theobald. Supporting means and method for toothbrushes and the like. 3,109,619, 11–5–63, Cl. 248—360.

Krug, Robert H.: *See*—
Tierney, Raymond B., and Krug. 3,074,886.

Krug, William H.: *See*—
Gibbs, Thomas B., and Krug. 3,078,753.

Krug, William H., to Gibbs Mfg. & Research Corp. Percussion system for an electronic musical instrument. 3,073,204, 1–15–63, Cl. 84—1.26.

Krüger, Cornelius J., to himself and South African Iron and Steel Industries Corp. Ltd. Method and means for producing holes in metallic members. 3,111,977, 11–26–63, Cl. 153—2.

Kruger, Curtis E.: *See*—
Brown, Harry W., Jacoby, and Kruger. 3,083,309.

Krüger, Fritz, F. Mainz, and G. Rodloff, to Libbey-Owens-Ford Glass Co. Apparatus for the production of welded double glass sheets. 3,103,429, 9–10–63, Cl. 65—152.

Kruger, Herbert W., to Lamb-Weston, Inc. Micro-pressurometer. 3,115,773, 12–31–63, Cl. 73—141.

Kruger, James B., and R. L. Bordeau, to Philip Morris, Inc. Adjustable injector razor. 3,111,756, 11–26–63, Cl. 30—63.

Kruger, Michael H., to Smithcraft Corp. Ceiling illuminating system. 3,094,285, 6–18–63, Cl. 240—9.

Kruger, Ray H.: *See*—
Merkley, Thurman G., and Kruger. 3,099,025.

Kruger, Rine, Jr., to General Motors Corp. Production of filled polyolefin molding compound and the molding of articles therefrom. 3,092,438, 6–4–63, Cl. 18—47.5.

Kruithof, Anton M.: *See*—
Schoenmakers, Hendrikus, Kruithof, and Ansems. 3,078,694.

Krukziener, Maurits, to Shell Oil Co. Nitro-aromatic telomers and oils containing them. 3,116,250, 12–31–63, Cl. 252—51.5.

Krull, Ruth M. Corrugated paper hair curler. 3,108,604, 10–29–63, Cl. 132—39.

Krumholz, Pawel: *See*—
Bril, Kazimierz J., and Krumholz. 3,078,142.
Bril, Kazimierz J., and Krumholz. 3,104,910.
Gottdenker, Friedrich, and Krumholz. 3,111,375.

Krumholz, Pawel. Process for separating cerium from trivalent rare earths. 3,112,990, 12–3–63, Cl. 23—14.5.

Krumme, David F., Jr.: *See*—
Radov, Samuel J. 3,095,575.

Krup, Donald E., to The Fred Mills Corp. Soup or beverage dispenser. 3,105,616, 10–1–63, Cl. 222—129.2.

Krupp, Carroll P., to The B. F. Goodrich Co. Method of making filament-wound pressure vessels. 3,112,234, 11–26–63, Cl. 156—169.

Krupp, Carroll P., and C. H. Wenger, to The B. F. Goodrich Co. Container winding apparatus. 3,104,839, 9–24–63, Cl. 242—2.

Krupp, Frederick W., to Gudebrod Brothers Silk Co., Inc. Dental floss package. 3,094,209, 6–18–63, Cl. 206—63.5.

Krupp, Robert F., to Gerber Products Co. Driving mechanism for driving a plurality of machines in synchronism and in phase. 3,087,353, 4–30–63, Cl. 74—665.

Krupp, Robert F., and J. K. Wagner, to Gerber Products Co. Angular feed carton flap opening machine. 3,075,332, 1–29–63, Cl. 53—382.

Krupp, Robert F., and J. K. Wagner, to Gerber Products Co. Pallet construction for case unloading machine. 3,086,668, 4–23–63, Cl. 214—309.

Kruppa, William J., to American Cyanamid Co. Carbonization of coal. 3,094,467, 6–18–63, Cl. 202—22.

Krusche, Edwin: *See*—
Kohl, Christoph, Schutz, Poppe, and Krusche. 3,113,824.

Kruse, Carl W., and R. F. Kleinschmidt, to Phillips Petroleum Co. Amines and unsaturated ketones from tertiary acetylenic amines. 3,094,563, 6–18–63, Cl. 260—583.

Kruse, Georg: *See*—
Zühlsdorf, Werner, Kruse, and Behrmann. 3,108,206.

Kruse, Harold L.: *See*—
Mathison, Victor G., and Kruse. 3,099,809.

Kruse, Jurgen M., to E. I. du Pont de Nemours & Co. Process for the selective recovery of uranium directly from uranium-bearing ores. 3,089,885, 5–14–63, Cl. 260—429.1.

Kruse, Niels A. Cultivator. 3,078,929, 2–26–63, Cl. 172—302.

Krüssmann, Adolf, to Sulzer Freres Societe Anonyme. Boiler control system. 3,077,739, 2–19–63, Cl. 50—105.

Kruzan, Albert W., to Borg-Warner Corp. Clothes drying machine. 3,114,653, 12–17–63, Cl. 118—48.

Krynak, Michael S., to United States Steel Corp. Vehicle warning bell. 3,072,092, 1–8–63, Cl. 116—60.

Krynski, John, and R. E. Engwall, to Ametek, Inc. Filter. 3,080,063, 3–5–63, Cl. 210—330.

Krysiuk, Genadij: *See*—
Klotz, Herman J., Droege, and Krysiuk. 3,084,856.

Krzes, Casey S. Battle game. 3,085,803, 4–16–63, Cl. 273—130.

Krzesinski, Boleslaw: *See*—
Dawson, John B., and Krzesinski. 3,084,993.
Reeder, Frank, and Krzesinski. 3,106,763.

Krzikalla, Hans: *See*—
Eisele, Julius, Federkiel, Krehbiel, Krzikalla, Lange, and Pohlemann. 3,098,063.

Krzyzanowski, Robert A., and R. H. Furtney, to Milprint, Inc. Carton construction and blank therefor. 3,077,978, 2–19–63, Cl. 206—15.1.

Ksionzak, Benjamin A.: *See*—
Ulicky, Paul, and Ksionzak. 3,091,067.

Ku, Ta Cheng: *See*—
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Kuba, Richard E., to North Electric Co. Current supply apparatus. 3,079,546, 2–26–63, Cl. 323—50.

Kuba, Samuel: *See*—
Drexinger, Robert M., and Kuba. 3,098,494.

Kuba, Samuel, to Western Electric Co., Inc. Ribbon feeding and cutting apparatus. 3,072,002, 1–8–63, Cl. 83—153.

Kubbowski, Edward J.: *See*—
Keller, Ernest, Jutzi, and Kubkowski. 3,112,844.

Kubelka, Alois, and V. Svoboda, to Sdruzeni podniku textilniho strojirenstvi. Method and apparatus for quilting and interlacing of textile materials. 3,079,778, 3–5–63, Cl. 66—85.

Kubik, Marian L., to Lambhill Ironworks Ltd. Apparatus for parking of vehicles or the storage of articles. 3,115,257, 12–24–63, Cl. 214—16.

Kubik, Paul P., to The Yale and Towne Mfg. Co. Hotel room lock. 3,115,357, 12–24–63, Cl. 292—5.

Kubiliunas, Ignas B., to Polytop Corp. Pouring spout construction. 3,089,626, 5–14–63, Cl. 222—484.

Kubilos, Charles A., to Textron Inc. Hydraulic system for traversing winders. 3,109,606, 11–5–63, Cl. 242—158.4.

Kubinski, John J.: *See*—
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Kubitzek, Alfred: *See*—
Kremp, Rudolf, Wagner, Biedermann, and Kubitzek. 3,097,581.

Kubitzek, Alfred, to AGFA Aktiengesellschaft. Motor control with battery checking device. 3,110,854, 11–12–63, Cl. 318—490.

Kübler, Friedrich: *See*—
Huber, Richard, and Kübler. 3,091,814.

Kubli, Robert A., and W. B. Sharav, to Union Carbide Corp. Electric arc welding and wire therefor. 3,097,294, 7–9–63, Cl. 219—145.

Kubli, Robert A., and W. B. Sharav, to Union Carbide Corp. Submerged-melt welding and composition therefor. 3,100,829, 8–13–63, Cl. 219—73.

Kubo, Tsunesuke, and M. Kawamura. Absorption cooling apparatus for automobile. 3,077,083, 2–12–63, Cl. 62—239.

Kubodera, Hisayoshi. Method and apparatus for drying solvent-containing materials while recovering vaporized solvent. 3,087,254, 4–30–63, Cl. 34—16.

Kubodera, Hisayoshi. Device for limiting movement of kettle handles and the like. 3,113,696, 12–10–63, Cl. 220—96.

Kubota, Isamu: *See*—
Yanagi, Akio, Furukawa, Ataka, and Kubota. 3,111,891.

Kubota, Ryomei, T. Saito, N. Kondo, and M. Odomari, to Asahi Shimbunsha Publishing Co., Ltd. System for removing influence of momentary break in the communication line to the received picture in the facsimile equipment and the like. 3,112,361, 11–26–63, Cl. 178—6.6.

Kubota, Takeo: *See*—
Nakane, Takashi, Kubota, and Umezawa. 3,108,010.

Kubovy, Joseph V.: *See*—
Bogdanski, John J., and Kubovy. 3,084,490.

Kucera, Clare H.: *See*—
Monroe, Roger F., Kucera, and Goodwin. 3,108,069.
Monroe, Roger F., Kucera, Oakes, and Johnston. 3,077,454.

Kucera, Clare H., and A. N. Barron, to The Dow Chemical Co. Fluid loss control in hydraulic cement slurries. 3,104,704, 9–24–63, Cl. 166—31.

Kucera, Clement M., and D. L. Del'Homme, to Reed Roller Bit Co. Circulation ports for drill bit. 3,099,324, 7–30–63, Cl. 175—339.

Kucera, Joseph B., ⅛ to R. L. Lowell, and ⅛ to E. M. McElhinney. Material cutting and chopping apparatus. 3,084,493, 4–9–63, Cl. 56—24.

Kucera, Joseph B., ⅛ to R. L. Lowell, and ⅛ to E. M. McElhinney. Material spreader. 3,084,942, 4–9–63, Cl. 275—6.

Kucera, Joseph B., ⅛ to R. L. Lowell, and ⅛ to E. M. McElhinney. Material handling apparatus. 3,095,202, 6–25–63, Cl. 275—6.

Kucera, Joseph B., and E. M. McElhinney, ½ to R. L. Lowell. Material beating and spreading apparatus. Re. 25,503, 12-24-63, Cl. 275—6.

Kucera, Thomas J., to Charles Bruning Co., Inc. Electrophotographic recording member and process of producing same. Re. 25,444, 9-17-63, Cl. 96—1.

Kucharski, Thaddeus W.: *See*—
Bleier, Ernest L., and Kucharski. 3,098,177.

Kuchemann, Dietrich, G. M. Lilley, and E. C. Maskell, to Power Jets (Research and Development) Ltd. Aircraft. 3,090,584, 5-21-63, Cl. 244—42.

Kuchenbecker, Morris W., to American Can Co. Container. 3,073,503, 1-15-63 Cl. 229—17.

Kuchenbecker, Morris W., to American Can Co. Method of producing a container body having a side seam. 3,078,768, 2-26-63, Cl. 93—36.6.

Kuchenbecker, Morris W., to American Can Co. Container body having a side seam. 3,079,059, 2-26-63, Cl. 229—14.

Kuchenbecker, Morris W., to American Can Co. Carrying handle for tied together containers. 3,080,965, 3-12-63, Cl. 206—65.

Kuchenbecker, Morris W., to American Can Co. Can package. 3,080,966, 3-12-63, Cl. 206—65.

Kuchenbecker, Morris W., to American Can Co. Container. 3,081,016, 3-12-63, Cl. 229—17.

Kuchenbecker, Morris W., to American Can Co. Method of producing a collapsed container and a unitary blank therefor. 3,097,574, 7-16-63, Cl. 93—36.

Kuchenbecker, Morris W., to American Can Co. Ready opening dispensing container. 3,107,038, 10-15-63, Cl. 229—17.

Kuchenbecker, Raymond, Sr., to Butler Products Co. Vise. 3,107,909, 10-22-63, Cl. 269—89.

Kucher, Andrew A., to Ford Motor Co. Levacar guidance system. 3,086,479, 4-23-63, Cl. 104—134.

Kuchera, Joseph P., to Tonalyzer, Inc. Method and apparatus for obtaining sound. 3,075,044, 1-22-63, Cl. 179—1.

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Kuchinsky, Saul, to Burroughs Corp. Magnetron tubes. 3,088,045, 4-30-63, Cl. 313—73.

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Coffee, Ralph E., and Kucia. 3,108,916.

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Kuckelberg, Christian W.: *See*—
Wright, George W., Jauch, and Kruckeberg. 3,099,367

Kuckelhahn, Kurt: *See*—
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Kuckes, Arthur F.: *See*—
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Kuckhoff, John C., to The Syracuse Stamping Co., Inc. Inked ribbon cartridge casing. 3,075,627, 1-29-63, Cl. 197—151.

Kucmerosky, Theodore L.: *See*—
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Kucmerosky, Theodore L., and M. E. Peterson, to The Bendix Corp. Spring adjusting mechanism for flow divider valve. 3,098,642, 7-23-63, Cl. 267—1.

Kucsan, John: *See*—
Kline, Benjamin B., and Kucsan. 3,084,073.

Kuderna, Jerome G.: *See*—
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Kuecken, John A., to United States of America, Air Force. Height finding mechanism. 3,087,154, 4-23-63, Cl. 343—10.

Kuecken, John A., to Avco Corp. Polarization diversity modulation. 3,111,668, 11-19-63, Cl. 343—100.

Kuecken, John A., to Avco Corp. Method and apparatus for measuring altitude. 3,113,309, 12-3-63, Cl. 343—14.

Kuecken, John A., to Avco Corp. Aircraft collision warning system. 3,114,147, 12-10-63, Cl. 343—7.

Kuehl, Emmett L. Lining apparatus. 3,086,290, 4-23-63 Cl. 33—41.

Kuehl, Ernest W., and R. D. Ewing, to Cannon Electric Co. High fluid pressure electrical connector. 3,115,380, 12-24-63, Cl. 339—117.

Kuehl, Heinrich, to Daimler-Benz Aktiengesellschaft. Heat transfer plate construction. 3,079,994, 3-5-63, Cl. 165—166.

Kuehler, Jack D.: *See*—
Clauer, Calvin K., and Kuehler. 3,109,062.

Kuehlman, Robert F. Slabber for haylage and similar materials. 3,110,245, 11-12-63, Cl. 100—139.

Kuehn, Andrew, III, to Systematics, Inc. Engine starter and temperature control apparatus for automotive vehicles. 3,102,961, 9-3-63, Cl. 290—37.

Kueneman, Don: *See*—
Kueneman, John R. and D. 3,080,126.

Kueneman, John R. and D. Bearing seals for gyratory crushers. 3,080,126, 3-5-63, Cl. 241—216.

Kueneman, Ray W., and J. E. Conrad, to J. R. Simplot Co. Production of dehydrated mashed potatoes. 3,085,019, 4-9-63, Cl. 99—207.

Kueny, Kenneth E., to Johnson Products, Inc. Mechanical tappet. 3,089,473, 5-14-63, Cl. 123—90.

Kuerston, Richard D., to Phillips Petroleum Co. Production and recovery of ethylene. 3,095,293, 6-25-63, Cl. 62—23.

Kuether, Siegfried. Spinning reel. 3,105,650, 10-1-63, Cl. 242—84.2.

Kuffel, Eugene F.: *See*—
MacLean, John A., III, and Kuffel. 3,078,899.

Kuffer, Clarence O., to Aerosol Research Co. Aerosol valve assembly. 3,074,601, 1-22-63, Cl. 222—394.

Kufrovich, Stephen S. Safety panel laminating apparatus. 3,113,347, 12-10-63, Cl. 18—36.

Kugel, Fritz, and H. Muller, to J. M. Voith G.m.b H. Hydrodynamic brake and method of operating the same. 3,072,222, 1-8-63, Cl. 188—90.

Kugler, Alfred E., to General Motors Corp. Parting agent for sprayed metal shells and method for making such shells. 3,077,647, 2-19-63, Cl. 22—193.

Kugler, Emanuel. Method of making draw string bags. 3,079,844, 3-5-63, Cl. 93—35.

Kugler, Emanuel. Draw string bags. 3,079,966, 3-5-63, Cl. 150—11.

Kugler, Emanuel. Reinforced plastic bag and method of making the same. 3,084,731, 4-9-63, Cl. 150—11.

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Kugler, Emanuel. Drawstring bag. 3,093,295, 6-11-63, Cl. 229—63.

Kugler, Emanuel. Plastic tubular bag. 3,096,013, 7-2-63, Cl. 229—55.

Kugler, Emanuel. Merchandise package and container therefor. 3,101,887, 8-27-63, Cl. 229—62.

Kugler, Emanuel. Drawstring bag. 3,114,497, 12-17-63, Cl. 229—63.

Kugler, Robert L. Timer mechanism. 3,078,355, 2-19-63, Cl. 200—24.

Kugler, Tibor, and K. Miklossy, to Kralovopolska Strojirna, zavody Chemickych zarizeni, parodni podnik. Method and apparatus for the maintenance of the arc column in the core of a liquid vortex. 3,097,292, 7-9-63, Cl. 219—121.

Kuhar, Ludwig J.: *See*—
Habedank, Gustav J., and Kuhar. 3,074,367.

Kuhar, Ludwig J., to The Singer Mfg. Co. Rotary hook for sewing machines. 3,083,659, 4-2-63, Cl. 112—228.

Kuhar, Ludwig J., to The Singer Mfg. Co. Method of forming a notch in a bobbin case carrier. 3,087,388, 4-30-63, Cl. 90—11.

Kuhas, Engelbert: *See*—
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Kuhberg, Olaf E. O. Telephone headphone attachment. 3,072,755, 1-8-63, Cl. 179—146.

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Kuhl, Bernard A., to The Thew Shovel Co. Front end loader. 3,076,571, 2-5-63, Cl. 214—140.

Kuhl, Bernard R.: *See*—
Tappan, Peter W., Vaccaro, and Kuhl. 3,103,911.

Kühl, Enver: *See*—
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Kuhl, Pete. Fluid injecting drill. 3,071,200, 1-1-63, Cl. 175—207.

Kuhle, Engelbert: *See*—
Homeyer, Bernhard, and Kühle. 3,093,472.
Wegler, Richard, and Kuhle. 3,080,368.

Kühle, Engelbert, to Farbenfabriken Bayer Aktiengesellschaft. Process for the production of organic isocyanates. 3,099,673, 7-30-63, Cl. 260—453.

Kuhle, Engelbert, F. Grewe, G. Unterstenhofer, M. Boness, and R. Wegler, to Farbenfabriken Bayer Aktiengesellschaft. Methods of combating mites and fungi. 3,096,237, 7-2-63, Cl. 167—30.

Kuhlenkamp, Alfred, to Mathema Corp. Reg. Trust. Ordnance sight. 3,091,035, 5-28-63, Cl. 33—49.

Kuhles, Edward K., to Ladish Co. Clean in place sanitary valve. 3,110,471, 11-12-63, Cl. 251—318.

Kuhlman, Arthur L. Dish liners. 3,076,579, 2-5-63, Cl. 220—65.

Kuhlman, Irene D. Correction of typed errors on carbon copies. 3,096,867, 7-9-63, Cl. 197—181.

Kuhlmann, August M., to Union Carbide Corp. Process for the production of medium- to low carbon ferromanganese. 3,074,793, 1-22-63, Cl. 75—133.5.

Kuhlmann, August M., to Union Carbide Corp. High-carbon ferromanganese process. 3,083,092, 3-26-63, Cl. 75—51.

Kuhn, Albert J., and J. J. O'Connell, to General Motors Corp. Refrigerating apparatus including defrost means. 3,110,158, 11-12-63, Cl. 62—156.

Kuhn, Carl S., Jr., to Socony Mobil Oil Co., Inc. Procedure of in-situ combustion for recovery of hydrocarbon material. 3,111,986, 11-26-63, Cl. 166—11.

Kuhn, Gerhard: *See*—
Carlson, Byron, and Kuhn. 3,115,908.

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Kühn, Hans-Robert: *See*—
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Kuhn, James O., to Kenner Products Co. Toy slide projector. 3,100,420, 8-13-63, Cl. 88—26.

Kuhn, Leroy B., and R. A. Park, to The Firestone Tire & Rubber Co. Process of applying coating of unplasticized polyvinyl chloride resin to a substrate. 3,078,179, 2-19-63, Cl. 117—47.

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Kuhn, Peter M.: *See*—
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Kuhn, Ralph F., Jr., to North American Aviation, Inc. Yoke and gimbal. 3,073,630, 1-15-63, Cl. 287—1.

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Kuhnapfel, Friedhelm: *See*—
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Kuhnapfel, Robert H., and W. Sardo, to The Bendix Corp. Stem assembly for electrical components. 3,109,054, 10-29-63, Cl. 174—152.

Kuhne, Bryan F.: *See*—
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Kuhne, Bryan F., to Clary Corp. Detent type actuator for calculating machine. 3,094,278, 6-18-63, Cl. 235—60.

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Kühne, Rudolf, to Hasler A.G. Werke fur Telephonie und Frazionsmechanik. Bistable multivibrator circuit. 3,112,408, 11-26-63, Cl. 307—88.

Kuhnel, Paul T., to Kimberly-Clark Corp. Improved techniques for the high speed blade coating of paper. 3,088,842, 5-7-63, Cl. 117—7.

Kuhnis, Hans H.: *See*—
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Kuhnis, Hans H., R. Denss, and C. H. Eugster, to Geigy Chemical Corp. Derivatives of hydrogenated pyridones. 3,073,838, 1-15-63, Cl. 260—297.

Kuhnl, Leopold K.: *See*—
Preis, Carl G., and Kuhnl. 3,071,857.

Kuhnl, Leopold K., to Eversharp, Inc. Safety razor blade dispenser. 3,093,266, 6-11-63, Cl. 221—232.

Kuhnle, Ernst, to Bizerba-Werke Wilhelm Kraut KG. Price indicating weighing apparatus. 3,092,314, 6-4-63, Cl. 235—61.

Kuhnle, Ernst, and J. Schwarz, to Bizerba-Werke Wilhelm Kraut KG. Scale. 3,092,199, 6-4-63, Cl. 177—255.

Kuhrt, Friedrich: *See*—
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Kuhrt, Friedrich, to Siemens-Schuckertwerke Aktiengesellschaft. Magnetic data processing apparatus. 3,080,550, 3-5-63, Cl. 340—174.

Kuhrt, Friedrich, W. Engel, and C.-F. Wolf, to Siemens-Schuckertwerke Aktiengesellschaft. Transducer for magnetic recordings. 3,071,654, 1-1-63, Cl. 179—100.2.

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Kuhrt, Wesley A., to United Aircraft Corp. Rocket engine having fuel driven propellant pumps. 3,077,073, 2-12-63, Cl. 60—35.6.

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Kujan, Imrich: *See*—
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Kujanik, Joseph A., Jr. Rotary cap for containers. 3,084,834, 4-9-63, Cl. 222—512.

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Dick, Herbert K., Kulberg, and Swasey. 3,115,233.

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Kulicke, Frederick W., Jr., to Western Electric Co., Inc. Tubulation lead welding machine. 3,087,228, 4-30-63, Cl. 29—25.19.

Kulicke, Frederick W., Jr., to Kulicke & Soffa Mfg. Co. Automatic semi-conductor wafer scriber. 3,094,785, 6-25-63, Cl. 33—32.

Kulicke, Frederick W., Jr., to Kulicke and Soffa Mfg. Co. Fine wire bonding tool. 3,101,635, 8-27-63, Cl. 78—82.

Kulicke, Frederick W., Jr., G. H. Schwalm, and R. Ullman, to AMP Inc. Measuring and feeding apparatus. 3,098,596, 7-23-63, Cl. 225—117.

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Kulleke, Frederick C., to Amsted Industries Inc. Vertically interlocking railway car coupler. 3,073,459, 1-15-63, Cl. 213—153.

Kulleke, Frederick C., K. V. Livelsberger, and N. H. Sudeck, to Amsted Industries Inc. Carrier assembly for rotary coupler. 3,104,017, 9-17-63, Cl. 213—61.

Kulleke, Frederick C., Jr., to Amsted Industries Inc. Uncoupling rod mechanism for a rotary dump car. 3,114,462, 12-17-63, Cl. 213—166.

Kulleke, Frederick C., Jr., to Amsted Industries Inc. Uncoupling arrangement for a railway dump car. 3,115,975, 12-31-63, Cl. 213—166.

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Kulik, Metro D., and M. B. Neuworth, to Consolidation Coal Co. Dealkylation of alkylated thiophenols. 3,071,621, 1-1-63, Cl. 260—609.

Kulik, Metro D., and M. B. Neuworth, to Consolidation Coal Co. Sulfide cleavage. 3,071,625, 1-1-63, Cl. 260—609.

Kulik, Metro D., and M. B. Neuworth, to Consolidation Coal Co. Separation of higher alkylated triophenols and sulfides. 3,079,442, 2-26-63, Cl. 260—609.

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Kulka, Kurt, to Fritzsche Brothers, Inc. Space deodorant composition and method of using same. 3,074,892, 1-22-63, Cl. 252—305.

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Kulka, Thomas S. Tape housing and retainer. 3,078,987, 2-26-63, Cl. 206—59.

Kulka, Thomas S. Tape reel having friction reducing means. 3,099,414, 7-30-63, Cl. 242—71.8.

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Kulp, Harry B., and R. J. Jensen, to Oxford Ltd. Combined bed and lounge. 3,084,351, 4-9-63, Cl. 5—2.

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Kulyk, John W., to Rogers Brothers Corp. Liftable load wheel assemblage. 3,093,388, 6-11-63, Cl. 280—81.

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Kummer, Joseph T., to The Dow Chemical Co. Separation of gases of dissociated ammonia. 3,102,003, 8-27-63, Cl. 23—210.

Kummerman, Henri, to International MacGregor Organization (I.M.G.O.). Flap cover devices for closing open spaces such as shiphold hatchways, railway cars, and the like. 3,090,429, 5-21-63, Cl. 160—188.

Kummerman, Henri, to International MacGregor Organization. Multi-section closing or lift-lock devices having retractable bearing members. 3,092,065, 6-4-63, Cl. 114—202.

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Kump, Ernest J. Method of making drawings. 3,077,666, 2–19–63, Cl. 33—1.

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Kundikoff, Peter. Chick box construction. 3,108,569, 10–29–63, Cl. 119—19.

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Kunen, Alfred E., to Republic Aviation Corp. Propulsion engine with electromagnetic means to produce propellant acceleration. 3,091,079, 5–28–63, Cl. 60—35.5.

Kunetka, Lawrence S. Rubber printing plate with built-in curvature. 3,085,507, 4–16–63, Cl. 101—379.

Kunetka, Lawrence S. Mold for making flexible printing plates for corrugated board. 3,114,174, 12–17–63, Cl. 18—44.

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Kuntz, Irving, to Esso Research and Engineering Co. Cure of halogenated butyl rubber. 3,091,603, 5–28–63, Cl. 260—85.3.

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Kuntz, Louis E., to Phillips Petroleum Co. Temperature corrected volume measurement. 3,101,613, 8–27–63, Cl. 73—223.

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Kupelian, Vahey S., to United States of America, Navy. Ship deck level sensor. 3,097,565, 7–16–63, Cl. 89—1.7.

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Kushmuk, Walter P., and O. T. Handwerk, to Ammco Tools, Inc. Ridge reamer. 3,075,412, 1–29–63, Cl. 77—2.

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Kutzler, Robert J., to Minneapolis-Honeywell Regulator Co. Automatic pilot for aircraft. 3,104,083, 9–17–63, Cl. 244—77.

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Kuzell, Charles R., M. G. Fowler, L. Klein, and G. S. Hawkins, to Phelps Dodge Corp. Treating copper matte. 3,081,163, 3–12–63, Cl. 75—75.

Kuzma, Stephen, and M. R. Singer, to Allied Chemical Corp. Carboy package. 3,084,824, 4–9–63, Cl. 217—52.

Kuzma, Stephen, and M. R. Singer, to Allied Chemical Corp. Vertical and lateral interlocking packing case. 3,103,278, 9–10–63, Cl. 206—65.

Kuzminsky, Irving, to Entron, Inc. Variable attenuation sharp notch filter 3,074,026, 1–15–63, Cl. 330—144.

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Kvalnes, Donovan E., to E. I. du Pont de Nemours and Co. Stabilized chlorofluoroalkanes. 3,085,116, 4–9–63, Cl. 260—652.5.

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Kybal, Jan, J. Protiva, K. Strnadová, F. Stary, and Z. Cekan, to Spofa, Sdruzeni podniku pro zdravotnickou vyrobu. Method of artificial cultivation of ergot. 3,110,651, 11–12–63, Cl. 195—81.

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Laakso, Perttu V., to The Kendall Co. Autoclavable packaged compositions. 3,113,675, 12–10–63, Cl. 206—84.

Laakso, Thomas M., and J. L. R. Williams, to Eastman Kodak Co. Condensation products of polyvinylketones with hydrazides containing quaternary nitrogen groups. 3,096,305, 7–2–63, Cl. 260—65.

Laakso, Thomas M., and M. C. Petropoulos, to Eastman Kodak Co. Block copolycarbonates from bisphenol A and 4,4'-bis(hydroxyphenyl) methyl dihalophenyl methanes. 3,106,544, 10–8–63, Cl. 260—47.

Laakso, Thomas M., D. A. Buckley, and M. C. Petropoulos, to Eastman Kodak Co. Block copolymers of polycarbonates from bisphenol A and 4,4'-bis(hydroxyphenyl)-mono-halophenylmethanes or methyl substituted derivatives thereof, the latter compounds per se and homopolymers thereof. 3,106,545, 10–8–63, Cl. 260—47.

Laakso, Thomas M., and D. A. Buckley, to Eastman Kodak Co. Block copolymers of polycarbonates from bisphenol A and 4,4'-bis(hydroxyphenyl) naphthylmethanes, the latter compounds per se and homopolymers thereof. 3,106,546, 10–8–63, Cl. 260—47.

Laakso, Thomas M., D. A. Buckley, and J. R. King, to Eastman Kodak Co. Polyesters of carbonyldichlorides and process for polymerization and dope making. 3,110,698, 11–12–63, Cl. 260—47.

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La Beaume, Paul E., to Burroughs Corp. Magnetron beam tube noise generators. 3,076,118, 1–29–63, Cl. 315—8.6.

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Labergere, Jean L. A., to Societe O'Fakler & Cie. Method and apparatus for automatically controlling a sulfuric acid treatment plant for ferrous materials. 3,100,727, 8–13–63, Cl. 134—13.

Labino, Dominick, to Johns-Manville Fiber Glass, Inc. Apparatus for making mats of blown mineral fibers. 3,076,236, 2–5–63, Cl. 19—156.3.

Labino, Dominick, to Johns-Manville Fiber Glass Inc. Method for producing a gaseous blast and for producing glass fibers. 3,084,392, 4–9–63, Cl. 18—47.3.

Labino, Dominick, to Johns-Manville Corp. Method of producing a battery separator and product thereof. 3,085,126, 4–9–63, Cl. 136—146.

Labino, Dominick, to Johns-Manville Fiber Glass Inc. Apparatus for generating a high velocity hot gaseous blast. 3,089,538, 5–14–63, Cl. 158—99.

Labino, Dominick, to Johns-Manville Fiber Glass Inc. Process of making essentially pure silica fiber bats. 3,092,531, 6–4–63, Cl. 156—24.

Labino, Dominick, to Johns-Manville Corp. Method of producing redispersible fibers and mat product. 3,114,939, 12–24–63, Cl. 19—156.3.

Labino, Dominick, and L. V. Gagin, to Johns-Manville Fiber Glass Inc. Glass composition. 3,085,887, 4–16–63, Cl. 106—50.

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La Boda, Mitchell A., and C. R. Wiese, to General Motors Corp. Method and composition for etching titanium. 3,082,137, 3–19–63, Cl. 156—18.

La Boda, Mitchell A., and C. R. Wiese, to General Motors Corp. Electrolytic machining of metal surfaces. 3,088,889, 5–7–63, Cl. 204—143.

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Ziffer, Garret F. 3,084,314.

Laboratory Furniture Co.: *See*—
Liptay, John M. 3,095,836.

Laborde, Alden J., and T. S. Graham. Platform for afloat-condition drilling. 3,097,495, 7–16–63, Cl. 61—46.5.

Laborde & Kupfer: *See*—
Granier, Emile. 3,081,412.

Labounsky, Alex, to University Laboratories, Inc. Production of magnesium from silicates. 3,093,558, 6–11–63, Cl. 204—70.

La Branche, Roge P.: *See*—
Meyer, Jerome H., and La Branche. 3,085,578.

La Brecque, Raymond E.: *See*—
Kegg, Robert R., La Brecque and Warnke. 3,096,684.

Lab-Tek Plastics Co.: *See*—
McCormick, James B. 3,115,460.

Labussiere, Andre J., to Societe Anonyme des Ateliers d'Aviation Lou's Breguet. Aerodynes having a slipstream-assisted wing system. 3,096,043, 7–2–63, Cl. 244—12.

La Cas, George A., to Philip Morris Inc. Safety razor with swingable cover for single-edge blades, with cutting-angle adjusting means, and/or with handle adjusting means. 3,080,651, 3–12–63, Cl. 30—61.

La Cas, George A., to Philip Morris Inc. Razor blade dispenser. 3,080,998, 3–12–63, Cl. 221—232.

Lacey, Elbert M., Jr.: *See*—
Rohr, Fred H., and Lacey. 3,077,583.

Lacey, Elbert M., Jr., to Rohr Aircraft Corp. Refrigerated chuck and method for holding workpiece. 3,083,002, 3–26–63, Cl. 269—7.

Lacey, Frederick S. Ball toy. 3,106,397, 10–8–63, Cl. 273—58.

Lacey, Harold T.: *See*—
Long, Robert S., Lacey, and Kourtz. 3,072,454.

Lacey, Raymond M. Hinged lid cigarette package. 3,078,029, 2–19–63, Cl. 229—44.

Lach, John, to UARCO Inc. Folder for a collator. 3,086,768, 4–23–63, Cl. 270—79.

Lachance, Armand A. Interchangeable identification theft-proof handle construction. 3,115,720, 12–31–63, Cl. 40—308.

Lachance, Armand A., and S. Ciborowski; said Ciborowski assor. to said Lachance. Automatically actuated grocery cart. 3,112,832, 12–3–63, Cl. 214—46.

La-Chap, Inc.: *See*—
Lanier, Harold S. 3,093,428.

Lacker, Robert F., to The Black-Clawson Co. Centrifuge. 3,092,582, 6–4–63, Cl. 233—2.

Lacker, Robert F., and J. Baxter, Jr., to The Black-Clawson Co. Centrifuge. 3,081,026, 3–12–63, Cl. 233—2.

Lacki, Eugene J.: *See*—
Ames, Oliver, Jaeschke, and Lacki. 3,073,977.

Lacks, Hyman, and M. Lambert. Fire fighting apparatus. 3,106,247, 10–8–63, Cl. 169—25.

Laclede Metal Products Co.: *See*—
Carter, John R. 3,106,984.

La Combe, Edward M., and B. Stewart, to Union Carbide Corp. Chloro and nitro substituted 2-aryloxyethyl acrylate and methacrylates. 3,076,838, 2–5–63, Cl. 260—486.

La Combe, Edward M., and P. D. Berry, to Union Carbide Corp. Dyeable fiber-forming compositions of an acrylonitrile-containing polymer and a cyanoethyl acrylate ester/alkyl acrylate ester copolymer. 3,113,122, 12–3–63, Cl. 260—45.5.

La Combe, Edward M., B. Stewart, and W. P. Miller, to Union Carbide Corp. Process for producing acryloxyalkoxyarylsulfonic acid compounds. 3,114,767, 12–17–63, Cl. 260—486.

Laconia Malleable Iron Co., Inc.: *See*—
Clevett, Merton L. 3,080,024.

La Costa, Nicholas J.: *See*—
Barr, Irwin R., and La Costa. 3,106,131.

Lacoste, Jean R. Tennis-rackets and the like. 3,078,098, 2–19–63, Cl. 273—73.

Lacoste, Jean R. Racket for lawn-tennis and similar games. 3,086,777, 4–23–63, Cl. 273—73.

Lacoste, Roger G., H. D. Kluge, and E. E. Schallenberg, to Texaco Inc. Alkylene oxide reaction products. 3,087,956, 4–30–63, Cl. 260—461.

Lacour, Jean: *See*—
Le Baud, Pierre M., Lacour, and Ralevski. 3,079,315.

Lacoursiere, Joseph C.: *See*—
Fancher, Ray C., Kay, and Lacoursiere. 3,078,978.

Lacroix, Armand J.: *See*—
Bauger, Louis J., Lacroix, and Phelipon. 3,102,392.

Lacroix, Roger, to Commissariat a l'Energie Atomique. Methods of manufacturing microporous metallic membranes. 3,097,149, 7–9–63, Cl. 204—146.

La Crosse Cooler Co.: *See*—
Denzer, Romeo S. 3,104,779.

Lacy, John E., to Shell Oil Co. Underwater wellhead apparatus. 3,080,921, 3–12–63, Cl. 166—66.5.

Lacy, Walter J. Agility developing device. 3,096,979, 7–9–63, Cl. 272—57.

Ladbury, Harry L. Interchangeable sign frame. 3,084,464, 4–9–63, Cl. 40—142.

Ladd, Elbert C., to United States Rubber Co. N,N'-thiodimaleimide and N,N'-dithiodimaleimide. 3,071,592, 1–1–63, Cl. 260—326.3.

Ladd, Glenn W., to S. Nussbaum. Douche apparatus. 3,104,664, 9–24–63, Cl. 128—229.

Ladd, John H.: *See*—
Bond, Robert W., Ladd, Roberts, Keller, and Markey. 3,094,299.

Ladders, Inc.: *See*—
Scruby, Charles C. 3,103,258.

Ladegaard, Walter S.: *See*—
Heisterkamp, Herbert W., and Ladegaard. 3,090,998.

Ladell, Joshua, to North American Philips Co., Inc. X-ray spectrograph with movable detector constraine to rotate at a constant rate of change. 3,110,804, 11–12–63, Cl. 250—51.5.

Ladell, Joshua, and N. Spielberg, to North American Philips Co., Inc. X-ray spectral analysis. 3,072,789, 1–8–63, Cl. 250—51.5.

Ladell, Joshua, and N. Spielberg, to North American Philips Co., Inc. X-ray spectrograph. 3,102,196, 8–27–63, Cl. 250—51.5.

Ladell, Joshua, and K. Lowitzsch, to North American Philips Co., Inc. X-ray diffraction device with 360° rotatable specimen holder. 3,105,901, 10–1–63, Cl. 250—51.5.

Lader, Leon J.: *See*—
Blasberg, Lawrence A., Lader, and Young. 3,099,806.

Ladewig, Archie, Co.: *See*—
Hockett, Richard A., and Ladewig. 3,079,936.

Ladewig, Archie E.: *See*—
Hockett, Richard A., and Ladewig. 3,079,936.

Ladisch, Rolf K. Polarographic method and apparatus. 3,073,757, 1–15–63, Cl. 204—1.

Ladisch, Rolf K. Polarographic method and apparatus. 3,073,758, 1–15–63, Cl. 204—1.

Ladish Co.: *See*—
Erickson, John R., and Smith. 3,095,203.
Geary, Thomas A. 3,094,336.
Kuhles, Edward K. 3,110,471.
Werra, Bruno H., and Geary. 3,105,516.

Ladley, Roy S.: *See*—
Venable, Charles R., Jr., and Ladley. 3,087,515.

Ladman, George C.: *See*—
Moore, James M., and Ladman. 3,092,098.

Laegeler, Julius C., Jr.: *See*—
Beyerstedt, Ralph L., Laegeler, and Strader. 3,105,603.

Laemmle, David C. Chair bed with expandable side frames. 3,077,611, 2–19–63, Cl. 5—52.

Laemmle, David C. Convertible Ottoman bed. 3,085,257, 4–16–63, Cl. 5—29.

La Fabrique Nationale d'Arms de Guerre: *See*—
Cobert, Arthur J. 3,079,777.

La Falce, Palmerino C. Stretchable wash strap. 3,072,946, 1–15–63, Cl. 15—222.

La Fave, Ivan V., to Chicago Bridge & Iron Co. Insulating foundation for cryogenic storage tank. 3,076,317, 2–5–63, Cl. 61—36.

Lafayette Radio Electronics Corp.: *See*—
Morgillo, Pellegrino J. 3,089,562.

Lafferty, James M., to General Electric Co. Gas generating-switching tube. 3,087,092, 4–23–63, Cl. 315—330.

Lafferty, James M., to General Electric Co. Gas generating switching tube. 3,093,767, 6–11–63, Cl. 313—174.

Lafferty, James M., to General Electric Co. Magnetron type ionization gauges. 3,109,115, 10–29–63, Cl. 13—7.

Lafferty, James M., and T. A. Vanderslice, to General Electric Co. Ionic pump. 3,093,298, 6–11–63, Cl. 230—69.

Lafferty, William L., Jr.: *See*—
Child, Edward T., Lafferty, Millendorf, and Bos. 3,109,041.

Laffetay, Louis A., and A. M. Boutin, to Progil, S. A. Volatile solid insecticidal and bactericidal composition. 3,097,129, 7–9–63, Cl. 167—30.

Laffkas, Harry P.: *See*—
Knapp, Eugene J., and Laffkas. 3,113,667.
Knapp, Eugene J., and Laffkas. 3,114,457.

Lafitte, Carl W.: *See*—
Poorman, Frank, Jr., and Lafitte. 3,083,729.

Lafitte, Théodore. Starter for internal combustion engines. 3,089,344, 5–14–63, Cl. 74—6.

La Flame, Frank E., to General Motors Corp. Reversible pump-motor assembly for a dishwasher. 3,099,992, 8–6–63, Cl. 134—182.

La Fleur, George: *See*—
Gallagher, William H., and La Fleur. 3,091,487.

La Fleur, Hector. Catalog holder structure. 3,079,725, 3–5–63, Cl. 45—60.

La Fleur, Kermit S., to Deering Milliken Research Corp. Method for processing textile materials. 3,080,259, 3–5–63, Cl. 117—141.

La Flure, William R.: *See*—
Schless, Robert A., Jr. 3,087,761.
Schless, Robert A., Jr. 3,097,901.

Lafon, Louis, to Societe Anonyme dite: Orsymonde. Phloro-phenone derivatives for hepatic and nephritic colic. 3,079,300, 2–26–63, Cl. 167—65.

Lafon, Louis. Method of relieving pain employing 1,3,5-trihydroxybenzene. 3,093,544, 6–11–63, Cl. 167—65.

Lafont, Pierre, and Y. Bonnet, to Usines Chimiques Rhone-Poulenc Societe des. Cyclododecylacetic acid esters, derivatives thereof and intermediates therefor. 3,085,107, 4–9–63, Cl. 260—468.

Lafont, Pierre, and Y. Bonnet, to Usines Chimiques Rhone-Poulenc Societe des. Cycloundec-1-ene-1 carboxylic acids and their salts and esters. 3,085,109, 4–9–63, Cl. 260—514.

Lafont, Pierre, and Y. Bonnet, to Rhone-Poulenc S.A. 2,3-dihydroxy-cyclododec-1-ene-1-carboxylic acid - α - lactone. 3,101,317, 8–20–63, Cl. 260—343.3.

La Force, Walter P., to Thomas Industries Inc. Reciprocating saw blade. 3,109,464, 11–5–63, Cl. 143—133.

Laforest, Pierre: *See*—
Gagnon, Pierre, and Laforest. 3,105,596.

La Forge, Arthur A., to E. I. du Pont de Nemours and Co. Casting wheel. 3,071,810, 1–8–63, Cl. 18—15.

La Forge, Arthur A., to E. I. du Pont de Nemours and Co. Spinneret pack. 3,104,419, 9–24–63, Cl. 18—8.

Lafortezza, Michael: *See*—
Curran, Irene S., Gilelmi, and Lafortezza. 3,078,989.

Lafosse, Andre, and C. Bozzini, to Ateliers de Constructions Electriques des Charlerol (ACEC). Condenser. 3,085,181, 4–9–63, Cl. 317—242.

La Foy, Eugene L.: *See*—
Peeler, Lawrence F., and La Foy. 3,094,812.

Lafuze, David L., to General Electric Co. Magnetic amplifier circuit. 3,110,857, 11–12–63, Cl. 323—89.

Lagace, Edouard. Door operating mechanism. 3,076,675, 2–5–63, Cl. 296—44.

Lagally, Herta: *See*—
Lagally, Paul, and H. 3,074,843.

Lagally, Paul, to Brockway Glass Co., Inc. Aqueous solution of a polymer of vinyl alkoxy silane, maleic anhydride and vinyl ester of a fatty acid and process for protecting glass therewith. 3,108,920, 10–29–63, Cl. 136—310.

Lagally, Paul, and H., to Linden Laboratories. Process for treating cellulose and other materials. 3,074,843, 1–22–63, Cl. 162—181.

Laganis, Deno, to Schenectady Chemicals, Inc. Composition comprising polyester phenol formaldehyde resin and aldehyde condensate of urea melamine or acetone and metal surface coated therewith. 3,108,083, 10–22–63, Cl. 260—14.

Lagarias, John S., to Koppers Co., Inc. Oscillating shearing device for the removal of precipitated dry dust. 3,114,615, 12–17–63, Cl. 55—121.

Lager, Samuel E. Object recovery device. 3,084,652, 4–9–63, Cl. 114—.5.

Lager, Samuel E. Water marking device. 3,095,851, 7–2–63, Cl. 116—124.

Lagomarsino, Emilio, to Lagomarsino Fal S.p.A. Calculating machine adapted to perform divisions. 3,104,812, 9–24–63, Cl. 235—63.

Lagomarsino Fal S.p.A.: *See*—
Lagomarsino, Emilio. 3,104,812.

Lagoudarde, Jean E., to Usines Dehousse, Societe Anonyme. Corn-harvester. 3,088,261, 5-7-63, Cl. 56—18.
La Grange, Lee D.: *See*—
Kurnick, Samuel W., La Grange, Fitzpatrick, and Merriam. 3,073,882.
Lagucki, Edward B.: *See*—
Culver, Frederick H., Haeber, Lagucki, and Perner. 3,101,118.
Lagucki, Edward B., to Shell Oil Co. Pumpable well tool. 3,090,440, 5-21-63, Cl. 166—155.
Lahive, Gordon F. Adjustable paint brush holder. 3,104,762, 9-24-63, Cl. 211—65.
Lahr, Gilbert M., to General Motors Corp. Mounting and lubrication supply means for engine valve actuating mechanism. 3,095,948, 7-2-63, Cl. 184—6.
La Hue, Herbert C., 50% to R. C. La Hue. Surgical glove. 3,110,035, 11-12-63, Cl. 2—168.
La Hue, Robert C.: *See*—
La Hue, Herbert C. 3,110,035.
Laich, Alberto L.: *See*—
Bennett, Edward L., Laich, and Young. 3,075,731.
Laiderman, Donald D., to The Gillette Co. Shampoo composition. 3,072,580, 1-8-63, Cl. 252—152.
Laidig, Alfred H., to Westinghouse Electric Corp. Lamp-fabricating apparatus. 3,103,397, 9-10-63, Cl. 316—27.
Laidlaw, William R.: *See*—
Beals, Vaughn L. R., Jr., Hurley, and Laidlaw. 3,113,451.
Lainchbury, David M.: *See*—
Templer, Charles E., Hardy, and Lainchbury. 3,093,974.
Laine, Edward A., to Allegheny Ludlum Steel Corp. Pickling apparatus. 3,087,505, 4-30-63, Cl. 134—105.
Laine, Edward A., to Allegheny Ludlum Steel Corp. Method of making flexible joints. 3,091,844, 6-4-63, Cl. 29—437.
Laine, Gosta H. A. Insulator-sleeve. 3,113,998, 12-10-63, Cl. 174—138.
Laing, David D.: *See*—
Ashley, Paul R., and Laing. 3,100,140.
Laing, David H., and J. D. Jones. Fluid metering device. 3,095,892, 7-2-63, Cl. 137—101.11.
Laing, Ian W.: *See*—
Renzoni, Louis S., Curlock, and Laing. 3,094,409.
Laing, Nikolaus: *See*—
Braun, Artur, Mayer, and Laing. 3,109,582.
Laing, Nikolaus. Flow machines. 3,116,011, 12-31-63, Cl. 230—45.
Laing, Robert L. Composition and device for treating trees. 3,074,207, 1-22-63, Cl. 47—57.5.
Lainson, John J., to Western Plastics Corp. Apparatus for irradiation of plastics. 3,102,303, 9-3-63, Cl. 18—14.
Lair, Julien J. B., to International Telephone and Telegraph Corp. Pulse amplitude modulated to pulse position modulated converter. 3,104,360, 9-17-63, Cl. 332—1.
L'Air Liquide, Societe Anonyme pour l'Etude et l'Exploitation des Procedes Georges Claude: *See*—
De Moustier, Marie E. 3,079,249.
Grenier, Maurice. 3,073,129.
Laird, Cammell, & Co. (Shipbuilders & Engineers) Ltd.: *See*—
Rogerson, John. 3,106,262.
Laird, Glenn D. Film identification unit for race cameras. 3,082,424, 3-19-63, Cl. 346—107.
Laird, Ray H. Small boat dock. 3,096,623, 7-9-63, Cl. 61—48.
Laitner Brush Co.: *See*—
Kuriluk, George E. 3,075,557.
Lakatos, Emory: *See*—
Pidhayny, Denny D., and Lakatos. 3,112,479.
Pidhayny, Denny D., Lakatos, and Goodell. 3,074,061.
Lakatos, Emory, to Thompson Ramo Wooldridge Inc. Collision direction determining and indication system. 3,112,480, 11-26-63, Cl. 343—9.
Lake, Donald B., and G. Mamantov, to E. I. du Pont de Nemours and Co. Production of peroxymonophosphoric acid and a salt thereof. 3,085,856, 4-16-63, Cl. 23—107.
Lake, Francis K., to Addressograph-Multigraph Corp. Printing machines. 3,112,698, 12-3-63, Cl. 101—415.1.
Lake Erie Machinery Co.: *See*—
Cady, Percy L., Jr. 3,078,903.
Hoffman, Otto. 3,089,188.
Lakes, Lee J.: *See*—
Hancock, James L., and Lakes. 3,100,933.
Lakeshire Products, Inc.: *See*—
Barrett, Walter R. C., and Harris. 3,108,173.
Lake Shore, Inc.: *See*—
Bevard, Roger L. 3,077,992.
Bevard, Roger L. 3,083,838.
Clark, James W. 3,097,711.
Elsele, Robert L. 3,107,796.
Michael, Bayard H. 3,107,791.
Lakeside Industries, Inc.: *See*—
Banks, Merle W. 3,104,492.
Lakeside Laboratories, Inc.: *See*—
Biel, John H. 3,086,021.
Biel, John H. 3,091,570.
Biel, John H. 3,094,463.
Biel, John H. 3,095,448.
Biel, John H. 3,098,073.
Blicke, Frederick F., and Biel. 3,094,532.
Robertson, Jerry E. 3,111,514.
Lakeville Creameries, Inc.: *See*—
Robichaux, Roy P. 3,109,740.
Lakewood Mfg. Co.: *See*—
Peplin, Stephen C. 3,101,945.
Lakey, Arthur B.: deceased (by E. S. Lakey, executrix), and J. F. Spiegel, to Kingsbury Machine Works, Inc. Bearing lubricating means. 3,107,130, 10-15-63, Cl. 308—127.
Lakey, Edna S.: *See*—
Lakey, Arthur B., and Spiegel. 3,107,130.
Lakin, A., & Sons, Inc.: *See*—
Lakin, Lewis G. 3,107,642.
Lakin, Lewis G. 3,111,742.
Lakin, Lewis G. 3,112,024.
Lakin, Ira W.: *See*—
McFeaters, Harry L., and Lakin. 3,093,253.
McFeaters, Harry L., and Lakin. 3,107,797.
Lakin, Lewis G., to A. Lakin & Sons, Inc. Impact cushioning device. 3,107,642, 10-22-63, Cl. 114—219.
Lakin, Lewis G., to A. Lakin & Sons, Inc. Disc construction for rolls. 3,111,742, 11-26-63, Cl. 29—125.
Lakin, Lewis G., to A. Lakin & Sons, Inc. Roll construction. 3,112,024, 11-26-63, Cl. 198—127.
Lakins, Franklin D., to Lipe-Rollway Corp. Work receiver for bar working machines. 3,074,528, 1-22-63, Cl. 193—39.
Lakins, Franklin D., to Lipe-Rollway Corp. Control system for stock bar feeds. 3,081,522, 3-19-63, Cl. 29—37.
Lakins, Franklin D., and G. B. Lanphere, to Lipe-Rollway Corp. Bar feed apparatus. 3,092,288, 6-4-63, Cl. 221—298.
Lako, Samuel, and L. B. Aguerre. Time controlled electric barrier for feed troughs. 3,112,731, 12-3-63, Cl. 119—51.12.
Lakritz, Julian: *See*—
Slotterbeck, Ober C., and Lakritz. 3,079,295.
Lakritz, Julian, and R. G. Adams, to Esso Research and Engineering Co. Reinforced plastic from an open cure technique with a graft polymer. 3,099,293, 7-30-63, Cl. 138—141.
Lalak, George A., to Radio Corp. of America. Brazing jig for electron tube fabrication. 3,097,621, 7-16-63, Cl. 113—99.
Lalak, George A., to Radio Corp. of America. Brazing jig. 3,099,081, 7-30-63, Cl. 29—423.
La Lande, William A., Jr., to Pennsalt Chemicals Corp. Fluorination and oxidation of uranium tetrafluoride to uranium hexafluoride by perchloryl fluoride. 3,086,842, 4-23-63, Cl. 23—14.5.
Lalick, Michael J. Artificial Christmas trees. 3,101,291, 8-20-63, Cl. 161—24.
L'Allemand, Charles C.: *See*—
Atwood, Rawson, and L'Allemand. 3,095,161.
Atwood, Rawson, and L'Allemand. 3,107,067.
Lallemant, Claude: *See*—
Guitton, Jean, and Lallemant. 3,105,149.
Lalley, Gerald J. Receptacle for storing film and the like. 3,091,327, 5-28-63, Cl. 206—1.
Lallier, Betty: *See*—
Chlebowski, Harry B. 3,087,181.
Chlebowski, Harry B. 3,112,705.
Lally, James J. Portable shock splint with traction. 3,094,986, 6-25-63, Cl. 128—84.
Lally, Vincent E., to American Bosch Arma Corp. Inflation of balloon. 3,109,607, 11-5-63, Cl. 244—1.
Laloe, Michel F., and A. G. Marechal, to C. Michelson. Image interpolator for motion picture films and the like. 3,104,586, 9-24-63, Cl. 88—24.
Lam, Tut C., to Tektronix, Inc. Signal energy take off device. 3,071,737, 1-1-63, Cl. 333—8.
Lamač, Miroslav: *See*—
Mládek, Bedřich, Konopík, Vodrázka, Jindřich, and Lamač. 3,111,913.
Lamade, Ralph M., Jr.: *See*—
Vincent, Darrell M., Brown, Lamade, Bode, and Maurer. 3,085,274.
Laman, William H., and J. B. Norris, to International Business Machines Corp. Paper type movement detection device. 3,103,656, 9-10-63, Cl. 340—259.
La Manna, Richard J., V. H. Wilson, V. T. Pogorzelski, and M. Pivovonsky, to Monroe Calculating Machine Co. Simple general purpose digital computer. 3,116,410, 12-31-63, Cl. 235—157.
Lamantia, Nicola F.: *See*—
Cunetta, Joseph, and Lamantia. 3,073,453.
Lamar, Charles C., to Harper-Wyman Co. Gas valves. 3,073,526, 1-15-63, Cl. 236—99.
La Marche Mfg. Co.: *See*—
Smith, Charles E., Jr. 3,099,782.
Lamazou, Jean M.: *See*—
Canchois, Antonin L., Estavoyer, and Lamazou. 3,085,825.
Lamb, Charles M. Floating dock for marinas. 3,073,274, 1-15-63, Cl. 114—43.5.
Lamb, Charles P., to Meria Tool Corp. Gas lift valve. 3,092,131, 6-4-63, Cl. 137—155.
Lamb, Douglas J.: *See*—
Fisher, Don E., and Lamb. 3,080,132.
Lamb, Douglas J., to Monsanto Chemical Co. Traversing device. 3,098,344, 6-11-63, Cl. 242—158.4.
Lamb, F. Jos., Co.: *See*—
Fancher, Ray C., Kay, and Lacoursiere. 3,078,978.
Graham, James T., and Kay. 3,071,240.
Kay, John G., and Osinski. 3,094,242.
Rye, John K., Opperthauser, and Oltean. 3,103,835.
Lamb, Frank G., to Lamb-Weston, Inc. Viner truck body. 3,080,187, 3-5-63, Cl. 296—14.

Lamb, Frank G., and J. E. Heward, to Lamb-Weston, Inc. Feed mechanism for hydraulic cutter assembly. 3,108,625, 10-29-63, Cl. 146—162.
Lamb, Frank G., and A. R. Davidson, to Lamb-Weston, Inc. Vegetable slicing apparatus. 3,100,468, 11-5-63, Cl. 146—78.
Lamb, Glentworth, to American Cyanamid Co. Dodecylguanidine salts of boric acid. 3,116,326, 12-31-63, Cl. 260—564.
Lamb, Glentworth, and I. M. Voynick, to American Cyanamid Co. Fungitoxic compositions containing 9,10-phenanthrenequinone oximes. 3,073,739, 1-15-63, Cl. 167—30.
Lamb Grays Harbor Co., Inc.: *See*—
Mead, Glie A., Dale, and Davis. 3,090,505.
Lamb, Harold W., to Crossley Machine Co., Inc. Valve unit for piston free pumps. 3,078,868, 2-26-63, Cl. 137—512.
Lamb, Harold W., to Crossley Machine Co., Inc. Automatic thickness control means for flat products. 3,079,661, 3-5-63, Cl. 25—56.
Lamb Industries, Inc.: *See*—
Thomson, Byron C. 3,090,183.
Thomson, Byron C. 3,090,185.
Thomson, Byron C. 3,102,349.
Lamb, Jefferson P.: *See*—
Burton, Robert G., Lamb, and Schopper. 3,103,626.
Lamb, Jefferson P., to Dresser Industries, Inc. Time-sharing electrical logging system with subsurface commutation apparatus. 3,075,141, 1-22-63, Cl. 324—1.
Lamb, Joe D.: *See*—
Malone, Joe W., Sr., and Lamb. 3,096,702.
Lamb, Joe H. to P. A. Mallinckrodt. Protectively housed, extendible and retractable cover apparatus for swimming pools. 3,076,975, 2-12-63, Cl. 4—172.
Lamb, Kenneth, to Const Metals Inc. Surfacing torch with external powder feed. 3,096,199, 7-2-63, Cl. 117—46.
Lamb, Lee F. Vibrating plow. 3,103,250, 9-10-63, Cl. 172—40.
Lamb, Lyle N. Anchor device for hollow masonry type walls. 3,108,404, 10-29-63, Cl. 50—103.
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Hanstock, Raymond F., Godwin, Lumb, and Williams. 3,091,959.
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Kruger, Herbert W. 3,115,773.
Lamb, Frank G. 3,080,187.
Lamb, Frank G., and Davidson. 3,100,468.
Lamb, Frank G., and Howard. 3,108,625.
Lambach, Adolph H. Armored vehicle tire. 3,111,973, 11-26-63, Cl. 152—204.
Lambert, Arthur, and J. H. Wild, to Imperial Chemical Industries Ltd. Process for preparing foamed polyurethane materials. 3,108,975, 10-29-63, Cl. 260—2.5.
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Kershner, Osborn A. 3,094,194.
Kershner, Osborn A. 3,106,990.
Kershner, Osborn A., and Matrau. 3,088,553.
Parrett, Dent. 3,101,813.
Zindler, Roger R., and Kershner. 3,081,842.
Lambert, Donovan E. C., and E. H. Grover, to International Standard Electric Corp. Electron velocity modulation tubes. 3,104,342, 9-17-63, Cl. 315—5.51.
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Thorp, James T. 3,079,111.
Lambert, Eunice F. Gas stove. 3,107,663, 10-22-63, Cl. 126—85.
Lambert, Harry E., to Packaging Corp. of America. Egg carton cushion separator. 3,108,689, 10-29-63, Cl. 206—65.
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Liegeon, Bernard L. J., and Lambert. 3,075,819.
Lambert, Milton: *See*—
Lacks, Hyman, and Lambert. 3,106,247.
Lambert, Richard H., and D. R. Krombos, to Allis-Chalmers Mfg. Co. Knife blade type switch. 3,083,271, 3-26-63, Cl. 200—2.
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Lambert, Robert M. Can crimper. 3,095,029, 6-25-63, Cl. 153—70.
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Lambert, Rogers F., to Ethyl Corp. Diarylarsine manganese tetracarbonyl compounds. 3,080,407, 3-5-63, Cl. 260—429.
Lambert, William H. Aerosol dispenser. 3,107,821, 10-22-63, Cl. 222—70.
Lamberti, Battista. Stepladder with folding elements. 3,084,760, 4-9-63, Cl. 182—160.
Lamberti, Vincent, and R. A. Haass, to Lever Brothers Co. Purification of sodium isethionate. 3,094,555, 6-18-63, Cl. 260—513.
Lamberti, Vincent, and G. J. McCrimlisk, to Lever Brothers Co. Process for the preparation of amides. 3,107,258, 10-15-63, Cl. 260—404.
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Lamburn, Alan S., and H. E. W. Foster. Heating and ventilating apparatus for vehicles. 3,072,339, 1-8-63, Cl. 237—12.3.
La Mere, Frank J. Incinerator disposal unit for human waste. 3,103,017, 9-10-63, Cl. 4—131.
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Lamin, Leonard: *See*—
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Lancy, Leslie E. Metal coated propellant. 3,083,610, 4-2-63, Cl. 86—1.
Lancy, Leslie E., to Lancy Laboratories, Inc. Conditioning cyanide compounds. 3,101,320, 8-20-63, Cl. 210—62.
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Land, Edwin H., to Polaroid Corp. Photographic apparatus and product. 3,101,656, 8-27-63, Cl. 95—13.
Land, Edwin H., to Polaroid Corp. Photographic processes and compositions useful therein. 3,113,866, 12-10-63, Cl. 96—50.
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Land, Walter H. Tube like containers for food and a variety of other substances. 3,081,006, 3-12-63, Cl. 222—212.
Land, Warren W. Building wall and method of construction. 3,083,785, 4-2-63, Cl. 189—34.
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Landis, Harvey, to American Radiator & Standard Sanitary Corp. Method and apparatus for producing hollow articles. 3,072,085, 1-8-63, Cl. 113—44.
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Hanna, Edward C. 3,095,988.
Hanna, Edward C. 3,112,662.
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Balsiger, Harold E. 3,093,938.
Balsiger, Harold E., and Price. 3,109,269.
Flohr, William P., Jr. 3,097,455.
Newcomer, Harold F. 3,104,921.
Phell, Leslie V. 3,097,454.
Price, Ralph E. 3,073,074.
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Rocks, Hugh N., and Snyder. 3,081,582.
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Landon, Hal D. Bell chime operating mechanism. 3,084,588, 4-9-63, Cl. 84—407.
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Landow, Walter, and B. H. Carlisle, to The Clark Controller Co. Mechanically latched device. 3,076,074, 1-29-63, Cl. 200—98.
Landquist, Justus K., to Imperial Chemical Industries Ltd. Heterocyclic compounds. 3,074,954, 1-22-63, Cl. 260—294.8.
Landrum, Billy F., H. R. Davis, and L. A. Errede, to Minnesota Mining and Mfg. Co. Telomers of quinodimethanes and preparation thereof. 3,087,916, 4-30-63, Cl. 260—79.
Landrum, Ira T., S. C. Kennedy, H. N. Shanklin, R. Cummins, L. K. Steward, O. L. Bonlware, W. H. Kleypas, and D. W. Evans, to Shirlow Corp. Apparatus for performing work on the internal wall of piping. 3,106,735, 10-15-63, Cl. 15—104.06.
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Landry, Henry J. Folding play yard construction. 3,103,670, 9-17-63, Cl. 5—99.
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Landsverk, Ole G., and D. L. Merriner, to Landsverk Electrometer Co. Gas filled dosimeter. 3,075,081, 1-22-63, Cl. 250—83.3.
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Lane, Clayton A., and J. Kay, to Associated Electrical Industries (Woolwich) Ltd. Thermionic valve grid winding machines. 3,071,031, 1-1-63, Cl. 78—21.
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Lane, Harold, J. W. Pratt, and R. C. Quarmby, to United Shoe Machinery Corp. Pulling and lasting machines. 3,099,846, 8-6-63, Cl. 12—10.1.
Lane, John L., and L. O. Studer; said Studer assor. to Weather-Seal, Inc., and said Lane assor. to G. E. Lane. Automatically engageable power coupling means for tractors or the like. 3,074,501, 1-22-63, Cl. 180—14.
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Lane, Munson H., Sr.: *See*—
Wood, George C. 3,109,925.
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Lang, Ernst, to H. Ritter. Cooking utensil. 3,076,405, 2-5-63, Cl. 99—445.
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Lang, John L., C. Jones, and A. F. Roche, to The Dow Chemical Co. Copolymers of styrene and methyl methacrylate. 3,080,348, 3-5-63, Cl. 260—86.7.
Lang, John R., and G. F. Arkless, to G. & J. Weir, Ltd. Turbine-driven centrifugal pump. 3,103,176, 9-10-63, Cl. 103—87.
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Lang, Thomas G. Hydrofoil for water craft. 3,094,960, 6-25-63, Cl. 114—66.5.
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Langdon, William K., and M. Kokorudz, to Wyandotte Chemicals Corp. Chlorination of alkylpyrazines. 3,096,331, 7-2-63, Cl. 260—250.
Langdon, William K., and W. W. Levis, Jr., to Wyandotte Chemicals Corp. Method for destroying nematodes. 3,104,199, 9-17-63, Cl. 167—22.
Langdon, William K., W. W. Levis, Jr., and J. B. Skaptason, to Wyandotte Chemicals Corp. N-(α-methylacetonitrile)-morpholine as insect fumigant for stored products. 3,104,200, 9-17-63, Cl. 167—33.
Lange, Alfred R., to Sulflo, Inc. Metal working compositions. 3,102,095, 8-27-63, Cl. 252—31.
Lange, Dean E. Hose valve and nozzle. 3,095,154, 6-25-63, Cl. 239—576.
Lange, Ferdinand. Folding containers. 3,071,308, 1-1-63, Cl. 229—37.
Lange, Ferdinand, to Dr. Wilma Wendt, Frau, Geb. Oellrich. Method of bonding plastic sheets. 3,073,736, 1-15-63, Cl. 156—307.
Lange, Ferdinand. Foldable container. 3,109,574, 11-5-63, Cl. 229—37.
Lange, Fred C., and L. S. Nightingale. Ironing board. 3,083,482, 4-2-63, Cl. 108—7.
Lange, Guenter: *See*—
Elsele, Julius, Federkiel, Krehbiel, Krzikalla, Lange, and Pohlemann. 3,098,063.
Lange, Guenter, G. Leutzel, H. G. Wippel, H. Weidinger, and J. Kranz, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Water-insoluble monoazo and disazo 1,3,4-thiadiazole dyestuffs. 3,096,320, 7-2-63, Cl. 260—158.
Lange, Hans D.: *See*—
Bliven, Charles V., and Lange. 3,111,201.
Lange, Hans D., to Ford Motor Co. Shock absorber. 3,082,998, 3-26-63, Cl. 267—8.
Lange, Harold T.: *See*—
Kounovsky, Edward F., and Lange. 3,091,120.
Lange, Harry R., to Textron Inc. Method of producing wrist pins or similar articles. 3,101,534, 8-27-63, Cl. 29—553.
Lange, Karl E., and G. F. Lukowski. Food can of synthetic material. 3,108,710, 10-29-63, Cl. 220—67.
Lange, Karl H., to Balda-Kamerawerk Rudolf Gruter, Kommanditgesellschaft. Automatic flashlight and diaphragm control device for photographic cameras. 3,072,028, 1-8-63, Cl. 95—10.
Lange, Karl H., to Balda-Kamerwerk Rudolf Gruter, Kommanditgesellschaft. Camera accessory shoe arrangement. 3,095,792, 7-2-63, Cl. 95—11.
Lange, Karl H., to Balda-Kamerawerk Rudolf Gruter Kommanditgesellschaft. Mirror reflex cameras. 3,103,150, 9-10-63, Cl. 95—10.
Lange, Le Roy J., to American Totalisator Co., Division of Universal Controls, Inc. Totalisator system. 3,080,114, 3-5-63, Cl. 235—92.
Lange, Ludwig H.: *See*—
Albertson, Jonathan Y., Lange, Lord, Schempp, and Steck. 3,086,428.
Lange, Winthrop: *See*—
Candon, Basil H., Chessin, and Lange. 3,108,045.
Langehenke, Franz: *See*—
Neubner, Rolf, and Langehenke. 3,100,139.
Langemann, Albert: *See*—
Kofler, Max, Langemann, and Ruegg. 3,080,384.
Langen, Viktor: *See*—
Gottschald, Rudolf. 3,073,634.
Gottschald, Rudolf. 3,090,079.
Gottschald, Rudolf, and Maxeiner. 3,090,642.
Vogt, Jakob, and van der Brugghen. 3,079,138.
Langen, Viktor, and H. Mau, to A. Ehrenreich & Cie. Ball and socket joints. 3,095,224, 6-25-63, Cl. 287—87.
Langenau Mfg. Co., The: *See*—
De Marco, Louis. 3,112,943.
Langenberg, Adrianus: *See*—
Helwig, Antonius C., Langenberg, and Leblans. 3,102,729.
Langenberg, Walter P., and R. Siebert, to Lockheed Aircraft Corp. Machining and tracing apparatus. 3,106,857, 10-15-63, Cl. 82—14.
Langenfeld, Claude, to Milprint, Inc. Flexible commodity bags and apparatus for producing same. 3,104,797, 9-24-63, Cl. 229—53.
Langenslepen, Max, Kommandit Gesellschaft: *See*—
Bertelsmann, Rolf. 3,080,787.
Langer, Fritz, to Asbest- und Gummiwerke Martin Merkel K.G. Metal-coated plastics. 3,097,668, 7-16-63, Cl. 138—145.
Langer, John F. Adjustable mobile scaffold. 3,112,009, 11-26-63, Cl. 182—14.
Langer, Konrad, and F. Penn, to Vereinigte Osterreichische Eisen-und Stahlwerke Aktiengesellschaft. Tilting crucible with smoke seal means. 3,083,957, 4-2-63, Cl. 266—36.
Langer, Melvin C.: *See*—
Robb, Edward J., and Langer. 3,103,725.
Langer, Sol. Coverall. 3,100,897, 8-20-63, Cl. 2—80.
Langevin, Donald R.: *See*—
Langevin, William J., Jr., D. R., and L. P. 3,072,206.
Langevin, Lloyd P.: *See*—
Langevin, William J., Jr., D. R., and L. P. 3,072,206.

Langevin, Lloyd P. Automatic counting and weighing scale. 3,115,202, 12–24–63, Cl. 177—200.

Langevin, William J., Jr., D. R., and L. P., to National Scale Co. Scale. 3,072,206, 1–8–63, Cl. 177—30.

Langfeldt, Rolf, to Licentia Patent-Verwaltungs G.m.b.H. Cargo handling apparatus. 3,095,976, 7–2–63, Cl. 212—3.

Langford, George A.: *See*—
Edwards, George Z., and Langford. 3,074,072.

Langford, Robert C., and F. W. Sippach, Jr., to Daystrom Inc. Method of testing electronic circuits and components. 3,077,560, 2–12–63, Cl. 324—57.

Langford, Robert T.: *See*—
Garrett, Edgar J., Langford, and Nicks. 3,093,075.

Langkop, Willi, to Iseder Hutte. Coupling joint. 3,070,-978, 1–1–63, Cl. 64—7.

Langley Alloys Ltd.: *See*—
Cairns, Raymond E., Jr., and Ham. 3,111,405.

Langley, Bernard W., to Imperial Chemical Industries Ltd. Novel 4 - (p-aminobenzenesulphonamido)2 :6-diphenoxypyrimidines. 3,082,206, 3–19–63, Cl. 260—239.75.

Langley, Lawrence W.: *See*—
Harris, Samuel C., Jr., and Langley. 3,089,535.

Langley, Robert C., and D. B. Kellam, to Engelhard Industries, Inc. Thermoplastic precious metal decorating compositions. 3,092,504, 6–4–63, Cl. 106—1.

Langlie, Howard, and E. B. Nelson, to North Central Plastics, Inc. Fence insulators. 3,071,640, 1–1–63, Cl. 174—158.

Langmack, Robert M.: *See*—
Frick, Chester A., and Langmack. 3,096,861.

Langnickel, Arvid. Ink marker. 3,113,336, 12–10–63, Cl. 15—563.

Langrod, Kasimir, to Sylvania Electric Products Inc. Method for producing high density uranium oxide. 3,094,377, 6–18–63, Cl. 23—14.5.

Langsetmo, Peder K., to The Strong-Scott Mfg. Co. Balancing device. 3,074,293, 1–22–63, Cl. 74—573.

Langstaff, Albert L. Insulation cutter. 3,097,557, 7–16–63, Cl. 83—454.

Langstaff, Witt I.: *See*—
Jarrett, Charles A., and Langstaff. 3,080,611.

Langston, Claude C. Multiple color thread dyeing device. 3,098,373, 7–23–63, Cl. 68—27.

Langston, Claude C. Multiple color thread dyeing device. 3,098,374, 7–23–63, Cl. 68—27.

Langston, Samuel M.: *See*—
Goettsch, Walter J., and Moser. 3,107,589.
Moser, Henry W. 3,072,353.
Moser, Henry W. 3,096,708.
Moser, Henry W., and Weber. 3,102,632.
Weber, Hanspeter. 3,081,080.

Langston, Samuel M., Co.: *See*—
Ward, Henry D., Jr., and Staley. 3,087,392.
Ward, William F. and H. D., Jr. 3,077,159.

Langstroth, Theodore A., to Sun Chemical Corp. Bromination of fluorescein. 3,111,528, 11–19–63, Cl. 260—335.

Langtree, Michael, to The Australian Coastal Shipping Commission. Equipment for handling cargo. 3,112,039, 11–26–63, Cl. 214—15.

Langwell, John D.: *See*—
Soave, John G., and Langwell. 3,089,231.

Langwell, John D., to Waldes Kohinoor, Inc. Method of and apparatus for manufacturing slide fasteners. 3,078,-358, 2–26–63, Cl. 29—408.

Lanham, Edward H., to Northern Electric Co. Ltd. Time division junction circuit for a transmission line. 3,071,-655, 1–1–63, Cl. 179—170.

Lanham, William M., to Union Carbide Corp. Flame-resistant urethane foams and process for preparing same. 3,075,927, 1–29–63, Cl. 260—2.5.

Lanham, William M., to Union Carbide Corp. Preparation of flame-resistant urethane foams. 3,075,928, 1–29–63, Cl. 260—2.5.

Lanham, William M., to Union Carbide Corp. Hydroxyalkyl polyphosphates. 3,099,676, 7–30–63, Cl. 260—461.

Lanham, William M., to Union Carbide Corp. Method of drying phosphorus-containing acids. 3,113,063, 12–3–63, Cl. 159—48.

Lanier, Harold S., to La-chap, Inc. Storage cabinet. 3,093,-428, 6–11–63, Cl. 312—255.

Lanius, James C., Jr., to Illinois Tool Works Inc. Visible inspection fastener. 3,072,093, 1–8–63, Cl. 116—114.

Lankenau, Malcolm G. Vacuum cleaning machine. 3,112,-511, 12–3–63, Cl. 15—350.

Lannacher Heilmittel Gesellschaft m.b.H.: *See*—
Zirm, Konrad L., and Pongratz. 3,093,647.

Lanne, Bengt: *See*—
Allander, Claes, Lanne, and Wallin. 3,085,346.

Lannen, Joseph P., to Micro-Poise Engineering and Sales Co. Automatic universal balance testing machine. 3,091,970, 6–4–63, Cl. 73—483.

Lanner, Manne G. Machine for transferring templet contours to a textile fabric or the like. 3,113,041, 12–3–63, Cl. 118—500.

Lannert, James W.: *See*—
Crawford, William R., and Lannert. 3,104,629.

Lanore, Raymond, to Usines Decoufle. Method of forming a continuous tobacco filler. 3,088,467, 5–7–63, Cl. 131—20.

Lanphere, Gerald B.: *See*—
Lakins, Franklin D., and Lanphere. 3,092,288.

Lansing, William A.: *See*—
Crissey, Jackson R., and Lansing. 3,112,765.

Lanski, Harry. Protractor for layout work. 3,080,657, 3–12–63, Cl. 33—94.

Lansky, Zdenek J., and J. D. Scalbom, to Parker-Hannifin Corp. Pulse lubricator. 3,076,525, 2–5–63, Cl. 184—55.

Lanston Industries, Inc.: *See*—
Huebner, William C. 3,101,024.
Roth, Artur. 3,093,237.
Roth, Artur. 3,109,536.
Roth, Artur. 3,114,969.
Roth, Artur, and Thomas. 3,105,635.

Lanteigne, Lyvin. Artificial hand. 3,090,049, 5–21–63, Cl. 3—12.7.

Lantos, Peter R., to E. I. du Pont de Nemours and Co. Composition comprising polytetrafluoroethylene particles admixed with polystyrene containing dimethyl phthalate. 3,074,901, 1–22–63, Cl. 260—31.8.

Lantz, Alpha D., to The Ohio Brass Co. Suspension apparatus for bundle conductors. 3,076,866, 2–5–63, Cl. 174—149.

Lantz, Alpha D., and R. W. Harmon, to The Ohio Brass Co. Suspension apparatus for bundle conductors. 3,076,863, 2–5–63, Cl. 174—141.

Lantz, Alpha D., and R. W. Harmon, to The Ohio Brass Co. Suspension apparatus for bundle conductors. 3,076,864, 2–5–63, Cl. 174—141.

Lantz, Dae C., Jr., to Pan American Resources, Inc. Rotary refuse converter. 3,098,458, 7–23–63, Cl. 110—14.

Lantz, Dae C., Jr., to Pan American Resources, Inc. Apparatus for condensation and flashback prevention for carbonizing and/or destructive distillation operations. 3,103,426, 9–10–63, Cl. 55—222.

Lantz, George H., and M. E. Drobilits, to Sterling Faucet Co. Strainer fitting with stopper. 3,104,400, 9–24–63, Cl. 4—287.

Lantz, Kurt D., to Turbin Aktiebolaget de Laval-Lyungstrom. Machine for boning the flanks of gear teeth. 3,099,112, 7–30–63, Cl. 51—48.

Lanyon, Charles E.: *See*—
Doggett, Roger H., Hervey, and Lanyon. 3,100,143.

Lanz, Alfred, to Tarex S.A. Thread cutting lathe with deburring cutter actuated at start and end of threading operation. 3,106,727, 10–15–63, Cl. 10—101.

Lanz, George T., to Ralston Purina Co. Apparatus for closing filled bags. 3,091,198, 5–28–63, Cl. 112—11.

Lanz, George T., to Ralston Purina Co. Apparatus for manufacturing stable pelleted foods. 3,101,040, 8–20–63, Cl. 99—235.

Lanzanova, Renato. Fruit and vegetable comminutor and separator. 3,109,467, 11–5–63, Cl. 146—76.

Lanzenberger, Horst, to H. and F. W. Deckel. Machine tool for machining cylindrical and conical bores in workpieces. 3,105,413, 10–1–63, Cl. 90—14.

Lanzilotti, Anthony E.: *See*—
Thorson, Ralph E., Goldman, Wallace, and Lanzilotti. 3,081,224.

Lanzone, William L. Auxiliary brake pedal for a vehicle. 3,075,602, 1–29–63, Cl. 180—77.

La Patka, Lawrence T., and W. P. Schmidt, to Burroughs Corp. Magnetic core assembly. 3,071,743, 1–1–63, Cl. 336—92.

Laperouse, Robert M., to Imperial Sugar Co. Method for making soft or brown sugar. 3,074,821, 1–22–63, Cl. 127—63.

Lapeyre, Fernand S., to The Peelers Co. Pressure finger loading device for a shrimp peeling machine. 3,070,832, 1–1–63, Cl. 17—2.

Lapham, Edmund F., and I. H. McLaren, to The Bendix Corp. Seeker system. 3,081,050, 3–12–63, Cl. 244—14.

Lapham, Edmund F., Jr., to The Bendix Corp. Directional antenna. 3,081,048, 3–12–63, Cl. 244—14.

Lapham, Ella M. Convertible box. 3,110,398, 11–12–63, Cl. 206—45.

Lapides, Jules S.: *See*—
Handwerk, Erwin C., Gunzburger, and Lapides. 3,104,-942.

La Pierre, Thomas H., deceased; M. J. Crabtree, executrix, to E. L. Keathley. Support stand. 3,098,568, 7–23–63, Cl. 211—60.

La Pierre, William H. Adjustable temple piece holder. 3,106,641, 11–5–63, Cl. 260—254.

Lapof, Ray, to Torjesen Inc. Floor seal. 3,086,261, 4–23–63, Cl. 20—68.

Lapof, Ray C., to Bar-Ray Products, Inc. Transfer device. 3,095,797, 7–2–63, Cl. 93—89.

La Pointe, Gabriel M., to R & A Machine Co., Inc. Valve actuator. 3,085,781, 4–16–63, Cl. 251—67.

Lapointe, Lloyd J. Decimal point mechanism for calculators. 3,087,673, 4–30–63, Cl. 235—161.

Lapointe Machine Tool Co., The: *See*—
Bonnafe, Oliver W. 3,103,852.

Laporte Chemicals Ltd.: *See*—
Banfield, Reginald H., and Hildon. 3,073,755.

Laporte, Eugene F., to North American Aviation, Inc. Position indicator system. 3,075,190, 1–22–63, Cl. 343—10.

Laporte, Fernand R., to United States Rubber Co. Overshoe heel. 3,071,817, 1–8–63, Cl. 18—58.

Laporte, Fernand R., to United States Rubber Co. Overshoe heel. 3,075,306, 1–29–63, Cl. 36—7.3.

Laporte, Francis L. Temperature regulating control. 3,102,396, 9–3–63, Cl. 62—156.

La Porte, Gordon G. Shelter. 3,091,056, 5–28–63, Cl. 50—48.

Laporte, Guy. Automatically controlled levelling plough for cultivating in rows. 3,111,994, 11–26–63, Cl. 172—5.

La Porte, Joseph M. Bow guide. 3,107,568, 10–22–63, Cl. 84—283.

Laporte Titanium Ltd.: *See*—
Bristow, Howard A. S. 3,102,785.
Walmsley, Anthony. 3,109,708.
Wigginton, Raymond J. 3,094,386.
Wigginton, Raymond J., and Leighton. 3,073,712.

Lapota, John B.: *See*—
De Wald, Lee H., and Lapota. 3,089,766.

Lapp, Douglas N.: *See*—
Brosh, Amnon, and Lapp. 3,094,682.

Lapp Insulator Co., Inc.: *See*—
Corey, Charles E. 3,076,867.

Lapp, Roger H.: *See*—
Floyd, J. F. Rabardy, and Lapp. 3,084,506.

Lapp, Roger H., and A. F. Hogrefe, to United States of America, Navy. Inductive link infrared fire detection and water injection system. 3,090,197, 5–21–63, Cl. 60—35.6.

Lappin, Gerald R.: *See*—
Tholstrup, Clarence E., and Lappin. 3,103,500.

Lappin, Gerald R., J. W. Tamblyn and J. A. Van Allan, to Eastman Kodak Co. Thiazolidones as light stabilizers for plastic compositions. 3,097,100, 7–9–63, Cl. 106—176.

Lappin, James B., Jr. Absorbent device to absorb grease from articles. 3,070,899, 1–1–63, Cl. 34—95.

Lappin, Richard J., and I. T. Wurn, to Brunswick Corp. Folding bleacher and operator therefor. 3,094,186, 6–18–63, Cl. 180—19.

Lappin, Richard J., and J. E. Marshall, to Brunswick Corp. Mobile foldable bleacher. 3,103,707, 9–17–63, Cl. 20—1.126.

Lapray, Judith M. E. By-passing device with a trap for land irrigation and other applications. 3,079,939, 3–5–63, Cl. 137—128.

Lapsley, Robert, to Clark Equipment Co. Shifter mechanism. 3,111,040, 11–19–63, Cl. 74—346.

Larbig, Wolfgang: *See*—
Köster, Roland, and Larbig. 3,100,219.

Larbre, Jean, to Institut Francais du Petrole des Carburants et Lubrifiants. Double injection device for internal combustion engines. 3,085,559, 4–16–63, Cl. 123—139.

Larcen, Jan A., to Atlas Copco Aktiebolag. Rock drilling mechanisms. 3,085,638, 4–16–63, Cl. 175—129.

Larchar, Arthur W.: *See*—
Albright, Clayton M., Jr., and Larchar. 3,073,719.

Larchar, Trescott B.: *See*—
Clark, Sheldon L., Duke, Larchar, and Taft. 3,093,687.

Larchar, Trescott B., Sr., to Olin Mathieson Chemical Corp. Method for preparing tetraalkyl quaternary ammonium borohydrides. 3,108,139, 10–22–63, Cl. 260—567.6.

Larcher, Silvio, to Polymer Industrie Chimiche S.p.A. Steam flatiron. 3,114,983, 12–24–63, Cl. 38—77.

Lard, Edwin W.: *See*—
Smith, Zell, Jr., Lard, and Horn. 3,103,536.

Lardelli, Guido, P. H. Begemann, P. D. Harkes, and A. S. M. van der Zijden, to Lever Brothers Co. Unsaturated butyrolactones and process for their production. 3,075,998, 1–29–63, Cl. 260—343.6.

Larder, Marquand G. Replaceable ladder rung. 3,092,207, 6–4–63, Cl. 182—228.

Lardervello Societa per Azioni per lo Struttamento delle Forze Endogene: *See*—
Garbato, Carlo. 3,112,996.

Lardner, William E.: *See*—
Coates, Colin, and Lardner. 3,090,838.

Larsen, Delmar H. Method of logging wells. 3,115,197, 12–24–63, Cl. 175—50.

Larsen, Elmer J., to Western Electric Co., Inc. Methods of improving extrusion properties of lead-antimony alloys. 3,113,020, 12–3–63, Cl. 75—135.

Larsen, Frank R., to Air Logistics Corp. Attachment steering apparatus for towable vehicles. 3,114,426, 12–17–63, Cl. 180—79.2.

Larsen, Paul V., to Esco Corp. Dragline bucket trunnion. 3,112,572, 12–3–63, Cl. 37—135.

La Resista Corset Co., The: *See*—
Smith, Frances M. 3,094,991.

Larkin, Alfred F., Jr., to Chain Belt Co. Method of providing controlled interference fit of a chain pin in a pin plate. 3,092,957, 6–11–63, Cl. 59—8.

Larkin Coils, Inc.: *See*—
Shrader, Raymond M. 3,098,363.

Larkin, Cyril S., to Adhesive Tapes Ltd. Tape-applying machine. 3,079,977, 3–5–63, Cl. 156—353.

Larkin, Daniel C. Refuse container for motor vehicle body. 3,109,537, 11–5–63, Cl. 206—19.5.

Larkin, Mark E.: *See*—
Vesper, Daniel M., and Larkin. 3,092,765.

Larkin, Mark E., to Phillips Petroleum Co. Automatic self cleaning filter apparatus. 3,077,989, 2–19–63, Cl. 210—98.

Larkin, Robert G., to General Motors Corp. Torquemeter. 3,084,540, 4–9–63, Cl. 73—136.

Larkin Specialty Mfg. Co.: *See*—
Dieguez, Lloyd E. 3,106,332.

Larkworthy, Alan W., to Sciaky Electric Welding Machines Ltd. Welding electrodes. 3,109,087, 10–29–63, Cl. 219—120.

Larlham, Roy, and G. R. Stevens, to General Precision Systems Ltd. Driving training devices. 3,107,437, 10–22–63, Cl. 35—11.

Larner, Bernard, to Allied Chemical Corp. Highway maintenance of elevated structures. 3,110,981, 11–19–63, Cl. 50—102.

La Rocque, Ovila J. Drain cleaner. 3,085,585, 4–16–63, Cl. 134—169.

La Roij, Geertruida M.: *See*—
Ter Borg, Arne P., Van Helden, and La Roij. 3,084,194.

Larrick, Benjamin F.: *See*—
Murphy, Maurice F., and Larrick. 3,110,638.

Larrieu, Leslie J., to Morris P. Kirk & Son, Inc. Alloy and method for the improvement of zinc base alloys. 3,083,-096, 3–26–63, Cl. 75—178.

Larry, George A., to Star Cutter Co. Hole forming or enlarging assembly. 3,071,030, 1–1–63, Cl. 77—62.

Larsen, Aubrey A., to Sterling Drug Inc. Acylated 3,5-diaminopolyhalobenzoic acids. 3,076,024, 1–29–63, Cl. 260—490.

Larsen, Aubrey A., to Sterling Drug Inc. Derivatives of 2,4,6-triiodobenzoyloxyalkanoic acids and preparation thereof. 3,097,228, 7–9–63, Cl. 260—471.

Larsen, Ben H. Can carton. 3,083,825, 4–2–63, Cl. 206—65.

Larsen, Charles T., and D. O. McGraw, to The Denver Publishing Co. Mat processing equipment. 3,072,774, 1–8–63, Cl. 219—34.

Larsen, Delmar H., to National Lead Co. Higher alkyl onium salts of graphitic oxide. 3,084,172, 4–2–63, Cl. 260—348.

Larsen, Eric R., to The Dow Chemical Co. Inhalation anesthetic: 2,2-dichloro-1,1-difluoroethyl methyl ether. 3,104,-202, 9–17–63, Cl. 167—52.

Larsen, Eric R., E. M. Ilgenfritz, and R. P. Ruh, to The Dow Chemical Co. 3,3-difluoroallyl esters. 3,080,405, 3–5–63, Cl. 260—408.

Larsen, Eric R., and M. R. Broadworth, to The Dow Chemical Co. Inhalation anesthetic: 2 - bromo-1,1,2-trifluoroethyl methyl ether. 3,095,354, 6–25–63, Cl. 167—52.

Larsen, Ezra B.: *See*—
Swerdloff, Jack, Larsen, and Troeleman. 3,093,142.

Larsen, Henry M: *See*—
Hagner, Lawrence R., and Larsen. 3,082,859.

Larsen, Henry M., to Western Electric Co., Inc. Multiple station machine tool. 3,082,856, 3–26–63, Cl. 198—33.

Larsen, Lee D. Bowling glove device. 3,098,654, 7–23–63, Cl. 273—54.

Larsen, Lester J.: *See*—
Shutt, Paul B., Larsen, Barnes, and Pullano. 3,077,283.

Larsen, Ludolph: *See*—
Blomquist, Arthur G., Larsen, and Wermager. 3,098,132.

Larsen, Lyle V., and T. Kaups, to Chicago Bridge & Iron Co. Storage tank. 3,112,044, 11–26–63, Cl. 220—18.

Larsen, Norman B., to Corrosion Reaction Consultants, Inc. Metal protective coating composition. 3,093,491, 6–11–63, Cl. 106—14.

Larsen, Norman B., to Corrosion Reaction Consultants Inc. Metal protective coating composition. 3,093,492, 6–11–63, Cl. 106—14.

Larsen, Paul V., P. Eyolfson, G. W. Hill, and E. W. Dils, Jr., to Esco Corp. Ground-working tooth and method. 3,079,-710, 3–5–63, Cl. 37—142.

Larsh, Everett P. Gear members and method of producing same. 3,076,352, 2–5–63, Cl. 74—443.

Larsh, Everett P. Winding apparatus. 3,102,698, 9–3–63, Cl. 242—1.1.

Larson, Alpheus W. Combined memo pad and pencil holder. 3,102,739, 9–3–63, Cl. 281—15.

Larson, Alvin R., to The S. H. Pomeroy Co. Sash balance connector. 3,070,831, 1–1–63, Cl. 16—197.

Larson, B. Frances: *See*—
Larson, Dale H. 3,071,197.

Larson, Bennett L.: *See*—
Cohrs, Arthur H., and Larson. 3,097,851.

Larson, Chas. O., Co.: *See*—
Larson, Charles O. 3,078,956.
Larson, Charles O. 3,078,957.
Larson, Charles O. 3,082,025.

Larson, Charles O., to Chas. O. Larson Co. Collapsible sawhorse bracket assembly. 3,078,956, 2–26–63, Cl. 182—225.

Larson, Charles O., to Chas. O. Larson Co. Collapsible sawhorse bracket assembly. 3,078,957, 2–26–63, Cl. 182—226.

Larson, Charles O., to Chas. O. Larson Co. Folding table leg brackets. 3,082,025, 3–19–63, Cl. 287—14.

Larson, Clifford B. and H. M. Flexible spot rinsing head for shower baths. 3,112,073, 11–26–63, Cl. 239—446.

Larson, Dale H., deceased; B. F. Larson, executrix. Headland corrugator. 3,071,197, 1–1–63, Cl. 172—99.

Larson, Dale L.: *See*—
Hay, William J., and Larson. 3,085,755.

Larson, Daniel A., to Westinghouse Electric Corp. Multiple envelope high pressure mercury vapor discharge lamp. 3,110,833, 11–12–63, Cl. 313—26.

Larson, Daniel A., and P. J. Walsh, to Westinghouse Electric Corp. Electric discharge device. 3,089,972, 5–14–63, Cl. 313—34.

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Larson, Earl, to Futora Mfg. Co. Cam operated, caliper type spot brake for a rotatable disc. 3,114,438, 12–17–63, Cl. 188—73.

Larson, Edwin E.: *See*—
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Larson, Ernest O. and R. Apparatus for the guidance of granular material and the like. 3,095,073, 6–25–63, Cl. 193—33.

Larson, Fred. Retractable landing gear. 3,088,699, 5–7–63, Cl. 244—102.

Larson, Gerald W., and P. A. Mallak, to Minnesota Mining and Mfg. Co. Apparatus for coating discrete solid material. 3,110,626, 11–12–63, Cl. 118—303.

Larson, Gordon D. Automobile passenger safety retainer. 3,105,702, 10–1–63, Cl. 280—150.

Larson, Harry M.: *See*—
Larson, Clifford B. and H. M. 3,112,073.
Moore, Carl E., Larson, and Meinstein. 3,074,908.

Larson, Hugo R.: *See*—
Beetle, Robert H., and Larson. 3,078,160.

Larson, John E., and S. T. Ichikawa, to Shell Oil Co. Method of killing nematodes with hydrocarbon monothiols. 3,103,464, 9–10–63, Cl. 167—22.

Larson, John F.: *See*—
Hedler, Robert A., Larson, and Stetz. 3,075,870.

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Toffolo, Dominic S., and Larson. 3,087,108.

Larson, Leslie B. Attachments for an envelope handling machine. 3,106,877, 10–15–63, Cl. 93—62.

Larson, Louis P., and W. C. George, to Riegal Paper Corp. Container and method of forming same. 3,082,583, 3–26–63, Cl. 53—29.

Larson, Melvin L., to American Metal Climax, Inc. Molybdenum benzophenone compounds. 3,094,544, 6–18–63, Cl. 260—429.

Larson, Olaf A.: *See*—
Flinn, Richard A., Kerns, and Larson. 3,105,812.

Larson, Philip E.: *See*—
Rebechini, Peter G., and Larson. 3,099,905.

Larson, R. V.: *See*—
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Larson, Raymond G. Foldable teaching aid. 3,077,041, 2–12–63, Cl. 35—73.

Larson, Robert L., and W. W. Ervin, to General Motors Corp. Dynamoelectric machine. 3,076,110, 1–29–63, Cl. 310—194.

Larson, Robert W. Skidder means. 3,086,666, 4–23–63, Cl. 214—85.5.

Larson, Roy: *See*—
Larson, Ernest O. and R. 3,095,073.

Larson, Russell R.: *See*—
Hennis, Robert B., and Larson. 3,089,123.

Larson, Russell H., to International Business Machines Corp. Data translating system. 3,083,903, 4–2–63, Cl. 235—61.6.

Larson, Victor J., to Hercules Powder Co. Nonpigmented cellulose ether coating composition and process. 3,071,484, 1–1–63, Cl. 106—172.

Larson, Vincent H., and R. D. Holmberg, to United States of America, Air Force. Rapid opening valve. 3,095,901, 7–2–63, Cl. 137—522.

Larson, Wesley S.: *See*—
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Larson, William M., and T. G. Mastin; said Larson assor. to The Goodyear Tire & Rubber Co. Composition comprising a polyester, dichlorobenzidine and 3,3'-dimethyl-4,4'-diphenylene diisocyanate and tire made therefrom. 3,107,235, 10–15–63, Cl. 260—77.

Larsson, Bernt G., and K. T. Ostmark, to Ingenjorsfirma T. Ostmark & Co. Wire bundle holder for electrical wiring. 3,082,984, 3–26–63, Cl. 248—68.

Larsson, Bert R., to Von Tell Trading Co. AB. Hatch covers having hydraulic means for moving the sections. 3,107,722, 10–22–63, Cl. 160—188.

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Larsson, Karl-Eric, and O. S. Johansson, to Leje & Thurne Aktiebolag. Apparatus for dewatering suspensions and drypressing of the dry substance contained therein. 3,111,082, 11–19–63, Cl. 100—117.

Larsson, Nils E. B. Valve for machines having a reciprocating piston. 3,112,063, 11–26–63, Cl. 230—229.

Larsson, Nils E. B., and K. V. B. Lundvik, to Svenska Turbin Aktiebolaget Ljungstrom. Method of and means for combined operation of automatically capacity regulated compressors. 3,074,619, 1–22–63, Cl. 230—2.

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La Rue, Mervin W., Jr., to Bell & Howell Co. Backlighting and reflectance error compensation devices. 3,105,428, 10–1–63, Cl. 95—10.

Larue, Napoleon L.: *See*—
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La Rue, Phillip G., to Calcinator Corp. Door operating mechanism. 3,088,425, 5–7–63, Cl. 110—178.

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Nachtman, Elliot S. 3,094,440.

Lasar, William. Safety switch device. 3,081,390, 3–12–63, Cl. 200—172.

Lasar, William. Thickness gauge for meat saw. 3,092,157, 6–4–63, Cl. 143—174.

Lasar, William. Meat grinder guard means. 3,109,472, 11–5–63, Cl. 146—182.

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Lash, Seymour. Self adjusting stretch coverall. 3,086,214, 4–23–63, Cl. 2—79.

Lash, Seymour. Replaceable fluidtight filter holder. 3,102,741, 9–3–63, Cl. 285—332.3.

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Lasher, Gordon J., and P. P. Sorokin, to International Business Machines Corp. Four spin flip maser with single maser action. 3,072,859, 1–8–63, Cl. 330—4.

Lashley, Robert B. Vending machine. 3,094,241, 6–18–63, Cl. 221—110.

Lasier, David R., to Schlage Lock Co. Adjustable soffit plate. 3,095,599, 7–2–63, Cl. 16—49.

Laskey, Richard P., to The Procter & Gamble Co. Detergent tablet and process for making same. 3,081,267, 3–12–63, Cl. 252—135.

Laskin, Allen I., to Olin Mathieson Chemical Corp. 16-hydroxylation of steroids. 3,098,796, 7–23–63, Cl. 195—51.

Laskin, Allen I., and F. L. Weisenborn, to Olin Mathieson Chemical Corp. A-nortestololactones. 3,098,079, 7–16–63, Cl. 260—343.2.

Laskin, Allen I., and J. Fried, to Olin Mathieson Chemical Corp. Process for microbial 6β-hydroxylation of steroids containing aromatic A-rings. 3,115,443, 12–24–63, Cl. 195—51.

Laskin, Allen I., and J. Fried, to Olin Mathieson Chemical Corp. Process for microbial hydroxylation of steroids containing aromatic A-rings. 3,115,444, 12–24–63, Cl. 195—51.

Laskowski, Edward, to General Electric Co. Wire connector assembly. 3,115,244, 12–24–63, Cl. 206—56.

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Latham, Burton F., Jr., and T. A. Ruble, to Continental Carbon Co. Process for manufacture of carbon black. 3,075,829, 1–29–63, Cl. 23—209.4.

Latham, Burton F., Jr., and T. A. Ruble, to Continental Carbon Co. Apparatus for making carbon black. 3,087,796, 4–30–63, Cl. 23—259.5.

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Lathrop, Wesley D., and A. L. Castle, to Lathrop-Castle Enterprises, Inc. Tape finishing tools for corners. 3,105,262, 10–1–63, Cl. 15—235.7.

Lathrop, Wesley D., and A. L. Castle, to Lathrop-Castle Enterprises, Inc. Tape applicator. 3,116,195, 12–13–63, Cl. 156—575.

Latimer, Kenneth B., and M. N. Stiles, to Time, Inc. Web drying apparatus. 3,071,869, 1–8–63, Cl. 34—114.

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La Tulip, Joseph N. Apparatus for unloading and storing razor blades. 3,114,204, 12–17–63, Cl. 30—40.

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Lauck, Francis W., to A. O. Smith Corp. Electro-osmotic humidity control. 3,092,179, 6–4–63, Cl. 165—60.

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Laughlin, Myron P. Lawn edger tape and applicator. 3,086,322, 4–23–63, Cl. 47—58.

Laughlin, Myron P. Bath safety stanchion. 3,114,154, 12–17–63, Cl. 4—185.

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Von Berg, Richard E., Laurent, and Pfeifer. 3,099,329.

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Laux, David E., to Radio Corp. of America. Magnetic field structure for loudspeakers. 3,106,670, 10–8–63, Cl. 317—201.

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Peters, Adolph T., and La Valley. 3,108,340.

Lavalou, Michel, to Organico, S.A. Ethylenic polyamides. 3,106,548, 10–8–63, Cl. 260—78.

La Velle, Harold G., and E. T. De Shazo; said De Shazo, assors. to said La Velle. Used brick cleaning apparatus. 3,087,483, 4–30–63, Cl. 125—26.

Laver, Donald G., to Packaging Corp. of America. Carton construction. 3,112,059, 11–26–63, Cl. 229—52.

Laverdisse, Edmond, to Les Glaceries de la Sambre Societe Anonyme. Glass polishing apparatus. 3,073,075, 1–15–63, Cl. 51—112.

Laverty, Martin J., and T. F. Aronson, to Murray Mfg. Corp. Sealed tube. 3,090,263, 5–21–63, Cl. 78—89.

Laviana, Donald W.: *See*—
Fritz, William E., and Laviana. 3,108,216.

Laviana, Donald W., to General Motors Corp. Method of making a coil. 3,095,635, 7–2–63, C. 29—155.57.

Laviana, Donald W., and R. D. Unterborn, to General Motors Corp. Timer mechanism. 3,077,784, 2–19–63, Cl. 74—3.52.

Laviana, Lawrence J., to M. H. Rhodes, Inc. Coin collecting box for parking meters and the like. 3,107,847, 10–22–63, Cl. 232—16.

La Vigne, Paul G., to Owens-Corning Fiberglas Corp. Air distribution duct assembly. 3,106,146, 10–8–63, Cl. 98—33.

La Vigne, Paul G., J. A. Roberts, and W. C. Stahl, to Sunbeam Lighting Co., Inc. Duct with air-distributing means. 3,093,058, 6–11–63, Cl. 98—40.

Lavin, Edward: *See*—
Fitzhugh, Andrew F., Lavin, and Crozier. 3,077,462.

Lavin, Edward, A. H. Markhart, and C. F. Hunt, to Shawinigan Resins Corp. Composition comprising a polyvinyl acetal, a phenol-aldehyde resin, a melamine-aldehyde resin, a polyurethane and, as a cure promoter, an organic compound of tin or iron, and electrical conductor coated therewith. 3,072,596, 1–8–63, Cl. 260—45.1.

Lavin, Edward, A. H. Markhart, and C. F. Hunt, to Shawinigan Resins Corp. Composition comprising a polyvinyl acetal, a melamine-aldehyde resin, a polyurethane and, as a cure promoter, an organic compound of tin or iron, and electrical conductor coated therewith. 3,072,597, 1–8–63, Cl. 260—45.2.

Lavin, Edward, A. H. Markhart, and R. E. Kass, to Shawinigan Resins Corp. Coating composition comprising a polyvinyl acetal, a phenol-aldehyde resin, a melamine-aldehyde resin and a polyurethane and electrical conductor coated therewith. 3,104,236, 9–17–63, Cl. 260—45.1

Lavin, Edward, A. H. Markhart, and C. F. Hunt, to Shawinigan Resins Corp. Combination coatings. 3,105,775, 10–1–63, Cl. 117—232.

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Giovannoni, Bruno C., and Lavin. 3,072,302.

Lavine, Jerome M., to Raytheon Co. Semiconductor devices with improved carrier injections to allow increased frequency response (spacistors). 3,091,706, 5–28–63, Cl. 307—88.5.

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Focht, Robert M. 3,111,868.
Hall, Horace N. 3,088,725.
Samuel, Donald G., Heck, and Hall. 3,086,327.
Vaughan, Chester D., Jr., and Vetter. 3,099,533.

Lavorazione Materie Plastiche-L.M.P. S.p.A.: *See*—
Colombo, Roberto. 3,111,711.

Lavrard, Georges L. Collapsible ladder. 3,073,414, 1–15–63, Cl. 182—164.

Law, Denny B. Hubcap apparatus. 3,077,948, 2–19–63, Cl. 184—45.

Law, Harry B., to Her Majesty's Postmaster General. Carrier telephone systems. 3,089,920, 5–14–63, Cl. 179—15.

Law, Marvin A., to Fieldcrest Mills, Inc. Method and apparatus for weaving variant-height-loop terry fabrics. 3,072,153, 1–8–63, Cl. 139—25.

Law, Marx. Turbo mill. 3,093,328, 6–11–63, Cl. 241—55.

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Kirkpatrick, Willard H., Seale, Walker, and Law. 3,098,827.

Lawdham, Charles H., to Robinson Bros. Cork Growers Ltd. Method of and means for securing caps or stoppers to bottles and other suitable containers. 3,106,808, 10–15–63, Cl. 53—42.

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Feldman, Sidney, and Lawes. 3,096,031.

Lawhead, Robert E., Jr.: *See*—
Hamilton, Francis E., Hawkins, Lawhead, and Hughes. Re. 25,482.

Lawhorne, Earl R.: *See*—
Sheehan, Gerard M., and Lawhorne. 3,086,877.

Lawless, Clifford C., and A. M. Williamson, to ACF Industries Inc. Packing box assembly. 3,091,471, 5–28–63, Cl. 277—112.

Lawless, Donald O.: *See*—
Clifton, Richard N., and Lawless. 3,106,011.

Lawless, John W., to Mayhew Steel Products, Inc. Tool for removing spring pins. 3,099,876, 8–6–63, Cl. 29—229.

Lawless, Norman D., to General Motors Corp. Balancing apparatus. 3,084,556, 4–9–63, Cl. 73—480.

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Cobler, Edmund U., Barrett, and Lawless. 3,112,476.

Lawlis, Donald E. Safety dispenser for coiled guyline wire. 3,107,880, 10–22–63, Cl. 242—129.

Lawlor, Francis: *See*—
Braid, Milton, and Lawlor. 3,088,896.
Hauptschein, Murray, Braid, and Lawlor. 3,083,238.

Lawlor, Francis E.: *See*—
Hauptschein, Murray, Braid, and Lawlor. 3,100,228.

Lawlor, Francis E., and M. Braid, to Pennsalt Chemicals Corp. Oxidation process for preparing carboxylic acid anhydrides. 3,102,139, 8–27–63, Cl. 260—546.

Lawn Grass Pellets Co.: *See*—
Tukacs, George. 3,077,700.

Lawrance, Richard B., to Minneapolis-Honeywell Regulator Co. Method of constructing magnetic recording devices. 3,082,509, 3–26–63, Cl. 29—155.5.

Lawrence, Allan K., to Deere & Co. Alarm system for hay balers and the like. 3,083,681, 4–2–63, Cl. 116—60.

Lawrence Bros., Inc.: *See*—
Folts, Robert E. 3,083,402.

Lawrence, Donald M.: *See*—
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De Muth, Russell T., and Lawrence. 3,074,688.

Lawrence, Frank L., to Aerialmatic Engineering Ltd. Pump mounting. 3,104,620, 9–24–63, Cl. 103—218.

Lawrence, Franklin I. L., to Kendall Refining Co. Lubricating composition. 3,083,162, 3–26–63, Cl. 252—33.4.

Lawrence, Frederick R.: *See*—
Woodbridge, Joseph E., and Lawrence. 3,110,724.

Lawrence, Herbert R., to United Aircraft Corp. Vector control system. 3,092,963, 6–11–63, Cl. 60—35.54.

Lawrence, Herbert T.: *See*—
Edelman, Barnet R., and Lawrence. 3,088,273.

Lawrence, Joyce M.: *See*—
Wells, Ralph P., and Lawrence. 3,093,108.

Lawrence Paper Co., The: *See*—
Galloway, Charles A. 3,078,018.
Hill, Justin D., and Cain. 3,097,989.
Keil, Waldo R. 3,109,217.

Lawrence, Philip L.: *See*—
White, James E., and Lawrence. 3,099,814.

Lawrence, Philip L., to Socony Mobil Oil Co., Inc. First break controlled inverse seismic filtering. 3,076,176, 1–29–63, Cl. 340—15.5.

Lawrence, Philip L., and M. R. Foster, to Socony Mobil Oil Co., Inc. Elimination of instrumentation distortion. 3,076,177, 1–29–63, Cl. 340—15.5.

Lawrence, Ralph T.: *See*—
Gent, Alfred W., Eaglesfield, Lawrence, and Crampton. 3,106,768.

Lawrence, Ray V.: *See*—
Schuller, Walter H., and Lawrence. 3,086,989.

Lawrence, Roy: *See*—
Bush, Donald R., Howarth, and Lawrence. 3,080,782.

Lawrence, William J., to Westinghouse Air Brake Co. Snap-acting safety valve device. 3,088,325, 5–7–63, Cl. 74—100.

Lawrie, Jerome T.: *See*—
Hennen, Roy E., and Lawrie. 3,093,516.

Lawry, Frank R. E., and C. C. Gaither; said Gaither assor. to Charles C. Gaither, Inc. Extractor tool. 3,071,848, 1,8–63, Cl. 29—267.

Laws, Malcolm H., to Birch and Birch. Pelvic cavity treating device and medicament therefor. 3,086,524, 4–23–63, Cl. 128—173.

Laws, Malcolm H., to Birch and Birch. Pressurized means for body cavity treatment. 3,104,663, 9–24–63, Cl. 128—224.

Laws, Peter. Expansion turbines. 3,115,331, 12–24–63, Cl. 253—82.

Lawson, Andrew L., and J. J. Maurin, to Chicago Bridge & Iron Co. Shell for fluid-cooled reactors. 3,105,808, 10–1–63, Cl. 204—193.2.

Lawson, Colin G.: *See*—
Doe, Frederick H., Freeman, Lawson, Newman, Peers, and Young. 3,073,730.

Lawson, David E. Foam plastic article of furniture. 3,084,980, 4–9–63, Cl. 297—455.

Lawson, Ernest E., Jr. Automatic livestock feeder. 3,115,866, 12–31–63, Cl. 119—56.

Lawson, F. H., Co., The: *See*—
Lumley, Maurice C. 3,075,692.

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Fitton, David L., and Lawson. 3,111,900.

Lawson, Gustaf R.: *See*—
Sheldon, Luther M., and Lawson. 3,109,079.

Lawson, Gustaf R., to General Electric Co. Flasher switch. 3,089,934, 5–14–63, Cl. 200—122.

Lawson, Harry W., Jr., to Caledonia Electronics and Transformer Corp. Electrical transformer. 3,102,245, 8–27–63, Cl. 336—84.

Lawson, Ivar S. Power control for presses. 3,099,175, 7–30–63, Cl. 78—39.

Lawson, Joseph M., to Lawson Stacker Co., Inc. Automatic stick placer for lumber stacks. 3,081,888, 3–19–63, Cl. 214—6.

Lawson, Shelby D., to Phillips Petroleum Co. Catalytic conversion. 3,071,538, 1–1–63, Cl. 208—120.

Lawson Stacker Co., Inc.: *See*—
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Lawter Chemicals, Inc.: *See*—
D'Alello, Gaetano F., and Voedisch. 3,116,256.

Lawton, Elliott J., and H. C. Woodruff, to General Electric Co. Process for improving the crocking and color-fastness of pigment-printed fibrous sheets by irradiation. 3,097,960, 7–16–63, Cl. 117—38.

Lawton, Emil A., and J. Q. Weber, to North American Aviation, Inc. Preparation of chlorodifluoramine. 3,077,377, 2–12–63, Cl. 23—14.

Lawton, Emil A., and J. Q. Weber, to North American Aviation, Inc. Difluoramine-ether propellant. 3,103,456, 9–10–63, Cl. 149—1.

Lawton, Emil A., and D. Pilipovich, to North American Aviation, Inc. Method of preparing difluorodiazine. 3,109,711, 11–5–63, Cl. 23—205.

Lawton Printing Co.: *See*—
Wruck, Max W. 3,072,546.

Lawton, William R., and E. F. Lopez, to Nashua Corp. Heat developable copy sheet and compositions useful therefor. 3,076,707, 2–5–63, Cl. 96—75.

Lawton, William R., H. A. Smith, and J. N. Copley, to Nashua Corp. Heat sensitive marking papers and methods for making same. 3,090,697, 5–21–63, Cl. 117—36.7.

Lawton, William R., and E. F. Lopez, to Nashua Corp. Heat activatable adhesive compositions containing a crystal complex of a liquid plasticizer. 3,104,979, 9–24–63, Cl. 106—178.

Laxalt, Joyce N. Powder brush. 3,100,315, 8–13–63, Cl. 15—558.

Laxo, Ed. Bumper stabilizer for can body side seamer. 3,086,487, 4–23–63, Cl. 113—12.

Lay, Carlton E. Resilient bumper block. 3,113,642, 12–10–63, Cl. 188—32.

Layburn, Robert L., to General Dynamics Corp. Power supply system. 3,071,653, 1–1–63, Cl. 179—86.

Laycak, John F., to Jones & Laughlin Steel Corp. Electronic surface inspection system. 3,096,443, 7–2–63, Cl. 250—219.

Laycock, Alfred H., and T. J. Lees, to C. & J. Hampton, Ltd. Shank mounting means for a slidable outer jaw wrench. 3,085,456, 4–16–63, Cl. 81—101.

Laycock Engineering Ltd.: *See*—
Crane, Gordon R. 3,115,759.

Laycock, Thomas B., Jr.: *See*—
Hawley, Harold K., and Laycock. 3,102,101.

Layman, Meredith J. Barbecue drip pan. 3,106,886, 10–15–63, Cl. 99—421.

Laymon, Frank L.: *See*—
Foster, James L., and Laymon. 3,076,773.

Layne & Bowler Pump Co.: *See*—
Bower, Clark D. 3,098,450.

Layne-Central Co.: *See*—
Aylor, William W. 3,114,239.

Layne-Franklin Co.: *See*—
Franklin, Robert M. 3,077,938.

Layne, Gilbert S., and R. J. Teitel, to United States of America, Atomic Energy Commission. Uranium-molybdenum-aluminum ternary alloy. 3,098,742, 7–23–63, Cl. 75—122.5.

Layne, Harold W., Sr., to Inland Container Corp. Packaging structure. 3,110,435, 11–12–63, Cl. 229—40.

Layne, Mark B. Wellhouse. 3,080,619, 3–12–63, Cl. 20—1.

Layton, Allen. Convertible article of furniture. 3,086,224, 4–23–63, Cl. 5—52.

Layton, Charles L.: *See*—
Chrzanowski, Edward J., and Layton. 3,073,966.

Layton, Gerald E. Retrievable casing tester. 3,086,387, 4–23–63, Cl. 73—40.5.

Layton, Gerald E. Retrievable casing tester. 3,108,467, 10–29–63, Cl. 73—40.5.

Layton J. C., and J. L. Perrin, to Towlsaver, Inc. Apparatus for dispensing and automatically dismounting rolls of material 3,073,541, 1–15–63, Cl. 242—55.53.

Layton, James L., Jr. Sorting and distributing device. 3,115,961, 12–31–63, Cl. 193—36.

Lazar, David M. Sprocket for motion picture apparatus. 3,111,349, 11–19–63, Cl. 226—85.

Lazar, Michael, to Burndy Corp. Pin and socket connectors. 3,079,582, 2–26–63, Cl. 339—217.

Lazarenko, Natalia I.: *See*—
Kiriltsev, George M., and Lazarenko. 3,092,710.

Lazaro, Anton. Electroplating apparatus. 3,096,270, 7–2–63, Cl. 204—213.

Lazarus, Allan K.: *See*—
Greenwald, Bertrand W., and Lazarus. 3,094,472.

Lazarus, Ralph E.: *See*—
Hardesty, Ethridge E. 3,100,171.

La-Z-Boy Chair Co.: *See*—
Knabusch, Edward M., and Shoemaker. 3,096,121.
Knabusch, Edward M., and Shoemaker. 3,098,646.
Knabusch, Edward M., and Shoemaker. 3,099,487.

Lazo, Luis R., and B. Barish, to Thompson Ramo Wooldridge Inc. Turbocharger fence ring. 3,073,512, 1–15–63, Cl. 230—133.

Lazo, Luis R., and B. Barish, to Thompson Ramo Wooldridge Inc. Turbocharger flexible nozzle ring. 3,112,096, 11–26–63, Cl. 253—55.

Lazzarini, Louis P., ¼ to G. I. Magnuson, and ¼ to G. I. Magnuson, R. Magnuson, and L. J. Fox, as trustees. Rotary solenoid. 3,072,830, 1–8–63, Cl. 317—197.

Lea, Kenneth R.: *See*—
Hieserman, Clarence E., Veazey, and Lea. 3,084,143.

Lea, Lawrence N. Selective phonograph apparatus. 3,105,690, 10–1–63, Cl. 274—9.

Lea, Lawrence N., to A. L. Oehrig. Leveling devices. 3,106,024, 10–8–63, Cl. 33—207.

Lea, Lawrence N. One-point control selective phonograph apparatus. 3,109,655, 11–5–63, Cl. 274—9.

Lea, Stanley T. Tire valve removing tool. 3,100,335, 8–13–63, Cl. 29—221.5.

Leach, Burleigh H., and H. P. Nowak, to Sylvania Electric Products Inc. Bulb orienting apparatus. 3,105,585, 10–1–63, Cl. 198—33.

Leach, Edward B., to Audley Engineering Co. Ltd. Thrust applying mechanism. 3,079,750, 3–5–63, Cl. 60—6.

Leach, George A., to United Shoe Machinery Corp. Automatic bobbin winding machine. 3,086,720, 4–23–63, Cl. 242—20.

Leach, Harold E.: *See*—
Tolby, Thomas F., and Leach. 3,072,270.

Leach, Hugh K.: *See*—
Stelljes, Charles R., Frostad, and Leach. 3,095,748.

Leach, Irby H., and F. H. Bickford. Plastic mold. 3,097,397, 7–16–63, Cl. 18—28.

Leach, John M. Boat cleaning brush. 3,085,541, 4–16–63, Cl. 114—222.

Leach, Sam L., to Pid Corp. Embossing apparatus and method for adjusting the length of an embossing roll. 3,100,439, 8–13–63, Cl. 101—32.

Leach, Willis: *See*—
Williams, Charles R., Morrison, Leach, and Reely. 3,106,635.

Leader, Forest, to L & B Welding Equipment, Inc. Apparatus for replacing grousers and the like. 3,110,278, 11–12–63, Cl. 113—123.

Leader, Forest D., and J. C. Lindgren, to L & B Welding Equipment, Inc. Means for controlling on and off periods of welding equipment in refacing link tracks and the like. 3,114,032, 12–10–63, Cl. 219—125.

Leadon, Roland E.: *See*—
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Leafe, Percy S. H., to Needle Industries Ltd. Tool for the ripping of seams and like purposes. 3,100,935, 8–20–63, Cl. 30—294

Leak, H. J., & Co. Ltd.: *See*—
Barlow, Donald A. 3,111,187.

Leak, Robert J., and M. C. Throckmorton, to Texaco Inc. Catalyst preparation. 3,111,494, 11–19–63, Cl. 252—470.

Leake, Bernard W., and D. A. MacDonald, to Raytheon Co. Directional filters. 3,092,790, 6–4–63, Cl. 333—10.

Leakey, David M., to The General Electric Co., Ltd. Low cross-talk delay circuit. 3,098,976, 7–23–63, Cl. 328—55.

Leaman, Wilbur K.: *See*—
Coonradt, Harry L., Leaman, and Miale. 3,098,030.

Leaning, Robert R., to Metal & Thermit Corp. Electric welding apparatus and control system. 3,093,727, 6–11–63, Cl. 219—130.

Leaming, Robert R., and W. W. Coffeen, to M & T Chemicals Inc. Electrode feeding mechanism for welding apparatus. 3,093,285, 6–11–63, Cl. 226—184.

Leandri, Giuseppe, to Montecatini, Societa Generale per l'Industria Mineraria e Chimica. Polymeric compositions stabilized against heat, aging and light. 3,108,090, 10–22–63, Cl. 260—45.7.

Lear Siegler, Inc.: *See*—
Collar, Rolland W. 3,083,042.
Gall, Stewart E. 3,101,824.
Imperi, Aldo P. 3,086,631.
Katzenstein, Henry S., Banzhaf, and Beckerman. 3,110,801.
Kutsche, Robert O. 3,103,230.
Lear, William P. 3,103,604.
Mueller, Richard H. 3,078,837.
Owen, John C. 3,100,612.
Scantlin, John R., and Haas. 3,090,013.
Secunde, Richard R., and Pratt. 3,075,127.

Lear Siegler, Inc.: *See*—Continued
Stoyke, Ludwig T. 3,092,153.
Strohm, Robert D., Kraft, and Kartman. 3,075,250.
Trempler, Werner R. 3,113,594.
Ware, Willard O. and R. C. 3,111,122.

Lear, William P.: *See*—
Auld, Samuel H., Jr., and Lear. 3,079,107.

Lear, William P., to Lear Siegler, Inc. Combination clutch flywheel, and electric generator rotor. 3,103,604, 9–10–63, Cl. 310—78.

Lear, William P., Sr., to Motorola, Inc. Altitude controller. 3,075,389, 1–29–63, Cl. 73—386.

Learmont, Robert K., ½ to C. J. Williams. Apparatus for loading and storing articles. 3,094,940, 6–25–63, Cl. 104—93.

Learmont, Robert K., ½ to C. J. Williams. Apparatus for unloading articles. 3,109,544, 11–5–63, Cl. 214—77.

Learmont, Robert K., and J. J. Woods. Internal reinforced construction of trailers. 3,105,716, 10–1–63, Cl. 296—28.

Learn, Arthur J.: *See*—
Crittenden, Eugene C., Jr., Cooper, Learn, and Schmidlin. 3,084,339.

Learn, Leland L.: *See*—
Corry, Thomas M., and Learn. 3,082,276.

Learner, Sydney E., A. J. and H. O. Bennett, and A. Davis, to Brewing Patents Ltd. Method for the continuous boiling of wort and extraction of hops. 3,113,027, 12–3–63, Cl. 99—52.

Leary, Joseph A.: *See*—
Mullins, Lawrence J., Jr., Leary, Bjorklund, and Maraman. 3,098,028.
Ogard, Allen E., Leary, and Maraman. 3,082,163.

Leary, Ralph J., to Esso Research and Engineering Co. Preparation of polyaminomethyl aromatic compounds. 3,081,347, 3–12–63, Cl. 260—570.9.

Leasure, John K., to The Dow Chemical Co. Method for the control of undesired vegetation. 3,074,790, 1–22–63, Cl. 71—2.3.

Leatham, Earl, and A. H. Pack, to Harbison-Walker Refractories Co. Production of dead burned magnesia. 3,091,-514, 5–28–63, Cl. 23—201.

Leathard, John F., to Wm. Cory & Son Ltd. Marine tankers. 3,076,423, 2–5–63, Cl. 114—74.

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Shuttleworth, Stanley G. 3,076,987.

Leather Research Corp.: *See*—
Kremen, Seymour S., and Southwood. 3,099,149.

Leather, William J. Two-speed gearbox. 3,102,438, 9–3–63, Cl. 74—764.

Leathercraft, Inc.: *See*—
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Leathers, Clarence H. Drill string stabilizer. 3,103,391, 9–10–63, Cl. 308—4.

Leatherwood Mfg. Co., Inc.: *See*—
Rich, Howard B. 3,078,955.

Léauté, Jean: *See*—
Guestaux, Claude L., and Léauté. 3,082,087.

Leavenworth, Max H. Sound producing device. 3,094,972, 6–25–63, Cl. 116—147.

Leaver, Eric W.: *See*—
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Hutter, James F., Kelly, Mounce, and Leaver. 3,097,744.

Leaver, Ralph H., and E. Knibbs, to Rolls-Royce Ltd. Engine starting systems. 3,071,125, 1–1–63, Cl. 123—179.

Leavitt, Frederick C., and F. Johnson, to The Dow Chemical Co. Organo-tin metallic compounds. 3,116,307, 12–31–63, Cl. 260—429.7.

Leaycraft, Edgar C., and G. H. Morris, Jr., to International Business Machines Corp. Method of producing ferrite bodies. 3,083,164, 3–26–63, Cl. 252—62.5.

Le Baud, Pierre M., J. Lacour, and V. Ralevski, to Commissariat a l'Energie Atomique. Nuclear reactor control. 3,079,315, 2–26–63, Cl. 204—154.2.

Lebeaux, Jacob M., and C. E. Ballard, to FMC Corp. Tubing hanger assembly. 3,072,420, 1–8–63, Cl. 285—137.

Lebeda, Miloslav: *See*—
Kadlec, Zdenek, and Lebeda. 3,093,204.

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Hull, Thomas N., Jr., and Le Bell. 3,094,309.
Taub, Alvin, Feldman, and Le Bell. 3,098,352.

Leber, Henry, to Ched-O-Matic Corp. Method for making cheese. 3,078,170, 2–19–63, Cl. 99—116.

Lebherz, Robert W., Jr.: *See*—
Achorn, Glenwood B., Bokesch, Dapper, Lebherz, Schwab Smith, Rawson, and Metcalfe. 3,075,888.

Le Blan, Louis, to North American Philips Co., Inc. Signal transmission and receiving system, more particularly for use in television. 3,095,479, 6–25–63, Cl. 179—15.

Le Blanc, Allan J. Plastic collapsible sun hat. 3,097,363, 7–16–63, Cl. 2—177.

Leblanc, G., Corp.: *See*—
Leblanc, Leon. 3,079,828.

Le Blanc, Gerard J., and W. G. Martin. Tablet dispenser. 3,079,043, 2–26–63, Cl. 221—265.

Le Blanc, John R., and J. G. Murray, to Monsanto Chemical Co. Preparation of methylene bis(monocarboxy-substituted aryl) compounds. 3,113,148, 12–3–63, Cl. 260—515.

Leblanc, Leon, to G. Leblanc Corp. Clarinet. 3,079,828, 3–5–63, Cl. 84—382.

Leblanc, Prosper J. Combination rake-mower. 3,094,830, 6–25–63, Cl. 56—24.

Le Blanc, Robert B., to The Dow Chemical Co. Preparation of the ferric chelate of hydroxyethyliminodiacetic acid. 3,080,410, 3–5–63, Cl. 260—439.

Le Blanc, Robert E., to The Hamilton Watch Co. Automatic timekeeping regulators. 3,114,238, 12–17–63, Cl. 58—85.5.

Le Blanc, Walter J.: *See*—
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Leblans, Leopold M. L. J.: *See*—
Helwig, Antonius C., Langenberg, and Leblans. 3,102,-729.

Leblon, Emile, and H. Lambert, to Solvay & Cie. Method for producing sodium perborate. 3,109,706, 11–5–63, Cl. 23—60.

Le Blond, R. K., Machine Tool Co., The: *See*—
Hermann, Otto. 3,094,595.
Hermann, Otto. 3,098,906.
Kimsey, William A. 3,075,503.
Whalen, William D. 3,091,985.

Lebourg, Maurice P., to Borg-Warner Corp. Method and apparatus for detonating explosive devices in bore holes. Re. 25,407, 6–25–63, Cl. 166—35.

Lebourg, Maurice P., to Schlumberger Well Surveying Corp. Well completion equipment. 3,080,925, 3–12–63, Cl. 166—236.

Lebourg, Maurice P., to Schlumberger Well Surveying Corp. Fluid sampling apparatus. 3,104,713, 9–24–63, Cl. 166—142.

Lebourg, Maurice P., to Schlumberger Well Surveying Corp. Sample taking apparatus. 3,107,730, 10–22–63, Cl. 166—100.

Lebourg, Maurice P., to Schlumberger Well Surveying Corp. Well perforating method and apparatus. 3,110,257, 11–12–63, Cl. 102—20.

Lebow Associates, Inc.: *See*—
Lebow, Milton J. 3,111,028.

Lebow, Milton J., to Lebow Associates, Inc. Torque meter. 3,111,028, 11–19–63, Cl. 73—136.

Lebow, Ralph H., to Parker-Hannifin Corp. Valve assembly seal means. 3,095,179, 6–25–63, Cl. 251—333.

Le Brasse, Gordon J.: *See*—
Gould, James C., Le Brasse, and Gallatin. 3,078,563.

Le Bron, Andre. Combination cabinet bar unit. 3,110,533, 11–12–63, Cl. 312—222.

Le Brooy, Paul J. Applicator for spreadable food products. 3,090,071, 5–21–63, Cl. 15—595.

Le Brun, Eugene J., Jr.: *See*—
Morrison, Douglas L., and Le Brun. 3,083,013.

Le Brusque, Rene, to H. Ernault Batignolles S.A. Fluid power system. 3,103,148, 9–10–63, Cl. 121—41.

LeBus, Franklin L., Sr.: *See*—
Crowley, Robert A., and LeBus. 3,110,096.

Le Bus, Franklin L., Sr., to Le Bus Royalty Co. Fleet angle correction apparatus. 3,078,060, 2–19–63, Cl. 242—157.1.

Le Bus, Franklin L., Sr., to Le Bus Royalty Co. Braking apparatus and slack line control device. 3,095,183, 6–25–63, Cl. 254—175.

Le Bus, Franklin L., Sr., to Le Bus Royalty Co. Unlatching joint apparatus. 3,097,001, 7–9–63, Cl. 285—361.

Le Bus, Franklin L., Sr., and R. A. Crowley, to Le Bus Royalty Co. Cable reeving apparatus. 3,079,130, 2–26–63, Cl. 254—190.

Le Bus, Jake H.: *See*—
Castel, Jacques H., and Le Bus. 3,071,072.

Le Bus, Jake H., J. H. Castel, and F. Mahaffey, Jr., to PGAC Development Co. Apparatus for collecting and analyzing sample fluids. 3,079,793, 3–5–63, Cl. 73—152.

Le Bus Royalty Co.: *See*—
Crowley, Robert A., and LeBus. 3,110,096.
Crowley, Robert A., Smith, and Le Bus. 3,083,932.
Le Bus, Franklin L., Sr. 3,078,060.
Le Bus, Franklin L., Sr. 3,095,183.
Le Bus, Franklin L., Sr. 3,097,001.
Le Bus, Franklin L., Sr., and Crowley. 3,079,130.

Le Caine, Hugh, to National Research Council. Keyboard for a monophonic instrument with improved sound-sustaining means. 3,095,466, 6–25–63, Cl. 84—1.11.

Lechene, Leo L. Disposable gutter broom assembly. 3,074,-094, 1–22–63, Cl. 15—180.

Lecher, Hans Z.: *See*—
Berenbaum, Morris B., Rosenthal, and Lecher. 3,099,643.

Leckner, Russell E. Latching mechanism. 3,110,438, 11–12–63, Cl. 232—44.4.

Leclabart, Jean. Device for ventilating heating sleeves for hair waving. 3,071,142, 1–1–63, Cl. 132—48.

Le Clair, Hugh C., to E. I. du Pont de Nemours and Co. Process of coating irradiated polymer substrates. 3,111,-424, 11–19–63, Cl. 117—47.

Le Clear, Robert L., to T & S Equipment Co. Manually operated dockboard. 3,071,790, 1–8–63, Cl. 14—71.

Leclerc, Jacqueline: *See*—
Meybeck, Jean, Kircher, and Leclerc. 3,085,854.

Leclerc, Jacqueline, to Societe d'Etudes Chimiques Pour l'Industrie et l'Agriculture. Method of removing starch size from cellulose fabric with aqueous alkaline medium containing alkali metal bromites, alkali metal hypobromites or mixtures thereof. 3,083,072, 3–26–63, Cl. 8—138.

Leclercq, Jacques A. M., to Societe d'Exploitation des Materiels Hispano-Suiza. Piston machines of the barrel type. 3,076,345, 2–5–63, Cl. 74—60.

Lecomte, Robert P.: *See*—
Montchausse, Andre J., and Lecomte. 3,099,085.

Le Counte, Roy D., and R. L. Cole. Floor or like sweeping means. 3,108,733, 10–15–63, Cl. 15—49.

Lecrone, Dale S., to Alto Corp. Roll slicing machine. 3,112,-780, 12–3–63, Cl. 146—73.

Lecrone, Dale S., and L. G. Grossi, to Alto Co. Transfer mechanism. 3,080,079, 3–5–63, Cl. 214—309.

Lectrolure Co, Inc.: *See*—
Rhodes, Orville E. 3,085,361.

Ledel, Alvin L.: *See*—
Zeliznak, Emil, and Ledel. 3,112,766.

Lederer, Ernest A., to Westinghouse Electric Corp. Device for converting thermal energy into electrical energy. 3,093,757, 6–11–63, Cl. 310—4.

Lederer, Joseph: *See*—
Birnbaum, Hermann, and Lederer. 3,102,129.

Lederer, Kurt, to Agfa Aktiengesellschaft. Built-in exposure metering arrangement for a single lens reflex camera. 3,093,044, 6–11–63, Cl. 95—10.

Lederle, Rembe, ½ to Sociedal Anonima Cros. Process for the preparation of N,N'-ethylene-bis-2-(O-hydroxyaryl) glycine ferric chelates. 3,095,297, 6–25–63, Cl. 71—1.

Lederman, Albert, ½ to Packard-Bell Electronics Corp. Radar systems. 3,114,148, 12–10–63, Cl. 343—17.1.

Lederman, Sol J.: *See*—
Prahl, Walter H., Lederman, and Lichtblau. 3,073,868.

Ledex, Inc.: *See*—
Leland, Gerald H. 3,092,740.
Leland, Gerald H., and Davis. 3,075,395.

Ledford, Glenn J.: *See*—
Broadrick, Ed B., and Ledford. 3,074,362.
Broadrick, Ed B., Ledford, and McDowell. 3,103,903.

Ledford, Glenn J., and H. S. McDowell, to James Lees and Sons Co. Control means for the backing fabric feed in a pile tufting machine. 3,100,466, 8–13–63, Cl. 112—79.

Ledford-Todd Corp.: *See*—
Anderson, Donald C. 3,106,176.
Bennett, Elmer F. 3,088,214.

Lednicer, Daniel, to The Upjohn Co. 17β-Dialkylamino-17-cyanosteroids and their 17α-alkyl, alkylene and alkyne derivatives. 3,107,254, 10–15–63, Cl. 260—397.3.

Ledoga S.p.A.: *See*—
Bellucci-Sessa, Carlo. 3,086,834.
Bellucci-Sessa, Carlo. 3,114,589.

Le Duc, Joseph A. M., to Diamond Alkali Co. Process of electropolishing zinc. 3,088,886, 5–7–63, Cl. 204—140.5.

Le Duc, Joseph A. M., to Diamond Alkali Co. Electropolishing of zinc-copper alloys. 3,088,887, 5–7–63, Cl. 204—140.5.

Leduc, René. Stable hydraulic servo device. 3,099,940, 8–6–63, Cl. 91—49.

Le Duc, William J.: *See*—
Wilson, George C., and Le Duc. 3,080,769.

Ledwith, Walter A.: *See*—
Hasbrouck, Augustus, and Ledwith. 3,112,702.

Ledwith, Walter A., to United Aircraft Corp. Rocket igniter. 3,073,122, 1–15–63, Cl. 60—39.82.

Ledwith, Walter A., to United Aircraft Corp. Oxidizer inlet and igniter for a rocket. 3,100,059, 10–8–63, Cl. 60—35.6.

Ledwith, Walter A., and M. C. Benedict, to United Aircraft Corp. Injector head for liquid rocket. 3,071,925, 1–8–63, Cl. 60—39.46.

Ledwith, Walter A., A. Hasbrouck, and F. Lattanzio, to United Aircraft Corp. Injector head for rockets. 3,115,009, 12–24–63, Cl. 60—35.6.

Lee, Arthur L., and A. B. Coval, to Consolidation Coal Co. Constant mesh transmission and automatic brake therefor. 3,073,423, 1–15–63, Cl. 192—4.

Lee, Arthur L., and A. B. Coval, to Consolidation Coal Co. Constant mesh transmission and hydraulic actuating circuit therefor. 3,080,773, 3–12–63, Cl. 74—732.

Lee, Arthur L., and A. B. Coval, to Consolidation Coal Co. Fluid seal. 3,090,629, 5–21–63, Cl. 277—95.

Lee, Arthur L., and A. B. Coval, to Consolidation Coal Co. Fluid seal. 3,100,647, 8–13–63, Cl. 277—59.

Lee, Arthur L., and A. B. Coval, to Consolidation Coal Co. Fluid seal. 3,100,648, 8–13–63, Cl. 277—59.

Lee, Bock W., to Bell Telephone Laboratories, Inc. Line concentrating telephone system. 3,073,906, 1–15–63, Cl. 179—18.

Lee, Brian M.: *See*—
Prestige, Harry T., Eade, Hale, Lee, Lovelock, Smith, and Teacher. 3,093,887.

Lee, Burton D.: *See*—
Clements, Roy J., Lee, Towell, McEvers, and Havlik. 3,109,693.

Lee, Charles A., to Bell Telephone Laboratories, Inc. Circuit employing negative resistance asymmetrically conducting devices connected in series randomly or sequentially switched. 3,109,109, 10–29–63, Cl. 307—88.5.

Lee, Charles A., and H. G. White, to Bell Telephone Laboratories, Inc. Fabrication of PN junction devices. 3,082,127, 3–19–63, Cl. 148—1.5.

Lee, Cheoy, Shipyard: *See*—
Lo, To. 3,111,696.

Lee, Clarence I. Ileostomy device. 3,081,771, 3–19–63, Cl. 128—283.

Lee Co., The: *See*—
Lee, Leighton, II. 3,109,459.

Lee, Don N., to Ampex Corp. Circuit for sensing signal output of a magnetic-core memory. 3,096,510, 7–2–63, Cl. 340—174.

Lee, Emerson H., to Monsanto Chemical Co. Dehydrogenation catalyst. 3,100,234, 8–6–63, Cl. 260—669.

Lee Foundation for Nutritional Research: *See*—
Lee, Royal. 3,107,934.

Lee, Frank H.: *See*—
Fisher, James C., Clark, and Lee. 3,081,871.

Lee, Fred, to Sylvania Electric Products Inc. Sweep generation by constant current capacitive discharge through transistor. 3,109,107, 10–29–63, Cl. 307—88.5.

Lee, Fred C. Patient transfer apparatus. 3,115,646, 12–31–63, Cl. 5—81.

Lee, Fred G. H., and J. J. Svarz, to Nalco Chemical Co. Water-dispersible amido-quaternary ammonium salts. 3,072,690, 1–8–63, Cl. 260—404.5.

Lee, Fred G. H., and J. J. Svarz, to Nalco Chemical Co. Treatment of cellulosic fibrous materials with diamide quaternaries and the resulting articles. 3,074,815, 1–22–63, Cl. 117—143.

Lee, Ga Ken (formerly known as Lee Ga Ken). Grass and plant mower. 3,094,832, 6–25–63, Cl. 56—26.5.

Lee, Georgia W.: *See*—
Weaver, Elmer C. 3,098,431.

Lee, Gerald W., to Weyerhaeuser Co. Process for making traffic markers. 3,114,597, 12–17–63, Cl. 18—58.

Lee, Herbert C.: *See*—
Fletcher, Ewan W. 3,075,698.

Lee, Herbert P. Abrasive belt finishing machine. 3,095,674, 7–2–63, Cl. 51—141.

Lee, Herbert S., to United States of America, Army. Aircraft propeller trailer. 3,116,070, 12–31–63, Cl. 280—38.

Lee, James. Cat and bird game. 3,098,652, 7–23–63, Cl. 273—1.

Lee, John E.: *See*—
Carmellini, Andrew E., Lee, and Hornkohl. 3,107,818.

Lee, John W.: *See*—
Phillips, Robert A., and Lee. 3,071,514.

Lee, John W. G. Instant hot water system. 3,097,661, 7–16–63, Cl. 137—335.

Lee, Leighton, II, to The Lee Co. Fluid resistor. 3,109,459, 11–5–63, Cl. 138—40.

Lee, Lieng-Huang, and H. Keskkula, to The Dow Chemical Co. Ether terminated polycarbonates. 3,080,342, 3–5–63, Cl. 260—47.

Lee, Lieng-Huang, and H. Keskkula, to The Dow Chemical Co. Alkyl amine terminated polycarbonates. 3,085,992, 4–16–63, Cl. 260—47.

Lee, Louis J., to Eastman Kodak Co. Process for preparing a cooked cereal and the resulting product. 3,113,865, 12–10–63, Cl. 99—83.

Lee, Louis J., to Eastman Kodak Co. Process for preparing an alimentary paste and the resulting product. 3,113,869, 12–10–63, Cl. 99—85.

Lee, Maurice W., Sr. Aromatic pressure cooker. 3,078,783, 2–26–63, Cl. 99—259.

Lee, Maurice W., Sr. Steak cooker and tenderizer. 3,098,-426, 7–23–63, Cl. 99—339.

Lee, Max M., to General Electric Co. Insulated conductor and method of producing same. 3,074,818, 1–22–63, Cl. 117—232.

Lee, Max M., to General Electric Co. Resinous reaction product of (1) a polyglycidyl ether, (2) a boron ester and (3) a tertiary amine. 3,102,873, 9–3–63, Cl. 260—47.

Lee, Mortimer, to Lockheed Aircraft Corp. Trace identification device. 3,081,458, 3–12–63, Cl. 346—45.

Lee, Norman, to The Keelavite Co. Ltd. Relay apparatus. 3,084,312, 4–2–63, Cl. 317—158.

Lee, Paul H.: *See*—
Smith-Vaniz, William R., and Lee. 3,110,864.
Smith-Vaniz, William R., and Lee. 3,110,869.

Lee, Paul L.: *See*—
Weaver, Elmer C. 3,098,431.

Lee, Ralph J., ½ to W. E. Stanfield, and ½ to P. J. Ullrich. Earth moving machine. 3,109,249, 11–5–63, Cl. 37—129.

Lee, Richard J., to Armour and Co. Preparation of terminally unsaturated olefins from aliphatic carboxylic acids. 3,109,-040, 10–29–63, Cl. 260—681.

Lee, Robert A., and C. S. Marie, to The Bendix Corp. Television system utilizing beam pulsing to improve sensitivity at low light levels and coordinated means to eliminate flicker at the kinescope display. 3,090,829, 5–21–63, Cl. 178—6.8.

Lee, Robert B. Z-drive water jet propulsion unit. 3,073,-277, 1–15–63, Cl. 115—12.

Lee, Robert C. K.: *See*—
Falkner, Victor L., Hendrick, and Lee. 3,079,108.

Lee, Robert C. K., to Minneapolis-Honeywell Regulator Co. Marine craft and control apparatus therefor. 3,081,729, 3–19–63, Cl. 114—66.5.

Lee, Robert C. K., to Minneapolis-Honeywell Regulator Co. Aircraft automatic control apparatus. 3,113,749, 12–10–63, Cl. 244—77.

Lee, Robert C. K., and A. L. Ljungwe, to Minneapolis-Honeywell Regulator Co. Control apparatus for aircraft. Re. 25,491, 12–3–63, Cl. 244—77.

Lee, Robert H., to Basler Electric Co. Transistor converters. 3,089,075, 5–7–63, Cl. 321—45.

Lee, Robert H., to Basler Electric Co. Converters. 3,089,076, 5–7–63, Cl. 321—45.

Lee, Robert H., to Basler Electric Co. Transistor converters. 3,089,077, 5–7–63, Cl. 321—45.

Lee, Royal. Combined internal combustion and steam engines. 3,074,228, 1–22–63, Cl. 60—16.

Lee, Royal, to Lee Foundation for Nutritional Research. Safety door bolt. 3,107,934, 10–22–63, Cl. 292—150.

Lee, Thomas H.: *See*—
Greenwood, Allan N., and Lee. 3,082,307.

Lee, Thomas H., to General Electric Co. Vacuum-type circuit interrupter. 3,071,667, 1–1–63, Cl. 200—144.

Lee, Thomas J., L. M. Patrick, and A. W. Schultz, to R. L. Polk & Co. Camera apparatus. 3,078,775, 2–26–63, Cl. 95—34.

Lee, Ting-Kuo: *See*—
Clem, Arthur G., and Lee. 3,079,335.

Lee, Tsiun L., W. L. Stahl, and W. R. Vincent, to International Business Machines Corp. Counter circuits. 3,105,141, 9–24–63, Cl. 235—92.

Lee, Warren G., to General American Transportation Corp. Process of treating nickel-phosphorus alloy coatings and the resulting modified coatings. 3,088,846, 5–7–63, Cl. 117—71.

Lee, Wei H., and R. C. Good, to International Minerals & Chemical Corp. Amino acid synthesis. 3,087,863, 4–30–63, Cl. 195—47.

Lee, William F., and J. B. Allen, to W. A. Quinn, and W. J. Wyatt. Cotton picking machines and the like. 3,106,356, 10–8–63, Cl. 242—55.1.

Lee, William H. Adjustable speed brushless A.C. motor. 3,114,094, 12–10–63, Cl. 318—238.

Lee, William T., D. W. Osmun, and J. L. Newman, to Bowen-Itco, Inc. Packer retrieving tool. 3,108,637, 10–29–63, Cl. 166—99.

Lee, Willis L. Directly coupled transistor amplifier with positive and negative feedback. 3,096,487, 7–2–63, Cl. 330—17.

Lee, Wing J. Shirt folding machine. 3,111,246, 11–19–63, Cl. 223—37.

Lee, Yee. Hyperbolic hopper outlet means. 3,071,297, 1–1–63, Cl. 222—462.

Leece-Neville Co., The: *See*—
De Carbo, Charles J., and Korda. 3,086,161.
Hallidy, William M. 3,082,370.
Korda, John W. 3,072,839.

Leech, Donald J.: *See*—
Quick, Desmond F. J., and Leech. 3,097,504.

Leech, Donald J., and B. H. Rogers, to Normalair Ltd. Air conditioning. 3,097,508, 7–16–63, Cl 62—402.

Leech, Harry R., and F. Riding, to Imperial Chemical Industries Ltd. Surface treatment of titanium or titanium base alloy. 3,085,949, 4–16–63, Cl. 204—29.

Leech, John G., and T. B. Fleischer, to West Virginia Pulp and Paper Co. Filler for paper and method of making the same. 3,099,570, 7–30–63, Cl. 106—288.

Leech, Robert E., and J. K. Rose, to Union Carbide Corp. Polyester resins. 3,092,597, 6–4–63, Cl. 260—29.2.

Leech, Robert E., and W. F. Goldsmith, to Union Carbide Corp. Stabilized cyanoethoxy alcohols. 3,100,793, 8–13–63, Cl. 260—465.6.

Leech, Robert R., J. Watts, and H. J. Held, to The Ducon Co., Inc. Dust collector. 3,078,646, 2–26–63, Cl. 55—96.

Leeder, Harry A., Jr., to R. E. Dietz Co. Flashing lamp circuit using a transistor oscillator. 3,113,242, 12–3–63, Cl. 315—200.

Leedpak, Inc.: *See*—
Leeds, Carl M., Connell, and Hurrey. 3,072,959.

Leeds, Carl M., F. A. Connell, and R. C. Hurrey, to Leedpak, Inc. Machine for making plastic bottles. 3,072,959, 1–15–63, Cl. 18—4.

Leeds, Harry R., to S. C. Johnson & Son, Inc. Printing members and method of making same. 3,101,668, 8–27–63, Cl. 101—401.1.

Leeds, Laurance M., to General Electric Co. Two transistor gate circuit. 3,114,814, 12–17–63, Cl. 307—88.5.

Leeds and Micallef: *See*—
Micallef, Lewis A. 3,078,497.
Micallef, Lewis A. 3,089,624.

Leeds, Morton W.: *See*—
Tinnon, John M., and Leeds. 3,095,381.

Leeds, Morton W., J. P. Russell, and J. F. Vitcha, to Air Reduction Co., Inc. Preparation of acetylenic glycols. 3,108,140, 10–22–63, Cl. 260—635.

Leeds and Northrup Co.: *See*—
Cheng, Theodore, MacNabb, and List. 3,109,130.
Cohn, Nathan. 3,076,898.
Cohn, Nathan. 3,107,305.
Cranch, Edward J., Davis, and Voorhoeve. 3,092,321.
Davis, Frederick B., 3rd. 3,071,693.
Davis, Raymond L., II. 3,084,999.
Eynon, James U. 3,086,169.
Hance, Richard J. 3,101,618.
Hitt, James L. 3,107,309.
Jakacki, Wallace B., and Harple. 3,091,726.
Jenkins, Theron W., Jr. 3,109,102.
Johnson, Curtis R. A., Garvin, Ruppenthal, Morris, and Binder. 3,071,772.
Kraftson, Harry A. 3,107,535.
Luxl, Frank C. 3,106,843.
McFadden, Harold E., Staley, and Dawson. 3,103,123.
Moore, John H. 3,076,137.
Pollock, Daniel D. 3,091,527.

Leeds, Winthrop M., to Westinghouse Electric Corp. Circuit interrupters. 3,071,671, 1–1–63, Cl. 200—148.

Leeds, Winthrop M., to Westinghouse Electric Corp. Compressed-gas circuit interrupter. 3,073,931, 1–15–63, Cl. 200—148.

Leeds, Winthrop M., to Westinghouse Electric Corp. Circuit interrupter of the fluid blast type. 3,091,678, 5–28–63, Cl. 200—150.

Leeds, Winthrop M., and H. J. Lingal, to Westinghouse Electric Corp. Circuit interrupters. 3,071,669, 1–1–63, Cl. 200—145.

Leedy, Nelson J.: *See*—
Roberson, Cletis L., Leedy, and Riley. 3,104,761.

Leeford (London) Ltd.: *See*—
Howlett, Claude W. 3,072,272.
Liebrecht, Heinrich F. 3,084,981.

Leekley, Robert M., and R. L. Sorensen, to Time, Inc. Polyamide photographic printing plate and method of using same. 3,081,168, 3–12–63, Cl. 96—35.

Leeming, John H., Jr., C. M. Kenrich, and R. C. Rice, Jr. Portable direction finder. 3,115,635, 12–24–63, Cl. 343—113.

Leenders, Peter, and H. G. Creutz, to Allied Research Products, Inc. Process and composition for electroplating copper. 3,084,112, 4–2–63, Cl. 204—52.

Leeper, Charles K., to United Nuclear Corp. Labyrinth control valve. 3,078,877, 2–26–63, Cl. 138—43.

Leeper, Harold M., to Monsanto Chemical Co. Light colored tire sidewall impervious to migratory staining materials. 3,073,371, 1–15–63, Cl. 152—330.

Lees, James, and Sons Co.: *See*—
Ballard, Hyde W. 3,091,199.
Ballard, Hyde W. 3,095,840.
Ballard, Hyde W., and Smith. 3,095,841.
Batty, Harry A., and Broadrick. 3,109,395.
Broadrick, Ed B. 3,100,465.
Broadrick, Ed B., and Ledford. 3,074,362.
Broadrick, Ed B., Ledford, and McDowell. 3,103,903.
Burnell, David G. 3,082,969.
Clement, Hubert L., and McNutt. 3,091,109.
Janney, Thomas T. 3,100,510.
Kafline, Heinrich O., and Oberholtzer. 3,080,837.
Ledford, Glenn J., and McDowell. 3,100,466.
Oberholtzer, Robert E., and Kafline. 3,112,721.
Rhodes, Travis M. 3,110,905.

Lees, Nathaniel P., to The Singer Co. Looper mechanism for sewing machines. 3,099,973, 8–6–63, Cl. 112—199.

Less, Sidney. Integrating linear accelerometer. 3,101,000, 8–20–63, Cl. 73—503.

Less, Sidney. Polar accelerometer. 3,101,003, 8–20–63, Cl. 73—517.

Lees, Thomas J.: *See*—
Laycock, Alfred H., and Lees. 3,085,456.

Leeser, Werner M., to Steelcraft Mfg. Co., Inc. Sectional metal door frames. 3,103,263, 9–10–63, Cl. 189—46.

Leeson, David B.: *See*—
Holcomb, Don R., and Leeson. 3,101,452.

Leesona Corp.: *See*—
Barnes, Porter L., Jr., and Pitts. 3,081,046.
Beckwith, Walter L., Jr. 3,102,475.
Dudzik, Chester J. 3,094,761.
Hilbert, Richard G. 3,074,226.
Keith, John V. 3,081,044.
Kleronski, John P. 3,074,606.
Laudon, Herbert. 3,098,932.
Lieb, Harry C. 3,078,327.
Lieb, Harry C. and De Rosa. 3,096,218.
Miller, Harry B. 3,102,702.
Moos, Anthony M. 3,083,251.
Moos, Anthony M. 3,097,115.
Moos, Anthony M. 3,097,116.
Oswin, Harry G. 3,077,508.
Oswin, Harry G. 3,092,517.
Oswin, Harry G. 3,116,355.
Pitts, Thomas E., and Steele. 3,081,045.
Stoddard, Nicholas J., and Seem. 3,077,724.
Stoddard, Nicholas J., and Seem. 3,091,912.
Stoddard, Nicholas J., and Seem. 3,112,600.

Leetmaa, Juri G., and G. S. Uebele, to Hughes Aircraft Co. Ferrite circulator with conductive plate of uniform thickness having tapered angular apexes for broad banding. 3,104,361, 9–17–63, Cl. 333—1.1.

Leeville Shipyard Corp.: *See*—
Collin, Ashton P. 3,114,246.

Lefebvre, Arthur H., to Rolls-Royce Ltd. Combustion chamber. 3,080,715, 3–12–63, Cl. 60—39.65.

Le Febvre, Arthur H., to The Bendix Corp. Barometric altitude sensitive signal control mechanism. 3,083,343, 3–26–63, Cl. 336—30.

Lefebvre, Arthur H., and R. A. Rice, to Rolls-Royce Ltd. Reheat combustion equipment of gas-turbine engines. 3,085,401, 4–16–63, Cl. 60—39.72.

Lefebvre, Arthur H., and S. C. Miller, to Rolls-Royce Ltd. Reducing smoke in gas turbine engine exhaust. 3,088,280, 5–7–63, Cl. 60—39.55.

Lefebvre, Fredrick L. Sectional oven unit. 3,102,942, 9–3–63, Cl. 219—35.

Lefebvre Freres Limitee: *See*—
Couture, Rene. 3,106,523.

Lefebvre & Martin, Etablissements: *See*—
Duquesnel, Andre. 3,106,117.

Lefebvre, Paul A.: *See*—
Lefebvre, Reine D. and P. A. 3,084,703.

Lefebvre, Paul A. and R. O. Collapsible tent. 3,073,326, 1–15–63, Cl. 135—1.

Lefebvre, Reine D.: *See*—
Lefebvre, Paul A. and R.D. 3,073,326.

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Lehmann, Guenther W. Maritime salvage equipment. 3,080,844, 3–12–63, Cl. 114—54.

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Leigh, Thomas, to Imperial Chemical Industries Ltd. Ferrocene compounds. 3,099,669, 7-30-63, Cl. 260—439.

Leigh, Thomas, to Imperial Chemical Industries Ltd. Tertiary alkyl ferrocenes. 3,108,128, 10-22-63, Cl. 260—439.

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Leighton, Francis, and A. D. Herman, to Crane Co. Auxiliary spring powered safety actuator for brakes of the fluid operated type. 3,115,069, 12-24-63, Cl. 92—63.

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Lemelson, Jerome H. Inflatable toys. 3,073,058, 1-15-63, Cl. 46—88.

Lemelson, Jerome H. Automatic measurement apparatus. 3,081,379, 3-12-63, Cl. 178—6.6.

Lemelson, Jerome H. Facsimile apparatus. 3,084,213, 4-2-63, Cl. 178—6.6.

Lemelson, Jerome H. Compression springs. 3,084,926, 4-9-63, Cl. 267—1.

Lemelson, Jerome H. Recording and reproduction apparatus. 3,085,130, 4-9-63, Cl. 178—5.6.

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Lemelson, Jerome H. Magnetic recording system. 3,106,612, 10-8-63, Cl. 179—6.

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Lemmens, Hendrikus J., A. Venema, and P. Zalm, to North American Philips Co., Inc. Method of manufacturing oxide cathodes and cathodes manufactured by such methods. 3,099,577, 7-30-63, Cl. 117—224.

Lemmens, Hendrikus J., P. Zalm, A. J. A. van Stratum, and F. H. R. Almer, to North American Philips Co., Inc. Oxide dispenser type cathode. 3,113,236, 12-3-63, Cl. 313—346.

Lemmer, Horace. Rupture disc vacuum support. 3,072,288, 1-8-63, Cl. 220—89.

Lemmerich, Jost, and U. Oestreich, to Siemens-Schuckertwerke Aktiengesellschaft. Method for improving the electric strength and flash over or glow-discharge resistance of olefine polymers. 3,075,040, 1-22-63, Cl. 174—110.

Lemmerman, Richard D.: *See*—
Gildard, James H., and Lemmerman. 3,078,948.
Gildard, James H., III, and Lemmerman. 3,103,987.
Gildard, James H., III, and Lemmerman. 3,115,948.

Lemmers, Eugene, to General Electric Co. Starting and operating circuit for discharge lamps. 3,096,464, 7-2-63, Cl. 315—105.

Lemmers, Eugene, to General Electric Co. Configurated lamp. 3,098,945, 7-23-63, Cl. 313—109.

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Lemoine, Leonard J. Plastic injection molding machine. 3,071,813, 1-8-63, Cl. 18—30.

Lemon, Cecil G., to Unipak Overseas Ltd. Cartons. 3,107,811, 10-22-63, Cl. 220—105.

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Lemons, Norman J.: *See*—
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Lemos, Albano. Electrical devices for the application of fluid to the gums. Re. 25,483, 11-26-63, Cl. 128—172.1.

Lempco Products, Inc.: *See*—
Barkley, Charles R. 3,086,824.

Lempert, Frank L.: *See*—
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Lendvai, Andrew. Denicotinization of tobacco. 3,110,315, 11-12-63, Cl. 131—10.

Lendved, John W., to Chain Belt Co. Truck-mixer drive mechanism. 3,073,580, 1-15-63, Cl. 259—177.

Lendved, John W., to Chain Belt Co. Hydraulically driven transit mixer. 3,080,152, 3-5-63, Cl. 259—171.

Lenefsky, Selig, J. J. Morrone, and D. R. Treffelsen, to Sperry Rand Corp. Automatic flight control system. 3,105,660, 10-1-63, Cl. 244—77.

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Lengsfeld, Frederick J. Foot massaging and exercising device. 3,083,709, 4-2-63, Cl. 128—57.

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Lengyel, Charles N., to Kropp Forge Co. Conveyor chain link. 3,095,753, 7-2-63, Cl. 74—248.

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Lenhart, Herbert S., to Fuller Co. Diverting valve for fluidizing gravity conveyor. 3,097,889, 7-16-63, Cl. 302—29.

Lenhart, Herbert S., to Fuller Co. Pneumatic conveying apparatus. 3,106,428, 10-8-63, Cl. 302—50.

Lenie, Camille A., and K. M. Taylor, to The Carborundum Co. Refractory articles and method of making same. 3,108,887, 10-29-63, Cl. 106—62.

Lenix, Joe A. Dispenser and applicator for thumb tacks. 3,101,477, 8-27-63, Cl. 1—46.

Lenk, Elmer N.: *See*—
Cubbidge, James F., Drukker, Fernald, Lenk, Turner, Weeks, and Wiest. 3,080,512.

Lenk, Wilhelm, to Barmer Maschinenfabrik Aktiengesellschaft. Balloon control for double twist apparatus. 3,077,726, 2-19-63, Cl. 57—58.83.

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Salihi, Jalal T. 3,104,373.

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Lennon, Fred A., and E. J. Cator, to Crawford Fitting Co. Packed wedge type coupling having positioning means. 3,075,793, 1-29-63, Cl. 285—342.

Lennon, Fred A., and E. J. Zahurancc, to Crawford Fitting Co. Controlled phase sequential gripping device. 3,103,373, 9-10-63, Cl. 285—342.

Lennon, George V., III, and H. Lins, Jr., to General Dynamics Corp. Automatic gain control circuit. 3,098,195, 7-16-63, Cl. 323—79.

Lennon, George V., III, and H. Lins, Jr., to General Dynamics Corp. Step automatic gain control system. 3,116,453, 12-31-63, Cl. 325—319.

Lennon, John J., to Nettco Corp. Drive shaft assembly for agitators and the like. 3,080,730, 3-12-63, Cl. 64—1.

Lennon, John J., to Nettco Corp. Apparatus with sealed rotary impeller shaft. 3,115,333, 12-24-63, Cl. 259—107.

Lennon, John J., to Nettco Corp. Container having means for preventing escape of fluid therefrom where a shaft enters the same. 3,115,347, 12-24-63, Cl. 277—59.

Lennon, Robert J. Hose nozzle. 3,072,345, 1-8-63, Cl. 239—456.

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Peoples, Graydon. 3,111,939.
Peoples, Graydon. 3,111,978.
Peoples, Graydon. 3,111,979.
Peoples, Graydon, and Koerber. 3,084,682.

Lenoir, Raymond. Rolling wheel toy. 3,080,677, 3-12-63, Cl. 46—220.

Lense, Frederick T., to Esso Research and Engineering Co. Pickling and ginning aid. 3,101,295, 8-20-63, Cl. 117—139.5.

Lense, Frederick T., to Monsanto Chemical Co. Method and composition for fulling fabrics. 3,104,443, 9-24-63, Cl. 26—19.

Lensner, Herbert W., and H. G. Farley, to Westinghouse Electric Corp. Pilot-wire systems. 3,114,140, 12-10-63, Cl. 340—213.

Lent, Ralph C., to Hanawai Mfg. Co., Ltd. Irrigation unit. 3,099,393, 7-30-63, Cl. 239—97.

Lent, Ralph C., to Hanawai Mfg. Co., Ltd. Vehicle coupler or hitch. 3,099,462, 7-30-63, Cl. 280—478.

Lentini, Leo A., to Universal Oil Products Co. Cork borer. 3,074,162, 1–22–63, Cl. 30—142.

Lents, Charles M., to John E. Mitchell Co. Machine for making an icy product with torque sensitive control. 3,108,449, 10–29–63, Cl. 62—70.

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Lentz, Norman E., to Bell Telephone Laboratories, Inc. Blocking oscillator frequency divider. 3,108,198, 10–22–63, Cl. 307—88.5.

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Lenz, Carl, deceased, by E. J. Aberle, executor, to Westinghouse Electric Corp. Article-transfer device. 3,096,795, 7–9–63, Cl. 140—71.6.

Lenz, Carl, and R. Hasell, to Westinghouse Electric Corp. Wire looping device. 3,074,442, 1–22–63, Cl. 140—71.6.

Lenz, Carl, deceased, by E. J. Aberle, executor, and R. Hasell, to Westinghouse Electric Corp. Lead-wire bending apparatus. 3,093,164, 6–11–63, Cl. 140—71.6.

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Leo, Bertrand, J. Delpla, and P. Pounhet, to Electricite de France-Service National. Device for successively immobilizing and rendering mobile a load displaceable within a conduit. 3,109,516, 11–5–63, Cl. 187—76.

Leo, Nick F. Electrical relays. 3,099,729, 7–30–63, Cl. 200—104.

Leo, Robert E., to General Electric Co. Binary counter. 3,084,286, 4–2–63, Cl. 328—42.

Leo, Robert E., to General Electric Co. General purpose document sorting system. 3,097,745, 7–16–63, Cl. 209—111.5.

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Kimball, Richard H., and Leon. 3,105,081.

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Leonard, Clarence E. Process and product for removing rust and coating materials. 3,097,118, 7–9–63, Cl. 148—6.15.

Leonard, Daniel J. Golf putter hand grip. 3,077,349, 2–12–63, Cl. 273—81.4.

Leonard, Edward C., Jr., and W. L. Wheelwright, to Union Carbide Corp. Process for preparing phosphorylated elastomeric copolymers of ethylene and propylene. 3,097,194, 7–9–63, Cl. 260—88.2.

Leonard, Fred: *See*—
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Leonard, Henderson G. Demountable scaffolding for side mounting on columns. 3,082,843, 3–26–63, Cl. 182—82.

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Leonard, James D., and G. T. Stropki, to North American Aviation, Inc. Microwave electrical thickness comparator utilizing a waveguide probe. 3,102,232, 8–27–63, Cl. 324—58.5.

Leonard, James H., and F. E. Chabot, to I-T-E Circuit Breaker Co. Panelboard adapter. 3,095,524, 6–25–63, Cl. 317—117.

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Leonard, Louis H., Jr., to Carrier Corp. Absorption refrigeration systems. 3,081,605, 3–19–63, Cl. 62—85.

Leonard, Louis H., Jr., to Carrier Corp. Hermetic pump. 3,114,322, 12–17–63, Cl. 103—87.

Leonard, Margaret S. Variable speed transmission. 3,099,925, 8–6–63, Cl. 74—372.

Leonard, Merrill G., and W. A. Siefert, to Westinghouse Electric Corp. Progressive winding of coils. 3,071,845, 1–8–63, Cl. 29—155.57.

Leonard, Merrill G., and J. J. Astleford, Jr., to Westinghouse Electric Corp. Completely protected transformer. 3,073,993, 1–15–63, Cl. 317—15.

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Leonard, Raymon R., and M. Krakauer, to Rowe Mfg. Co. Inc. Refrigerated-sandwich merchandising machine. 3,087,649, 4–30–63, Cl. 221—90.

Leonard, Richard J. Patching plaster compositions. 3,100,715, 8–13–63, Cl. 106—110.

Leonard, Ronald K., and W. F. Buchele. Machine and method for harvesting cucumbers. 3,084,496, 4–9–63, Cl. 56—327.

Leonard, Roy F. Wire holder and dispenser assembly. 3,104,778, 9–24–63, Cl. 221—34.

Leonard, Stephen V., to Monsanto Chemical Co. Annealing apparatus. 3,083,556, 4–2–63, Cl. 68—5.

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Leonardi, Samuel A., and E. A. Oberright, to Socony Mobil Oil Co., Inc. Mineral oil compositions containing azulene compounds. 3,105,820, 10–1–63, Cl. 252—52.

Leonardos, Priscilla A. Contact lens remover and carrier. 3,091,328, 5–28–63, Cl. 206—5.

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Leopold, Wilbur R., Jr.: *See*—
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Leopoldi, Norbert. Sheet crimping device. 3,106,139, 10–8–63, Cl. 93—1.1.

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Lepine, Louis T., and H. J. Adair. Hydrofoil device to aid swimmers and the like in maneuvering in the water. 3,084,653, 4–9–63, Cl. 114—16.

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Lepoudre, Edmondus J. C., to A. M. L. T. Lepoudre. Construction kit for the representation of two-dimensional figures, mainly intended for the tuition of mathematics and similar purposes. 3,083,475, 4–2–63, Cl. 35—30.

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Lerick, Lester. Expansion bolt with nut actuated expansion wedges. 3,107,569, 10–22–63, Cl. 85—2.4.

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Ellman, Julius, and Lerner. 3,111,319.

Lerner, Harold, to General Precision, Inc. Transistor and tube gating circuit. 3,105,196, 9–24–63, Cl. 328—91.

Lerner, Lovie E. Bathing suit. 3,094,722, 6–25–63, Cl. 9—334.

Lerner, Lovie E. Buoyant garment. 3,094,724, 6–25 63, Cl. 9—338.

Lerner, Philip. Packaging apparatus. 3,076,299, 2–5–63, Cl. 53—184.

Lerner, Robert W., to Stauffer Chemical Co. Adducts of aluminum monohydroxy diacetylsalicylate and ethyl acetoacetate and preparation thereof. 3,082,152, 3–19–63, Cl. 167—65.

Lerner, Sam. Printer's mixing paddle. 3,107,085, 10–15–63, Cl. 259—144.

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Leroux, René, ½ to Societe Anonyme des Anciens Chantiers Dubigeon. Construction of liquefied gas carriers. 3,092,063, 6–4–63, Cl. 114—74.

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Lerude, Leslie R. Gun carrying harness. 3,098,591, 7–23–63, Cl. 224—1.

Lerwick, Howard P., to The Buehler Corp. Direction control device. 3,093,967, 6–18–63, Cl. 60—35.54.

Lesavoy, Ely. Garment and collar therefor. 3,107,357, 10–22–63, Cl. 2—116.

Lescarboura, Jean, to La. Telemecanique Electrique. Hand lever switch. 3,116,555, 12–24–63, Cl. 200—5.

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Leslie, Donald J. System for recording and reproducing electric organ music. 3,095,477, 6–25–63, Cl. 179—1.

Leslie, Donald J. Multiple sound channel tremolo device. 3,100,024, 8–6–63, Cl. 181—27.

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Leslie-Smith, Laurance. Vacuum flasks. 3,082,895, 3–26–63, Cl. 215—13.

Leslie-Smith, Laurance. Vacuum flasks. 3,089,603, 5–14–63, Cl. 215—13.

Leslie-Smith, Laurance. Containers. 3,115,263, 12–24–63, Cl. 215—13.

Lesnett, Frederick A., Jr., to Florida Tile Industries, Inc. Tile size responsive apparatus and control. 3,109,927, 11–5–63, Cl. 235—92.

Lesnow, George. Garment fly construction. 3,110,901, 11–19–63, Cl. 2—96.

Less, Joseph A., to The Osborn Mfg. Co. End or cup brush and method of making. 3,106,739, 10–15–63, Cl. 15—198.

Less, Joseph W. Pre-formed tilt proof bow neckties. 3,077,606, 2–19–63, Cl. 2—154.

Less, Joseph W. Pre-tied neckties. 3,112,492, 12–3–63, Cl. 2—153.

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Lester, Edwin R. Rotary hoes. 3,087,555, 4–30–63, Cl. 172—94.

Lester, George R., to Universal Oil Products Co. Low temperature regeneration of lead-contaminated catalysts. 3,090,760, 5–21–63, Cl. 252—415.

Lester, Robert A., to United States of America, Navy. Double frequency transducer. 3,109,112, 10–29–63, Cl. 310—8.7.

Lester, Robert W., to Transolite Corp. Fluorescent tube fixture and hardware. 3,094,287, 6–18–63, Cl. 240—51.11.

Lester, Ronald H., to General Electric Co. Ceramic product and method of making the same. 3,097,101, 7–9–63, Cl. 106—46.

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Le Suer, William M., to The Lubrizol Corp. Lubricant composition. 3,108,960, 10–29–63, Cl. 252—32.7.

Le Suer, William M., and C. W. Stuebe, to The Lubrizol Corp. Preparation of halogen-containing stilbenes and bibenzyls. 3,084,203, 4–2–63, Cl. 260—649.

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Letica, Ilija, to I & G Mold Corp. Master die assembly. 3,103,705, 9–17–63, Cl. 18—42.

Leto, Joseph R., and M. L. Fiene, to American Cyanamid Co. Method of polymerizing acetylene and certain substituted acetylenes using a nickel complex compound and products produced thereby. 3,076,016, 1–29–63, Cl. 260—468.

Leto, Salvatore F. Insulated shaft coupling device. 3,112,625, 12–3–63, Cl. 64—8.

Le Tourneau, Robert G. Vehicle operator's station. 3,088,537, 5–7–63, Cl. 180—77.

Le Tourneau, Robert G. Grapple. 3,089,726, 5–14–63, Cl. 294—88.

Le Tourneau, Robert G. Electric motor control system. 3,093,780, 6–11–63, Cl. 318—145.

Le Tourneau, Robert G. Motor control system for electrically powered vehicles. 3,102,219, 8–27–63, Cl. 318—145.

LeTourneau-Westinghouse Co.: *See*—
Hyler, John H., and Spannhake. 3,101,977.
Kress, Ralph H. 3,076,680.
Lott, Walter E. 3,110,118.
Smith, Hoyt W. 3,083,949.

Letsch, William L., and V. P. Pusateri, to United States of America, Navy. Constant closing velocity radar target simulator. 3,098,227, 7–16–63, Cl. 343—17.7.

Letson, Clarence E. T., to Clay Equipment Corp. Oscillating feed control for milking parlor stalls. 3,073,487, 1–15–63, Cl. 222—282.

Lettenbauer, Gustav: *See*—
Popelak, Alfred, and Lettenbauer. 3,108,107.
Popelak, Alfred, and Lettenbauer. 3,113,134.

Letter, Eugene C., to Bausch & Lomb Inc. Method of treating magnesium fluoride and pressed bodies made thereby. 3,114,601, 12–17–63, Cl. 23—88.

Letteron, Henry A., to General Electric Co. Fire extinguishing means. 3,074,883, 1–22–63, Cl. 252—2.

Letteron, Henry A., to General Electric Co. Process for mulching with mica. 3,099,897, 8–6–63, Cl. 47—9.

Leu, James C., to The Emerson Electric Mfg. Co. Power unit with reverse locking device. 3,110,381, 11–12–63, Cl. 192—8.

Leuchs, Dieter: *See*—
Balli, Heinz, Leuchs, Hebl, Grunwald, and Schmidt. 3,082,114.
Baumann, Hans, and Leuchs. 3,086,002.
Seefelder, Matthias, and Leuchs. 3,108,104.

Leuenberger, Hans, to Union Carbide Corp. Method and apparatus for calcination. 3,112,101, 11–26–63, Cl. 263—29.

Leum, Leonard N., J. E. Connor, Jr., J. J. Rothrock, and C. S. Shipley, to The Atlantic Refining Co. Removal of ionic impurities from calcined alumina. 3,073,675, 1–15–63, Cl. 23—141.

Leupold, Curt W., R. Mohr, and K. H. Sponsel, to Vereinigte Papierwerke Schickedanz & Co. Process for glueing fibers, fillers and objects made of the same. 3,085,911, 4–16–63, Cl. 117—140.

Leupold, Henry G., to United Electric Controls Co. Differential temperature controller. 3,071,665, 1–1–63, Cl. 200—122.

Leupold, Henry G., and N. L. Demeo, to United Electric Controls Co. Temperature controllers and recorders. 3,105,638, 10–1–63, Cl. 236—94.

Leuschner, Johannes, and H. Schluge, to C. Zeiss. Statistical element counter. 3,111,768, 11–26–63, Cl. 33—178.

Leutenegger, Willi: *See*—
Dussy, Paul, Bosshard, and Leutenegger. 3,085,849.

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Leuthner, Walter F. Fishing line reel. 3,072,356, 1–8–63, Cl. 242—84.5.

Leutz, Koerner E., to Sun Oil Co. Transfer of granular solids. 3,085,669, 4–16–63, Cl. 193—2.

Leutzinger, Rudolph L. Radial jet engine. 3,103,325, 9–10–63, Cl. 244—12.

Leva, Max. Gas-liquid contact tower. 3,075,572, 1-29-63, Cl. 261—113.

Le Van, Ambrose E., and R. D. Waite, to Ametek, Inc. Indicator. 3,107,533, 10-22-63, Cl. 73—368.4.

Le Van, Eugene B. Windows. 3,087,537, 4-30-63, Cl. 160—91.

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Noel, Edward B., and Levand. 3,080,497.

Levantin, Allen M.: *See*—
Falgiatore, Dominic R., and Levantin. 3,082,184.

Le Vantine, Allan D., to Litton Systems, Inc. Cooling garment. 3,079,765, 3-5-63, Cl. 62—259.

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Brown, Adolph M. 3,098,232.

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Levecque, Marcel, and M. Mabru, to Compagnie de Saint-Gobain. Apparatus for producing fibers from thermoplastic material. 3,084,380, 4-9-63, Cl. 18—2.5.

Levecque, Marcel, and M. Charpentier, to Compagnie de Saint-Gobain. Manufacture of fibers from thermoplastic material, particularly glass fibers. 3,084,381, 4-9-63, Cl. 65—6.

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Leven, Martin R.: *See*—
Raczynski, Walter A., Leven, and Voss. 3,090,717.

Levene, Harold D., T. G. Stephenson, and E. Montes, to Fossil Fuels, Inc. Apparatus for feeding finely divided solids. 3,093,420, 6-11-63, Cl. 302—53.

Levene, Martin L., to Radio Corp. of America. Data storage apparatus. 3,071,757, 1-1-63, Cl. 340—174.1.

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Levene, Martin L., to Radio Corp. of America. Communication printer. 3,115,076, 12-24-63, Cl. 95—1.7.

Levenson, Berl D.: *See*—
Welty, William R., and Levenson. 3,083,360

Levenson, Leonard L.: *See*—
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Levenson, Leonard L., to United States of America, Atomic Energy Commission. Diffusion pump. 3,102,678, 9-3-63, Cl. 230—101.

Levenson, Myron F. Device for cleaning teeth. 3,109,192, 11-5-63, Cl. 15—210.

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Euwe, Gerrit E. 3,080,069.
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Hely, John F. 3,083,432.
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Sale, Anthony J. H. 3,110,794.
Schoppmeyer, Werner R. L., and Schmidt. 3,112,985.
Schrum, Cornelius J. 3,085,015.
Thompson, Stuart W. 3,102,814.
Thompson, Stuart W. 3,108,015.

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Leverenz, John H., to Gehl Bros. Mfg. Co. Double sickle mower. 3,108,421, 10-29-63, Cl. 56—297.

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Levering, Dewey R., to United States of America, Navy. Chlorination of nitroethane. 3,096,378, 7-2-63, Cl. 260—644.

Levering, Dewey R., and L. G. Maury, to Hercules Powder Co. Preparation of nitrosamines. 3,090,786, 5-21-63, Cl. 260—293.

Leverton, Walter F.: *See*—
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Levesque, Pascal, and F. C. Hawkes, to Raytheon Co. Method of age hardening magnetrostrictive cores. 3,084,082, 4-2-63, Cl. 148—120.

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Levey, Fred'k H., Co., Inc.: *See*—
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Raybuck, William B. 3,092,022.

Levey, Ralph P., Jr., and A. E. Smith, to United States of America, Atomic Energy Commission. Preparation of spherical uranium dioxide particles. 3,087,781, 4-30-63, Cl. 23—14.5.

Levi, Daisy O., to D. O. and R. Levi. Reversible furniture cover or receptacle and method for making same. 3,109,474, 11-5-63, Cl. 150—52.

Levi, Daisy O., to D. O. and R. Levi, jointly. Reversible furniture cover or receptacle. 3,111,154, 11-19-63, Cl. 150—52.

Levi, Hans L. Kindling abrasive coating, method, and coated object. 3,089,797, 5-14-63, Cl. 149—30.

Levi, Harry L. Radiographic attachment for positioning radio transparent scales containing radio opaque marks. 3,111,582, 11-19-63, Cl. 250—59.

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Levi, Daisy O. 3,109,474.
Levi, Daisy O. 3,111,154.

Levi, Robert. Least cost consumption and production computer. 3,090,557, 5-21-63, Cl. 235—185.

Leviel, Roger, to Degremont-Acfl. Automatic valve controlled gas dosing apparatus. 3,074,422, 1-22-63, Cl. 137—101.27.

Levin, David. Water cooler. 3,086,374, 4-23-63, Cl. 62—391.

Levin, Evert J.: *See*—
Elm, Robert A., Krawczak, Scheley, and Levin. 3,075,030.

Levin, Franklyn K., to Jersey Production Research Co. Seismic charge delay unit. 3,087,424, 4-30-63, Cl. 102—22.

Levin, Fred A.: *See*—
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Levin, Herman, to B J Service, Inc. Substituted dihydropyridine. 3,074,951, 1-22-63, Cl. 260—290.

Levin, John: *See*—
Perlman, Harry S., and Levin. 3,084,664.

Levin, Martin E., to Eitel-McCullough, Inc. High frequency tube having a cathode electrode between the grid and anode terminals. 3,111,600, 11-19-63, Cl. 313—250.

Levin, Morris J. Combination locks. 3,090,219, 5-21-63, Cl. 70—315.

Levin, Nathan, to Textile Machine Works. Method of knitting suture. 3,096,633, 7-9-63, Cl. 66—43.

Levin, Nathan, to Textile Machine Works. Patterned hosiery. 3,112,628, 12-3-63, Cl. 66—179.

Levin, Roland M.: *See*—
Starger, Samuel L., Levin, and Garshelis. 3,106,502.

Levin, William S., to United States of America, Navy. Feedback control logarithmic amplifier. 3,108,197, 10-22-63, Cl. 307—88.5.

Levine, Abraham, to Minneapolis-Honeywell Regulator Co. Pulse former utilizing minority carrier storage for stretching output and delayer controlling said output duration. 3,091,705, 5-28-63, Cl. 307—88.5.

Levine, Alex. Element of apparel and method of making the same. 3,092,987, 6-11-63, Cl. 66—176.

Levine, Arnold M., to International Telephone and Telegraph Corp. Cooling system. 3,080,816, 3-12-63, Cl. 102—50.

Levine, Bernard B.: *See*—
Phillips, Robert, Levine, Centrella, and Underwood. 3,071,776.

Levine, David I., to Spring Products Developing Co. Spring assembly. 3,084,353, 4-9-63, Cl. 5—248.

Levine, Gerald A., to United States of America, Navy. Two-stage, two-fluid, uni-directional control valve. 3,086,553, 4-23-63, Cl. 137—625.38.

Levine, Harold: *See*—
Coles, Robert F., and Levine. 3,100,704.

Levine, Harold H., to Narmco Industries, Inc. Curable resin system, cured epoxy resin and process of forming the same. 3,092,604, 6-4-63, Cl. 260—37.

Levine, Harry. Multiple board, easel and table combination. 3,107,442, 10-22-63, Cl. 35—63.

Levine, John E., to Anetsberger Brothers, Inc. Shearproof metal punch. 3,086,418, 4-23-63, Cl. 83—635.

Levine, Leonard, to The Dow Chemical Co. Process for making cinnamyl esters. 3,077,495, 2-12-63, Cl. 260—491.

Levine, Martin W., to General Electronic Laboratories, Inc. Cavity type tuner. 3,090,920, 5-21-63. Cl. 325—468.

Levine, Morris, to Pittsburgh Plate Glass Co. Coating system. 3,096,203, 7-2-63, Cl. 117—75.

Levine, Myron: *See*—
Hamilton, William F., Levine, and Simon. 3,084,024.

Levine, Samuel W., to Fairchild Camera and Instrument Corp. Cold cutting technique for half-tone electronic engraving. 3,075,042, 1-22-63, Cl. 178—6.6.

Levine, Sol, to Dorset-Rex, Inc. Cosmetic mass holder. 3,091,329, 5-28-63, Cl. 206—56.

Levines, Steven, to General Aniline & Film Corp. Photopolymerization of vinyl monomers by means of a radiation absorbing component in the presence of a diazonium compound. 3,099,558, 7-30-63, Cl. 96—35.

Levinger, Paul: *See*—
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Levinn, Robert N., to American Thermostat Corp. Temperature control attachment for a utensil. 3,083,283, 3-26-63, Cl. 200—136.5.

Levinn, Robert N., to American Thermostat Corp. Dual action thermostat having plural adjustment means. 3,114,812, 12-17-63, Cl. 200—138.

Levinos, Steven, to General Aniline & Film Corp. Photopolymerization of monomers containing vinyl groups by means of silver compounds as catalysts. 3,075,907, 1-29-63, Cl. 204—158.

Levinos, Steven. Photopolymerization of vinyl monomers by means of a radiation absorbing component in the presence of a diazonium compound. 3,099,558, 7-30-63, Cl. 96—35.

Levinson, Donald B.: *See*—
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Levinson, Herbert H., to Felt Products Mfg. Co. Process for producing a vulcanized rubber gasket. 3,093,443, 6-11-63, Cl. 18—47.5.

Levinson, John, to Bell Telephone Laboratories, Inc. Electron beam intensity control circuit. 3,090,889, 5-21-63, Cl. 315—20.

Levinson, Louis E. Boats. 3,071,786, 1-8-63, Cl. 9—2.

Levinson, Louis E., to Intercontinental Mfg. Co., Inc. Boats. 3,090,973, 5-28-63, Cl. 9—1.

Levinson, Neville, to Neville Enterprises, Inc. Display stand. 3,094,951, 6-25-63, Cl. 108—103.

Levinthal, Jay G.: *See*—
Crain, Norman R., Levinthal, Facenda, and Vea. 3,108,694.

Levis, William W., Jr.: *See*—
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Langdon, William K., and Levis. 3,104,199.
Langdon, William K., Levis, and Skaptason. 3,104,200.

Levis, William W., Jr., and E. A. Welpert, to Wyandotte Chemicals Corp. Process for preparing bicyclic diquaternary dibromides and dinitrates. 3,112,321, 11-26-63, Cl. 260—268.

Levison, Robert, and J. L. Voigt, to Onderzoekingsinstitut Research, N.V. Apparatus for extruding thermoplastic material. 3,078,513, 2-26-63, Cl. 18—12.

Levitan, Maurice D., to General Binding Corp. Two element binding. 3,077,887, 2-19-63, Cl. 129—1.

Leviton, Abraham, and M. J. Pallansch, to United States of America, Agriculture. Process for preparing high temperature-short time sterilized concentrate milk products. 3,072,491, 1-8-63, Cl. 99—212.

Leviton Mfg. Co., Inc.: *See*—
Smith, George E. 3,075,396.

Levitt, Milton R., to The Scholl Mfg. Co., Inc. Nail clipper. 3,088,204, 5-7-63, Cl. 30—28.

Levitt, Milton R., to The Scholl Mfg. Co., Inc. Surgical pad with digit loop. 3,088,461, 5-7-63, Cl. 128—153.

Levitt, Semond: *See*—
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Levitt, Semond, E. Hindin, and A. Abolins, to Flexi-Van, Inc. Freight handling system. 3,112,040, 11-26-63, Cl. 214—38.

Levkoff, David: *See*—
Levkoff, Henry S. and D. 3,074,547.

Levkoff, David. Egg carton. 3,088,649, 5-7-63, Cl. 229—28.

Levkoff, David. Egg carton. 3,088,650, 5-7-63, Cl. 229—28.

Levkoff, David and H. S. Bottle carrier. 3,101,865, 8-27-63, Cl. 220—113.

Levkoff, Evelyn G.: *See*—
Levkoff, Henry S. and D. 3,074,547.

Levkoff, Henry S.: *See*—
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Levkoff, Henry S. Carton erecting machine. 3,071,048, 1-1-63, Cl. 93—49.

Levkoff, Henry S. and D., ¼ to E. G. Levkoff, and ¼ to E. L. Sennet. Plastic container. 3,074,547, 1-22-63, Cl. 206—72.

Le Von, Ernest: *See*—
Cusic, John W., and Le Von. 3,091,615.
Cusic, John W., and Le Von. 3,101,341.

Levy, Alex A., to Goldblatt Tool Co. Featheredge. 3,101,502, 8-27-63, Cl. 15—235.4.

Levy, Annette, nee Amselle. Method and means for the photographic examination of the outline and shape of a body. 3,089,244, 5-14-63, Cl. 33—2.

Levy, Dale F., and D. W. Gagle, to Phillips Petroleum Co. Cationic asphalt-in-water emulsion. 3,093,595, 6-11-63, Cl. 252—311.5.

Levy, Donald J., to The Dow Chemical Co. Pickling of magnesium and magnesium-base alloy articles. 3,100,169, 8-6-63, Cl. 156—20.

Levy, Donald J., to The Dow Chemical Co. Pickling magnesium articles. 3,100,170, 8-6-63, Cl. 156—20.

Levy, Edward R.: *See*—
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Levy, Ernest, Jr., and R. D. Loucks, II, to Raytheon Co. Protective circuit for direct current voltage regulators. 3,098,192, 7-16-63, Cl. 323—22.

Levy, Ernest S.: *See*—
Werner, Robert V., and Levy. 3,081,431.

Levy, Eugene A. Kite. 3,116,043, 12-31-63, Cl. 244—153.

Levy, Luis W. Process for the extraction of pyrethrins from pyrethrum flowers. 3,083,136, 3-26-63, Cl. 167—24.

Levy, Marion I., to The Lau Blower Co. Method of making blower blade sheet. 3,095,637, 7-2-63, Cl. 29—156.8.

Levy, Maurice M. Conveyors. 3,100,564, 8-13-63, Cl. 198—165.

Levy, Maurice M., to Her Majesty The Queen in the right of Canada, as represented by the Postmaster General. Apparatus for minimizing coding errors. 3,102,254, 8-27-63, Cl. 340—146.1.

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Tuval, Miron, and Levy. 3,078,666.

Levy, Milton. Coin holders. 3,100,567, 8-13-63, Cl. 206—82.

Levy, Morris, to David Kahn, Inc. Writing instrument. 3,095,859, 7-2-63, Cl. 120—42.03.

Levy, Mortimer: *See*—
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Levy, Ralph, to The General Electric Co. Ltd. Apparatus for effecting rotation of the plane of polarisation of plane-polarised electromagnetic waves. 3,081,438, 3-12-63, Cl. 233—7.

Levy, Robert M., and C. De Ganahl; said Levy assor. to Esso Research and Engineering Co. Pipe joint and coupling therefor. 3,097,868, 7-16-63, Cl. 285—95.

Levy, Walter B., and G. N. Goller, to Armco Steel Corp. Alloy of stainless steel and articles. 3,082,083, 3-19-63, Cl. 75—128.

Levy, William W., ½ to E. M. Andrews. Adjustable mirror. 3,072,017, 1-8-63, Cl. 88—97.

Lew, Henry Y.: *See*—
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Lew, Robert B. Interchangeable revolving electric shaver head. 3,106,775, 10-15-63, Cl. 30—43.

Lew, Wah B., to United States of America, Navy. Rotary shaft face seal. 3,095,383, 6-11-63, Cl. 277—92.

Le Wan, Chester R.: *See*—
Beard, Chester S., White, and Le Wan. 3,087,470.

Lewandowski, Adolph. Aquarium plant pruner. 3,110,963, 11-19-63, Cl. 30—218.

Lewandowski, Stanley G. Line reel with brake. 3,090,477, 5-21-63, Cl. 242—96.

Lewenstein, Moses J. Analgesic compositions. 3,089,287, 3-5-63, Cl. 167—65.

Leworth, Josef, to Mitteldeutsche Emaillierwerke M. Fratscher & Co., Firma. Double bowl, suitable as a lid for kitchen utensils or a serving bowl. 3,078,005, 2-19-63, Cl. 220—20.

Lewiecki, Edward M., and M. J. Shnitzler, to The Gillette Co. Aerosol dispensers. 3,095,122, 6-25-63, Cl. 222—146.

Lewin, Gunnar E. W. Friction stay device for windows, doors and the like. 3,086,804, 4-23-63, Cl. 292—275.

Lewin, Henry: *See*—
Petri, Albert L., and Lewin. 3,105,497.

Lewin, Howard: *See*—
Mandrolan, Harold, and Lewin. 3,072,557.

Lewin, Menachem, ½ to The Government of Israel on behalf of the State of Israel. Shrinkproofing and feltproofing with acid bromate wetting agent solution. 3,106,440, 10-8-63, Cl. 8—128.

Lewin, Morton H., to Radio Corp. of America. Logic circuits employing negative resistance diodes. 3,078,376, 2-19-63, Cl. 307—88.5.

Lewin, Morton H., to United States of America, Navy. Amplifier chain using tunnel diodes. 3,103,600, 9-10-63, Cl. 307—88.5.

Lewin, Seymour Z., to Evans Research & Development Corp. Apparatus for use in determining particle size and distribution of particle size. 3,098,931, 7-23-63, Cl. 250—83.3.

Lewin, Seymour Z., to Warner-Lambert Pharmaceutical Co. Molecularly dehydrated aluminum hydroxide derivatives 3,115,387, 12-24-63, Cl. 23—14.

Lewington, Michael H., and A. T. Scott, to Fisher & Ludlow Ltd. Coin-operated vending machines. 3,099,342, 7-30-63, Cl. 194—10.

Lewinski, Julius, and A. Rashbaum, to Willcox & Gibbs Sewing Machine Co. Cutting device. 3,085,330, 4-16-63, Cl. 30—293.

Lewinski, Julius, and A. Rashbaum, to Willcox & Gibbs Sewing Machine Co. Cutter. 3,097,430, 7-16-63, Cl. 30—273.

Lewis, Albert A., deceased, by G. Lewis, administratrix. Automatic liquid filling device. 3,082,918, 3-26-63, Cl. 222—309.

Lewis, Alfred G. Signal apparatus indicating flow through a pipe, avoiding false alarms during surges. 3,091,758, 5-28-63, Cl. 340—239.

Lewis, Arnold S. Folding boat. 3,099,024, 7-30-63, Cl. 9—2.

Lewis, B. Franklin: *See*—
Medlar, Lewis A. 3,114,878.
Medlar, Lewis A. 3,114,879.

Lewis, Bernard R.: *See*—
Kaplin, Martin. 3,093,835.

Lewis, Beverley W., and C. Boyars, to United States of America, Navy. Cool, nitrocellulose base, non-carbon forming propellant. 3,097,123, 7-9-63, Cl. 149—100.

Lewis, Charles: *See*—
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Lewis, Charles E., to American Cyanamid Co. Metallized azo dyes from 2-aminopyridine-1-oxide. 3,100,766, 8-13-63, Cl. 260—146.

Lewis, Charles E., to American Cyanamid Co. Aryloxypropionitrile and dye mixtures and dyeing hydrophobic fibers therewith. 3,114,588, 12-17-63, Cl. 8—93.

Lewis, Charles T. Collapsible boat. 3,070,816, 1-1-63, Cl. 9—2.

Lewis, Charles T. Portable collapsible boat. 3,075,207, 1-29-63, Cl. 9—2.

Lewis, Charles T. Safety snap hook. 3,083,431, 4-2-63, Cl. 24—234.

Lewis, Clifford J.: *See*—
Drobnick, James L., and Lewis. 3,083,076.

Lewis, Clifford J., to Phillips Petroleum Co. Uranium ore-carbonate leach process involving addition of chlorine, alkali metal hypochlorite or ammonium hypochlorite to pregnant liquor derived therefrom. 3,098,707, 7–23–63, Cl. 23—14.5.

Lewis, Clifford J., and J. L. Drobnick, to General Mills, Inc. Liquid-liquid extraction recovery of vanadium and molybdenum values using a quaternary ammonium extractant. 3,083,085, 3–26–63, Cl. 23—312.

Lewis, David. Dental floss holder and applicator. 3,094,996, 6–25–63, Cl. 132—92.

Lewis, David J., to United States of America, Air Force. Apparatus for segregating harmonic power in a wave-guide system. 3,078,423, 2–19–63, Cl. 333—6.

Lewis, Dennis H.: *See*—
Kamienski, Conrad W., and Lewis. 3,087,896.

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Lewis, Edward D. Coin displaying parking meter. 3,089,640, 5–14–63, Cl. 232—1.4.

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Lewis, Edward L.: *See*—
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Lewis Electrical Equipment Co.: *See*—
Medlar, Lewis A. 3,114,878.
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Lewis, G. B., Co.: *See*—
Frater, Allen H. and G. G. 3,113,680.
Frater, George G. 3,102,291.
Hasselroth, Harold. 3,084,360

Lewis, Gelder V.: *See*—
Knight, Randall E., Jr., and Lewis. 3,102,545.

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Lewis, Gerald: *See*—
Margus, Edward A., and Lewis. 3,096,965.

Lewis, Gerald L.: *See*—
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Lewis, Gertrude: *See*—
Lewis, Albert A. 3,082,918.

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Sprague, Robert H., Stewart, and Lewis. 3,113,024.

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Foster, Charles H., and Lewis. 3,114,257.

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Walter, Paul E., and Lewis. 3,080,830.

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Lewis, Paul, and K. L. Streifert, to General Electric Co. Recirculating lubrication system. 3,090,656, 5–21–63, Cl. 308—187.

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Lewis Refrigeration Co.: *See*—
Overbye, Milan R. 3,115,756.

Lewis, Reynold H. Magnetic pickup for the base section of accordion. 3,083,605, 4–2–63, Cl. 84—1.04.

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Lewis, Richard J., to The Goodyear Tire & Rubber Co. Tire tool. 3,088,199, 5–7–63, Cl. 29—221.5.

Lewis, Richard L.: *See*—
Zebarth, Ralph S., Lewis, and Carlson. 3,071,906.

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Lewis, Richard R. Electrical connector for use in an experimental circuit kit. 3,093,431, 6–11–63, Cl. 339—18.

Lewis, Richard W.: *See*—
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Lewis, Sheldon H.: *See*—
Westfall, Robert J., and Lewis. 3,093,545.

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Lewis, Thomas E.: *See*—
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Lewis, Wallace E., and H. R. Humphreys, Jr. Apparatus for handling purse seines. 3,112,575, 12–3–63, Cl. 43—8.

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Lewis-Smith, Charles P., and H. Kilduff, to Baker Perkins Ltd. Blending and dispensing of viscous substances. 3,071,-293, 1–1–63, Cl. 222—135.

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Oetjen, Georg-Wilhelm, Nerge, and Fauser. 3,116,122.

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Neumann, Karlheins. 3,077,036.

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Hubbard, Leo J., Heckel, and Leyland. 3,103,355.

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Lezan, Georges R. E., to General Electric Co. Firing pulse circuit for silicon controlled rectifiers. 3,095,513, 6–25–63, Cl. 307—88.5.

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Liang, Po-Lung, to Ford Motor Co. Two-way overrunning coupling. 3,084,774, 4–9–63, Cl. 192—44.

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Liao, Hsiang P.: *See*—
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Liao, Tseng W., to General Electric Co. Mass accelerator. 3,086,424 4–23–63, Cl. 89—8.

Libberton, Herbert, to Tenak Products Co. Printing plate. 3,087,423, 4–30–63, Cl. 101—401.1.

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Bodl, Gilbert M., and Hauri. 3,071,066.
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Carney, Delmar E., and Warren. 3,108,149.
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Hansen, Ralph C., and Thwaites. 3,079,874.
Harwig, Stephen H. 3,076,727.
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Kimble, Kenneth C., and Ferguson. 3,075,327.
Krüger, Fritz, Mainz, and Rodloff. 3,103,429.
Leflet, Herbert A., Jr. 3,074,258.
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Mainz, Franz. 3,086,375.
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Merlwether, Henry R., Jr., Mewbourne, Warren, and Badger. 3,094,578.
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Sharp, Donald E., Dean, Babcock, and Montgomery. 3,078,692.
Smith, Hugh R., Jr., and Colbert. 3,086,882.
Sporer, Anthony G. 3,078,625.
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Walters, Emmett L. 3,085,697.
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Libby, Henry T., to General Electric Co. Arc welding method and apparatus. 3,114,829, 12–17–63, Cl. 219—124.

Libby, Hugh H. Label removing apparatus. 3,090,392, 5–21–63, Cl. 134—125.

Libby, John N.: *See*—
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Libby, Louis L., to Tray-Wa Corp. Prepared frozen food for cooking and method of preparing the same. 3,078,172, 2–19–63, Cl. 99—192.

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Sawyer, Houghton, Jr., and Yoshiura. 3,073,366.

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Liberty, Norman H., to FMC Corp. Product aligning conveyor. 3,080,968, 3–12–63, Cl. 209—82.

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Von Hacht, Gerhard. 3,100,847.

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Lichty, Paul E., and C. J. Glegel, to The Akron Products Co. Cap construction for building columns. 3,106,270, 10–8–63, Cl. 189—42.

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Lidell, Swante M. Ethane side stripper. 3,094,401, 6–18–63, Cl. 55—206.

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Lidov, Rex E., to Halcon International, Inc. Process for making 2-pyrrolidone from maleic anhydride. 3,109,005, 10–29–63, Cl. 260—326.5.

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Liebenthal, John H., to Poor & Co. Wiping bar for track lubricator. 3,086,613, 4–23–63, Cl. 184—3.

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Liebrecht, Waldemar W., to Minneapolis-Honeywell Regulator Co. Control apparatus for refrigeration system. 3,093–977, 6–18–63, Cl. 62—208.

Liebreich, Oscar P., to The Mattatuck Mfg. Co. Safety coaster brake. 3,082,042, 3–19–63, Cl. 301—105.

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Liechti, Hans W.: *See*—
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Liechti, Peter: *See*—
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Lieffers, William C.: *See*—
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Liegeon, Bernard L. J., and M. H. J. Lambert. Hinged doors for wall-cupboards and the like. 3,075,819, 1–29–63, Cl. 312—271.

Liem, Jack H., M. G. Rowe, C. W. Yancey, and W. E. Wysick, to Rowan Drilling Co., Inc. Wire line guide apparatus. 3,101,094, 9–17–63, Cl. 254—145.

Lien, Dallas H., to Western Electric Co., Inc. Indicating counter device. 3,112,395, 11–26–63, Cl. 235—92.

Lien, Gary D.: *See*—
Lien, Harold G. and G. D. 3,088,631.

Lien, Harold G. and G. D. Combined spout and opener. 3,088,631, 5–7–63, Cl. 222—81.

Lienard, Léonce. Device for humidifying and fertilizing the ground. 3,101,570, 8–27–63, Cl. 47—48.5.

Lieptz, Nathan S. Parallel support element for workpieces. 3,112,106, 11–26–63, Cl. 269—296.

Liesen, Stephen J. Throttle control. 3,111,851, 11–26–63, Cl. 74—2.

Lieser, Ernst, to Eastman Kodak Co. Exposure compensating device for photographic cameras. 3,094,053, 6–18–63, Cl. 95—10.

Lietz, Gustav: *See*—
Hennig, Karl, Lietz, and Meinhard. 3,102,128.

Lievre, Lucien, to Societe Rhodiacetn. Nozzle closure for injection moulding press. 3,095,609, 7–2–63, Cl. 18—30.

Lifka, Charles. Rain-tight connector. 3,084,960, 4–9–63, Cl. 285—238.

Lifland, Philip P., to Socony Mobil Oil Co., Inc. Low pressure reforming with once-through hydrogen. 3,111,481, 11–19–63, Cl. 208—79.

Lifshits, Anatoly G.: *See*—
Arshinov, Sergunei I., Zolotariov, Ivanov, Lifshits, Moskalov, and Radovitski. 3,107,478.

Lift, Bob G., to Holley Carburetor Co. Dashpot assembly. 3,081,846, 3–19–63, Cl. 188—94.

Lift-A-Loft Corp.: *See*—
Mitchell, Maurice E. 3,095,945.

Lifton, Lewis. Carrying case with writing board. 3,082,049, 3–19–63, Cl. 312—200.

Lifton, Lewis. Hinge for executive carrying case. 3,083,401, 4–2–63, Cl. 16—142.

Lifton, Lewis. Attaché case and combined partition and desk therefor. 3,112,017, 11–26–63, Cl. 190—11.

Ligenza, Joseph R., to Bell Telephone Laboratories, Inc. Photosensitive gas phase etching of semiconductors by selective radiation. 3,095,332, 6–25–63, Cl. 148—1.5.

Ligenza, Joseph R., to Bell Telephone Laboratories, Inc. Photosensitive gas phase etching of semiconductors by selective radiation. 3,095,341, 6–25–63, Cl. 156—17.

Ligenza, Joseph R., and H. M. Shapiro, to Bell Telephone Laboratories, Inc. Selective diffusion technique. 3,108,915, 10–29–63, Cl. 148—1.5.

Light, James W.: *See*—
Brucker, Byron L., Fogt, and Light. 3,091,956.

Light Metals Corp.: *See*—
McArthur, Bruce E. 3,084,795.

Light Metals Research Laboratory, Inc.: *See*—
Pagonis, George A. 3,079,451.
Pagonis, George A. 3,093,872.

Light, Rupert E., Jr.: *See*—
Greenspan, Frank P., and Light. 3,073,793

Lightburn & Co. Ltd.: *See*—
Lightburn, Harold A. 3,081,007.

Lightburn, Harold A., to Lightburn & Co. Ltd. Hydraulic jack. 3,081,007, 3–12–63, Cl. 222—318.

Lightburn, Robert A. Carrying case. 3,081,807, 3–19–63, Cl. 150—52.

Lightburn, Robert A. Sectional drawer cabinet. 3,107,131, 10–15–63, Cl. 312—107.

Lightcap, Edward H.: *See*—
Hanisian, John, and Lightcap. 3,096,273.

Lighter, Stephen. Container for liquids and process of dispensing therefrom. 3,085,714, 4–16–63, Cl. 222—1.

Lightfoot, Edwin N., Jr., to A. O. Smith Corp. Fuel cell power supply for sump pumps. 3,094,936, 6–25–63, Cl. 103—25.

Lighting Products, Inc.: *See*—
Davis, Donald W. 3,096,032.

Lighting Specialties, Inc.: *See*—
Benak, Frank C. 3,071,326.

Lightoller Inc.: *See*—
Coffey, James S. K. 3,108,753.
Sweetser, Donald A. 3,108,529.

Lignes Telegraphiques et Telephoniques: *See*—
Ernyei, Herbert H. 3,092,736.
Pretcelle, Maurice A. 3,105,202.

Lignosol Chemicals Ltd.: *See*—
Kelrstead, Karl F., Giguere, and Fortin. 3,094,515.

Ligotky, Harri K., to International Telephone and Telegraph Corp. Pulse correcting amplifiers. 3,093,753, 6–11–63, Cl. 307—88.5.

Ligotky, Harri K., to International Telephone & Telegraph Corp. Tone detector. 3,103,558, 9–10–63, Cl. 179—84.

Likit Windows, Inc.: *See*—
Guldager, Clinton H. 3,106,753.

Liles, Clarence E.: *See*—
Badenoch, Benjamin W., Brown, Cardillo, and Liles 3,108,542.

Lilienstein, Manfred, and D. F. Schaefer, to American Electronics, Inc. Control circuits for static inverters. 3,101,-439 8–26–63, Cl. 321—45.

Liljenberg, Harry A., to The M. T. & D. Co. Velocipede frame structure. 3,106,412, 10–8–63, Cl. 280—287.

Liljendahl, Sven A. J. Sewerage systems. 3,115,148, 12–24–63, Cl. 137—205.

Lill, Melvin H.: *See*—
Shoemaker, Clyde A., and Lill. 3,105,387.

Lilla Edets Pappersbruks Aktiebolag: *See*—
Grettve, Karl E. L. 3,087,687.

Lilley, Geoffrey M.: *See*—
Kuchemann, Dietrich, Lilley, and Maskell. 3,090,584.

Lillibridge, Harold R., to Field-Ernst Envelope Co. Envelope. 3,086,695, 4–23–63, Cl. 229—73.

Lillie, Gordon E., to Bryant Chucker Grinder Co. Method and means for dressing internal grinding wheels. 3,102,529, 9–3–63, Cl. 125—11.

Lilliston Implement Co.: *See*—
Kenney, William D. 3,106,255.

Lillsunde, Bernard: *See*—
Brunberg, Karl G., Lillsunde, and Lindenhall. 3,101,-392.

Lillsunde, Bernard: *See*—
Brunberg, Karl G., Dahlblom, and Lillsunde. 3,088,999.

Lilly, Arthur R. Hoist controller. 3,110,199, 11–12–63, Cl. 74—785.

Lilly, Edward C. Continuous mining machine. 3,088,718, 5–7–63, Cl. 262—9.

Lilly, Ell, and Co.: *See*—
Cannon, William N., Kline, Cochran, and Soper. 3,105,-005.
Doran, Wilbur J., and Easton. 3,111,542.
Easton, Nelson R., and Hennion. 3,079,440.
Fink, Robert D. 3,077,106.
Gerzon, Koert. 3,096,372.
Kline, Granville B., and Thompson. 3,098,745.
Murphy, Hubert W., Probst, and Stephens. 3,108,042.
Perelman, Melvin, and Farkas. 3,086,027.
Soper, Quentin F. 3,111,403.
Stark, William M., Kielmschmidt, and Probst. 3,108,-047
Traverso, John J., and Whitehead. 3,111,531.

Lilly, James A. Apparatus for lining mine shafts. 3,074,237, 1–22–63, Cl. 61—41.

Lilly, Leslie R. C., to Ricardo & Co. Engineers (1927) Ltd. Liquid-cooled cylinder heads for internal combustion engines. 3,074,389, 1–22–63, Cl. 123—41.73.

Lilly, Mason M., to Harold Brown Co. Collar stop. 3,089,-545, 5–14–63, Cl. 166—206.

Lily of France, Inc.: *See*—
Spitzer, Anne. 3,099,266.

Lily-Tulip Cup Corp.: *See*—
Amberg, Stephen W., and Landers. 3,083,861.

Lima Electric Motor Co., Inc.: *See*—
Sparrow, Kenneth M. 3,093,782.

Limberger, Walter, to Lumoprint Zindler K.G. Continuous exposure apparatus for producing photocopies from flat patterns. Re. 25,408, 7–2–63, Cl. 88—24.

Limberger, Walter, to Lumoprint Zindler KG. Copying devices. 3,076,399, 2–5–63, Cl. 95—73.

Limberger, Walter, to Lumoprint Zindler KG. Apparatus for making copies. 3,076,400, 2–5–63, Cl. 95—75.

Limberger, Walter, to Lumoprint Zindler KG. Device for preparing a copy by means of latent electrostatic images. 3,081,677, 3–19–63, Cl. 95—1.7.

Limberger, Walter, to Lumoprint Zindler K.G. Photographic copying apparatus. 3,092,005, 6–4–63, Cl. 95—75.

Limberger, Walter, to Lumoprint Zindler K.G. Devices for making photographic copies. 3,092,006, 6–4–63, Cl. 95—77.5.

Limberger, Walter, to Lumoprint Zindler KG. Apparatus for making copies. 3,100,432, 8–13–63, Cl. 95—75.

Limberger, Walter, to Lumoprint Zindler KG. Developing device for making copies. 3,103,153, 9–10–63, Cl. 95—89.

Limberger, Walter, to Lumoprint Zindler KG. Apparatus for producing copies. 3,110,490, 11–12–63, Cl. 271—26.

Limberger, Walter, and G. Cranskens, to Lumoprint Zindler KG. Apparatus for drying layer carriers. 3,108,863, 10–29–63, Cl. 34—155.

Lime, Jean, to Societe Alsacienne de Construction Mecaniques. Device for the adjustment or "correlating" of the engraved rollers in rotary printing machines. 3,098,434, 7–23–63, Cl. 101—178.

Limoges, Henri and M. P. Emergency control device for hydraulic or pneumatic braking systems. 3,093,213, 6–11–63, Cl. 188—106.

Limoges, Maurice P.: *See*—
Limoges, Henri and M. P. 3,093,213.

Limpel, Eugene J., to A. O. Smith Corp. Electric resistance heating units. 3,092,716, 6–4–63, Cl. 219—149.

Limpert, Alexander S. and R. J. Proportioning pump. 3,100,451, 8–13–63, Cl. 103—150.

Limpert, Dean J. Apparatus for manufacturing preserved fruits. 3,086,445, 4–23–63, Cl. 99—239.

Limpert, Robin J.: *See*—
Limpert, Alexander S. and R. J. 3,100,451.

Lin, Chen M.: *See*—
Garland, Christopher M., Wallace, Pitts, and Lin. 3,111,-212.

Linabery, Linfred G. Post driving device. 3,115,199, 12–24–63, Cl. 175—152.

Linares Freres, Etablissements: *See*—
Flamant, Pierre L. V., and Linares. 3,093,524.

Linares, Michel J.: *See*—
Flamant, Pierre L. V., and Linares. 3,093,524.

Linch, Adrian L., to United States of America, Atomic Energy Commission. Refining fluorinated compounds. 3,071,628, 1–1–63, Cl. 260—653.

Lincoln, David, E. Rightor, Jr., and W. G. Wilson, to Kimberly-Clark Corp. Sheet feeder for printing machine. 3,072,051, 1–8–63, Cl. 101—227.

Lincoln, Dwight C., and W. P. Shylnk, to Hercules Powder Co. Preparation of high viscosity water-soluble polycationics. 3,095,404, 6–25–63, Cl. 260—88.3.

Lincoln, Frank H., W. P. Schneider, and G. B. Spero, to The Upjohn Co. 21-organic sulfonates of 11,17,21-trioxygenated-3-keto pregnenes. 3,105,083, 9–24–63, Cl. 260—397.45.

Lincoln, Hubert L., to Link-O-Matic Co., Inc. Valve plug for water softener. 3,109,453, 11–5–63, Cl. 137—590.

Lincoln, John D., to Continental Can Co., Inc. Method for coating a honeycomb log. 3,098,759, 7–23–63, Cl. 117—95.

Lincoln, Lewis L.: *See*—
Heseltine, Donald W., and Lincoln. 3,094,418.

Lincoln, Milan L.: *See*—
Lebner, William L., and Lincoln. 3,094,651.

Lincoln, Milan L., to Sylvania Electric Products Inc. Flux application. 3,081,535, 3–19–63, Cl. 29—495.

Lincoln, Murray S. Spike-grip for interchangeable fur collars. Re. 25,378, 5–7–63, Cl. 2—98.

Lincoln, Robert J., to Monsanto Chemical Co. Stabilizing agent. 3,108,356, 10–29–63, Cl. 28—74.

Lincoln, Roland L., to Fuller Co. Dust collector. 3,097,410, 7–16–63, Cl. 24—270.

Lincoln, Roland L., to Fuller Co. Dust collector control system. 3,097,936, 7–16–63, Cl. 55—273.

Lincoln, Roland L., to Fuller Co. Gas-material separator. 3,097,937, 7–16–63, Cl. 55—292.

Lincoln Tool and Machine Co., Inc.: *See*—
Griffo, Joseph B. 3,113,756.

Lincoln Park Engineering, Inc.: *See*—
Mackinder, Harold C., and Zywicki. 3,073,610.

Lind, Alfred L. Display device. 3,080,067, 3–5–63, Cl. 211—176.

Lind, Alfred L. Apparatus for making perforated tubes. 3,111,873, 11–26–63, Cl. 83—98.

Lind, Carl M. Garage door openers. 3,084,318, 4–2–63, Cl. 318—266.

Lind, Charles J., and A. W. Sogn, to Allied Chemical Corp. Purification of n-dinitromonocyclic aryl compounds. 3,086,063, 4–16–63, Cl. 260—645.

Lind, Erwin, and J. Munder, to Kalle Aktiengesellschaft. Reproduction process. 3,089,953, 5–14–63, Cl. 250—65.

Lind, Evald T. G. Insert for vessels containing pills, tablets or the like. 3,075,667, 1–29–63, Cl. 215—81.

Lind, James N., to General Electric Co. Conxial line to waveguide transition. 3,086,181, 4–16–63, Cl. 333—34.

Lind, Orbie E., Jr., and W. H. Trow, to Sylvania Electric Products Inc. Camera control mechanism. 3,098,417, 7–23–63, Cl. 95—10.

Lind, Runar. Cutter work guide. 3,110,487, 11–12–63, Cl. 269—303.

Linda, Frank R., and W. S. McDonald, to International Paper Co. Paperboard packaging container. 3,110,434, 11–12–63, Cl. 229—37.

Lindaco Aktiebolag: *See*—
Ziegler, Ernst L. T. 3,114,583.

Lindae, Gerhard, to Robert Bosch, G.m.b.H. Headlamps. 3,083,315, 3–26–63, Cl. 313—117.

Lindahl, Gustaf A. Magnetic mailbox signal. 3,080,107, 3–5–63, Cl. 232—35.

Lindahl, Harold A., to The Pure Oil Co. Process for desorbing solid adsorbents. 3,083,245, 3–26–63, Cl. 260—676.

Lindal, Benedict J. Vehicle lift. 3,102,714, 9–3–63, Cl. 254—88.

Lindall, Reginald, to Unilever Ltd. Method of removing meat from bone. 3,089,775, 5–14–63, Cl. 99—107.

Lindau, Eric S. Film cleaner. 3,077,625, 2–19–63, Cl. 15—77.

Lindberg Engineering Co.: *See*—
Duffy, John R. 3,071,356.
Wuczkowski, Othmar R. 3,080,468.

Lindberg, John E., Jr. Method and apparatus for transferring heat. 3,075,361, 1–29–63, Cl. 62—4.

Lindberg, John E., Jr. Nuclear reactor heat exchange, moderation, and shielding system. 3,116,212, 12–31–63, Cl. 176—39.

Lindberg, Karl G. H.: *See*—
Bernemyr, Rune B., Lindberg, Magnusson, and Svala. 3,102,999.

Lindberg, Robert H., to Isaacson Iron Works d.b.a. Young Iron Works. Two point log grapple. 3,082,031, 3–19–63, Cl. 294—111.

Lindberg, Victor L.: *See*—
Irland, Max J., and Lindberg. 3,082,661.
Irland, Max J., and Lindberg. 3,083,294.

Lindbergh Jon M., and J. W. Warren, Jr., to Explosive Engineering Corp. Method of expediting the removal of frozen masses. 3,104,186, 9–17–63, Cl. 134—17.

Lindblad, Stig M. Attachments for automobile safety belts. 3,080,634, 3–12–63, Cl. 24—221.

Lindblad, Stig M. Buckles for automobile safety belts and the like. 3,084,411, 4–9–63, Cl. 24—193.

Lindblom, Frank W., to Welsh Mfg. Co. Headband assembly for welder's helmet. 3,075,201, 1–29–63, Cl. 2—8.

Lindblom, Knut J. Stabilizing device for vehicles. 3,083,-027, 3–26–63, Cl. 280—6.1.

Linde, Hermann, to Gesellschaft fur Linde's Eismaschinen Aktiengesellschaft. Process for the decomposition of gases low in ethane preferably for the production of pure ethylene. 3,091,095, 5–28–63, Cl. 62—28.

Linde, Robert E.: *See*—
Back, Sangho, and Linde. 3,104,197.

Lindell, Sigurd I., to S & C Electric Co. Circuit switching and protecting means. 3,094,598, 6–18–63, Cl. 200—114.

Lindell, Sigurd I., and L. V. Chabala, to S & C Electric Co. High voltage switch having latch operated current interrupting means. 3,116,391, 12–31–63, Cl. 200—146.

Lindeman, Charles A. Fused plug-in receptacle. 3,076,077, 1–29–63, Cl. 200—115.5.

Lindemann, Hans, to Th. Calow & Co. Maschinenfabrik u. Eisengiesserei. Pipe feeding apparatus. 3,098,570, 7–23–63, Cl. 214—1.

Lindemann, Hans, to Th. Calow, & Co. Bar scalping machine. 3,099,929, 8–6–63, Cl. 82—20.

Lindemann, Hans, to Th. Calow & Co. Apparatus for producing seamless pipe. 3,103,718, 9–17–63, Cl. 22—57.2.

Lindemann, Howard C.: *See*—
Mindheim, Daniel J., and Lindemann. 3,100,091.

Lindemann, Waldemar: *See*—
Van Endert, Fritz. 3,101,045.

Lindemuth, Francis L.: *See*—
Lunde, Thomas T., and Lindemuth. 3,072,074.

Linden, Gustave B., to Aerojet-General Corp. Polyhydroxy nitro compounds. 3,101,378, 8–20–63, Cl. 260—635.

Linden, Herbert E., deceased: H. E. H. Linden, administrator. Renewable cutting edge for plowshares. 3,084,750, 4–9–63, Cl. 172—719.

Linden, Herbert E. H.: *See*—
Linden, Herbert E. 3,084,750.

Linden Laboratories: *See*—
Lagally, Paul and H. 3,074,843.

Linden, Samuel, to Runny Bear Inc. Baby chair-bed. 3,107,120, 10–15–63, Cl. 297—321.

Lindenbaum, Irwin. Shower curtain rod cover. 3,083,494, 4–2–63, Cl. 45—68.

Lindenblad, Gordon: *See*—
Numerof, Paul, and Lindenblad. 3,074,406.

Lindenblad, Nils E., to Radio Corp. of America. Thermoelectric-heat pumps. 3,074,242, 1–22–63, Cl. 62—3.

Lindentors, Sven, to Mo och Domsjö Aktiebolag. Processes of treating water-soluble cellulose derivatives containing hydroxyethyl groups and product. 3,106,551, 10–8–63, Cl. 260—232.

Lindenhall, John S.: *See*—
Brunberg, Karl G., Lillsunde, and Lindenhall. 3,101,392.

Lindenmaier, Ernst, L. Gollbach, and H. Fischel, to Krebs & Co. Ltd. Electrolytic cell with anode adjusting device. 3,080,310, 3–5–63, Cl. 204—225.

Lindenmann, Adolf J.: *See*—
Jucker, Ernst, and Lindenmann. 3,108,118.
Jucker, Ernst, Lindenmann, and Gmunder. 3,104,238.
Jucker, Ernst, Lindenmann, and Gmunder. 3,108,110.

Lindenmeyer, Carl W., to Barber-Greene Co. Flexible hose training device. 3,075,732, 1–29–63, Cl. 248—49.

Lindenmeyer, Ray S.: *See*—
Baldwin, Brian E., and Lindenmeyer. 3,071,135.
Baldwin, Brian E., and Lindenmeyer. 3,090,384.

Lindenschmidt, Robert E.: *See*—
Beckett, Leo G., and Lindenschmidt. 3,096,628.

Lindenthal, Murray W., to Martin-Marietta Corp. Sequential sampling system using commutating devices providing control signals for biasing and switching of transistors. 3,089,091, 5–7–63, Cl. 328—104.

Linder, Ernest G., to United States of America, Air Force. Radioactive power supply system. 3,093,788, 6–11–63, Cl. 322—2.

Linder, Fritz. Hypodermic syringe. 3,073,306, 1–15–63, Cl. 128—215.

Linder, Fritz. Arrangement for a steam-heated autoclave. 3,107,975, 10–22–63, Cl. 21—94.

Linder, Jerome: *See*—
Newcomer, Jack S., Linder, and Smith. 3,096,367.
Well, Edward D., and Linder. 3,112,346.

Linder, Jerome, J. S. Newcomer, and K. J. Smith, to Hooker Chemical Corp. Compounds 4-chloro-m-phenylene dimethyl carbamate and N,N'-dichloroisophthalamide. 3,105,848, 10–1–63, Cl. 260—471.

Linder, Josef M., to Crown Industries, Inc. Automatic door operator. 3,084,927, 4–9–63, Cl. 268—34.

Linder, Kenneth C., to Automatic Electric Laboratories, Inc. Improved integrator. 3,109,987, 11–5–63, Cl. 325—38.

Linder, Robert, Jr. Ladder bracket with paint bucket holder. 3,094,304, 6–18–63, Cl. 248—211.

Linder, Solomon L., to Bell Telephone Laboratories, Inc. Electroluminescent storage systems. 3,085,231, 4–9–63, Cl. 340—173.

Linderfelt, Hal R., to Douglas Aircraft Co., Inc. Door for pressurized cabin. 3,085,297, 4–16–63, Cl. 20—16.

Linderfelt, Hal R. Hydrapulse motor. 3,107,486, 10–22–63, Cl. 60—35.6.

Linderholm, Hakan: *See*—
Johannisson, Dag, and Linderholm. 3,071,131.

Linderme, Dorothy E.: *See*—
Linderme, Theodore E. 3,091,102.

Linderme, Theodore E., deceased: D. E. Linderme, executrix. Universal joint. 3,091,102, 5–28–63, Cl. 64—8.

Linderoth, Hans. Cutting presses and cutting surfaces therefor. 3,095,803, 7–2–63, Cl. 100—50.

Linderoth, Roger S., to Amerock Corp. Sash lock. 3,083,045, 3–26–63, Cl. 292—69.

Lindet, Christian J.-L. A. J., to Societe d'Etudes de Manutention et d'Equipements Industriels S.E.M.E.I. Assembly of tubes and rods. 3,085,822, 4–16–63, Cl. 287—54.1.

Lindgren, Harold A., to Minneapolis-Honeywell Regulator Co. Damping and aligning apparatus. 3,075,393, 1–29–63, Cl. 74—5.34.

Lindgren, John C.: *See*—
Leader, Forest D., and Lindgren. 3,114,032.

Lindgren, Nils K., to Electrolux, Aktiebolaget. Switching apparatus. 3,080,458, 3–5–63, Cl. 200—34.

Lindgren, Nils K., to Electrolux, Aktiebolaget. Bearing mount for rotatable machines. 3,095,248, 6–25–63, Cl. 308—178.

Lindgren, Robert F., to Daco, Inc. Torque limiter. 3,090,213, 5–21–63, Cl. 64—30.

Lindgren, William L., to Turner Corp. Manually operable control valve. 3,101,190, 8–20–63, Cl. 251—221.

Lindgren, William L., to Turner Corp. Propane container and method of making same. 3,115,283, 12–24–63, Cl. 222—394.

Lindheim, Stephen W.: *See*—
Schwartz, Robert A. D., and Lindheim. 3,085,152.

Lindhgren, Per H. Storage apparatus. 3,080,204, 3–5–63, Cl. 312—199.

Lindholm, Frank J.: *See*—
Martin, Hollinshead T., and Lindholm. 3,088,397.

Lindholm, Ralph, and A. Havek. Direct reading precision gear checker. 3,077,671, 2–19–63, Cl. 33—179.5.

Lindkvist, Gustav A., to Link-Belt Co. Article handling equipment. 3,095,984, 7–2–63, Cl. 214—1.

Lindlar, Herbert: *See*—
Isler, Otto, Lindlar, Montavon, Ruegg, Schwieter, and Saucy. 3,091,631.

Lindley, Charles A. Thrust-supported and thrust-controlled device. 3,097,445, 7–16–63, Cl. 46—77.

Lindley, Clarence W. Caulking iron. 3,079,816, 3–5–63, Cl. 78—47.

Lindley & Co., Inc.: *See*—
Mindheim, Daniel J., and Lindemann. 3,100,091.

Lindley, Donald C.: *See*—
Gaskell, Merwin H., Lindley, and Perkins. 3,083,764.
Gaskell, Merwin H., Lindley, and Perkins. 3,104,702.

Lindley, Frank M., to Lindley's Electronic Enterprises, Inc. Pest control device. 3,113,304, 12–3–63, Cl. 340—38.4.

Lindley's Electronic Enterprises, Inc.: *See*—
Lindley, Frank M. 3,113,304.

Lindman, George E. to Mag Powr Games, Inc. Magnetic game. 3,091,459, 5–28–63, Cl. 273—88.

Lindmark, Howard C. Wire puller. 3,113,759, 12–10–63, Cl. 254—134.3.

Lindner, Ernst: *See*—
Ehrhart, Gustav, Hennig, Lindner, and Ott. 3,096,244.
Ehrhart, Gustav, Hennig, Lindner, and Ott. 3,096,374.
Ehrhart, Gustav, Hennig, Schmitt, Lindner, and Ott. 3,101,367.
Krohs, Walter, Schmitt, Ther, and Lindner. 3,116,330.
Schmitt, Karl, Lindner, and Meixner. 3,103,516.

Lindner, Herbert, Firma: *See*—
Stade, Gerhard, and Reppin. 3,080,684.

Lindner, Lars A. M.: *See*—
Bostrom, Allen G., Ek, and Lindner. 3,095,268.

Lindner, Paul L., to Witco Chemical Co., Inc. Dispersant compositions and toxicant concentrates containing the same. 3,080,280, 3–5–63, Cl. 167—42.

Lindner, Philip J., to Koehring Co. Safety stop for presses. 3,095,804, 7–2–63, Cl. 100—53.

Lindner, Philip J., to Koehring Co. Hydraulic blanking press. 3,107,567, 10–22–63, Cl. 83—124.

Lindquist, Robert M., and Z. Reyes, to International Business Machines Corp. Methods for making record materials. 3,111,407, 11–19–63, Cl. 96—27.

Lindsay, Graham E., and S. J. J. Waldron, to United Kingdom Atomic Energy Authority. Arresting devices for falling bodies. 3,096,268, 7–2–63, Cl. 204—193.2.

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George, James H. H. 3,105,740.
Gordon, William E., and Salmon. 3,080,724.
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Little, Charles H., to Universal Drafting Machine Corp. Drafting apparatus. 3,074,173, 1–22–63, Cl. 33—76.
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Little, Edwin D., and B. T. Poon, to Allied Chemical Corp. Production of tris-2-hydroxyalkyl isocyanurates. 3,088,948, 5–7–63, Cl. 260—248
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Little, Ernest L., Jr., H. J. McCauley, and F. J. Penoza, to E. I. du Pont de Nemours and Co. Refractory compact manufacture. 3,110,091, 11–12–63, Cl. 29—182.5.
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Little, Jess C., to The Fanner Mfg. Co. Conductor vibration dampener. 3,105,866, 10–1–63, Cl. 174—42.
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Little, Paul A., and M. Gambill, to United Chemical Corp. of New Mexico. Prevention of gypsum scale formation in water flood method of oil production. 3,091,291, 5–28–63, Cl. 166—9.
Little, Randel Q., Jr., to Standard Oil Co. Process for preparing 2,5-bis(hydrocarbondithio)-1,3,4-thiadiazole. 3,087,932, 4–30–63, Cl. 260—302.
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Little, William A., and S. B. Watelski, to Texas Instruments Inc. Method for fabricating transistors. 3,083,441, 4–2–63, Cl. 29—25.3
Little, William R., to United States of America, Navy. Low level semiconductor switch having or voltage regulating zener diode in a feedback path. 3,095,512, 6–25–63, Cl. 307—88.5.
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Littleford, Frank W., to United States of America, Army. Cartridge case for 20 mm. gun system. 3,089,420, 5–14–63, Cl. 102—43.
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Liu, John K., to General Dynamics Corp. Flexible deep sea buoy. 3,090,976, 5–28–63, Cl. 9—8.

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Livermont, Frank W., deceased; M. S. Zimmerman, executor, to Reed Roller Bit Co. Adaptor for wrench heads. 3,102,732, 9–3–63, Cl. 279—2.

Livermore, Harry G. Ground-rooting tooth and its mounting. 3,085,635, 4–16–63, Cl. 172—699.

Livermore, William T. Hydraulic pump and control valve assembly. 3,110,266, 11–12–63, Cl. 103—136.

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Livingstone, Jay G. Pouring adapter. 3,074,581, 1–22–63, Cl. 215—73.

Livingstone, Jay G. Cover and container. 3,080,993, 3–12–63, Cl. 220—24.5.

Livingstone, Jay G. Fitment for pouring spout. 3,089,621, 5–14–63, Cl. 222—148.

Livingstone, Jay G., to G. A. Luecht and F. Petrousky. Golf practice swing device. 3,113,780, 12–10–63, Cl. 273—186.

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Lloyd, Edward C., D. P. Johnson, and U. O. Hutton, to United States of America, Commerce. Dual-wedge high-pressure apparatus. 3,100,912, 8–20–63, Cl. 18—16.

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Lober, George M., to H. Rosenstock & Sons, Inc. Thread cutting attachment for sewing machines. 3,108,557, 10–29–63, Cl. 112—252.

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Locanthi, Bart N., to Computer Engineering Associates, Inc. Single-ended push-pull transistor amplifier. 3,102,984, 9–3–63, Cl. 330—14.

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Locher, Hans, to Zellweger Ltd. Apparatus for automatically controlling the drafting of elongate materials. 3,099,048, 7–30–63, Cl. 19—240.

Locher, Hans, to Zellweger Ltd. Speed control means. 3,109,324, 11–5–63, Cl. 74—752.

Locher, Ross E., to Zinsco Electrical Products. Multiple circuit breaker. 3,089,933, 5–14–63, Cl. 200—116.

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Stucki, Frank F. 3,096,449.
Sutton, James F. 3,085,770.
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Washburn, George F., Jr. 3,076,655.

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Lockshin, Samuel D., to Hampden Specialty Products Corp. Clip. 3,089,541, 5–14–63, Cl. 160—383.

Lockwood, Arlie F. Water ski with adjustable binding. 3,103,672, 9–17–63, Cl. 9—310.

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Hunt, Nathan C., Hainlin, and Lockwood. 3,075,552.

Lockwood, George H.: *See*—
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Lockwood, Harry A., and R. L. Hockley. Shell for guns. 3,093,073, 6–11–63, Cl. 102—42.

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Lockwood, Paul A., to Owens-Corning Fiberglas Corp. Metal and fiber composite materials and methods of producing. 3,095,642, 7–2–63, Cl. 29—419.

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Lockwood, William C., to Rolls-Royce Ltd. Method of detecting flaws in articles. 3,083,297, 3–26–63, Cl. 250—71.

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Winterburn, Joseph. 3,075,579.

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Lode, Tenny, to Rosemount Engineering Co. Dry circuit switching means. 3,092,739, 6–4–63, Cl. 307—137.

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Sporck, Claus L. 3,104,565.
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Loeb, Morris. Magnetic catches. 3,100,663, 8–13–63, Cl. 292—251.5.

Loeb, William E., to Union Carbide Corp. Interpolymerization of carbon monoxide and alpha-monoolefins. 3,083,184, 3–26–63, Cl. 260—63.

Loebel, Frederick A., to Cleaver-Brooks Special Product, Inc. Steam generator. 3,074,216, 1–22–63, Cl. 55—185.

Loebel, Frederick A., to Cleaner-Brooks Co. Heater. 3,111,935, 11–26–63, Cl. 122—33.

Loebel, Frederick A., and G. D. Craig, to Cleaver-Brooks Co. Burner apparatus. 3,079,981, 3–5–63, Cl. 158—28.

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Loechl, Clarence J., to The Celotex Corp. Drying gypsum wallboard. 3,088,218, 5–7–63, Cl. 34—7.

Loeffler, Erwin S., to Shell Oil Co. Stabilized halogenated enol ester pesticidal compositions. 3,093,536, 6–11–63, Cl. 167—22.

Loehlein, Harold J., and H. G. Huber, to Reynolds Metals Co. Method of inserting a close-fitting flexible heater element into an armored passage. 3,079,673, 3–5–63, Cl. 29—155.5.

Loehr, Joseph H. Heat exchanger. 3,099,315, 7–30–63, Cl. 165—144.

Loehr, Leslie K. Spring suspension system for load carrying vehicles. 3,071,366, 1–1–63, Cl. 267—57.

Loeper, William F., and D. W. Matthews, to United States of America, Army. Ring decoy launching mechanism. 3,107,617, 10–22–63, Cl. 102—61.

Loepsinger, Albert J., to Grinnell Corp. Method and means for controlling a piping system. 3,115,886, 12–31–63, Cl. 137—16.

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Loertscher, Waldemar, C. Hess, B. Orsoni, and T. Fabris, to Montecatini, Societa Generale per l'Industria Minerarla e Chimica. Process and apparatus for the preparation of granules. 3,070,837, 1–1–63, Cl. 18—2.7.

Loesberg, Paulus P., to Electrotechnische Industrie voorheen Willem Smit & Co. Mono- and polyphase alternating current generators. 3,099,788, 7–30–63, Cl. 322—25.

Loeser, Theodore S., to Union Carbide Corp. Proportioning system. 3,097,764, 7–16–63, Cl. 222—55.

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Loev, Bernard, to Smith Kline & French Laboratories. Sulfolane pharmaceutical compositions. 3,098,793, 7–23–63, Cl. 167—82.

Loev, Bernard, to Smith Kline & Foundry Laboratories. Method for the hydrolysis of hydrazones. 3,113,971, 12–10–63, Cl. 260—593.

Loew, Gunther, W. Thoma, and H. Bernhard, ½ to Farbenfabriken Bayer Aktiengesellschaft, and ½ to Mobay Chemical Co. Preparation of cellular polyurethanes. 3,074,894, 1–22–63 Cl. 260—2.5.

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Loew, Theodore, to Cee Bee Mfg. Co., Inc. Fabric face plastic belting. 3,090,048, 5–21–63, Cl. 2—338.

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Loewe, Siegmund, deceased; B. Lowe, executor. Playback arrangement for tape recorders and the like. 3,072,352, 1–8–63, Cl. 242—55.12.

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Loewen, Bruno F., to Phillips Petroleum Co. Rotary dryer operation under emergency conditions. 3,101,936, 8–27–63, Cl. 263—34.

Loewen, Bruno F., and J. W. Morgan, to Phillips Petroleum Co. Purge process and system for a flow meter. 3,076,694, 2–5–63, Cl. 23—209.4.

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Lofgren, Carl A., to Svenska Maskinaktiebolaget Greiff. Control needle for a spray device. 3,111,271, 11–19–63, Cl. 239—408.

Lofgren, Charles W., to Sanford Corp. of Liberia. Marking device. 3,089,182, 5–14–63, Cl. 15—563.

Lofgren, Karl R., to Cocker Machine & Foundry Co. Cloth folding and stitching device. 3,082,715, 3–26–63, Cl. 112—2.

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Lofquist, John A., to The Cleveland Crane & Engineering Co. Stacker crane. 3,111,227, 11–19–63, Cl. 212—128.

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Loftin, Clifford W. Vehicle body-fender structure. 3,110,515, 11–12–63, Cl. 293—62.

Loftman, Kenneth A., and P. B. Marsden, to Cabot Corp. Water-resistant grease compositions. 3,098,040, 7–16–63, Cl. 252—28.

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Logan, Benjamin F., Jr., and M. R. Schroeder, to Bell Telephone Laboratories, Inc. Compatible single-sideband transmission. 3,085,203, 4–9–63, Cl. 325—50.

Logan, Benjamin F., Jr., and M. R. Schroeder, to Bell Telephone Laboratories, Inc. Artificial reverberation network. 3,110,771, 11–12–63, Cl. 179—1.

Logan, Bruce G., and F. A. Sabia, to Allied Chemical Corp. Process for filtering tar. Re. 25,467, 10–29–63, Cl. 208—39.

Logan, Charles H., and J. H. Poor. Therapeutic apparatus. 3,094,116, 6–18–63, Cl. 128—24.

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Logan Hospital Equipment Co.: *See*—
Logan, Hugh H., Doty, and Nelson. 3,093,002.

Logan, Hugh H., G. I. Doty, and J. F. Nelson, to Logan Hospital Equipment Co. Flush mounted, dustproof gas service cabinet. 3,093,002, 6–11–63, Cl. 73—431.

Logan, Hugh H., G. I. Doty, and C. E. Lockhart, Jr., to Logan Emergency Showers, Inc. Retractable emergency wash fountain with cam-actuated shut-off valve. 3,106,722, 10–15–63, Cl. 4—145.

Logan, James E.: *See*—
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Logan, James J., to The Bendix Corp. Ignition apparatus. 3,088,282, 5–7–63, Cl. 60—39.82.

Logan, James S., and A. Roaldi, to Olin Mathieson Chemical Corp. Stabilized liquid ozone. 3,100,690, 8–13–63, Cl. 23—222.

Logan, John C.: *See*—
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Logan, John E., to The Wean Engineering Co., Inc. Method and means for depositing silicon. 3,085,028, 4–9–63, Cl. 117—114.

Logan, John H. Card filing system. 3,102,542, 9–3–63, Cl. 129—16.

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Logan, Lewis J. Material handling apparatus. 3,115,964, 12–31–63, Cl. 198—24.

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Logan, Ned R., to The Monarch Machine Tool Co. Dual operator for slides. 3,103,827, 9–17–63, Cl. 74—424.8.

Logan, Ralph A., W. G. Spitzer, and F. A. Trumbore, to Bell Telephone Laboratories, Inc. Method for increasing the doping level of semiconductor materials. 3,111,433, 11–19–63, Cl. 148—13.

Logan, Robert D. Apparatus for recovering cotton from the ground. 3,100,368, 8–13–63, Cl. 56—12.

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Logue, Joseph C., to International Business Machines Corp. Complementary transistor bistable circuit. 3,103,595, 9–10–63, Cl. 307—88.5.

Logue, Leland H., to Denver Equipment Co. Centrifugal pumps. 3,094,075, 6–18–63, Cl. 103—103.

Logue, Leland H., to Denver Equipment Co. Couplings for rotary shafts. 3,097,006, 7–9–63, Cl. 287—129.

Logue, Leland H., to Denver Equipment Co. Sample cutter. 3,110,183, 11–12–63, Cl. 73—423.

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Lohaus, Gerhard, and C. Beermann, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Process for the manufacture of 4-methyl-6-isobutenyl-pyrone-(2). 3,111,529, 11–19–63, Cl. 260—343.5.

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Lohe, Konrad, and J. Ribka, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Water-insoluble monoazo-dyestuffs and process for their manufacture. 3,086,006, 4–16–63, Cl. 260—204.

Lohest, Hans, to Barmer Maschinenfabrik Aktiengesellschaft. Filament winding apparatus. 3,082,361, 3–19–63, Cl. 318—6.

Lohest, Hans, to Barmer Maschinenfabrik Aktiengesellschaft. Variable speed motor for winding apparatus. 3,090,879, 5–21–63, Cl. 310—269.

Lohest, Hans, S. Antrecht, and G. A. Becker, to Barmer Maschinenfabrik Aktienges. Shifting and switching mechanism for a ring rail. 3,075,342, 1–29–63, Cl. 57—54.

Lohest, Hans, H. Schrader, and W. Weber, to Barmer Maschinenfabrik Aktiengesellschaft. Winding apparatus. 3,090,571, 5–21–63, Cl. 242—45.

Lohman, Harry C., to The Trane Co. Ignition carry-over. 3,092,169, 6–4–63, Cl. 158—115.

Lohman, Henry E. Colter assembly. 3,098,680, 7–23–63, Cl. 308—19.

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Lohr, Paul L. R., to Mine Safety Appliances Co. Ventricular defibrillator. 3,093,136, 6–11–63, Cl. 128—423.

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Lohr, Thomas E., to General Motors Corp. Power transmission mechanism. 3,073,180, 1–15–63, Cl. 74—665.

Lohr, Thomas E., to General Motors Corp. Deck lid latch and actuator. 3,081,078, 3–12–63, Cl. 268—74.

Lohringer, Werner, and J. Sixt, to Wacker-Chemie G.m.b.H. Process for manufacturing organic peroxide compounds. 3,076,852, 2–5–63, Cl. 260—610.

Lohrman, Charles, to Precision Parts Co., Inc. Display clip. 3,094,305, 6–18–63, Cl. 248—225.

Lohrman, William V., and W. E. Knapp, to Deere & Co. Hydraulic wheel drawbar. 3,091,296, 5–28–63, Cl. 172—456.

Lohs, Willy, to Siemens and Halske Aktiengesellschaft. Method of wiring electrical circuits. 3,114,194, 12–17–63, Cl. 29—155.5.

Lohse, Paul, to Fr. Hesser Maschinenfabrik-Aktiengesellschaft, Firma. Apparatus for filling bags of flexible material. 3,112,777, 12–3–63, Cl. 141—80.

Lohse, Paul, and A. Stambera, to Hesser, Fr., Maschinenfabrik-Aktiengesellschaft. Apparatus for weighing out and discharging pourable material. 3,109,561, 11–5–63, Cl. 222—77.

Lois, Sergio Q. L. Electric lighting system for gas ovens, heaters or the like. 3,075,126, 1–22–63, Cl. 317—83.

Loiseau, Christophe, deceased, by C. Loiseau, son and heir. Ship propeller. 3,081,826, 3–19–63, Cl. 170—159.

Loiseau, Roger. Method and means for cleaning seeds. 3,080,970, 3–12–63, Cl. 209—263.

Loiseleur, Jean-Emile-Joseph, to Union des Verreries Mecaniques Belges Societe Anonyme. Process for the deposition of precious metals on glass and on vitrified ceramics, and process. 3,105,772, 10–1–63, Cl. 117—35.

Loizillon, Guy G., to Pilot Research Corp. Hosiery and method of forming the same. 3,085,410, 4–16–63, Cl. 66—185.

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Lomar, Bertil, and R. Myklebust, to Allmanna Svenska Elektriska Aktiebolaget. Liquid cooled resistor. 3,108,243, 10–22–63, Cl. 338—54.

Lomask, Morton R., to United States of America, Navy. Electronic filter. 3,096,488, 7–2–63, Cl. 330—69.

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Lomax, Clarence E., to Automatic Electric Laboratories, Inc. Two hundred line connector switch. 3,087,023, 4–23–63, Cl. 179—18.

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Lombard, George A. Venetian blinds. 3,111,164, 11–19–63, Cl. 160—115.

Lombard, Herman, and J. H. Strawgate. Resilient shoe sole. 3,100,354, 8–13–63, Cl. 36—25.

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Lombard, Sherman O., and G. R. Barth, to United States of America, Navy. Miniature waterproof pressure seal. 3,072,415, 1–8–63, Cl. 277—112.

Lombardi, Michele. Faucets or cocks for controlling liquid flow. 3,080,146, 3–5–63, Cl. 251—310.

Lombardino, Joseph G., W. M. McLamore, and G. D. Laubach, to Chas. Pfizer & Co., Inc. 2,4-dioxo-3-aralkylaza-9,10-di-(lower alkoxy)-1,2,3,4,6,7-hexahydro-11b-H-benzopyridocolines. 3,081,306, 3–12–63, Cl. 260—260.

Lombardo, Salvatore, to Innocenti Soc. Gen. Per l'Industria Metallurgica e Meccanica. Universal tool-holder device more particularly for boring and rectifying work. 3,113,475, 12–10–63, Cl. 77—58.

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Lonaberger, Robert F., to The Scan-O-Matic Co. Grinding apparatus and the like with ultrasonic control means. 3,082,580, 3–26–63, Cl. 51—134.5.

Lonardo, Vincent P. Apparatus for opening oil lines in automotive engines. 3,081,785, 3–19–63, Cl. 134—169.

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London, Stuart P., to National Industrial Equipment Co. Air curtain device. 3,086,441, 4–23–63, Cl. 98—36.

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Long, Albert C. Combination electric plug and socket. 3,083,344. 3–26–63, Cl. 339—31.

Long, Arthur, to Hilger and Watts Ltd. X-ray beam intensity responsive sequential spectrometer. 3,079,499, 2–26–63, Cl. 250—51.5.

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Long, Elbert E., to Buck Tool Co. Jaw key nut. 3,089,708, 5–14–63, Cl. 279—123.

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Long, Everett, to United Kingdom Atomic Energy Authority. Fuel element discharge systems for nuclear reactor. 3,104,217, 9–17–63, Cl. 204—193.2.

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Long, George B., to General Motors Corp. Clothes dryer incorporating lint destroying means. 3,081,554, 3–19–63, Cl. 34—44.

Long, George B., to General Motors Corp. Refrigerating apparatus for vehicles. 3,088,291, 5–7–63, Cl. 62—192.

Long, George B., to General Motors Corp. Dry cleaner filtration arrangement. 3,110,170, 11–12–63, Cl. 68—12.

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Long, Harold H. Mechanism for indicating the relative mechanical load on a drive motor. 3,103,654, 9–10–63, Cl. 340—248.

Long, Jack W. Method and apparatus for producing visual display. 3,089,256, 5–14–63, Cl. 35—12.

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Long, James D., to United States of America, Navy. Circuit for maintaining a predetermined phase relationship between two voltage waves. 3,096,460, 7–2–63, Cl. 315—23.

Long, James G., and R. J. Noschese, to Burndy Corp. Coaxial cable connector. 3,112,977, 12–3–63, Cl. 339—177.

Long, Jasper J., to Santa Barbara Research Center. Infrared detector and method of manufacture thereof. 3,080,542, 3–5–63, Cl. 338—18.

Long, John B., to Marmon-Herrington Co., Inc. Boring type continuous miner. 3,096,082, 7–2–63, Cl. 262—9.

Long, John B., to Marmon-Herrington Co., Inc. Standards for belt conveyors. 3,105,588, 10–1–63, Cl. 198—192.

Long, John B., to Marmon-Herrington Co., Inc. Articulating and telescoping conveying system. 3,107,776, 10–22–63, Cl. 198—89.

Long, John B., and J. C. Clay, to Marmon-Herrington Co., Inc. Roof drilling and bolting machine and wrench extension therefor. 3,080,007, 3–5–63, Cl. 175—123.

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Long, Leonard D. Apparatus for making pre-cast cored building blocks. 3,083,434, 4–2–63, Cl. 25—45.

Long, Leonard D. Apparatus for making pre-cast cored building blocks. 3,090,093, 5–21–63, Cl. 25—45.

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Long, Ray S., to The Dow Chemical Co. Preparation of lower tetraalkyl quaternary ammonium nitrate. 3,079,437, 2–26–63, Cl. 260—567.6.

Long, Ray S., to The Dow Chemical Co. Preparation of lower tetraalkyl quaternary ammonium nitrate. 3,079,438, 2–26–63, Cl. 260—567.6.

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Long, Robert S., H. T. Lacey, and R. E. Kourtz, to American Cyanamid Co. Reactive dyes containing methylolamide triazine groups. 3,072,454, 1–8–63, Cl. 8—54.2.

Long, Selma H., and J. W. Tamblyn, to Eastman Kodak Co. Ultraviolet light stabilized cellulose ester plastic composition. 3,100,717, 8–13–63, Cl. 106—194.

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Lo Presti, Roy F., to Goodman Mfg. Co. Troughing roller assembly. 3,101,144, 8–20–63, Cl. 198—192.

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Lott, Walter E., to LeTourneau-Westinghouse Co. Safety latch for earthmoving scrapers. 3,110,118, 11–12–63, Cl. 37—129.

Lotter, William, to South Bend Range Corp. Broiler. 3,098,-477, 7–23–63, Cl. 126—41.

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Henry, Donald J., and Lottridge. 3,075,847.

Lottridge, Neil M., Jr., and D. G. McCullough, to General Motors Corp. Foundry mold coating. 3,115,414, 12–24–63, Cl. 106—38.23.

Lotz, Friedrich G.: *See*—
Penn, Walter H., and Lotz. 3,088,310.

Lotz, Larry C., and E. Stoligrosz, to Whirlpool Corp. Broiler drawer door. 3,097,029, 7–9–63, Cl. 312—303.

Lotz, Lawrence C.: *See*—
Stoligrosz, Eugene, Stanulis and Lotz. 3,072,117.

Lotzgesell, Rudolf, to Continental Elektroindustrie A.G., Askania-Werke. Target tracking instrument. 3,092,911, 6–11–63, Cl. 33—46.

Lou Blower Co., The: *See*—
Wentling, William H. 3,094,009.

Lou, Kwong L. Electrical pencil cutter. 3,106,910, 10–15–63, Cl. 120—96.

Louckes, Frank L., Jr.: *See*—
Stiller, Bertram, and Louckes. 3,095,650.

Loucks, Charles M., and W. B. Brown, to The Dow Chemical Co. Chemical cleaning of metal surfaces employing steam. 3,084,076, 4–2–63, Cl. 134—22.

Loucks, Lloyd W., to Crookston Millwork, Inc. Construction element. 3,082,490, 3–26–63, Cl. 20—11.

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Levy, Ernest, Jr., and Loucks. 3,098,192.

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Louden, William C., and E. Homonnay, to General Electric Co. Method of making a ceramic-to-metal seal. 3,088,201, 5–7–63, Cl. 29—471.9.

Loudon, John D., to J. Cousins. Fence fasteners. 3,082,-993, 3–26–63, Cl. 256—12.5.

Loudon, Robert E., to Clary Corp. Read-out system. 3,077,-589, 2–12–63, Cl. 340—347.

Loudon, Robert E., K. F. Oldenburg, W. R. Beall, C. A. Christoff, and J. M. Payton, Jr., to Clary Corp. Read-out and code translating system. 3,077,590, 2–12–63, Cl. 340—347.

Loughbridge, Otis A. Power saw miter box assembly. 3,105,-528, 10–1–63, Cl. 143—6.

Loughead, Aaron G.: *See*—
Harper, John H., Jr., and Loughead. 3,111,613.
Mueller, Fritz K., W. H. and H. C. Rothe, Martin, and Loughead. 3,105,957.

Loughead, Howard B. Portable light. 3,091,686, 5–28–63, Cl. 240—8.18.

Loughhead, William A. E., to Ericsson Telephones Ltd. Driving circuit for square loop magnetic cores. 3,112,407, 11–26–63, Cl. 307—88.

Loughlin, Bernard D., to Hazeltine Research, Inc. Electronic previewer for televised color pictures. 3,098,895, 7–23–63, Cl. 178—5.2.

Loughlin, Bernard D., and E. M. Roschke, to Zenith Radio Corp. Subscription television system. 3,081,376, 3–12–63, Cl. 178—5.1.

Loughman, Stephen R. Cuff link. 3,100,923, 8–20–63, Cl. 24—100.5.

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Loughridge, Robert F., to Esco Elevators, Inc. Pool ladder lift. 3,088,123, 5–7–63, Cl. 4—172.

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Louik, Leonard, and G. J. Frank, Jr., to Bruce Molded Plastic Products, Inc. Luggage handles. 3,115,228, 12–24–63, Cl. 190—57.

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Koppel, Harold H., and Louis. 3,080,531.
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Cook, John S., and Louisell. 3,086,176.
Cook, John S., Louisell, and Quate. 3,087,119.

Louison, Claude. Fishing reel and handle combination. 3,095,158, 6–25–63, Cl. 242—84.21.

Lourdes Instrument Corp.: *See*—
Piemonte, William J., and Ippolito. 3,071,316.

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Lourie, Norman M., to Minneapolis-Honeywell Regulator Co. Check number generating circuitry for information handling apparatus. 3,075,175, 1–22–63, Cl. 340—146.1.

Louth, George D., and M. J. Brock, to The Firestone Tire & Rubber Co. Method of preparing aminoazoledisulfides. 3,100,773, 8–13–63, Cl. 260—247.1.

Louthan, Chester F., to General Motors Corp. Heating unit manufacture. 3,082,511, 3–26–63, Cl. 29—155.65.

Louthan, Rector P.: *See*—
Goodhue, Lyle D., Cantrel, and Louthan. 3,092,542.
Goodhue, Lyle D., Cantrel, and Louthan. 3,103,465.

Louthan, Rector P., to Phillips Petroleum Co. Production of thiols and sulfides using anion exchange resin and/or an epoxy compound. 3,084,116, 4–2–63, Cl. 204—158.

Louthan, Rector P., to Phillips Petroleum Co. Production of sulfur compounds. 3,085,955, 4–16–63, Cl. 204—162.

Louton, James C., Jr., and C. S. Semar, to General Motors Corp. Speed reducing gearing. 3,077,125, 2–12–63, Cl. 74—804.

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Louzil, Friedrich, to North American Phillips Co., Inc. Shiftable belt drive. 3,109,316, 11–5–63, Cl. 74—242.3.

Lovaah, Denis G., to Syncro Machine Co. Coil stripper. 3,104,126, 9–17–63, Cl. 294—97.

Love, Addison N., to Weatherford Oil Tool Co., Inc. Casing centralizer. 3,072,196, 1–8–63, Cl. 166—241.

Love, Benjamin F.: *See*—
Barger, J. Perry, Love, and Sparrell. 3,086,372.

Love, Bernard, to Nuclear Corp. of America. Purification of beryllium. 3,083,094, 3–26–63, Cl. 75—84.

Love, Phil P., to The Glacier Metal Co. Ltd. Hydrodynamic bearing assembly. 3,101,980, 8–27–63, Cl. 308—122.

Love, Robert F., and T. S. Bernatis, to FMC Corp. Mining methods and systems including caving to relieve pressure. 3,097,830, 7–16–63, Cl. 262—1.

Love, Robert F., and W. Z. Wenneborg, to FMC Corp. Method of mining trona using a continuous miner. 3,111,306, 11–19–63, Cl. 262—1.

Love, Robert G.: *See*—
Copland, George V., and Love. 3,084,548.

Love, Roger R., to NJE Corp. Translator power supply. 3,114,873, 12–17–63, Cl. 323—22.

Love, William D., Jr. Container closure and dispenser. 3,100,589, 8–13–63, Cl. 222—480.

Lovegrove, Henry J., to Sangamo Electric Co. Magnetic suspension bearing. 3,107,948, 10–22–63, Cl. 308—10.

Lovegrove, Henry J., to Sangamo Electric Co. Synchronous electric motor. 3,111,596, 11–19–63, Cl. 310—41.

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Ransom, Frederick J., and Lovejoy. 3,095,860.

Lovejoy, Charles K., to Scripto, Inc. Retractable writing instrument. 3,092,080, 6–4–63, Cl. 120—42.03.

Lovejoy, Charles K., and J. C. Lockwood, to Scripto, Inc. Clip actuated latch mechanism for retractable writing instruments. 3,071,112, 1–1–63, Cl. 120—42.03.

Lovejoy, Rex E., to United States of America, Navy. Multiplex recording and playback system. 3,087,101, 4–23–63, Cl. 318—162.

Loveland, Malcolm W., to Atlas Pacific Engineering Co. Cutter mechanism for peeling fruit. 3,115,171, 12–24–63, Cl. 146—43.

Loveland, Malcolm W., to Atlas Pacific Engineering Co. Chemical peeling of fruits and vegetables. 3,115,174, 12–24–63, Cl. 146—232.

Loveland, Malcolm W., to Atlas Pacific Engineering Co. Process for chemically peeling pears. 3,115,175, 12–24–63, Cl. 146—234.

Loveland, Pratt R. Water fountain unit for attachment to a water faucet. 3,101,174, 8–20–63, Cl. 239—27.

Loveland, Roger S., to Minneapolis-Honeywell Regulator Co. Gas-fueled pilot burner. 3,078,916, 2–26–63, Cl. 158—113.

Loveland, Roger S., to Minneapolis-Honeywell Regulator Co. Thermostatic switch. 3,079,480, 2–26–63, Cl. 200—137.

Lovell, Ernest E., to The Delman Co. Windshield cleaner control device. 3,095,595, 7–2–63, Cl. 15—250.01.

Lovell, James A., and W. L. Hamilton, to Industrial Development Engineering Associates. Amplifier chassis. 3,082,356, 3–19–63, Cl. 317—101.

Lovelock, James E., to National Research Development Corp. Apparatus for detecting and analyzing low gaseous concentrations. 3,110,869, 11–12–63, Cl. 250—83.6.

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Lovely, John W., to Bryant Chucking Grinder Co. Apparatus for gaging workpieces. 3,075,293, 1–29–63, Cl. 33—178.

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Borrevang, Poul. 3,096,328.
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Lovercheck, Charles L. Landing gear for aircraft. 3,104,-084, 9–17–63, Cl. 244—100.

Loveridge, Paul F.: *See*—
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Lovering, David W.: *See*—
Clancy, John J., Lovering, and Wells. 3,108,009

Lovering, David W., and A. B. Poole, to Arthur D. Little, Inc. Molded pulp product and process. 3,085,040, 4–9–63, Cl. 162—172.

Lovering, Henry D. Combined garment and tow harness. 3,074,074, 1–22–63, Cl. 2—94.

Lovering, Larry J. Audiometry equipment. 3,107,440, 10–22–63, Cl. 35—22

Lovett, John R., and J. M. Kelley, Jr., to Esso Research and Engineering Co. Polymerization process with a complex metal hydride-aluminum trialkyl-titanium halide catalyst. 3,075,960, 1–29–63, Cl. 260—93.7.

Lovette, Edd H., 25% to H. O. Teer, Jr., and 25% to M. T. Barringer. Hopper gate apparatus and control. 3,072,295, 1–8–63, Cl. 222—76.

Lovett, Gordon H.: *See*—
Hatfield, Carroll G., and Lovett. 3,100,807.

Loving, Frank A.: *See*—
Brockway, William R., Loving, and Noddin. 3,095,815.
Coursen, David L. and Loving. 3,101,288.

Loving, Frank A., Jr., to E. I. du Pont de Nemours and Co. Deflagrating composition. 3,092,528, 6–4–63, Cl. 149—41.

Lovinger, Daniel, to General Electric Co. Ballast apparatus for starting and operating gaseous discharge lamps. 3,089,-979, 5–14–63, Cl. 315—85.

Lovingham, Joseph J., to Thiokol Chemical Corp. Rotary injector for rocket powerplant. 3,097,482, 7–16–63, Cl. 60—35.6.

Lovisek, Louis J., to General American Transportation Corp. Screw having roll-formed thread fully formed up to head thrust surface thereof. 3,073,207, 1–15–63, Cl. 85—48.

Lovisek, Louis J., to General American Transportation Corp. Self-tapping screw having its thread interrupted by longitudinally extending and circumferentially spaced-apart flutes. 3,083,609, 4–2–63, Cl. 85—47.

Lovrenich, Rodger T., to Ford Motor Co. Oscillatory digger. 3,084,817, 4–9–63, Cl. 214—138.

Lovret, John E. Reamers. 3,080,777, 3–12–63, Cl. 77—72.

Lovret, Rose. Hair curler. 3,078,855, 2–26–63, Cl. 132—43.

Lovrich, Vincent: *See*—
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Lovrinch, Louis B., to Arlo Mfg. Corp. Hydraulic door lock for horizontal baler. 3,099,205, 7–30–63, Cl. 100—255.

Low, Frank D., to General Electric Co. Clothes washing machine with water level control circuit. 3,087,319, 4–30–63, Cl. 68—12.

Low, Frank D., to General Electric Co. Automatic clothes washing machine with lid switch control. 3,111,830, 11–26–63, Cl. 68—12.

Low, Frank D., and W. L. Raucher, to General Electric Co. Kitchen counterline apparatus. 3,108,754, 10–29–63, Cl. 241—36.

Low, Hans, W. W. Reynolds, and D. W. Schmulling, to Shell Oil Co. Ester base lubricant compositions. 3,093,585, 6–11–63, Cl. 252—37.2.

Low, John R., Jr., to General Electric Co. Method of decarburizing ferrous materials. 3,105,780, 10–1–63, Cl. 148—16.

Low, Vaike W., and J. E. Springer. Combination coin holder and counter. 3,073,432, 1–15–63, Cl. 206—.82.

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Greenwood, Ivan A., Jr., Lowdenslager, and Simpson. 3,103,624.

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Loewe, Siegmund. 3,104,842.
Loewe, Siegmund. 3,072,352.

Lowe, Donald J., to Young Brothers Co. Automatic oven air balancing system. 3,070,897, 1–1–63, Cl. 34—46.

Lowe, Eric H.: *See*—
Parr, Bernard A., Lowe, and Bryan. 3,115,918.

Lowe, Harold M. Clothesline tightener. 3,085,692, 4–16–63, Cl. 211—119.15.

Lowe, John H.: *See*—
English, John A. 3,111,322.

Lowe, John Z.: *See*—
Poetzsch, Paul H., and Lowe. 3,110,537.

Lowe, Keith B., and G. W. Bristow, to Nordberg Mfg. Co. Cloth attachment for cylindrical screens. 3,071,248, 1–1–63, Cl. 209—406.

Lowe Paper Co.: *See*—
Hergenhan, Albert R. 3,099,181.
Rice, John C., and Thompson. 3,076,720.

Lowe, Paul V.: *See*—
Sabatino, Anthony, and Lowe. 3,087,005.

Lowe, Richard G., and B. S. Fornell. Collating machine. 3,076,647, 2–5–63, Cl. 270—58.

Lowe, Warren: *See*—
Stuart, Frank A., Stewart, Lowe, and Kavanagh. 3,073,-807.
Stuart, Frank A. Stewart, Lowe, and Kavanagh. 3,083,-187.
Stuart, Frank A., Stewart, Lowe, and Kavanagh. 3,083,-188.

Lowe, William R., to Fruehauf Trailer Co. Sealing construction for trucks, trailers and the like. 3,075,802, 1–29–63, Cl. 296—29.

Lowell, John A., H. L. Hatton, F. J. Glavis, and P. R. Buechler, to Rohm & Haas Co. Leather and method for producing it. 3,103,447, 9–10–63, Cl. 117—76.

Lowell Mfg. Co.: *See*—
Hammes, Josef J. 3,108,654.
Valldeperas, Jose G. 3,108,653.

Lowell Molding Corp.: *See*—
Forma, James L. 3,090,980.

Lowell, Ross. Portable light fixture. 3,088,024, 4–30–63, Cl. 240—52.1.

Lowell, Rudolph L.: *See*—
Kucera, Joseph B. 3,084,493.
Kucera, Joseph B. 3,084,942.
Kucera, Joseph B. 3,095,202.
Kucera, Joseph B., and McElhinney. Re. 25,503.

Lowensohn, Ralph S., to Flextemp Corp. Trailer refrigeration apparatus. 3,100,384, 8–13–63, Cl. 62—156.

Loweastein, Mark G., and R. W. Astheimer, to Barnes Engineering Co. A.C. biased thermistor bolometers. 3,096,650, 7–9–63, Cl. 73—355.

Lowenthal, Hans, to Colibri Lighters Ltd. Gas-burning cigarette lighters. 3,114,249, 12–17–63, Cl. 67—7.1.

Lowenthal, Herman, to General Scientific Corp. Symmetrical high speed objective. 3,079,841, 3–5–63, Cl. 88—57.

Lowenthal, Herman, to General Scientific Corp. Symmetrical six component photographic objective. 3,088,371, 5–7–63, Cl. 88—57.

Lowenthal, Werner: *See*—
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Lower, Donald P., and L. E. Meiser, to Dodge Mfg. Corp. Bearing or the like. 3,071,419, 1–1–63, Cl. 308—74.

Lowery, Charley. Dual chemical dispenser. 3,093,267, 6–11–63, Cl. 222—159.

Lowery, Claude. Poultry watering fountain. 3,079,892, 3–5–63, Cl. 119—79.

Lowery, Donald G., to The Frank G. Hough Co. Bucket construction for tractor loaders. 3,079,019, 2–26–63, Cl. 214—145.

Lowery, James A., to American Cyanamid Co. Rapid centrifugal chromatography. 3,113,103, 12–3–63, Cl. 210—198.

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Lowes, Leonard, and M. C. Tanner, to United Kingdom Atomic Energy Authority. Liquid-liquid contacting apparatus. 3,097,071, 7–9–63, Cl. 23—270.5.

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Lowitzsch, Kurt: *See*—
Ladell, Joshua, and Lowitzsch. 3,105,901.

Löwler, Erik, and I. E. R. Åkerman, to Atlas Copco Aktiebolag. Compressor units. 3,105,630, 10–1–63, Cl. 230—31.

Lowman, Jesse J.: *See*—
Ambuehl, Harold R., and Lowman. 3,081,218.

Lowman, Walker B., to Industrial Nucleonics Corp. Process variance logging and limit alarm system. 3,091,756, 5–28–63, Cl. 340—213.

Lowrey, Erlend R.: *See*—
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Lowrey, Robert D., W. C. Kirkpatrick, and J. W. Harrison, to W. R. Grace & Co. Display package. 3,076,542, 2–5–63, Cl. 206—78.

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Cusic, John W., and Lowrie. 3,112,310.

Lowrie, Harman S., to G. D. Searle & Co. Substituted 10-(4 - carbalkoxy - 4 - phenylpiperidinoalkyl)-phenothiazines. 3,112,308, 11–26–63, Cl. 260—243.

Lowry, Charles H., to North American Aviation, Inc. Deployment parachute. 3,072,372, 1–8–63, Cl. 244—147.

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Lowry, John G., to United States of America, National Aeronautics and Space Administration. Variable-span aircraft. 3,087,692, 4–30–63, Cl. 244—46.

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Lowry, Terrell N.: *See*—
Cirone, Frank P., Harr, Lowry, and Ridinger. 3,111,007.
Cirone, Frank P., and Lowry. 3,102,168.
Harr, John A., and Lowry. 3,099,717.
Harr, John A., Lowry, Nehama, and Ridinger. 3,116,375.

Lowry, Walter M., to D. S. Lowry. Integrated fuel burner. 3,093,185, 6–11–63, Cl. 158—11.

Lowth, Leonard C., to The Scholl Mfg. Co., Inc. Orthopedic cushioning pads. 3,086,523, 4–23–63, Cl. 128—153.

Lowther, Robert R., and P. Sell, to Electric & Musical Industries Ltd. Automatic control of machine tools. 3,086,154, 4–16–63, Cl. 318—162.

Lowther, Wilfred W., to Novo Industrial Corp. Crankcase valve ventilating system. 3,105,477, 10–1–63, Cl. 123—119.

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Corley, Charles B., Jr., Terrel, and Loy. 3,097,698.

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Loyd, Samuel A.: *See*—
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Lozier, Allan G. Multiple angle shelf bracket. 3,089,675, 5–14–63, Cl. 248—242.

Lubas, Joseph P.: *See*—
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Lubash, Samuel: *See*—
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Lubbert, Erich: *See*—
Finsterwalder, Ulrich. 3,114,302.

Lubcke, Harry R. Radioactivity detector. 3,076,094, 1–29–63, Cl. 250—83.3.

Lubeley, Frederick L., to H. G. Weber and Co., Inc. Notch cutting unit. 3,111,055, 11–19–63, Cl. 83—337.

Lubell, Martin S.: *See*—
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Lubin, Bertha. Multi-receptacle pocketbook. 3,086,572, 4–23–63, Cl. 150—35.

Lubin, Marvin, to Hupp Corp. Methods of photoelectric cells manufacture. 3,087,838, 4–30–63, Cl. 117—213.

Lubke, Helmut, & Co.: *See*—
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Lubke, Helmut, to Helmut Lubke & Co. Convertible furniture article. 3,075,610, 1–29–63, Cl. 182—28.

Lubkin, Samuel, to Curtiss-Wright Corp. Pulse generator employing logic gates and delay means. 3,093,797, 6–11–63, Cl. 328—61.

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Lubow, Raymond and M. Dielectric signal storage device. 3,072,543, 1–8–63, Cl. 204—38.

Lubowe, Irwin I. Allantoin salt. 3,107,252, 10–15–63, Cl. 260—309.5.

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Craig, Willis G. 3,095,339.
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Henricks, John A. 3,090,709.
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Le Suer, William M. 3,108,960.
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Norman, George R., Le Suer, and Mastin. 3,076,008.
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Lubszynski, Hans G., to Electric & Musical Industries Ltd. Improved method of forming a photo-conductive layer on a translucent surface. 3,106,488, 10–8–63, Cl. 117—215.

Lucas, Charles D. Belleville spring elastic suspension. 3,107,905, 10–22–63, Cl. 267—1.

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Freeman, Frank G. 3,097,607.
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Haigh, Richard W. 3,076,312.
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Luchford, Laurence R., and G. L. Ratcliffe, to Trianco Ltd. Release devices. 3,112,090, 11–26–63, Cl. 244—138.

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Lucibello, Florio R., R. M., and R. J. 3,082,457.

Lucibello, Robert J.: *See*—
Lucibello, Florio R., R. M., and R. J. 3,082,457.

Lucien, René, to Societe a responsabilite Limitee: Recherches Etudes Production R.E.P. Slide valve servo-control distributor. 3,081,794, 3–19–63, Cl. 137—622.

Lucien, René, to Recherches Etudes Production R. E. P., Societe a Responsabilite Limitee. Drive for barrel pumps and engines. 3,082,697, 3–26–63, Cl. 103—162.

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Luck, Friedrich W., to Borsig Aktiengesellschaft and F. Wankel. Rotary piston engine. 3,083,894, 4–2–63, Cl. 230—141.

Luck, Friedrich W., to Borsig Aktiengesellschaft, Berlin-Tegel, and Wankel G.m.b.H. Exhaust gas driven compressor. 3,097,478, 7–16–63, Cl. 60—13.

Lück, Friedrich W., to Borsig Aktiengesellschaft and F. Wankel. Rotary piston engine. 3,115,871, 12–31–63, Cl. 123—8.

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Gerjovich, Henry J., and Luckenbaugh. 3,113,968.

Luckenbaugh, Raymond W., to E. I. du Pont de Nemours and Co. Herbicidal composition and method. 3,095,299, 6–25–63, Cl. 71—2.6.

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Ludlow, Edmund, and B. H. Irwin, to Arvin Industries, Inc. Silencing element for exhaust gas conduit. 3,112,007, 11–26–63, Cl. 181—59.

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Ludwig, Anton, and G. Fleissner, to Fleissner, G.m.b.H., Firma. Washing machine. 3,092,989, 6–11–63, Cl. 68—158.

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Luehrs, Hans J., to The Cottrell Co. Combination double four color web printing press. 3,099,210, 7–30–63, Cl. 101—180.

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Luellen, Leland B., to Inland Steel Co. Steel-making furnace. 3,111,549, 11–19–63, Cl. 266—33.

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Luenberger, Frederick O., to The Emerson Electric Mfg. Co. Shift mechanism for variable diameter pulley structures. 3,109,315, 11–5–63, Cl. 74—230.17.

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Luftman, Alvin S., H. M. Asquith, and J. A. Buckbee, to Raytheon Co. Two-color, two persistence radar display systems. 3,114,907, 12–17–63, Cl. 43—7.7.

Lufwig, Walter D. Pilot air operated valve. 3,101,741, 8–27–63, Cl. 137—625.6.

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Gulya, John A., and Hetherington. 3,110,586.
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Luketa, Frank J. Lines for trawl nets. 3,102,357, 9–3–63, Cl. 43—9.

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Lund, Johan, to Formsprag Co. Torque limiting sprag mechanism. 3,094,195, 6–18–63, Cl. 188—82.2.

Lund, Johan, to Formsprag Co. Two-directional torque coupling and clutch mechanism. 3,102,618, 9–3–63, Cl. 192—8.

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Devonshire William H., Moran, Lumberg, and Hoag. 3,074,353.

Lundblad, Erik, to Allmanna Svenska Elektriska Aktiebolaget. High pressure vessel with punch. 3,096,544, 7–9–63, Cl. 18—16.5.

Lunde, John. Inclination measuring instrument. 3,079,697, 3–5–63, Cl. 33—206.

Lunde, Theodore G. Breather cap heater. 3,084,706, 4–9–63, Cl. 137—80.

Lunde, Thomas T. Automatic pivoted latching hook for swinging lever dual swinging door operating mechanism. 3,077,841, 2–19–63, Cl. 105—255.

Lunde, Thomas T., and F. L. Lindemuth, to The William B. Pollock Co. Dumping operation control for tilting railway dump cars. 3,072,074, 1–8–63, Cl. 105—1.

Lundebjerg, Frederick N. Ellipse guide. 3,085,341, 4–16–63, Cl. 33—30.

Lundeen, Stanley A. Water softener control valve and baffle. 3,079,949, 3–5–63, Cl. 137—599.1.

Lunden, Clarence D., to Boeing Airplane Co. Labyrinthic septum wave guide. 3,090,020, 5–14–63, Cl. 333—95.

Lunden, Sidney L., and D. E. Mosely, to Bitco, Inc. Lumber separator. 3,104,005, 9–17–63, Cl. 198—21.

Lundgren, Claes E. G.: *See*—
Arborelius, Måns M., and Lundgren. 3,096,778.

Lundgren, Donald G., and A. E. Krikszens, to Allied Chemical Corp. Method of preserving nitrite corrosion inhibitors. 3,087,777, 4–30–63, Cl. 21—2.7.

Lundgren, Frederick A.: *See*—
Joffe, Boris B., and Lundgren. 3,115,577.

Lundgren, Rudolf A. I., B. O. G. Oom, and B. Järnhäll, to Astra, Apotekarnes Kemiska Farbiken, Aktiebolaget. Laminated hypodermic syringe ampul. 3,075,528, 1–29–63, Cl. 128—272.

Lundl, Axel J. Fuel preheater and economizer. 3,110,296, 11–12–63, Cl. 123—122.

Lundin, Robert S., and C. J. Goodhouse, to General Time Corp. Switching motor. 3,080,494, 3–5–63, Cl. 310—68.

Lundquist, Ingemar H., to International Postal Supply Corp. Postage metering machine. 3,107,854, 10–22–63, Cl. 235—101.

Lundquist, Ingemar H., W. Schaerer, and C. S. Balaz, to Friden, Inc. Postage meter. 3,107,911, 10–22–63, Cl. 271—8.

Lundquist, Richard C., to Goodman Mfg. Co. Bumper construction. 3,104,003, 9–17–63, Cl. 198—1.

Lundquist, Wilbur V. Combined retaining weight and deodorizer for garbage can covers. 3,102,661, 9–3–63, Cl. 220—87.

Lundstrom, Elizabeth F.: *See*—
Foutz, Clinton R. 3,096,257.

Lundstrom, Milton A. Display device. 3,107,648, 10–22–63, Cl. 116—173.

Lundvik, Karl V. B.: *See*—
Larsson, Nils E. B., and Lundvik. 3,074,619.

Lundy, Warren A.: *See*—
Wohler, Stanley A., Lundy, and Baisley. 3,074,163.

Lünenschloss, Franz, G.m.b.H., Schilder- und Signalgeratefabrik: *See*—
Lünenschloss, Franz A. 3,084,354.

Lünenschloss, Franz A., to Franz Lünenschloss, G.m.b.H., Schilder- und Signalgeratefabrik. Device for marking locations at sea, particularly emergency marker. 3,084,354, 4–9–63, Cl. 9—8.

Luning, Alfred O. Coasters — vacuum cup. 3,094,235, 6–18–63, Cl. 215—100.5.

Lunn, Royston C., and F. L. Theyleg, to Ford Motor Co. Synchronized multiple speed power transmission mechanism. 3,115,047, 12–24–63, Cl. 74—360.

Lunt, Willis R.: *See*—
Lang, Albert P., and Lunt. 3,115,115.

Luongo, Joseph: *See*—
Whittle, Robert L., Luongo, and Rymer. 3,104,147.

Lupfer, Dale E., to Phillips Petroleum Co. Process control system. 3,085,000, 4–9–63, Cl. 23—260.

Lupfer, Dale E., to Phillips Petroleum Co. Stream blending method and apparatus. 3,095,887, 7–2–63, Cl. 137—3.

Lupfer, Dale E., to Phillips Petroleum Co. Method of and apparatus for integrating pneumatically. 3,104,810, 9–24–63, Cl. 235—61.

Lupkas, Raymond R., to General Time Corp. Shaft rocking mechanism. 3,071,010, 1–1–63, Cl. 74—1.

Lurex Mfg. Co.: *See*—
Luertzing, Paul R., and W. O. 3,080,183.

Lurie, William B., and R. M. Pincus, to General Precision, Inc. Doppler navigator altitude error corrector. 3,105,234, 9–24–63, Cl. 343—8.

Lursen, Wert. Tool for scribing lines on siding. 3,113,382, 12–10–63, Cl. 33—42.

Lusa, George, to Armco Steel Corp. Differentially coated galvanized strip. 3,112,213, 11–26–63, Cl. 117—51.

Luscher, Jakob, to Robert Bosch, G.m.b.H. Generator control arrangement. 3,074,003, 1–15–63, Cl. 322—25.

Luscher, Jakob, to Robert Bosch, G.m.b.H. System of voltage and current regulation for rotary generators. 3,105,930, 10–1–63, Cl. 322—25.

Luscher, Jakob, to Societe Suisse pour l'Industrie Harlogere S.A. Integrated structure electronic semi-conductor device comprising at least one bistable electric circuit. 3,109,942, 11–5–63, Cl. 307—88.5.

Lüscher, Paul, to Sodeco, Societe des Compteurs de Geneve. Telephone fee counter. 3,097,266, 7–9–63, Cl. 179—7.

Lush, Gerald W. M., and P. G. C. Whittall, to Dowty Technical Developments Ltd. Vehicle suspension. 3,074,708, 1–22–63, Cl. 267—64.

Lusher, Kenneth G., to Owens-Illinois Glass Co. Article handling apparatus. 3,083,813, 4–2–63, Cl. 198—131.

Lusher, Kenneth G., to Owens-Illinois Glass Co. Vented plastisol coated container. 3,083,854, 4–2–63, Cl. 215—56.

Lusic, Rudolph F., to North American Aviation, Inc. Electron tube shield. 3,109,050, 10–29–63, Cl. 174—35.

Lusine a Idees, Societe Anonyme dite: *See*—
Ruby, Charles. 3,098,940.

Lusink, Clarence I., and H. Winther, to Symington Wayne Corp. Side frame for cartridge bearings. 3,110,269, 11–12–63, Cl. 105—221.

Lusk, George E., and J. H. Nicholas, to G & W Electric Specialty Co. Inorganic shielded cable termination system. 3,080,447, 3–5–63, Cl. 174—73.

Luskin, Leo S.: *See*—
Gardon, John L., and Luskin. 3,081,144.

Luskin, Leo S., to Rohm & Haas Co. Process for making acrylic acid esters of 3-hydroxymethyloxetanes. 3,105,838, 10–1–63, Cl. 260—333.

Luskin, Leo S., and S. Y. Wang, to Rohm & Haas Co. Composition comprising aqueous dispersion of aminoplast condensate and an oxetane. 3,074,898, 1–22–63, Cl. 260—29.4.

Lustenader, Edward L., and D. H. Brown, to General Electric Co. Vapor recirculation distillation process and apparatus. 3,099,607, 7–30–63, Cl. 202—64.

Lusti, John, to Otis Elevator Co. Elevator dispatching and control system. 3,073,417, 1–15–63, Cl. 187—29.

Lustman, Benjamin, E. F. Losco, H. J. Snyder, and R. R. Eggleston, to United States of America, Atomic Energy Commission. Alloy composition for neutronic reactor control rods. 3,074,871, 1–22–63, Cl. 204—193.2.

Lutch, Robert H.: *See*—
Diamond, Milton J., Spain, and Lutch. 3,097,523.

Luten, Daniel B., Jr.: *See*—
Meeker, Robert E., Dunlop, and Luten. 3,074,782.

Luten, Daniel B., Jr., and F. G. Helfferich, to Shell Oil Co. Purification of sulfolene. 3,077,479, 2–12–63, Cl. 260—332.1.

Lutes, Harriet W.: *See*—
Rogers, Howard G., and Lutes. 3,077,400.

Lutes, Keene, deceased, by J. C. Lewis, administrator, to R. Yealey. Folding baby crib. 3,094,714, 6–25–63, Cl. 5—99.

Luther, Herbert G., and J. R. De Zeeuw, to Chas. Pfizer & Co., Inc. Animal feeds. 3,092,496, 6–4–63, Cl. 99—2.

Luther, James H.: *See*—
Krampf, Charles E., and Luther. 3,087,229.

Luthi, Oscar: *See*—
Rich, John P., Luthi, and Saunders. 3,105,043.

Luton, William B., to Ling-Temco-Vought, Inc. Space flight environmental simulator. 3,083,473, 4–2–63, Cl. 35—12.

Lutsch, Gene C.: *See*—
Fath, Douglas W., Kraschinsky, and Lutsch. 3,103,347.

Lutsker, Simon. Pipe cutter. 3,097,428, 7–16–63, Cl. 30—102.

Luttgens, Gunter: *See*—
Muller, Rudolf, Heyl, and Luttgens. 3,111,605.

Luttinger, Joyce R., J. Lein, and A. Gourevitch, to Bristol-Myers Co. Process for the preparation of derivatives of 6-aminopenicillanic acid. 3,094,519, 6–18–63, Cl. 260—239.1.

Luttinger, Lionel B., to American Cyanamid Co. New catalyst system for linear and cyclic polymerization of mono substituted acetylenes. 3,098,843, 7–23–63, Cl. 260—94.1.

Luttrell, John L., to United States of America, Navy. Acceleration and velocity meter. 3,109,309, 11–5–63, Cl. 73—492.

Luttrell, Ravon D. Printing plates. 3,109,368, 11–5–63, Cl. 101—376.

Lutts, William M., Sr. Portable dismountable ramp. 3,076,569, 2–5–63, Cl. 214—85.

Lutwack, Wilton J. Portfolio with detachable mailing card. 3,082,932, 3–26–63, Cl. 229—72.

Lutz, Felix J. Amusement device. 3,074,717, 1–22–63, Cl. 272—74.

Lutz, Otto: *See*—
Caroll, Gerhard, and Lutz. 3,101,825.

Lutz, Wilson B.: *See*—
Meltzer, Robert I., and Lutz. 3,072,663.
Meltzer, Robert I., and Lutz. 3,072,667.
Meltzer, Robert I., and Lutz. 3,072,668.
Meltzer, Robert I., and Lutz. 3,085,093.
Meltzer, Robert I., and Lutz. 3,086,022.

Luvisi, George W., to Nalco Chemical Co. Colloidal silica compositions. 3,108,970, 10–29–63, Cl. 252—309.

Luvisi, John P., to Universal Oil Products Co. Insecticidal compositions of matter and method of preparation therefor. 3,102,143, 8–27–63, Cl. 260—578.

Luvisi, John P., to Universal Oil Products Co. Cycloalkadienyl derivatives of alkynylalkoxy tetrahydropyran and method of preparation thereof. 3,116,302, 12–31–63, Cl. 260—345.9.

Luvisi, John P., and L. Schmerling, to Universal Oil Products Co. Dehalogenation of halogenated aromatic compounds. 3,075,021, 1–22–63, Cl. 260—650.

Luvisi, John P., and J. J. Louvar, to Universal Oil Products Co. N-halocycloalkenic derivatives of arylamines. 3,094,560, 6–18–63, Cl. 260—566.

Luwa AG.: *See*—
Gasser, Hermann. 3,083,414.
Gasser, Hermann. 3,101,504.
Keller, Emil. 3,082,815.

Luxembourgeoise de Brevets & de Participations: *See*—, Paulsen, Jean F. 3,103,348.

Luxl, Frank C., to Leeds and Northrup Co. Atmosphere sampling probe. 3,106,843, 10–15–63, Cl. 73—421.5.

Luxon, Lester L.: *See*—
Smith, Harold W., Luxon, and Cowie. 3,106,956.

Luzarreta, Emmanuel J. F.: *See*—
Pomot, Jean L. E., Luzarreta, and Becanne. 3,078,213.
Pomot, Jean L. E., Luzarreta, and Becanne. 3,111,519.
Pomot, Jean L. E., Luzarreta, and Cousserans. 3,086,987.

Luze, Dwayne C.: *See*—
Fenerbach, Dilver D., and Luze. 3,104,895.

Lyall, Charles E., and E. A. Morrison, to Culligan, Inc. Safety shut-off valve. 3,105,512, 10–1–63, Cl. 137—416.

Lyall, Richard G., to Yuba Consolidated Industries, Inc. Quick opening closure mechanism. 3,098,580, 7–23–63, Cl. 220—40.

Lychyk, George S., to Automatic Electric Laboratories, Inc. Electromagnetic miniature relays. 3,109,903, 11–5–63, Cl. 200—87.

Lydard, Martin L., to Eastern Products Corp. Pleater-and-hanger device for drapes or the like. 3,081,819, 3–19–63, Cl. 160—348.

Lydard, Martin L., to Eastern Products Corp. Ceiling construction. 3,085,666, 4–16–63, Cl. 189—86.

Lydard, Martin L., to Eastern Products Corp. Suspended ceiling clip. 3,102,614, 9–3–63, Cl. 189—35.

Lyden, Frank J. Brush assembly. 3,113,337, 12–10–63, Cl. 15—604.

Lydic, William K.: *See*—
Park, John K., and Lydic. 3,105,655.

Lydle, John E. Tire changing tool. 3,100,011, 8–6–63, Cl. 157—1.22.

Lykkeberg, Alfred. Machine for slicing meat. 3,089,526, 5–14–63, Cl. 146—153.

Lyle, Charles A.: *See*—
Evans, Ted C., and Lyle. 3,079,991.

Lyle, Charles A., to The Air Preheater Corp. Rotor construction. 3,088,519, 5–7–63, Cl. 165—10.

Lyle, John M., to Rund Mfg. Co. Two temperature hot water tank fitting. 3,075,549, 1–29–63, Cl. 137—597.

Lyman, Frank, Jr., to Cambridge Thermionic Corp. Holder for electrical components, such as batteries. 3,088,992, 5–7–63, Cl. 136—173.

Lyman, Frank, Jr., to Cambridge Thermionic Corp. Self-locking plug and jack type electrical connector. 3,101,986, 8–27–63, Cl. 339—255.

Lynam, John E., to Automatic Braiding Co. (Nottingham) Ltd. Composite elastic bands for garments incorporating such bands. 3,078,469, 2–26–63, Cl. 2—338.

Lynam, John E., to Automatic Braiding Co. (Nottingham) Ltd. Tubular fabric. 3,114,193, 12–17–63, Cl. 29—2.17.

Lynch, Arnold C., to Her Majesty's Postmaster General. Magnetic strip material. 3,089,228, 5–14–63, Cl. 29—194.

Lynch, Arnold C., to Her Majesty's Postmaster General. Magnetic translators. 3,093,819, 6–11–63, Cl. 340—347.

Lynch Corp.: *See*—
Clanin, Richard D., and McVicker. 3,105,337.
McVicker, Robert F., and Rapp. 3,075,286.

Lynch, Edward E.: *See*—
Wormser, Alexander F., and Lynch. 3,111,032.

Lynch, Edward L., to General Electric Co. Cathode ray tube system with an index control. 3,099,769, 7–30–63, Cl. 315—22.

Lynch, Edward L., and T. T. True, to General Electric Co. Cathode ray tube system using indexing signals. 3,098,896, 7–23–63, Cl. 178—5.4.

Lynch, Edward L., and T. T. True, to General Electric Co. Cathode ray tube system using secondary emission indexing signals. 3,109,955, 11–5–63, Cl. 315—12.

Lynch, George J., and W. J. Ormiston, to Mycalex Electronics Corp. Switching mechanisms. 3,098,129, 7–16–63, Cl. 200—11.

Lynch, Harriett R.: *See*—
Koutz, Stanley L., Duffield, Minogue, Compton, and Lynch. 3,072,549.

Lynch, Jack F., to J. N. Zark. Roll up window screen. 3,105,542, 10–1–63, Cl. 160—28.

Lynch, Matthew J., to Abbott Laboratories. Erythromycin suspensions and method of stabilizing the same. 3,097,135, 7–9–63, Cl. 167—65.

Lynch, Thomas J., to Vector Mfg. Co. Solid state electronic commutator. 3,105,911, 10–1–63, Cl. 307—88.

Lynch, Thomas R.: *See*—
Holliday, Walter T., Lynch, and Fooshe. 3,113,570.

Lynch, William R.: *See*—
Stec, Joseph P., Gerhardt, and Lynch. 3,108,338.

Lynchey, James M. Beverage tray. 3,103,303, 9–10–63, Cl. 224—48.

Lynden Metal Craft Co., Inc.: *See*—
Wynstra, John. 3,091,397.

Lynds, Lahmer: *See*—
Stern, David R., Lynds, and Washburn. 3,092,652.

Lyner, Arnold. Computing time clock. 3,109,088, 10–29–63, Cl. 235—61.9.

Lynes, Inc.: *See*—
Malone, Billy C. 3,085,628.

Lynghave, Carl E., and H. O. Pedersen. Container for the counting and storage of coins. 3,083,818, 4–2–63, Cl. 206—82.

Lynn, Alan G., and R. W. Carlson, to Eitel-McCullough, Inc. Container with cooperating support frame. 3,107,009, 10–15–63, Cl. 206—46.

Lynn, Alger M. Spraying devices. 3,099,394, 7–30–63, Cl. 239—142.

Lynn, Bernard S. Guide marking for jet runways. 3,096,694, 7–9–63, Cl. 94—1.5.

Lynn, Edward, to United States of America, Navy. Oscillogram duplicator paper transport. 3,095,504, 6–25–63, Cl. 250—65.1.

Lynn, Edwin W.: *See*—
Brys, Louis S., and Lynn. 3,107,838.

Lynn, Fred D.: *See*—
Huss, Shottle L., and Lynn. 3,108,309.

Lynn, George A., to Avco Corp. Electronic motion detector for simultaneously detecting and measuring position, velocity, and acceleration in three dimensions. 3,106,678, 10–8–63, Cl. 324—70.

Lynn, John W., to Union Carbide Corp. Homopolymer and copolymers of vinyl cyanoacetate. 3,092,611, 6–4–63, Cl. 260—78.4.

Lynn, John W., and R. L. Roberts, to Union Carbide Corp. Alicyclic esters of butane and cyclopentane polycarboxylic acids. 3,074,997, 1–22–63, Cl. 260—468.

Lynn, Lawrence B.: *See*—
Hanna, Clinton R., and Lynn. 3,095,214.

Lynn, Lawrence B., to Westinghouse Electric Corp. Gyro apparatus. 3,085,444, 4–16–63, Cl. 74—5.4.

Lynn, Robert J., to Vapor Corp. Snap action differential actuator. 3,106,623, 10–8–63, Cl. 200—83.

Lynn, William J.: *See*—
Mills, Tonk, and Lynn. 3,082,529.

Lynskey, William G. Fertilizer dispenser. 3,106,322, 10–8–63, Cl. 222—473.

Lyon, Donald G. Variable shaped airfoil. 3,076,623, 2–5–63, Cl. 244—44.

Lyon, Edwin, III: *See*—
Fitzpatrick, John A., and Lyon. 3,082,666.

Lyon, Floyd A.: *See*—
Aronson, Theodore F., and Lyon. 3,092,923.
Aronson, Theodore F., and Lyon. 3,102,673.

Lyon, Floyd A., to Halm Instrument Co., Inc. Blank feeding means. 3,087,723, 4–30–63, Cl. 271—69.

Lyon, Floyd A., and T. F. Aronson, to Commercial Envelope Mfg. Co., Inc. Strip feeding and registration means. 3,098,405, 7–23–63, Cl. 83—236.

Lyon, George A., to Lyon Inc. Wheel cover. Re. 25,397, 6–18–63, Cl. 301—37.

Lyon, George A., to Lyon Inc. Wheel trim. 3,085,830, 4–16–63, Cl. 301—37.

Lyon, George A., to Lyon Inc. Method of making wheel cover members and the like. 3,090,337, 5–21–63, Cl. 113—116.

Lyon, George A., to Lyon Inc. Wheel cover. 3,092,421, 6–4–63, Cl. 301—37.

Lyon, George A., to Lyon Inc. Wheel cover. 3,112,958, 12–3–63, Cl. 301—37.

Lyon, George A., Jr. Sink held in place by biting retaining fingers. 3,071,780, 1–8–63, Cl. 4—187.

Lyon, George A., Jr. Method of making a baking pan structure. 3,089,450, 5–14–63, Cl. 113—120.

Lyon, Gerard A., to Engineering Research and Application Ltd. Apparatus for the controlling of the supply of fuel and air to internal combustion engines. 3,105,478, 10–1–63, Cl. 123—139.

Lyon, Gilbert T. Tubular coupling having a metallic sealing ring. 3,079,180, 2–26–63, Cl. 285—220.

Lyon Inc.: *See*—
Celovsky, Michael J. 3,096,738.
Eynon, Harry J. 3,096,527.
Kowalski, Chester M. 3,085,531.
Kwolek, Stephen S. 3,083,062.
Lyon, George A. Re. 25,397.
Lyon, George A. 3,085,830.
Lyon, George A. 3,090,337.

Lyon Inc.: *See*—Continued
Lyon, George A. 3,092,421.
Lyon, George A. 3,112,958.
Shoemaker, John V. 3,081,132.

Lyon, James. Display incubator and brooder. 3,088,436, 5–7–63, Cl. 119—37.

Lyon, Lyman R. Static card reader. 3,105,895, 10–1–63, Cl. 235—61.11.

Lyon Metal Products, Inc.: *See*—
Knuth, Harvey G. 3,088,424.
McElroy, Robert H. 3,100,460.

Lyon Van & Storage Co.: *See*—
McCann, William F. 3,090,331.

Lyon, William H., to The Soundscriber Corp. Magnetic tape channel-loading dictating machine. 3,080,169, 3–5–63, Cl. 274—11.

Lyon, William H., to The Soundscriber Corp. Method and means for reproducing signals from a very slow moving tape. 3,086,089, 4–16–63, Cl. 179—100.2.

Lyon, William H., and F. E. Runge, to The Soundscriber Corp. Miniature magnetic tape dictating machine. 3,078,350, 2–19–63, Cl. 179—100.2.

Lyon, William H., and F. E. Runge, to The Soundscriber Corp. Magazine for miniature magnetic tape dictating machine. 3,078,464, 2–19–63, Cl. 242—55.13.

Lyons, Charles E., to United States of America, Air Force. Variable area converging-diverging exhaust nozzle for a bypass engine. 3,102,385, 9–3–63, Cl. 60—35.6.

Lyons, Ernest H., Jr. Energy conversion process and apparatus. 3,100,163, 8–6–63, Cl. 136—86.

Lyons, Harold D.: *See*—
Nowlin, Gene, and Lyons. 3,082,232.

Lyons, Harold D., to Phillips Petroleum Co. Polymerization of 1-olefins in the presence of an allyl halide. 3,101,327, 8–20–63, Cl. 260—88.2.

Lyons, J., & Co., Ltd.: *See*—
Everington, William T. 3,085,604.

Lyons, James D.: *See*—
Close, Patrick B., Coulter, Ditmer, Fahrenbruck, Goldammer, Goodrick, Gulden, Holloran, Jenkins, Kilheffer, Kinker, Lyons, Manor, Marvin, Miller, O'Brian, Randall, Garner, Sather, Yost, and Braden. 3,112,304.

Lyons, Leland R., to Titanium Metals Corp. of America. Producing vanadium trichloride. 3,109,707, 11–5–63, Cl. 23—87.

Lyons, Leo J. Race car wheel changing machine. 3,070,876, 1–1–63, Cl. 29—240.

Lystad, Leonard A., to General Motors Corp. Window cleaning mechanism. 3,077,628, 2–19–63, Cl. 15—250.23.

Lyons, Vincent J., to International Business Machines Corp. Intermetallic semiconductor body formation. 3,093,517, 6–11–63, Cl. 148—1.5.

Lyons, William T., and B. P. Morabito, to Carrier Corp. Gas and liquid contact apparatus. 3,101,382, 8–20–63, Cl. 261—24.

Lyssy, Theodor: *See*—
Gabler, Rudolf, and Lyssy. 3,094,557.

Lystad, Leonard A., to General Motors Corp. Rear window washer. 3,088,153, 5–7–63, Cl. 15—250.02.

Lyster, Thomas C.: *See*—
Wiesinger, Frederick C., and Lyster. 3,108,460.

Lyster, Thomas C., to Wildman Jacquard Co. Control of pattern means in knitting machines. 3,110,168, 11–12–63, Cl. 66—155.

Lyte, George A.: *See*—
Griffith, George L., and Lyte. 3,097,601.
Griffith, George L., Lyte, and Wells. 3,082,689.

Lyth, Cyril, to Ferranti, Ltd. Shock acceleration measuring apparatus. 3,114,058, 12–10–63, Cl. 310—8.1.

Lytle, Elvin D., to The Garrett Corp. Protective circuit arrangement. 3,107,318, 10–15–63, Cl. 317—13.

Lytle, William O., to Pittsburgh Plate Glass Co. Method and apparatus for producing filmed bent glass sheets. 3,078,693, 2–26–63, Cl. 65—60.

Lytton, Kenneth G., to Fiber Controls Corp. Fiber proportioning, blending and preparation method, system and apparatus. 3,080,617, 3–12–63, Cl. 19—145.7.

Lytton, Kenneth G., to Fiber Controls Corp. Speed change mechanism. 3,111,857, 11–26–63, Cl. 74—230.17.

Lytton, Kenneth G., C. W. Barnes, and C. S. Wise, to Fiber Controls Corp. Fiber-Blending apparatus. 3,071,202, 1–1–63, Cl. 177—80.

M & D Store Fixtures, Inc.: *See*—
Mapson, Donald L. 3,074,194.
Mapson, Donald L. 3,082,880.
Mapson, Donald L. 3,115,719.

MGM Brakes, Inc.: *See*—
Woodward, Elmer R. 3,107,583.

M & H Industries: *See*—
Heyer, Don. 3,102,748.
Heyer, Don. 3,102,749.

M.L. Mfg. Co.: *See*—
Milanovits, William T. and T. 3,091,260.

M-O Valve Co. Ltd., The: *See*—
Hogg, Harold A. C., and Stephenson. 3,076,909.

MSA Research Corp.: *See*—
Bovard, Robert M. 3,089,855.
Wright, Oscar L., Mausteller, and Vancheri. 3,096,382.

M. & S. Mfg. Co.: *See*—
McGehee, Alton B. 3,101,763.

M & T Chemicals Inc.: *See*—
Johnson, Andy A. 3,108,933.
Kenedi, Peter G., and Gore. 3,108,006.
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Mack, Gerry P. 3,115,509.
Passal, Frank. 3,111,465.
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Ramsden, Hugh E. 3,109,851.

M. T. & D. Co., The: *See*—
Liljenberg, Harry A. 3,106,412.

Ma, John Y.: *See*—
Cappelle, Norman D., Kornacker, and Ma. 3,096,665.

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Maadsen, Walter M., to Baldwin-Lime-Hamilton Corp. Sand or fines filtering device for dryers. 3,076,270, 2–5–63, Cl. 34—128.

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Graf, Willi. 3,093,014.
Muller, Karl. 3,089,249.

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Maas, Russell H., to Oscar Mayer & Co., Inc. Processing meat. 3,076,713, 2–5–63, Cl. 99—107.

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Maben, Malcolm R.: *See*—
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Mabry, Bobbie C. Protective box for meters. 3,093,263, 6–11–63, Cl. 220—38.

MacAfee, James E., and T. J. Wall, to Chrysler Corp. Brake mechanism. 3,089,566, 5–14–63, Cl. 188—78.

Macall, Thomas F., to Rehlman Engineering Co. Mounting unit for electrical components. 3,081,824, 3–19–63, Cl. 165—179.

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MacArthur, Melvin D., to Hydril Co. Synthetic resin seal ring in tubing joint for plastic coated tubing. 3,100,656, 8–13–63, Cl. 285—55.

MacArthur, Raymond D., to Sperry Rand Corp. Zero print suppression mechanism for printing calculators. 3,115,828, 12–31–63, Cl. 101—95.

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MacBlane, James, Sr., to Hardinge Brothers, Inc. Bar stock feed mechanism. 3,074,566, 1–22–63, Cl. 214—1.4.

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MacChesney, Chester M., to Ellamac Inc. Sprinkler attachments. 3,095,150, 6–25–63, Cl. 239—267.

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MacCormack, Henry E., to International Business Machines Corp. Metal plating procedure. 3,113,035, 12–3–63, Cl. 117—50.
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MacCracken, Calvin D., to Jet-Heet, Inc. Heat actuated pumps. 3,073,257, 1–15–63, Cl. 103—255.
MacCready, Paul B., Jr. Analog digital function product integrator. 3,079,794, 3–5–63, Cl. 73—189.
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MacDonald, Alex L., Jr., to Raytheon Co. Method of preparing semiconductor material. 3,104,991, 9–24–63, Cl. 148—1.5.
Macdonald, Alexander J., to National Steel Corp. Snuffing blast furnaces. 3,099,551, 7–30–63, Cl. 75—41.
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Macdonald, Angus S. 3,104,866.
Macdonald, Angus A.: *See*—
Macdonald, Angus S. 3,104,866.
Macdonald, Angus S., deceased, by A. B. Macdonald, F. M. Gordon, and A. A. Macdonald, executors, to Everdure, Inc. Post and plank fences. 3,104,866, 9–24–63, Cl. 256—59.
MacDonald, Benjamin R. F. Hospital bed-chair. 3,090,971, 5–28–63, Cl. 5—68.
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MacDonald, Donald, to Seattle Door Co., Inc. Method of manufacturing panelled doors. 3,083,745, 4–2–63, Cl. 144—316.
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MacDonald, Donald E. Container of and dispenser for cut-fruit sections. 3,078,008, 2–19–63, Cl. 221—31.
MacDonald, Frederick W., deceased; R. W. McKenney, administrator. Bowling ball. 3,089,702, 5–14–63, Cl. 273—63.
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Macdonald, James R., to Texas Instruments Inc. Electrical analogue for diffusion analysis. 3,109,930, 11–5–63, Cl. 235—183.
MacDonald, John P. A., and G. B. Whyte, to Scottish Agricultural Industries Ltd. Tube couplers. 3,104,898, 9–24–63, Cl. 285—236.
MacDonald, Lee H., and C. R. Hine, to The Upjohn Co. Apparatus for coating discrete solids. 3,106,492, 10–8–63, Cl. 118—62.
MacDonald, Raymond L., Jr. Noninterchangeable liquid oxygen and liquid nitrogen coupling assembly. 3,108,825, 10–29–63, Cl. 285—18.
MacDonald, Raymore D., to Climac Equipment Co. Base spreader. 3,091,999, 6–4–63, Cl. 94—44.
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MacDonald, Robert J., to Clevite Corp. Rubbing contact material. 3,081,196, 3–12–63, Cl. 117—127.
MacDonell, Herbert L., to Corning Glass Works. Separation process. 3,114,692, 12–17–63, Cl. 204—180.
MacDonnell, Thomas F., to Nopco Chemical Co. Yarn testing apparatus. 3,079,790, 3–5–63, Cl. 73—95.
MacDonnell, Thomas F., to Nopco Chemical Co. Material surface testing apparatus. 3,087,326, 4–30–63, Cl. 73—7.
MacDonnell, Wilfred D., and A. D. Shattuck, to National Steel Corp. Method of preserving refractory materials. Re. 25,469, 10–29–63, Cl. 202—1.
MacDuff, Stanley I., to The Bendix Corp. Combination spool valves. Re. 25,494, 12–17–63, Cl. 137—636.3.
MacDuff, Stanley I., to The Bendix Corp. Brake system. 3,114,580, 12–17–63, Cl. 303—2.
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MacFarland, Charles H., to The Scott & Fetzer Co. Liquid sprayer. 3,072,342, 1–8–63, Cl. 239—354.
MacFarlin, Kenneth J. Exhaust gas dissipating apparatus. 3,099,241, 7–30–63, Cl. 115—5.
Macgeorge, William D., to The Budd Co. Yield point detecting means. 3,095,732, 7–2–63, Cl. 73—88.
MacGill, John C., and F. Koehler, to Platt Corp. Protective sleeve. 3,086,558, 4–23–63, Cl. 138—150.
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Fraylick, James A., Machek, and Stawinski. 3,115,225.
Machen, James F. Flow control valve. 3,106,226, 10–8–63, Cl. 138—45.
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Point, Marcel A. R. 3,075,706.
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Point, Marcel A. R., and Morel. 3,072,341.
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Mächler, Werner, and W. Zoller, to Brown, Boveri & Cie, Aktiengesellschaft. Spark gap arrangement for surge arresters. 3,072,815, 1–8–63, Cl. 313—161.
Machlett Laboratories, Inc., The: *See*—
Rogers, Thomas H., Bavor, and Magnusson. 3,103,591.
Spurck, Richard F. 3,109,119.
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MacInnes, Hugh, to Thompson Ramo Wooldridge Inc. Carburetor for supercharged engine. 3,072,389, 1–8–63, Cl. 261—30.
Macintire, Walter H., to American Zinc, Lead and Smelting Co. Sphalerite for zinc additions to fertilizers. 3,082,077, 3–19–63, Cl. 71—64.
MacIntosh, David, and D. A. Serico, to West Virginia Pulp and Paper Co. Handled container. 3,112,856, 12–3–63, Cl. 229—52.
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Mack, Bernard. Molded bicycle seat. 3,104,129, 9–17–63, Cl. 297—195.
Mack, Dorothy S. Magnifying make-up glasses with pivotally mounted lenses. 3,085,472, 4–16–63, Cl. 88—41.
Mack, Gerry P., to M & T Chemicals Inc. Chemical product and process. 3,115,509, 12–24–63, Cl. 260—429.7.
Mack, Gerry P., and E. Parker, to Carlisle Chemical Works, Inc. Halogen resins stabilized with polyhydric alcohols phosphites. 3,082,189, 3–19–63, Cl. 260—45.95.
Mack, Joseph. Flexible plastic shopping bag. 3,105,628, 10–1–63, Cl. 229—54.
Mack, Joseph A.: *See*—
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Mackenzie, Alan K., to E. I. du Pont de Nemours and Co. Process of imparting oil-repellency to solid materials, and materials thus produced. 3,112,241, 11–26–63, Cl. 162—164.
MacKenzie, Clyde L., Jr.: *See*—
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MacKenzie, James C., to Cabot Corp. Polymerization catalysts. 3,105,066, 9–24–63, Cl. 260—93.7.
MacKenzie, James C., and D. B. Smith, to Cabot Corp. Cured polymer compositions. 3,093,614, 6–11–63, Cl. 260—41.
MacKenzie, Kenneth G. Game apparatus. 3,107,919, 10–22–63, Cl. 273—177.
MacKenzie, Merlin H., to The United States of America, Army. Automatic frequency control. 3,114,108, 12–10–63, Cl. 325—321.
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Mackey, Eugene L., to The Yoder Co. Ring processing apparatus. 3,091,202, 5–28–63, Cl. 113—127.
Mackey, Eugene L., to The Yoder Co. Snubber type trigger mechanism. 3,097,556, 7–16–63, Cl. 83—287.
Mackey, Eugene L., to The Yoder Co. Ring finishing apparatus. 3,097,570, 7–16–63, Cl. 90—16.
Mackey, Robert J., to Eltel-McCullough, Inc. Ceramic metallizing mixture and method of compounding it. 3,093,490, 6–11–63, Cl. 106—1.
Mackie, Harry A.: *See*—
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Mackie, Harry A., to General Motors Corp. Ground effect vehicle. 3,106,261, 10–8–63, Cl. 180—7.
Mackie, James, & Sons, Ltd.: *See*—
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Mackie, John K. P. 3,105,997.
Mackie, John K. P. 3,106,055.
Mackie, John K. P. 3,106,816.
Mackie, John K. P., to James Mackie & Sons Ltd. Textile winding machine. 3,073,537, 1–15–63, Cl. 242—18.
Mackie, John K. P., to James Mackie & Sons, Ltd. Deflecting means for a doubling plate in a textile drafting apparatus. 3,105,997, 10–8–63, Cl. 19—243.
Mackie, John K. P., to James Mackie & Sons, Ltd. Textile machines. 3,106,055, 10–8–63, Cl. 57—58.59.
Mackie, John K. P., to James Mackie & Sons Ltd. Textile machine. 3,106,816, 10–15–63, Cl. 57—58.52.
Mackinder, Harold C., and T. Zywicki, to Lincoln Park Engineering, Inc. Expanding arbor. 3,073,610, 1–15–63, Cl. 279—2.
MacKinnon, Bernard R., to Allied Chemical Corp. Process for producing free flowing oil soluble fusible organic dyestuffs. 3,071,815, 1–8–63, Cl. 18—17.2.
MacKinnon, Hugh M., to British Nylon Spinners Ltd. Melt-spinning synthetic polymer filaments. 3,071,808, 1–8–63, Cl. 18—8.
Mackintosh, Ian M., to Bell Telephone Laboratories, Inc. Integrated semiconductor switching device. 3,090,873, 5–21–63, Cl. 307—88.5.
Mackiw, Vladimir N., V. Kunda, and R. L. Benoti, to Sherritt Gordon Mines Ltd. Method of separating metal values from ammoniacal solutions. 3,088,803, 5–7–63, Cl. 23—134.
Mackiw, Vladimir N., and J. P. Warner, to Sherrit Gordon Mines Ltd. Process for the recovery of metal values from low grade materials. 3,088,820, 5–7–63, Cl. 75—7.
Macklin, Martin R.: *See*
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Mackrodt, Helmut, to Messrs. F. Soennecken. Automatic contact printers for electrostatic reproductions. 3,072,026, 1–8–63, Cl. 95—1.7.
Macks, Elmer F. Sealing member and method. 3,093,380, 6–11–63, Cl. 277—1.
Macks, Elmer F. Seal. 3,093,382, 6–11–63, Cl. 277—27.
Macks, Elmer F. Apparatus for providing mobility of a figure toy. 3,104,496, 9–24–63, Cl. 46—116.
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McNeill, William, Chrostowski, and Mackus. 3,100,186.
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MacLean, James K. Variable pitch propeller mechanism. 3,092,186, 6–4–63, Cl. 170—160.45.
MacLean, John A., III, and E. F. Kuffel. Fasteners having toothed bearing surfaces. 3,078,899, 2–26–63, Cl. 151—37.
MacLean, Kenneth S. Diagnostic instrument. 3,074,396, 1–22–63, Cl. 128—2.
MacLean, Philip A., to Cutler-Hammer, Inc. Cryogenic pump for a refrigerator system. 3,114,247, 12–17–63, Cl. 62—51.
MacLean, William D., to General Development Corp. Method of preparing plates for electromechanical engraving. 3,075,895, 1–29–63, Cl. 204—35.
MacLellan, William J., ⅛ to A. J. Ronga, and ⅛ to D. C. Waddell. Steering stabilizer. 3,074,515, 1–22–13, Cl. 188—96.
Macleod Co.: *See*—
Hollmeyer, Thomas J. 3,077,996.
MacLeod, David M.: *See*—
Butler, Roger M., MacLeod, and Tiedje. 3,105,809.
Macleod, Keith, and E. S. Wendt, to W. D. Allen Mfg. Co. Automatic hose coupling machine. 3,083,750, 4–2–63, Cl. 153—1.
MacLeod, Kenyon C. Foldable escape ladders and method of making the same. 3,078,954, 2–26–63, Cl. 182—196.
MacLeod, Norman A., 36% to R. W. Whann, 18% to W. A. Selle, and 10% to F. F. Reed. Blood circulation device and method. 3,094,983, 6–25–63, Cl. 128—40.
MacMaster, George H.: *See*—
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Hallonquist, Earland G. 3,098,053.
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Hay, Alexander L. 3,113,743.
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MacMillan, Charles W., to Bear Mfg. Co. Aligning device for assisting in centering an automobile steering wheel. 3,091,862, 6–4–63, Cl. 33—46.
MacMillan, Donald M. Means for removably incorporating electrical heating elements in heater bodies. 3,088,171, 5–7–63, Cl. 18—38.
Macmillan, John H., Jr., J. V. Johnson, and M. C. Addicks, to Cargill, Inc. Method of erecting a building. 3,113,403, 12–10–63, Cl. 50—532.
MacMillin, David M., to Bell & Howell Co. Automatic exposure control with an intermittent needle entrapment. 3,071,039, 1–1–63, Cl. 88—16.
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MacNeill, John H., J. E. Bellinger, R. B. White, Jr., C. F. West, and T. G. Holmes, to Soroban Engineering, Inc. Code converter. 3,073,897, 1–15–63, Cl. 178—26.
MacNeill, John H., and C. F. West, to Soroban Engineering, Inc. Vacuum capstans. 3,082,925, 3–26–63, Cl. 226—95.
MacNeill, John H., J. E. Bellinger, Jr., and T. G. Holmes, to Soroban Engineering, Inc. Medium-speed serial printer. 3,089,413, 5–14–63, Cl. 101—93.
Maco Corp., The: *See*—
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Macormack, James G., and F. R. Hickory, to Alumiseal Corp. Insulated refrigeration tank structures. 3,093,260, 6–11–63 Cl. 220—14.
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Tinsley, Samuel W., and MacPeek. 3,096,315.
Tinsley, Samuel W., Jr., and MacPeek. 3,086,025.
Macpherson, Donald E., ¼ to Gadget-Of-The-Month Club, Inc. Rotary piston engine. 3,071,121, 1–1–63, Cl. 123—13.
MacPherson, John H., Jr., and J. O. Clayton, to California Research Corp. Purge system for blow-by return valve. 3,105,471, 10–1–63, Cl. 123—119.
MacPherson, Robert B., to The Anderson Co. Windshield wiper assembly. 3,076,991, 2–12–63, Cl. 15—250.23.
MacPherson, William, to Cowles Tool Co. Rotary shearing knife. 3,081,661, 3–19–63, Cl. 83—676.
MacPhillamy, Harold B.: *See*—
Robison, Michael M., MacPhillamy, and Lucas. 3,093,648.
MacPlum, R. A., Industries, Inc.: *See*—
Umanoff, Martin. 3,072,735.
Umanoff, Martin. 3,085,733.

MacQuaid, Craig, to International Shoe Co. Protective shoe conatruction. 3,108,386, 10–29–63, Cl. 36—72.

MacQuaid, Craig, and L. R. Heideman, to International Shoe Co. Conductive shoe. 3,079,530, 2–26–63, Cl. 317—2.

Macqueen, Kenneth E. B., to American Cyanamid Co. Briquetting of coals. 3,094,399, 6–18–63, Cl. 44—23.

Macquere, Eugene V. A. E., to Compagnie de Saint-Gobain. Roofing structure. 3,114,218, 12–17–63, Cl. 50—198.

MacRae, Harry L.: *See*—
McGow, Thomas C., MacRae, and Harris. 3,077,959.

MacRae, Herbert N., and M. A. Chaloux, to United Shoe Machinery Corp. Heel attaching machines. 3,094,701, 6–25–63, Cl. 1—97.

Macrae, Robert S., ½ to Garringtons Ltd., and ½ to Gydelite Ltd. Markers for roads. 3,091,996, 6–4–63, Cl. 94—1.5.

Macri, Bruno J.: *See*—
De Fries, Myron G., Macri, Rice, Madden, and Robinson. 3,108,433.

Macrides, Philip C., to Cluett, Peabody & Co., Inc. Display device for garment collars. 3,072,306, 1–8–63, Cl. 223—84.

Macro Development, Ltd.: *See*—
Darling, Larry C. M. 3,105,378.

Macrosonic Process Corp.: *See*—
Shaw, Robert P. 3,087,840.

Macrow, Lawrence, and M. M. Van Adelsberg, to Carrier Corp. Gas and liquid contact apparatus. 3,114,786, 12–17–63, Cl. 261—24.

MacSporran, Charles, to Phillips Petroleum Co. Process and apparatus for in situ combustion. 3,072,189, 1–8–63, Cl. 166—39.

Macurdy, Lloyd B.: *See*—
Bowman, Horace A., and Macurdy. 3,074,498.

Macurdy, Lloyd B., to United States of America, Secretary of Commerce. Balance beam. 3,112,808, 12–3–63, Cl. 177—261.

Macwhyte Co.: *See*—
Naysmith, Archibald M. 3,092,956.

MacWilliam, Wallace. Packed screw threaded gland type tube coupling for thin walled tubing. 3,092,404, 6–4–63, Cl. 285—334.4.

Macy, Christian D.: *See*—
Murphy, Laurence W., and Macy. 3,101,508.

Macy, Christian D., F. M. Brown, and J. A. Zilgitt, to Geo. A. Hormel & Co. Machine for browning and forming solid meat. 3,071,065, 1–1–63, Cl. 99—353.

Macy, Christian D., and O. H. Lindstrom, to Geo. A. Hormel & Co. Jaw pulling apparatus. 3,084,378, 4–9–63, Cl. 17—1.

Macy, Donald, J. F. Weaver, and G. E. Knoblauch, to Artcraft Venetian Blind Mfg. Co. of St. Louis. Awning. 3,086,260, 4–23–63, Cl. 20—57.5.

Macy, Donald, and H. Nelson, to Artcraft Venetian Blind Mfg. Co. of St. Louis. Awning. 3,097,403, 7–16–63, Cl. 20—57.5.

Macy, Harry D. Portable shelter. 3,082,780, 3–26–63, Cl. 135—4.

Macy, James C., to AMP Inc. Method of making an electrical connection. 3,085,313, 4–16–63, Cl. 209—155.55.

Macy, Jay R.: *See*—
Jenkins, Mervyn M., and Macy. 3,104,187.

Macy, Robert L. Servo clutch. 3,097,572, 7–16–63, Cl. 92—13.

Madaffore, Frank V.: *See*—
Glaser, David, and Madaffore. 3,083,909.

Madak, Paul D., H. L. Cuthbert, and R. E. Kerr. Internal combustion engine construction. 3,083,700, 4–2–63, Cl. 123—32.

Madansky, Leslie E., to California Plasteck, Inc. Electrical connector for illuminated panel. 3,082,395, 3–19–63, Cl. 339—17.

Madansky, Leslie E., to California Plasteck, Inc. Lamp socket. 3,096,942, 7–9–63, Cl. 240—8.16.

Madarns, Julius D., to Gas Inc. Method of heating and sintering. 3,098,738, 7–23–63, Cl. 75—34.

Maddalena, Anthony: *See*—
Malbin, Isaac, and Maddalena. 3,115,253.

Maddalena, John, to Johns-Manville Corp. Tape dispenser. 3,109,570, 11–5–63, Cl. 225—66.

Maddalena, Lucio: *See*—
Whitmore, Milton P., and Maddalena. 3,101,152.

Madden Dale A.: *See*—
De Fries, Myron G., Macri, Rice, Madden, and Robinson. 3,108,433.

Madden, Joseph E.: *See*—
Fiedler, Willy A., and Madden. 3,075,301.
Fiedler, Willy A., and Madden. 3,075,302.

Madden, Lem A. Combination trailer hitch and overload supporting device. 3,093,393, 6–11–63, Cl. 280—406.

Maddison, Robert J., and J. F. Loertscher, Jr., to Whitehead Brothers Co. Corrective backfill compositions. 3,082,111, 3–19–63, Cl. 106—286.

Maddock, Ralph B., and E. C. Winter, to Pako Corp. Device for treating photographic sheet material. 3,077,155, 2–12–63, Cl. 95—98.

Maddox, Jesse P., and S. H. Vaughan, Jr., to Kaiser Aluminum & Chemical Corp. Furnace wall construction. 3,114,220, 12–17–63, Cl. 50—398.

Maddox, V. Harold: *See*—
Godefrol, Erik F., Maddox, and Parcell. 3,097,136.

Maddox, V. Harold, and E. F. Godefrol, to Parke, Davis & Co. 1-halophenyl and 1-alkoxyphenyl cyclohexylamines. 3,097,207, 7–9–63, Cl. 260—293.

Madelung, Gero: *See*—
Messerschmitt, Willy, and Madelung. 3,099,420.

Madelung, Gero, to Messerschmitt A.G. Tiltable pod for jet power units on aircraft. 3,099,422, 7–30–63, Cl. 244—23.

Madelung, Gero, to Messerschmitt A.G. Aircraft propulsion system. 3,100,611, 8–13–63, Cl. 244—23.

Mader, Charles K., to The M. W. Kellogg Co. Hydrocarbon conversion. 3,094,391, 6–18–63, Cl. 23—212.

Mader, George E., Jr., to Phillips Petroleum Co. Temperature measurement and control. 3,101,898, 8–27–63, Cl. 236—15.

Mader, Gottlob F., and R. C. Scherer. Crop stacker. 3,110,148, 11–12–63, Cl. 56—347.

Mader, Lyle W.: *See*—
Rabinow, Jacob, Holt, Fischer, and Mader. 3,104,369.

Madera, Joseph: *See*—
Tschudi, Wilbur J., and Madera. 3,101,252.

Madere, Elmore J. Shrimp trap with snap-on funnels. 3,099,890, 8–6–63, Cl. 43—100.

Madge, Dorothy E.: *See*—
Scott, Joseph D., Toy, and Madge. 3,083,172.

Madge, Joachim: *See*—
Heidecke, Reinhold, Bretthauer, and Madge. 3,073,230.

Madge, Joachim, to Franke & Heidecke Fabrik Photographischer Prazisions-Apparate. Multi-format photographic camera. 3,073,229, 1–15–63, Cl. 95—31.

Madge, Joseph G., to Ford Motor Co. Vertical washer for flat glass. 3,093,852, 6–18–63, Cl. 15—77.

Madigan, Daniel M. Collapsible weighing scale with carrying case. 3,106,975, 10–15–63, Cl. 177—126.

Madison, Emil A.: *See*—
Sosalla, Harry L., Madison, and Coats. 3,074,727.

Madison Industries Inc.: *See*—
Holloway, William S. 3,081,649.

Madison, Richard K.: *See*—
Petropoulos, John C., and Madison. 3,102,135.
Shaw, John T., Gross, and Madison. 3,082,118.

Madjar, Jose B.: *See*—
Bril, Kazimierz J., and Madjar. 3,092,449.

Madl, Alfred W.: *See*—
Arel, Robert W., and Madl. 3,081,394.

Madl, Joseph, Jr., to Unistrut Products Co. Cable tray. 3,112,093, 11–26–63, Cl. 248—68.

Madley, Daniel G., to Coal Industry (Patents) Ltd. Smokeless briquettes. 3,093,463, 6–11–63, Cl. 44—10.

Madon, Pierre J., to Nord-Aviation Societe Nationale des Constructions Aeronautiques. Stabilized captive flying platform unit. 3,101,919, 8–27–63, Cl. 244—77.

Mador, Irving L.: *See*—
Nobis, John F., Mador, and Robinson. 3,111,545.

Mador, Irving L., and R. E. Robinson, to National Distillers and Chemical Corp. Reaction of epoxides with alkali metals. 3,111,543, 11–19–63, Cl. 260—618.

Mador, Irving L., and A. U. Blackham, to National Distillers and Chemical Corp. Preparation of carbonates. 3,114,762, 12–17–63, Cl. 260—463.

Madrid, Virgil A. Tobacco and pipe stand. 3,104,668, 9–24–63, Cl. 131—186.

Madrzyk, Edmund S.: *See*—
Holowaty, Michael O., and Madrzyk. 3,112,212.

Madsen, Elmer W.: *See*—
Snowdon, Arthur E., Johnson, Madsen, and Page. 3,087,132.

Madsen, Jens A. W., to Albertson & Co., Inc. Rotary impact mechanism. 3,106,274, 10–8–63, Cl. 192—30.5.

Madsen, Kristian D., to Allmanna Svenska Elektriska Aktiebolaget. Radiation protection means during the exchange of fuel elements. 3,072,554, 1–8–63, Cl. 204—193.2.

Madsen, Mads P. Remotely controlled sick bed curtains. 3,091,286, 5–28–63, Cl. 160—331.

Madsen, Mathew D., and D. W. Chapman, to Mallinckrodt Chemical Works. 3 acetamido-2,4,6-triiodo-5-methylsulfonamido hippuric acid. 3,082,202, 3–19–63, Cl. 260—211.

Madwed, Albert. Vapor chamber-tank unit. 3,106,927, 10–15–63 Cl. 134—76.

Maebashi, Kazutomo: *See*—
Toyama, Yoshiyuki, Murata, and Maebashi. 3,105,844.

Maecker, Knrt: *See*—
Kniel, Wolfgang, and Maecker. 3,087,029.

Maeda, Hisao. Intermediate frequency transformer. 3,090,907, 5–21–63, Cl. 323—76.

Maeda, Hisao. Intermediate frequency transformer. 3,092,796, 6–4–63, Cl. 336—135.

Maeda, Hisao. Variable-inductance coil having core threaded in coil form. 3,106,691, 10–8–63, Cl. 336—136.

Maeda, Seiichi: *See*—
Toi, Buniehi, Maeda, Ikeda, and Furukawa. 3,109,741.

Maeda, Shin: *See*—
Sawa, Yoshiro, Maeda, and Tsuji. 3,085,091.

Maeda, Shinpei, to Furukawa Electric Co. Ltd. Aluminum alloys recrystallising at lower temperature. 3,078,191, 2–19–63, Cl. 148—11.5.

Maeda, Unpei: *See*—
Imai, Kiyokazu, and Maeda. 3,111,508.
Imai, Kiyokazu, Maeda, and Matsumoto. 3,080,350.

Maeda, Yoshio: *See*—
Oshima, Motoyoshi, Maeda, and Kashima. 3,105,095.

Maeda, Yutaka, to Kabushiki Kaisha Okuma Tekkosha. Servosystem with feedback discriminating means. 3,072,835, 1–8–63, Cd. 318—448.

Maeder, Arthur: *See*—
Casty, Tichard, Abel, Maeder, and Berger. 3,104,931.

Maeder, Arthur, to Ciba Ltd. Copolymerisation products of amides of copolymerisable carboxylic acids containing quaternary ammonium groups bound to amide nitrogen. 3,095,390, 6–25–63, Cl. 260—17.

Maeder, Arthur, to Ciba Ltd. Copolymers of N-substituted amides of the acrylic acid series. 3,112,296, 11–26–63, Cl. 260—86.1.

Maeder, Arthur, and G. Sulzer, to Ciba Ltd. Aqueous coating and impregnating preparations comprising acrylic resins. 3,090,762, 5–21–63, Cl. 260—21.

Maeder, Erwin: *See*—
Duennenberger, Max, Maeder, Siegrist, and Liechti. 3,095,422.
Liechti, Peter, Siegrist, Duennenberger, and Maeder. 3,095,421.

Maeder, Heinz-Jochem: *See*—
Decker, Hanns, Maeder, and Wehren. 3,082,965.

Maeder, Paul F., to Speidel Industrial Division, Inc. Gyroscope device. 3,080,763, 3–12–63, Cl. 74—5.7.

Maeder, Paul F., ½ to P. Levinger. Magnetohydrodynamic A.C. generator. 3,102,224, 8–27–63, Cl. 322—47.

Maehans, Waino, to Aktiebolaget Separator. Flushing apparatus for milking systems. 3,099,277, 7–30–63, Cl. 134—166.

Maejima, Sanjiro. Tape winding apparatus. 3,105,647, 10–1–63, Cl. 242—66.

Maejima, Sanjiro, and Y. Nishimura. Punching mechanisms. 3,107,050, 10–15–63, Cl. 234—39.

Maerov, Sidney B.: *See*—
Dessauer, Rolf, and Maerov. 3,098,863.

Maerz Ofenbau AG: *See*—
Slesaczek, Alfred. 3,088,722.

Maestas, Thomas E. Electrostatic separator. 3,096,277, 7–2–63, Cl. 209—20.

Maestre, Neil E., to Vector Mfg. Co., Inc. Cascaded emitter-followers with current control means for effecting transmission of signals without appreciably loading input. 3,095,511, 6–25–63, Cl. 307—88.5.

Maestrelli, Raffaello. Automatic steering system for vehicles supported on pneumatic tired wheels. 3,098,454, 7–23–63, Cl. 104—247.

Maestrelli, Raffaello. Guide and switch rail system for vehicles. 3,113,529, 12–10–63, Cl. 104—247.

Maezawa, Masanori, and T. Kuragano. Method for recovering sulphur. 3,099,535, 7–30–63, Cl. 23—225.

Maffii, Giulio: *See*—
Testa, Emilio, Fontanella, and Maffii. 3,076,799.
Testa, Emilio, Fontanella, and Maffii. 3,094,518.
Vecchi, Alberto, and Maffii. 3,073,741.

Magarian, Masick C. Holder for tools and the like. 3,095,092, 6–25–63, Cl. 211—60.

Magasiny, Irving P.: *See*—
Friedman, Milton, and Magasiny. 3,078,356.

Magasiny, Irving P., and L. Finkel, to American Bosch Arma Corp. Automatic pulse demultiplex system. 3,111,654, 11–19–63, Cl. 340—183.

Magat, Eugene E., and D. Tanner, to E. I. du Pont de Nemours and Co. Graft copolymer of polymerizable amide and nitrogenous condensation polymer, and process for preparing same. 3,092,512, 6–4–63, Cl. 117—138.8.

Magat, Michel, A. Chapiro, and J. Sebban, to Centre National de la Recherche Scientifique, Ministere de l'Education Nationale. Process of producing graft polymers and resultant graft polymer. 3,115,418, 12–24–63, Cl. 117—47.

Magazanik, Louis. Combination turn and emergency stop signal apparatus. 3,114,015, 12–10–63, Cl. 200—61.27.

Magazanik, Louis, and D. Dover, to Dory Lamp Co., Inc. Road reflector signal device. 3,077,326, 2–12–63, Cl. 248—33.

Mageari, William H., and R. E. Nelson, Jr., to Esso Research and Engineering Co. Gas detector for steam condensate and cooling tower water systems. 3,078,918, 2–26–63, Cl. 165—2.

Magee Carpet Co., The: *See*—
Penman, Montgomery B. 3,110,276.

Magee, John E. Elevator control system. 3,078,962, 2–26–63, Cl. 187—29.

Magee, Richard J.: *See*—
Berkelhammer, Gerald, Wagner, and Magee. 3,102,885.

Mageli, Orville L., and J. B. Harrison, to Wallace & Tiernan Inc. Peroxy esters of p-menthane hydroperoxides. 3,082,236, 3–19–63, Cl. 260—453.

Mageli, Orville L., and J. B. Harrison, to Wallace & Tiernan Inc. 2,5-dimethyl-2,5-di(*r*-butylperoxy) hexane. 3,086,966, 4–23–63, Cl. 260—94.9.

Mageoch, Nelson H.: *See*—
Whitney, Maurice P., and Mageoch. 3,087,591.

Mageoch, Nelson H., and H. J. Little, to The Bendix Corp Internal combustion engine starter drive. 3,090,241, 5–21–63, Cl. 74—7.

Mager, Humphrey I. X., W. Berends, and W. J. Schut. N-benzyloxycarbonylamino-pyrazinoic acid and derivatives. 3,072,655, 1–8–63, Cl. 260—250.

Mager, Humphrey I. X., W. Berends, and W. J. Schut. 5-azidocarbonyl pyrazinamide. 3,094,530, 6–18–63, Cl. 260—250.

Mager, Louis, to The Alloyd Corp. Method of making a pressure vessel by winding metallic-coated glass filaments. 3,086,902, 4–23–63, Cl. 156—167.

Magerl, James P.: *See*—
Allen, Arthur C., Magerl, Sadoff, and Wertheimer. 3,089,501.

Magers, Leroy, Jr.: *See*—
Closner, John J., Marotl, and Magers. 3,092,933.

Magers, Lloyd E.: *See*—
Magers, Lloyd E. 3,088,229.

Magers, Lloyd E., to State Bank and Trust Co., and L. E. Magers. Roll-map display stand. 3,088,229, 5–7–63, Cl. 35—60.

Magers, William M.: *See*—
Wermager, Palmer G., and Magers. 3,110,219.

Maggio, Ralph C.: *See*—
Christianson, Charles, Gilman, and Maggio. 3,114,042.

Maggio, Ralph C., and C. Christianson, to United States of America, Navy. Evaporation and concentration unit for dilute radioactive and non-radioactive solutions. 3,109,099, 10–29–63, Cl. 250—106.

Maggioni & C.S.p.A.: *See*—
Pratesi, Pietro. 3,105,073.

Magic Chef, Inc.: *See*—
Moss, Harold J. 3,092,097.

Magic Seal Truck Door Corp.: *See*—
Merrill, Joseph R. 3,109,483.

Magid, Louis, V. D. Mattia, Jr., and J. J. Vance, to Hoffmann-La Roche Inc. Therapeutic composition comprising 4-(2-dimethylaminoethoxy) - 4 - (3,4,5 - trimethoxybenzoyl)-benzylamine and beta-pyridylcarbinol. 3,077,435, 2–12–63, Cl. 167—65.

Magid, Louis, and M. Weiss, to Hoffmann-La Roche Inc. Antitussive compositions and preparation. 3,085,942, 4–16–63, Cl. 167—67.

Magids, Barnett B.: *See*—
Vitable, Henry J. 3,091,352.

Magill, Donald G., Jr.: *See*—
Jackson, Richard T., and Magill. 3,095,345.

Magill, Donald G., Jr., and J. W. Judge, Jr., to Riegel Paper Corp. Process of making a porous, coated material. 3,095,315, 6–25–63, Cl. 117—10.

Maginn, Raymond E., to Ethyl Corp. Alkali-metal-ether complex salts of a group VIB metal pentacarbonyl iodide. 3,095,435, 6–25–63, Cl. 260—438.

Maginn, Raymond E., to Ethyl Corp. Alkali metal-ether complex salts of a nitrogenous group VIB metal pentacarbonyl anion. 3,095,436, 6–25–63, Cl. 260—438.

Maginn, Robert A., and J. W. Van Dyk, to E. I. du Pont de Nemours and Co. Initiator systems for acrylic polymerizations. 3,113,114, 12–3–63, Cl. 252—426.

Maglaughlin, Edward P., and R. E. Trampe, to Celanese Corp. of America. Unsaturated ester purification. 3,097,233, 7–9–63, Cl. 260—486.

Magline, Inc.: *See*—
Monroe, George E., and Bloch. 3,079,168.

Maglott, George F., to Harwood Engineering Co. Pipeless pumping. 3,077,838, 2–19–63, Cl. 103—49.

Magna American Corp.: *See*—
Field, Frank H. 3,074,491.
Field, Frank H. 3,104,687.
Goldschmidt, Hans, and Edgemond. 3,115,166.

Magna, Peter S., to United States Steel Corp. Wire pay-off. 3,091,415, 5–28–63, Cl. 242—128.

Magna Products Inc.: *See*—
Holmes, Elmond A., Rohrback, and Scott. 3,104,355.
Scott, Willard R., Jr. 3,108,242.

Magnaflux Corp.: *See*—
Dunsheath, Thomas J., and Nerwin. 3,073,212.

Magnatron Corp.: *See*—
Milan, Emil P. 3,109,532.

Magnavita, George C. D. Centrifugal clutch. 3,084,775, 4–9–63, Cl. 192—105.

Magnavox Co., The: *See*—
Armstrong, Philip N., and Endo. 3,081,939.
Bliss, Robert W. 3,098,163.
Craig, Donald E. 3,075,465.
Freimann, Frank M., and Fordeck. 3,102,509.
Freimann, Frank M., and Graef. 3,102,605.
Grady, Robert J. 3,077,581.
Gray, Alfred E., Malin, and Thompson. 3,074,711.
Gray, Alfred E., Malin, and Thompson. 3,081,872.
Hayes, Robert M., and Nelson. 3,100,431.
Martin, Maurice S., and Nelson. 3,103,665.
Reese, Glenn A. 3,086,095.
Severance, Ralph H. 3,102,479.
Severance, Ralph H., and Craig. 3,102,480
Smith, Frank P. 3,101,447.
Wiener, Jerome B. 3,074,551.

Magnavox Electronics Co. Ltd., The: *See*—
Humby, Edward T. 3,109,656.

Magne, Frank C.: *See*—
Dupuy, Harold P., Goldblatt, and Magne. 3,071,611.
Dupuy, Harold P., Goldblatt, and Magne. 3,079,387.
Dupuy, Harold P., Goldblatt, and Magne. 3,079,388.

Magnefax Corp.: *See*—
Teiser, Sidney, and Sassman. 3,113,003.

Magnesium Elektron Ltd.: *See*—
Emley, Edward F. 3,101,269.
Fisher, Philip A., and Emley. 3,094,413.
Pitts, Frank. 3,084,040.

Magness, James F., to Standard Oil Co. Manufacture of isoprene. 3,111,547, 11–19–63, Cl. 260—680.

Magnet Cove Barium Corp.: *See*—
Mathews, Roderic G. 3,107,739.
Van Dyke, Orien W., and Carney. 3,076,759.

Magnetic Seal Corp.: *See*—
Colby, George E. 3,080,170.

Magnetics, Inc.: *See*—
Eyberger, Harry. Re. 25,441.

Magneto-Chemie N.V.: *See*—
Beer, Henri B. 3,073,763.

Magni, Gustav A.: *See*—
Berglund, Kurt K., Jacobsson, and Magni. 3,103,590.

Magnotta, Frank A.: *See*—
Fishbein, Leon, and Magnotta. 3,080,352.

Magnus Chemical Co., Inc.: *See*—
Rowan, Henry A., and Shiffner. 3,083,716.

Magnus, Walter E.: *See*—
Van Epps, Kenneth S., and Magnus. 3,115,163.

Magnuson, Carl W., to Nekoosa-Edwards Paper Co. Cut size paper handling machine. 3,085,677, 4–16–63, Cl. 198—211.

Magnuson, Carl W., to Nekoosa-Edwards Paper Co. Cut size paper handling machine. 3,105,598, 10–1–63, Cl. 214—8.5.

Magnuson, Elton E., and F. N. Blackmore, to Plastiform Co. Multiple-level light-reflective sign. 3,096,596, 7–9–63, Cl. 40—135.

Magnuson Engineers, Inc.: *See*—
Magnuson, Roy M., and Daugherty. 3,087,517.

Magnuson, Genevieve I.: *See*—
Lazzarini, Louis P. 3,072,830.
Magnuson, Roy M. 3,102,629.
Magnuson, Roy M., and Daugherty. 3,087,517.
Smith, Traver J. 3,107,703.
Wood, Richard A. 3,107,853.

Magnuson, Raymond A., to Vogel-Peterson Co. Hanger rail construction. 3,081,882, 3–19–63, Cl. 211—86.

Magnuson, Robert: *See*—
Lazzarini, Louis P. 3,072,830.
Magnuson, Roy M. 3,102,629.
Smith, Traver J. 3,107,703.

Magnuson, Roland A., to United States of America, Army. Slotted tube torsion bar. 3,103,035, 9–10–63, Cl. 16—180.

Magnuson, Roy M.: *See*—
Wood, Richard A. 3,107,853.

Magnuson, Roy M., deceased (by G. I. Magnuson, executrix), and R. K. Daugherty; said Daugherty assor. to Magnuson Engineers, Inc. Liquid filling machine and method. 3,087,517, 4–30–63, Cl. 141—1.

Magnuson, Roy M., deceased, by G. I. Magnuson, executrix, ½ to said G. I. Magnuson and ½ to G. I. and R. Magnuson and L. J. Fox, trustees. Article feeding apparatus and method. 3,102,629, 9–3–63, Cl. 198—34.

Magnussen, Harold. Tool for pneumatic chipping hammers. 3,106,019, 10–8–63, Cl. 30—168.

Magnusson, Bengt G.: *See*—
Bernemyr, Rune B., Lindberg, and Magnusson. 3,102,999.

Magnusson, Bengt G. Regulated electric power supply device. 3,102,977, 9–3–63, Cl. 321—19.

Magnusson, Bror: *See*—
Rogers, Thomas H., Bavor, and Magnusson. 3,103,591.

Magnusson, Knut J.: *See*—
Young, Charles J., and Magnusson. 3,074,213.

Magoon, Fred L., Jr.: *See*—
Boggs, Herbert D., and Magoon. 3,112,530.
Boggs, Herbert D., and Magoon. 3,114,173.

Magorien, Vincent G., to Seaton-Wilson Mfg. Co. Airless coupling. 3,073,342, 1–15–63, Cl. 137—614.03.

Magos, John P., to Crane Co. Gate closure guide. 3,078,871, 2–26–63, Cl. 137—546.

Magos, John P., to Crane Co. Ball valve with multi-part body. 3,091,428, 5–28–63, Cl. 251—315.

Magoteaux, Orville R., to United States of America, Atomic Energy Commission. Separation of uranium metal from oxides and slag in the reduction of uranium tetrafluoride. 3,088,823, 5–7–63, Cl. 75—84.1.

Mag-Powr Games, Inc.: *See*—
Lindman, George E. 3,091,459.

Magrum, Gervase M.: *See*—
Rumsey, Rollin D., and Magrum. 3,103,281.

Maguire, John, to Duo-Bed Corp. Sofa bed and table unit. 3,076,977, 2–12–63, Cl. 5—3.

Maguire, John, to Duo-Bed Corp. Adjustable bed frame. 3,076,978, 2–12–63, Cl. 5—202.

Maguire, John, to Duo-Bed Corp. Roller for bed frames. 3,076,980, 2–12–63, Cl. 5—317.

Maguire, Philip L.: *See*—
Pizzarello, Roy A., De Lucia, and Maguire. 3,072,661.

Mahaffey, Fred, Jr.: *See*—
Lebus, Jake H., Castel, and Mahaffey. 3,079,793.

Mahaffy, Reid A., and J. R. Harder, to Bartelt Engineering Co., Inc. Apparatus for measuring forces. 3,093,206, 6–11–63, Cl. 177—228.

Mahan, Guy S., to International Basic Economy Corp. Taping unit drive head. 3,078,735, 2–26–63, Cl. 74—205.

Mahan, John E., to Phillips Petroleum Co. Rocket fuels. 3,082,598, 3–26–63, Cl. 60—35.4.

Mahaney, John P., to Virginia Plastics Co. Fastening insulator for transmission lines. 3,090,827, 5–21–63, Cl. 174—172.

Maher, James B., to Chicago Bridge & Iron Co. Liquefied petroleum gas pressure and low temperature storage system. 3,079,760, 3–5–63, Cl. 62—55.

Maher, James B., and E. C. Gruner, to Chicago Bridge & Iron Co. L-P gas storage and slop handling system. 3,078,686, 2–26–63, Cl. 62—54.

Maher, James B., and J. Mair, to Chicago Bridge & Iron Co. Refrigeration by direct vapor condensation. 3,108,447, 10–29–63, Cl. 62—54.

Maher, Richard T.: *See*—
Bahn, John J., Coggeshall, Maher, and Waldbillig. 3,089,048.

Mahieux, Jean. Smokers' pipes. 3,091,246, 5–28–63, Cl. 131—195.

Mahler, Peter A., to Singer-Fidelity, Inc. Yarn severing in circular knitting machines. 3,081,609, 3–19–63, Cl. 66—134.

Mahler, Peter A., to Singer-Fidelity, Inc. Method of yarn severing in circular knitting machines. 3,090,216, 5–21–63, Cl. 66—140.

Mahler, Peter A., and K. R. Boyer, to The Singer Co. Splicing in circular knitting machines. 3,111,827, 11–26–63, Cl. 66—39.

Mahlmeister, Raymond A., and J. H. Straw, to The Sheffield Corp. Gaging device. 3,094,788, 6–25–63, Cl. 33—174.

Mahlmeister, Raymond A., and J. H. Straw, to The Sheffield Corp. Prefabricated enclosure. 3,115,819, 12–31–63, Cl. 98—40.

Mahlo, Heinz. Photoelectric devices for indicating the lay of weft threads and for controlling weft straighteners. 3,077,656, 2–19–63, Cl. 26—51.5.

Mahn, Herbert, to Jos. Schneider & Co., Optische Werke. Depth of field indicator for varifocal objective. 3,076,396, 2–5–63, Cl. 95—45.

Mahn, Herbert, to Optische Werke Jos. Schneider & Co. Control mechanism for the axial displacement of components of photographic or cinematographic objectives and the like. 3,095,750, 7–2–63, Cl. 74—107.

Mahon, John H., to Calgon Corp. Methods of processing poultry. 3,104,170, 9–17–63, Cl. 99—107.

Mahon, John V.: *See*—
Childey, Francis A., Jr., and Mahon. 3,081,928.

Mahon, Thomas J., to Thomas J. Mahon, Inc. Nebulizing dispenser. 3,104,062, 9–17–63, Cl. 239—338.

Mahon, Thomas J., Inc.: *See*—
Mahon, Thomas J. 3,104,062.

Mahoney, John F.: *See*—
Ruckwardt, Kurt F., McDonald, and Mahoney. 3,095,363.

Mahoney, John R., to United States of America, Atomic Energy Commission. Measuring circuit. 3,076,091, 1–29–63, Cl. 250—41.9.

Mahoney, Ralph P., to S. D. Warren Co. Salt peptized proteinaceous adhesive and coating composition employing the same as a binder. 3,081,182, 3–12–63, Cl. 106—146.

Mahoney, Ralph P., and E. J. Justus, to Beloit Iron Works. Apparatus for subjecting a paper web to a variety of finishing and/or coating treatment. 3,089,460, 5–14–63, Cl. 118—60.

Mahoney, William R., R. E. St. Pierre, and D. T. Dunlap, to Celanese Corp. of America. Filter cigarettes. 3,103,220, 9–10–63, Cl. 131—10.

Mahowald, Edward A. Lawn mower washer assembly. 3,108,608, 10–29–63, Cl. 134—198.

Malco Electronics, Inc.: *See*—
Behymer, Donald J., and Mullin. 3,116,376.
Wales, Donald A., Dundovic, and Grindheim. 3,075,653.

Maldenform, Inc.: *See*—
Bruno, Enrico. 3,082,771.
Kaupp, Bette K. 3,094,992.
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Maldment, Earl P.: *See*—
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Maldment, Earl P., to Burroughs Corp. Document stacking device. 3,078,089, 2–19–63, Cl. 271—71.

Maldment, Earl P., to Burroughs Corp. Document handling stacking apparatus. 3,079,151, 2–26–63, Cl. 271—71.

Malenknecht, Gaile E. Pressure regulating valve. 3,094,141, 6–18–63, Cl. 137—505.25.

Maler, Alfred E.: *See*—
Wingard, Henry S., and Maler. 3,097,277.

Maler, Alois: *See*—
Smidt, Jurgen, Hafner, Jira, Sedlmeier, and Maler. 3,086,981.
Smidt, Jürgen, Jira, Hafner, Sedlmeier, and Maler. 3,086,052.

Maler, Curtis E.: *See*—
Brick, Robert M., and Maler. 3,106,014.
Brick, Robert M., Maler, and Ripling. 3,105,296.
Brick, Robert M., Maler, and Ripling. 3,116,121.

Maier, Elmar, to Contina Bureaux und Rechermaschinenfabrik Aktiengesellschaft. Miniature-type calculating machines. 3,104,055, 9–17–63, Cl. 235—73.

Maier, Elmar, to Contina Bureaux und Rechenmaschinenfabrik Aktiengesellschaft. Manually or motor operable miniature calculator. 3,104,811, 9–24–63, Cl. 235—62.

Maier, Elmar. Ten transfer device. 3,113,721, 12–10–63, Cl. 235—138.

Maier, Franz J., and E. Bellack, to United States of America, Army, and Health, Education and Welfare. Fluoridation of drinking water. 3,078,225, 2–19–63, Cl. 210—47.

Maier, John H. Saw chain filing gauge. 3,091,136, 5–28–63, Cl. 76—36.

Maier, Karl: *See*—
Braun, Willy, Ruske, and Maier. 3,086,024.

Maier, Karl W. Buffer device. 3,107,906, 10–22–63, Cl. 267—9.

Maier, Karl W. Friction brake. 3,116,056, 12–31–63, Cl. 267—1.

Maier, Karl, and H. J. Nienburg, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Dyeing and printing of articles of linear polyamides. 3,100,184, 8–6–63, Cl. 8—55.

Maier, Lorenz, and F. Tofp, to Kienzle Apparate G.m.b.H. Carriage control apparatus for an accounting machine. 3,106,341, 10–8–63, Cl. 235—60.46.

Maier, Ludwig, to Monsanto Chemical Co. Racemic tetrahydrocarbon diphosphine disulfides. 3,075,017, 1–22–63, Cl 260—606.5.

Maier, Theodore C., to Tamas Electronics Industries, Inc. Variable output transformer. 3,085,192, 4–9–63, Cl. 323—51.

Maierhofer, Chester M. Flounder gig. 3,071,401, 1–1–63, Cl. 294—61.

Maiershofer, Karl M.: *See*—
McMaster, Archie J., and Maiershofer. 3,079,840.

Malerson, Theodore, to The National Cash Register Co. Pressure sensitive record and transfer sheet material. 3,104,980, 9–24–63, Cl. 117—36.4.

Malerson, Theodore, F. C. Schiller, and H. N. Vosmer, to The National Cash Register Co. Polyethylene terephthalate coated with transferable minute specks of magnetic ink. 3,099,571, 7–30–63, Cl. 117—36.1.

Mailhot, John R., to General Precision, Inc. Abstract visual display system. 3,081,557, 3–19–63, Cl. 35—12.

Mailland, Claude F. H. Artificial denture. 3,094,778, 6–25–63, Cl. 32—5.

Maillard, Gabriel: *See*—
Jouille, Maurice, Laurre, Maillard, and Muller. 3,094,464.

Maillard, Jacques, to Societe d'Exploitation des Laboratoires Jacques Logeais. Narcotine camphosulfonate. 3,108,106, 10–22–63, Cl. 260—285.

Maille, Jean P., to Societe Civile d'Etudes et de Brevets Motu. Apparatus for audio-vocal conditioning. 3,101,390, 8–20–63, Cl. 179—1.

Mailliette, George F. Advertising display device. 3,075,311, 1–29–63, Cl. 40—129.

Mailman Bros.: *See*—
Sidney, Milton M., and Woolley. 3,078,569.

Main, John A., and R. E. Holemes, Jr., to Kelsey Hayes Co. Dual tire wheel structure. 3,079,200, 2–26–63, Cl. 301—13.

Main, Leo E., to Bell & Gossett Co. Air separator fitting for hydronic systems. 3,074,645, 1–22–63, Cl. 237—63.

Maindonald, Clarence J.: *See*—
Claridge, George H., and Maindonald. 3,096,068.

Maine, De Witt C. Protective apron construction. 3,093,829, 6–18–63, Cl. 2—2.

Mainil, Jean L. P., to Oletta, Societe Anonyme. Preparation of allopregnane-20-hydroxy-3 one and of allopregnane-3-20-dione. 3,092,643, 6–4–63, Cl. 260—397.3.

Mainil, Jean L. P., to Oletta, Societe Anonyme. Extraction of an alkaloid from phyllanthus discodeus. 3,098,849, 7–23–63, Cl. 260—236.

Mainil, Jean L. P., to Oletta, Societe Anonyme. 3α-aminolatifalia. 3,098,859, 7–23–63, Cl. 260—397.3.

Mainil, Jean L. P. to Oletta, Societe Anonyme. 3α-aminoallopregnanes. 3,102,895, 9–3–63, Cl. 260—397.3.

Mainil, Jean L. P., and Q. K. Huu, to Oletta, Societe Anonyme. Process of extracting 3-amino compounds from the genus Funtumia. 3,098,082, 7–16–63, Cl. 260—397.3.

Mainz, Franz: *See*—
Kilian, Georg, and Mainz. 3,100,148.
Krüger, Fritz, Mainz, and Rodloff. 3,103,429.

Mainz, Franz, to Libbey-Owens-Ford Glass Co. Method and apparatus for producing multiple glass sheet glazing units. 3,086,375, 4–23–63, Cl. 65—58.

Maiorca, Salvatore, to Fiat Societa per Azioni. Ground appliance for controlled deceleration braking of aircraft on landing. 3,079,110, 2–26–63, Cl. 244—110.

Mair, James: *See*—
Maher, James B., and Mair. 3,108,447.

Maire, Aurele, to Fabrique des Montres Zenith SA. Electronic driving means for timepieces. 3,114,092, 12–10–63, Cl. 318—132.

Mais, Adolf R., to Hagglund & Soner, Aktiebolaget. Thermal release device such as an overload protection. 3,105,890, 10–1–63, Cl. 200—122.

Mais, Ago: *See*—
McBride, Joseph J., Jr., and Mais. 3,092,650.

Maisel, Eugene F.: *See*—
Berst, Neil W., Gauntt, and Maisel. 3,075,923.

Maish, George O., and E. F. Seasholtz, to Bethlehem Steel Co. Compacting metallic powders. 3,095,262, 6–25–63, Cl. 18—59.5.

Maistre, Michel A.: *See*—
Bognar, Etienne, and Maistre. 3,085,626.

Maitani, Yoshihisa, to Olympus Kogaku Kogyo Kabushiki Kaisha. Exposure controlling device for photographic camera. 3,075,441, 1–29–63, Cl. 95—101.

Maitani, Yoshihisa, to Olympus Kogaku Kogyo Kabushiki Kaisha. Safety device for photographic camera. 3,106,882, 10–15–63, Cl. 95—10.

Maitani, Yoshihisa, to Olympus Kogaku Kogyo Kabushiki Kaisha. Exposure controlling device for photographic camera. 3,108,522, 10–29–63, Cl. 95—10.

Maitlen, Eldon G.: *See*—
Willard, Joe R., and Maitlen. 3,078,209.

Maitlen, John J., to The F. E. Myers & Bro. Co. Jet pump improvement. 3,115,844, 12–31–63, Cl. 103—103.

Maize, Paul F., to The Cyril Bath Co. Prestretch forming fixture for drawing die press. 3,113,607, 12–10–63, Cl. 153—35.

Majendie, Alastair M. A., and H. Pollak, to Smiths America Corp. Gyro verticals. 3,077,787, 2–19–63, Cl. 74—5.47.

Majendie, Alastair M. A., to S. Smith & Sons (England) Ltd. Visual indicating devices for use in aircraft. 3,085,429, 4–16–63, Cl. 73—178.

Majestic Co., Inc., The: *See*—
Morgan, Claude A. 3,089,440.

Majewski, John V., to McGraw-Edison Co. Secondary lead bracket. Re. 25,341, 3–5–63, Cl. 174—158.

Majka, Edward J.: *See*—
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Majkrzak, Charles P., to United States of America, Air Force. Sliding contact arrangement. 3,078,430, 2–19–63, Cl. 336—140.

Majnoni, Marcello. Sail-boat. 3,088,428, 5–7–63, Cl. 114—61.

Majnoni, Stefano: *See*—
Furst, Andor, Kyburz, and Majnoni. 3,072,636.

Major, Alfred N.: *See*—
Graumann, John L., and Major. 3,087,533.

Majors, William M., Jr.: *See*—
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Makara, Frank. Continuous insect film. 3,077,050, 2–12–63, Cl. 43—112.

Makela, Sulo A.: *See*—
Drayer, William L., and Makela. 3,108,749.

Maker, Walter J., and A. M. Laurinaitis, to The Glidden Co. Unsaturated polyester coating compositions having controlled resistance to penetration. 3,077,424, 2–12–63, Cl. 117—148.

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Makin, Earle C., Jr., to Monsanto Chemical Co. Separation process using an amino di-acid ester. 3,072,565, 1–8–63, Cl. 208—236.

Makin, Earle C., Jr., to Monsanto Chemical Co. Separation process using an amino acid ester. 3,072,566, 1–8–63, Cl. 208—236.

Makin, Earle C., Jr., to Monsanto Chemical Co. Hydrocarbon separation. 3,077,711, 2–19–63, Cl. 55—84.

Makin, Earle C., Jr., to Monsanto Chemical Co. Recovery of hydrocarbons. 3,108,946, 10–29–63, Cl. 208—67.

Makisumi, Yasuo: *See*—
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Makovic, Stephen R., to Libbey-Owens-Ford Glass Co. Grinding and polishing glass plates. 3,101,576, 8–27–63, Cl. 51—283.

Makovski, Stephen A., and R. Snape, to United Shoe Machinery Corp. Lasts. 3,076,213, 2–5–63, Cl. 12—133.

Makow, David M. Pulse group generating and shaping circuit. 3,100,283, 8–6–63, Cl. 331—47.

Makowski, Alexander G., to American Can Co. Manufacture of plastic articles. 3,078,517, 2–26–63, Cl. 18—20.

Makowski, Alexander G., to American Can Co. Container lining. 3,091,000, 5–28–63, Cl. 18—59.

Makowski, Alexander G., to American Can Co. Method of producing stressed joint plastic containers. 3,097,423, 7–16–63, Cl. 29—407.

Makowski, Alexander G., to American Can Co. Dispenser for containers. 3,107,829, 10–22–63, Cl. 222—525.

Makowski, Alexander G., A. J. Blood, and J. M. Wathen, Jr., to American Can Co. Apparatus for handling and treating tubular plastic containers. 3,097,593, 7–16–63, Cl. 101—38.

Makowski, Henry S.: *See*—
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Makowski, Henry S., to Esso Research and Engineering Co. Copolymers preparation process. 3,092,612, 6–4–63, Cl. 260—88.2.

Makowski, Henry S. and C. W. Seelbach, to Esso Research and Engineering Co. Brominated amorphous copolymers of ethylene and higher alpha olefins with amines. 3,084,145, 4–2–63, Cl. 260—88.2.

Makowski, Henry S., and W. P. Caln, to Esso Research and Engineering Co. Process of curing a chlorinated ethylene higher alpha olefin copolymer. 3,088,929, 5–7–63, Cl. 260—41.

Makowski, Joseph V., and M. Castello, to Ford Motor Co. Wire spring element. 3,083,001, 3–26–63, Cl. 267—107.

Makowski, Theodore E.: *See*—
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Makuh, Paul H., to Hupp Corp. Adjustable evaporator assemblies for air conditioners. 3,097,507, 7–16–63, Cl. 62—285.

Malachuk, Daniel, to National Franchise Marketing and Leasing Corp. Telephone number index with contact holding attachment device. 3,083,493, 4–2–63, Cl. 45—.5.

Malafouris, Dannie O. Pleated, spiral-formed, wire screen. 3,109,484, 11–5–63, Cl. 160—348.

Malaker Laboratories, Inc.: *See*—
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Malaker, Stephen F., to Daystrom, Inc. Unitary neutronic reactor-powered pump. 3,086,471, 4–23–63, Cl. 103—87.

Malaker, Stephen F., and J. G. Daunt, to Malaker Laboratories, Inc. Miniature cryogenic engine. 3,074,244, 1–22–63, Cl. 62—6.

Malakoff, Norman L.: *See*—
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Malamude, Simon. Display devices and structures. 3,090,144. 5–21–63, Cl. 40—124.1.

Malashevitz, Alex J.: *See*—
Spencer, Frank R., and Malashevitz. 3,093,600.

Malavazos, Arurthr J., to Friden, Inc. Calculating machine. 3,090,554, 5–21–63, Cl. 235—63.

Malavazos, Arthur J., and L. Sundblom, to Friden, Inc. Calculating machine. 3,107,851, 10–22–63, Cl. 235—63.

Malbin, Isaac, and A. Maddalena. Nested ladder. 3,115,253, 12–24–63, Cl. 211—128.

Malchair, Armand, to Bureau d'Etudes Armand Malchair Societe Anonyme. Method and devices for hydroculture at practically constant temperature. 3,103,763, 9–17–63, Cl. 47—1.2.

Malco Mfg. Co.: *See*—
Just, Alex, Maximoff, and Krause. 3,086,074.
Krause, Richard T., Kalmar, and Kukla. 3,071,844.
Olsson, Billy E. 3,072,880.
Sola, John B., and Krause. 3,077,027.

Malcolm, Jack W., to The National Cash Register Co. Decimal to binary conversion and storage system. 3,087,149, 4–23–63, Cl. 340—347.

Malcolm, Robert, Jr. Filter plate assembly for welding helmets and the like. 3,112,490, 12–3–63, Cl. 2—8.

Malcolm, Stewart: *See*—
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Malcolmson, James V. C., and D. L. Butts, to Texaco Inc. Underdeck tunnel for tankers. 3,113,544, 12–10–63, Cl. 114—74.

Maldonado, David G. Game device. 3,091,460, 5–28–63, Cl. 273—95.

Male, Herman A., to The Gleason Works. Gear cutting machine with chamfering means. 3,083,616, 4–2–63, Cl. 90—1.4.

Malec, Jerry P., to Comet Industries. Adjustable automatic oiler for air conduits. 3,115,949, 12–31–63, Cl. 184—55.

Malec, Jerry P., to Comet Industries, Inc. Means for injecting an oil into an air stream. 3,115,950, 12–31–63, Cl. 184—55.

Maleck, Le Roy R., to Admiral Corp. Float switch assembly for air conditioning apparatus. 3,110,161, 11–12–63, Cl. 62—188.

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Malesko, Joseph, 49% to W. Rentas. Quick acting vise. 3,079,141, 2–26–63, Cl. 269—182.

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Frame, Thomas B., and Maletzke. 3,096,124.
Frame, Thomas B., and Maletzke. 3,103,194.
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Maley, Gerald A., to International Business Machines Corp. Full adder and subtractor using NOR logic. 3,074,640, 1–22–63, Cl. 235—176.

Maley, Gerald A., to International Business Machines Corp. Pulse generator employing AND-INVERT type logical blocks. 3,075,089, 1–22–63, Cl. 307—88.3.

Maley, Gerald A., to International Business Machines Corp. Signal storage and transfer apparatus. 3,083,305, 3–26–63, Cl. 307—88.5.

Malla, John P. Compartmentalized refrigerator. 3,086,830, 4–23–63, Cl. 312—200.

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Mallck, Franklin S., to Allis-Chalmers Mfg. Co. Static control for step type transformer regulator. 3,104,350, 9–17–63, Cl. 318—264.

Malin, Charles G. Grinding and polishing machine for precious or semi-precious stones. 3,098,327, 7–23–63, Cl. 51—125.

Malin, Herman J.: *See*—
Gray, Alfred E., Malin, and Thompson. 3,074,711.
Gray, Alfred E., Malin, and Thompson. 3,081,872.

Malin, Leon: *See*—
Beusman, Curtis C., Malin, and Mott. 3,110,273.

Maling, John E. Traveling chair for shower stalls. 3,090,-969, 5–28–63, Cl. 4—145.

Malinowski, Tadeusz. Rangefinder and gunsight combination with coupled reticle adjusting means for ballistic curve changes. 3,079,833, 3–5–63, Cl. 88—2.7.

Malkin, Bruce M.: *See*—
Reischer, Walter, Frank, and Malkin. 3,087,530.

Malkin, Bruce M., W. Reischer, and L. A. Buchalter, to Burndy Corp. Multiple stroke tool. 3,101,017, 8–20–63, Cl. 81—15.

Malkin, Edwin S.: *See*—
Raub, Samuel H. S., Malkin, and Alton. 3,089,423.

Malkin, Simon, and L. Kessler. Word and alphabet game device. 3,077,677, 2–19–63, Cl. 35—35.

Mallak, Paul A.: *See*—
Larson, Gerald W., and Mallak. 3,110,626.

Mallard, James R., 20% to C. C. Sublett, Jr., H. G. Sutton, H. G. Sutton, Jr., B. M. Sutton, and J. E. Sutton. Pliant weather resistant pipe end closure. 3,078,879, 2–26–63, Cl. 138—96.

Mallatt, Russell C.: *See*—
Austin, Robert J., Grutsch, and Mallatt. 3,101,321.

Malleable Iron Fittings Co.: *See*—
Desenberg, Ned E. 3,075,259.

Malleable Research and Development Foundation: *See*—
Yearley, Bernard C. 3,076,705.

Mallery, Paul, and E. G. Rupprecht, to Bell Telephone Laboratories, Inc. Control circuit. 3,083,328, 3–26–63, Cl. 321—16.

Mallett, Harry H. Automatic locking key safe. 3,084,008, 4–2–63, Cl. 312—319.

Mallett, John E. Detachable table top. 3,093,411, 6–11–63, Cl. 297—135.

Malley, Thomas J., and D. F. De Lapp, to American Cyanamid Co. Phosphoric acid. 3,073,677, 1–15–63, Cl. 23—165.

Malley, Thomas J., H. D. Schindler, and J. D. Pennell, Jr., to American Cyanamid Co. Alumina of controlled density. 3,086,845, 4–23–63, Cl. 23—143.

Malley, Thomas J., H. F. Cosway, and S. A. Giddings, to American Cyanamid Co. Low temperature defluorination of phosphate material. 3,101,999, 8–27–63, Cl. 23—108.

Malley, Thomas J., D. F. De Lapp, S. A. Giddings, and H. F. Cosway, to American Cyanamid Co. Production of animal feed supplement of low fluorine content. 3,102,000, 8–27–63, Cl. 23—108.

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Moon, Thomas E., Mallick, and Marshall. 3,074,407.

Mallina, Rudolf F.: *See*—
King, Paul E., and Mallina. 3,079,159.

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Mallinckrodt, George E. Nuclear apparatus. 3,107,210, 10–15–63, Cl. 204—193.2.

Mallinckrodt, George E. Nuclear apparatus. 3,107,211, 10–15–63, Cl. 204—193.2.

Mallinckrodt, Philip A.: *See*—
Lamb, Joe H. 3,076,975.

Mallinson, John C., to AMP Inc. Magnetic core circuit. 3,114,138, 12–10–63, Cl. 340—174.

Mallison, William C., to American Cyanamid Co. Process for blending a hot polyester resin and polymerizable solvent. Re. 25,395, 6–18–63, Cl. 260—45.4.

Mallory, Edwin E., and A. Cantarutti, to National Rubber Machinery Co. Tire curing press. 3,097,394, 7–16–63, Cl. 18—17.

Mallory, Henry R., to ACR Electronics Corp. Voltage doubling supply circuit for triggering and flashing gaseous discharge lamp. 3,115,594, 12–24–63, Cl. 315—219.

Mallory, John S. Fuel inductor pump assembly. 3,106,197, 10–8–63, Cl. 123—139.

Mallory, P. R., & Co., Inc.: *See*—
Bourgerie, Richard D. 3,087,093.
Clune, Richard R. 3,096,217.
Haberecht, Rolf R., and Loftus. 3,093,755.
Loftus, Wallace D. 3,086,160.
Simmons, Harold T. 3,115,785.

Mallory Timers Co.: *See*—
Simmons, Harold T. 3,115,785.

Mallow, Abraham J. Interlocking housing and mounting plate. 3,071,284, 1–1–63, Cl. 220—41.

Malloy, John D.: *See*—
Hause, Gilbert K., Wrigley, and Malloy. 3,073,243.
Wrigley, Clifford C., and Malloy. 3,071,210.

Malloy, John E.: *See*—
Armbrecht, Bernard H., and Malloy. 3,091,697.

Malm, Anders E., to Aktiebolaget Kanthal. Electric resistance furnaces and the like. 3,092,681, 6–4–63, Cl. 13—22.

Malm, Carl J., and M. E. Rowley, to Eastman Kodak Co. Method of preparing cellulose acylate sulfates using sodium phosphate. 3,075,964, 1–29–63, Cl. 260—215.

Malm, Carl J., and C. L. Crane, to Eastman Kodak Co. Preparation of stable cellulose triesters. 3,089,871, 5–14–63, Cl. 260—227.

Malm, Carl J., B. Fulkerson, and J. W. Mench, to Eastman Kodak Co. Preparation of cellulose valerates. 3,103,506, 9–10–63, Cl. 260—225.

Malm, Robert N.: *See*—
Wills, Winifield H., Louden, and Malm. 3,113,010.

Malmedie Maschinenfabrik G.m.b.H.: *See*—
Meyercordt, Fritz, and Honnens. 3,097,378.

Malmo, Erling. Hard-packed snow skis. 3,088,748, 5–7–63, Cl. 280—12.

Malmstrom, Homer E., and R. M. Donaldson, to Kimberly Clark Corp. Rotary pressure vessel. 3,099,543, 7–30–63, Cl. 34—124.

Malo, William G., ½ to **R. Sherman.** Clamp for case carrying trucks. 3,084,820, 4–9–63, Cl. 214—371.

Malohn, Donald A.: *See*—
Howland, George R., and Malohn. 3,086,361.

Malone, Billy C., to Lynes, Inc. Inflatable well tool. 3,085,-628, 4–16–63, Cl. 166—187.

Malone, Harold L.: *See*—
Coleman, William H., and Malone. 3,106,671.

Malone, Homer F., and S. W. Drennan, to Mechanical Products, Inc. Combination motor start relay and overload protector. 3,109,078, 10–29–63, Cl. 200—88.

Malone, James D., and A. J. Runft, to General Motors Corp. Selective ringing decoder system. 3,077,577, 2–12–63, Cl. 340—164.

Malone, Joe W., Sr., and J. D. Lamb. Body supported air circulator. 3,096,702, 7–9–63, Cl. 98—1.

Malone, Joseph. Two part weld-on replacement rim for sprocket. 3,111,859, 11–26–63, Cl. 74—243.

Malone, Joseph. Striping attachment for metallizing spray gun. 3,112,072, 11–26–63, Cl. 239—79.

Malone, Paul E.: *See*—
Callan, Patrick C., Eggenberger, and Malone. 3,097,490.

Malone, Thomas S., and A. P. Allegrini, to Minerals & Chemicals Philipp Corp. Gel-forming attapulgite clay and method for preparing same. 3,079,333, 2–26–63, Cl. 252—8.5.

Maloney, Bernard, to Amsted Industries Inc. Self-contained brake arrangement. 3,077,956, 2–19–63, Cl. 188—198.

Maloney, Robert A., to McGraw-Edison Co. Electrode holder with current interchange inserts. 3,072,732, 1–8–63, Cl. 13—16.

Maloof, Fred N.: *See*—
Gregory, Benjamin F. 3,113,471.

Malott, Clifton S., K. E. Haschart, and G. E. Moore, Jr., to McGraw-Edison Co. Cross-folder control. 3,113,772, 12–10–63, Cl. 270—69.

Malpede, Albert J.: *See*—
Vani, James, and Malpede. 3,075,057.
Vani, James, and Malpede. 3,090,981.

Malrose, Le Roy. Sailboat. 3,112,725, 12–3–63, Cl. 114—39.

Malt-A-Plenty, Inc.: *See*—
Walter, Paul E., and Lewis. 3,080,830.

Maltby, Frederick L. Electrical connector. 3,090,936, 5–21–63, Cl. 339—210.

Maltby, Frederick L. Insulating means for concentric conductor elements. 3,109,882, 11–5–63, Cl. 174—151.

Maltese, Paolo: *See*—
Cappuccio, Vittorio, Vacanti, and Maltese. 3,107,228.

Malthaner, William A.: *See*—
James, Dennis B., Malthaner, and Runyon. 3,096,403.

Maly, George P.: *See*—
Krueger, Roland F., and Maly. 3,113,621.

Maly, George P., to Union Oil Co. of California. Valve and well tool utilizing the same. 3,078,862, 2–26–63, Cl. 137—67.

Malz, Hugo, F. Lober, O. Bayer, and H. Scheurlen, to Farbenfabriken Bayer Aktiengesellschaft. Process for stabilizing polyolefins. 3,107,229, 10–15–63, Cl. 260—45.8.

Malz, Hugo, A. R. Heinz, and W. Wolff to Farbenfabriken Bayer Aktiengesellschaft. Process for improving the light fastness of chlorobutadiene polymers. 3,107,230, 10–15–63, Cl. 260—45.9.

Malz, Hugo, E. Roos, and W. Göbel, to Farbenfabriken Bayer Aktiengesellschaft. Stabilisers for polymers containing chlorine. 3,107,231, 10–15–63, Cl. 260—45.9.

Malzacher, Hans, to Neuzeughammer Ambosswerk, Messer- und Stahlwarenfabrik Malzacher K.G., Fa. Method of producing articles having a cutting edge portion and consisting of stainless chromium steel. 3,116,180, 12–31–63, Cl. 148—12.4.

Malzahn, Gus E. Heated asphalt rollers. 3,080,800, 3–12–63, Cl. 94—50.

Malzahn, Gus E. Variable speed gear reduction unit. 3,087,-354, 4–30–63, Cl. 74—781.

Malzahn, Lester W., and L. O. Otto, to Western Electric Co., Inc. Apparatus for loading articles onto conveyors. 3,107,019, 10–15–63, Cl. 214—89.

Mamalis, Patrick, to Vitamins Ltd. New dihydrotriazine derivatives and a process for their manufacture. 3,105,-074, 9–24–63, Cl. 260—249.9.

Mamantov, Gleb: *See*—
Lake, Donald B., and Mamantov. 3,085,856.

Mambourg, James E., A. G. Sporer, and C. E. Day, to Libbey-Owens-Ford Glass Co. Method of and apparatus for feeding glass batch materials. 3,074,568, 1–22–63, Cl. 214—18.

Mamer, Raymond F.: *See*—
Hoard, Lee M., and Mamer. 3,078,949.

Mamiya, Shigeo, and T. Odashima, to Saginomiya Seisakusho Co., Ltd. Miniature electric switch. 3,097,274, 7–9–63, Cl. 200—67.

Mammano, Robert A., to United States of America, Navy. Long-period relaxation oscillator. 3,074,028, 1–15–63, Cl. 331—111.

Mammarella, Betty. Panty girdle disposable pad. 3,108,-599, 10–29–63, Cl. 128—526.

Mamo, Anthony C., to Borg-Warner Corp. Floating member infinitely variable transmission. 3,090,252, 5–21–63, Cl. 74—677.

Manabe, Osamu: *See*—
Utsunomiya, Masaichi, Hiyama, and Manabe. 3,108,846.

Managan, Richard F.: *See*—
Bernardini, Albert T., Managan, and McGuire. 3,070,-802.

Manak, Richard T. Water vehicle. 3,071,103, 1–1–63, Cl. 115—70.

Manaloris, William A. Strip measuring means for strip cutting machines. 3,077,804, 2–19–63, Cl. 83—345.

Manaresi, Francesco. Equipment for the preparation of concentrated coffee solutions or the like, advantageously for the preparation of products to be concentrated. 3,076,404, 2–5–63, Cl. 99—287.

Manasia, Joseph P., and G. R. Somerville, to Shell Oil Co. Fluidized bed coating process employing an epoxy resin, and process for preparing said resin. 3,102,823, 9–3–63, Cl. 117—21.

Manatrol Corp., The: *See*—
Znjac, Theodore S. and J. W. 3,085,592.

Manca, Mario: *See*—
Vossen, Jean, Agostini, Manca, and Meini. 3,083,240.

Mancebo, Geneva R. Dispenser for wetted sheets of material. 3,104,183, 9–17–63, Cl. 118—236.

Mancera, Octavio: *See*—
Djerassi, Carl, Haplern, and Mancera. 3,093,636.
Ringold, Howard J., Bowers, Mancera, and Rosenkranz. 3,084,157.
Ringold, Howard J., and Mancera. 3,071,577.

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Mancera, Octavio: *See*—Continued
Ringold, Howard J., Mancera, and Bowers. 3,080,391.
Ringold, Howard J., Mancera, Rosenkranz, and Edwards. 3,101,352.

Mancera, Octavio, to Syntex Corp. Process for the preparation of the 20-ketoxime of 16-dehydropregnenolone. 3,108,-123, 10–22–63, Cl. 260—397.5.

Mancewicz, Stanley C., to Chrysler Corp. Damped pressure relief valve. 3,074,428, 1–22–63, Cl. 137—514.

Manchester, Donald F., S. U. Hossain, M. E. Gilwood, and A. B. Mindler, to Abitibi Power & Paper Co. Base recovery from waste liquor. 3,083,078, 3–26–63, Cl. 23—49.

Manchester Machine & Tool Co.: *See*—
Novkov, Raymond E. 3,090,104.

Mancia, Henri: *See*—
Megel, Guillaume E., and Mancia. 3,075,681.
Megel, Guillaume E., and Mancia. 3,083,841.
Megel, Guillaume E., and Mancia. 3,115,800.

Mancini, Joseph A. Demountable flush type acoustical ceiling construction. 3,087,205, 4–30–63, Cl. 20—4.

Mancini, Louis P. Multiple first aid storage device. 3,085,-844, 4–16–63, Cl. 312—278.

Mancini, Lloyd, to Berg Electronics, Inc. Electrical connection and terminal for making the same. 3,096,393, 7–2–63, Cl. 174—68.5.

Manco Mfg. Co.: *See*—
Hoadley, Cyrus E. 3,099,135.
Valente, Raymond L. 3,073,374.

Mancuso, Emanuel. Tool holder. 3,103,839, 9–17–63, Cl. 82—36.

Mandals Reberbane Christiansen & Co. A/S: *See*—
Christiansen, Christian, and Haoya. 3,071,163.
Christiansen, Christian, and Haoya. 3,076,482.

Mandel, Gerald, and I. Lieblich, to Hogan Faximile Corp. Electrolytic marking medium. 3,108,050, 10–22–63, Cl. 204—2.

Mandelkern, Leo, and D. E. Roberts, to United States of America, Commerce. Method for making a fiber with reversible dimensional changes. 3,090,735, 5–21–63, Cl. 204—154.

Mandell, H. C., Jr., to Pennsalt Chemicals Corp. Method of preparing nitramide and n-alkyl substituted nitramides. 3,071,438, 1–1–63, Cl. 23—190.

Mandell, Harry C., Jr., to Pennsalt Chemicals Corp. Flame photometry. 3,088,808, 5–7–63, Cl. 23—230.

Mandin, Hans A. R. Cleaner nozzle with pulsating jet. 3,107,386, 10–22–63, Cl. 15—345.

Mandler, Walter, and E. Wagner, to Ernst Leitz, G.m.b.H. Optische Werke. High aperture objective for photography and projection. 3,076,383, 2–5–63, Cl. 88—57.

Mandonas, Nicholas J., to Western Electric Co., Inc. Magazine stackers. 3,106,302, 10–8–63, Cl. 214—6.

Mandrell, Clayton C., to Reed Roller Bit Co. Drill bit nozzle assembly. 3,115,200, 12–24–63, Cl. 175—340.

Mandrolan, Harold, and H. Lewin, to R-Gentrou. Electrolytic recovery apparatus. 3,072,557, 1–8–63, Cl. 204—231.

Mandy, Robert R.: *See*—
McCleery, Robert N., and Mandy. 3,103,685.

Mandy, Robert R., to The Delman Co. Windshield clearing system. 3,094,733, 6–25–63, Cl. 15—250.02.

Mandy, Robert R., to The Delman Co. Windshield cleaner control. 3,103,684, 9–17–63, Cl. 15—250.02.

Mandy, Robert R., and D. Erkfritz, to The Delman Co. Windshield cleaning system. 3,094,732, 6–25–63, Cl. 15—250.02.

Manecke, Hermann, to Klockner-Werke Aktiengesellschaft. Color restoring concrete body. 3,102,039, 8–[illegible]–63, Cl. 106—97.

Manecke, Siegfried E.: *See*—
Hild, Henry F., and Manecke. 3,091,838.
Hild, Henry F., and Manecke. 3,110,789.

Manes, Milton: *See*—
Crowley, Edgar I., Mackay, Manes, and Vincheri. 3,095,416.

Manfredi, Robert E., to General Electric Co. Electric discharge device. 3,082,339, 3–19–63, Cl. 313—[illegible].

Manganelli, Alfredo, to Vermont Marble Co. Flash trimming tool for non-circular tubular members. 3,091,145, 5–28–63, Cl. 83—184.

Mangel, Wilhelm: *See*—
Wallbaum, Rudolf, Mangel, Frank, and Kaminski. 3,106,-161.

Manger, Charles F., to The Bentley Engineering Co. Ltd. Tubular knitted fabric and method. 3,107,510, 10–22–63, Cl. 66—185.

Manger, Charles F., and G. A. Smith, to The Bentley Engineering Co. Ltd. Circular knitting machines. 3,095,719, 7–2–63, Cl. 66—123.

Mangett, Leo C., Jr.: *See*—
Ireland, Frank L., and Mangett. 3,085,035.

Mangham, Jesse R.: *See*—
Ashby, Eugene C., Foster, Mangham, and Pearson. 3,106,560.

Mangham, Jesse R., to Ethyl Corp. Preparation of alkyltin compounds. 3,095,433, 6–25–63, Cl. 260—429.7.

Mangiafico, Paul and P. J., and E. Seybold, to Peter Paul Electronics Co. Solenoid and valve assembly. 3,082,359, 3–19–63, Cl. 317—191.

Mangiafico, Paul J.: *See*—
Mangiafico, Paul and P. J., and Seybold. 3,082,359.

Mangis, Elmer F. Stone facing machine cutter head. 3,095,-868, 7–2–63, Cl. 125—23.

Mangold, Donald J.: *See*—
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Mangus, George, to Miami Herald Publishing Co. High speed photographic print drying machine. 3,071,866, 1–8–63, Cl. 34—73.
Manhart, Charles E. Life jacket. 3,076,207, 2–5–63, Cl. 9—338.
Manhart, Charles E. Life raft. 3,092,854, 6–11–63, Cl. 9—11.
Manhart, Charles E. Buoyant cushion device. 3,094,723, 6–25–63, Cl. 9—337.
Manhattan Pickle Co., Inc., The: *See*—
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Maniere, Noel E.: *See*—
Colistra, Walter P., and Maniere. 3,082,539.
Manintveld, Jan A., and L. J. Tummers, to North American Philips Co., Inc. Semi-conductor device. 3,081,418, 3–12–63, Cl. 317—128.
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Grall, John G., Nickles, Van De Hey, and West. 3,088,564.
Nickles, Edward B. 3,072,265.
Manitowoc Shipbuilding Inc.: *See*—
West, Robert D. 3,086,305.
Manizza, Guelfo A., to Continental Can Co., Inc. Package forming member. 3,099,475, 7–30–63, Cl. 294—87.2.
Manke, Donald F.: *See*—
Fareri, Elizabeth L., and Manke. 3,115,397.
Mankoff, Lawrence L.: *See*—
Arone, Nicholas F., and Mankoff. 3,086,073.
Mankowsky, Vincent J.: *See*—
Sommer, Gordon M., Mitchell, and Mankowsky. 3,074,297.
Manley, Herbert A., and G. R. Crane, to Litton Systems, Inc. Tape handling apparatus. 3,115,314, 12–24–63, Cl. 242—55.12.
Manley, Inc.: *See*—
Lippert, William G. 3,102,032.
Mann, Alfred E., M. B. Dubey, M. Wolf, E. L. Ralph, R. L. Oliver, and S. Shuster, to Spectrolab, a division of Textron Electronics, Inc. Solar cell system. 3,094,439, 6–18–63, Cl. 136—89.
Mann, Allan J. Multi-purpose fishing tool. 3,115,722, 12–31–63, Cl. 43—21.2.
Mann, Bernice J. Panty construction. 3,077,193, 2–12–63, Cl. 128—284.
Mann, David J., D. D. Perry, and R. M. Dudak, to Thiokol Chemical Corp. Acetylenic ether polymers and their preparation. 3,083,235, 3–26–63, Cl. 260—615.
Mann, Dennis C. M.: *See*—
Smith, Robert R., Mann, and Salmon. 3,081,242.
Mann, Edward C., and W. D. McLarn. Method for determining the condition of the uterine isthmus. 3,095,871, 7–2–63, Cl. 128—2.
Mann, Erich: *See*—
Von Buchholtz, Bernhard, Fischer, Grotrian, Kirchhof, Mildner, and Mann. 3,072,166.
Mann, Horace T., to Space Technology Laboratories, Inc. Superconductor and gate employing single elongated simply connected thin film as gate element. 3,093,754, 6–11–63, Cl. 307—88.5.
Mann, Horace T., to Space Technology Laboratories, Inc. Electron beam masking for etching electrical circuits. 3,113,896, 12–10–63, Cl. 156—3.
Mann, John B. Brake or clutch means. 3,078,974, 2–26–63, Cl. 192—45.1.
Mann, John R., and A. E. Wainwright, to United States of America, Atomic Energy Commission. Automatic hand counter for alpha particle counting. 3,093,738, 6–11–63, Cl. 250—83.6.
Mann, Karl E., to Otto Fuchs Kommandit Gesellschaft. Reciprocable combustion engine. 3,089,735. 5–14–63, Cl. 308—23.
Mann, Leonard J., V. A. Williamitis, and E. C. Simmons, to General Motors Corp. Refrigerating apparatus. 3,097,509, 7–16–63, Cl. 62—469.
Mann, Leonard J., and D. O. Stewart, to General Motors Corp. Refrigerating apparatus. 3,099,139, 7–30–63, Cl. 62—180.
Mann, Malden, and E. Friend. Apparatus for processing kidney knobs. 3,075,236, 1–29–63, Cl. 17—1.
Mann, Marvin D. Sewing box. 3,093,277, 6–11–63, Cl. 223—106.
Mann, Victor E., and G. T. Baker, deceased (by Midland Bank Executor and Trustee Co. Ltd., administrator); to British Telecommunications Research Ltd. Telephone call feed registering arrangements. 3,106,613, 10–8–63, Cl. 179—7.
Mann, William L. Variable length pipe. 3,073,134, 1–15–63, Cl. 64—23.
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Manna, Albert: *See*—
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Manna, Silvano A., to Diamond National Corp. Printing machine. 3,103,877, 9–17–63, Cl. 101—35.
Mannarino, Salvatore R.: *See*—
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Mannerberg, Edward G., to H. J. Stolbach. Adjustable guided slicing knife. 3,091,854, 6–4–63, Cl. 30—283.
Manners, Don I., and J. Whedon. Portable credit card imprinter. 3,090,303, 5–21–63, Cl. 101—269.
Manners, Frank A.: *See*—
Schurr, Charles A., and Manners. 3,104,566.
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Bartelt, Dietrich. 3,082,873.
Bungeroth, Adolf, and Schrewe. 3,082,496.
Frank, Hanns. 3,114,203.
Lamberty, Matthias. 3,097,742.
Naeser, Gerhard. 3,078,158.
Naeser, Gerhard, and Wessel. 3,078,157.
Schrewe, Hans, and Stellmacher. 3,078,083.
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Irmscher, Klaus, Mannhardt, Brückner, and Gillissen. 3,103,505.
Mannhardt, Heinz-Jurgen, K.-H. Bork, K. Bruckner, and H. Metz, to E. Merck Aktiengesellschaft. Process for the manufacture of 16-methylene corticoids and intermediates obtained therein. 3,074,977, 1–22–63, Cl. 260—397.4.
Mannheimer, Hans S. Novel products and methods for preparing them. 3,100,779, 8–13–63, Cl. 260—327.
Manning, Clarence F., T. E. Lewis, and J. Staley, to Reynolds Metals Co. Aluminum strip electromagnetic windings and method. 3,075,893. 1–29–63, Cl. 204—29.
Manning, David T.: *See*—
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Manning, Edward J. Multicolored light signal system for automobiles. 3,110,012, 11–5–63, Cl. 340—74.
Manning, Edward V., and J. P. Mentink, to The New York Air Brake Co. Hydraulic starting system having a source with a decaying pressure characteristic. 3,106,057, 10–8–63, Cl. 60—18.
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Gorgens, Joseph E., and Playcan. 3,096,651.
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Minty, John E. 3,081,884.
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Stevens, Howard C., Jr., and Paulssen. 3,105,251.
Manning, Melvin L., to McGraw-Edison Co. Method of constructing insulating barrier for stationary induction apparatus. 3,085,315, 4–16–63, Cl. 29—155.57.
Manning, Ralph M., to General Electric Co. Electrical switch blade assembly. 3,097,270, 7–9–63, Cl. 200—38.
Manning, Ralph M., and W. J. Schultz, to General Electric Co. Draw bench loading measurements. 3,075,636, 1–29–63, Cl. 205—3.
Manning, Walter, to Guy Motors (Europe) Ltd. Fluid spring vehicle suspensions. 3,073,619, 1–15–63, Cl. 280—124.
Manning, William T.: *See*—
Rozsa, Tibor A., Harrel, and Manning. 3,077,407.
Rozsa, Tibor A., Harrel, Manning, Ward, and Gracza. 3,077,408.
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Christoff, James W. 3,114,330.
Manno, Peter J.: *See*—
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Manns, Thomas J., to Philco Corp. Jet plating method of manufacture of micro-alloy semiconductor devices. 3,102,084, 8–27–63, Cl. 204—15.
Manoni, Larry, Jr.: *See*—
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Close, Patrick B., Coulter, Ditmer, Fahrenbruck, Goldammer, Goodrick, Gulden, Holloran, Jenkins, Kilheffer, Kinker, Lyons, Manor, Marvin, Miller, O'Brian, Randall, Garner, Sather, Yost, and Braden. 3,112,394.
Manor, Paul A., to Rockwell Mfg. Co. Power operation for valves. 3,099,287, 7–30–63, Cl. 137—456.
Manor, Paul A., and C. V. Staller, to Rockwell Mfg. Co. Fluid pressure balancing system for lubricating plug valves. 3,115,151, 12–24–63, Cl. 137—246.19.
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Cantor, Theodore. 3,096,110.
Manoyian, Zevart. Disposable plastic nursing bottle. 3,112,837, 12–3–63, Cl. 215—11.
Manshack, Richard, to Go-Far Corp. Golf cart suspension. 3,073,618, 1–15–63, Cl. 280—96.2.
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Mansfield, Paul H.: *See*—
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Mansfield, Ralph, to Auto-Test, Inc. Automotive cooling system tester. 3,100,391, 8–13–63, Cl. 73—40.
Mansfield, Ralph, to Auto-Test, Inc. Apparatus for measuring compression of internal combustion engines. 3,100,988, 8–20–63, Cl. 73—116.
Mansfield, Richard C., to Rohm & Haas Co. Method of preparing dialkylphenol-ethylene oxide adducts with relatively narrow molecular weight distribution. 3,100,230, 8–6–63, Cl. 260—613.
Mansford, Hugh L.: *See*—
Kitz, Norbert, Mansford, and Lloyd. 3,095,522.
Manshel, Jack C. Metal casting means. 3,091,824, 6–4–63, Cl. 22—85.
Manson, Andrew J., to Sterling Drug Inc. Androstane [3,2 - c]-5' - hydroxy - Δ^2 - isoxazolines and the preparation thereof. 3,100,771, 8–13–63, Cl. 260—239.55.
Manson, Frank E.: *See*—
Gardner, George S., Manson, and Hayman. 3,094,490.
Manson, Morris, to Corox Corp. Slide brackets. Re. 25,428, 7–30–63, Cl. 312—343.
Manson, Morris, to Steel Slides, Inc. Extension table device. 3,084,639, 4–9–63, Cl. 108—89.
Manson, Walter J., to National-Standard Co. Electrolytic plating. 3,073,773, 1–15–63, Cl. 204—207.
Manson, Walter J., to National-Standard Co. Electrolytic plating. 3,109,783, 11–5–63, Cl. 204—28.
Mantega, Francesco: *See*—
Bassi, Alberto, Corsetti, Mantega, and Perona. 3,102,090.
Mantell, Gerald J., F. R. Galiano, and D. Rankin, to Spencer Chemical Co. Processes for preparing bis(hydroxyneopentylidene). 3,092,640, 6–4–63, Cl. 260—340.7.
Mantenffel, Erich W., to General Electric Co. Magnetic voltage stabilizer employing controlled silicon rectifiers. 3,076,924, 25–63, Cl. 323—22.
Mantenffel, Erich W., to General Electric Co. Self-regulated static frequency converter. 3,088,065, 4–30–63, Cl. 321—2.
Manturi, Patrick, Jr.: *See*—
Arpaio, Jerry, Jr., and Manturi. 3,106,133.
Mantz, Alonzo L., to Union Carbide Corp. Aqueous solution of aminoplasts and cellulosic textile material impregnated therewith. 3,095,398, 6–25–63, Cl. 260—29.4.
Mantzouranis, Aristomeni G.: *See*—
Moustakidis, Theofani, and Mantzouranis. 3,077,680.
Manufacture Alsacienne de Broches: *See*—
Raboisson, Joseph. 3,105,998.
Manufacture Nationale d'Armes de Saint-Etienne: *See*—
Tellie, Paul. 3,100,357.
Manufacturers Brush Co., The: *See*—
Radinse, Rudolph R. 3,084,367.
Schofield, Arthur T. 3,106,737.
Manufacturers Hanover Trust Co.: *See*—
Goldstein, Samuel, and Lichtenstein. 3,096,224.
Manufacturing Process Laboratories, Inc.: *See*—
Baldwin, Brian E. 3,101,841.
Baldwin, Brian E., and Lindenmeyer. 3,071,135.
Baldwin, Brian E., and Lindenmeyer. 3,090,384.
Baldwin, Brian E., and Marschak. 3,074,159.
Mfg. Specialties Co., Inc.: *See*—
Greenstadt, Joseph C., and Ziers. 3,098,520.
Manwaring, Joshua G. D., to Radio Frequency Co. Inc. Radio frequency resonant circuit, utilizing confronting parallel conductive plates having current flow in opposite directions. 3,095,548, 6–25–63, Cl. 333—76.
Manwarren, Thomas E., to General Electric Co. High powered duplexing arrangement. 3,076,157, 1–29–63, Cl. 333—83.
Manyik, Robert M.: *See*—
Wilson, Thomas P., Hurley, and Manyik. 3,087,978.
Manz, August F.: *See*—
Hackman, Robert L., and Manz. 3,086,103.
Manz, August F., and F. J. Pilia, to Union Carbide Corp. Helical welding contactor tube. 3,112,393, 11–26–63, Cl. 219—130.
Manzardo, Scipione R. Identification means for keys and similar suspensible objects. 3,113,393, 12–10–63, Cl. 40—330.
Manzella, Henry J.: *See*—
Wyllie, John R., and Manzella. 3,093,913.
Maples, Richard E.: *See*—
Johnston, Verle S., Maples, and Heal. 3,107,849.
Mapson, Donald L., to M & D Store Fixtures, Inc. Merchandise display shelf with integral convertible price tag molding. 3,074,194, 1–22–63, Cl. 40—16.
Mapson, Donald L., to M & D Store Fixtures, Inc. Merchandise display shelf. 3,082,880, 3–26–63, Cl. 211—153.
Mapson, Donald L., to M & D Store Fixtures, Inc. Multiple-unit display cabinet with continuous coextensive illuminated sign. 3,115,719, 12–31–63, Cl. 40—130.
Marak, Frank. Locating tool for sheet metal bending and process for locating a metal sheet for bending. 3,090,418, 5–21–63, Cl. 153—21.
Maraman William J.: *See*—
Mullins, Lawrence J., Jr., Leary, Bjorklund, and Maraman. 3,098,028.
Ogard, Allen E., Leary, and Maraman. 3,082,163.
Maranna, Mario P.: *See*—
Cobb, Raymond L., and Marana. 3,099,639.
Marani, Rose M. Q. Nail paint applicator. 3,097,386, 7–16–63, Cl. 15—167.
Marans, Nelson S., to W. R. Grace & Co. Preparation of poly-beta-propiolactone. 3,111,469, 11–19–63, Cl. 204—154.
Marans, Nelson S., to W. R. Grace & Co. Preparation of polymer of 3,3-bis (chloromethyl) oxetane. 3,111,470, 11–19–63, Cl. 204—154.
Marantz, Israel H., to Columbia Cable & Electric Corp. Method and equipment for making narrow galvanized strip. 3,113,882, 12–10–63, Cl. 117—4.
Marapost Space Corp.: *See*—
Martin, James H., Jr. 3,103,673.
Maras, Julia. Curtains. 3,093,187, 6–11–63, Cl. 160—330.
Marasso, Fred D., and R. E. Rademacher, to American Machine & Foundry Co. Apparatus for depanning, slicing, dispensing and packaging baked articles. 3,106,048, 10–8–63, Cl. 53—123.
Marathon Coal Bit Co., Inc.: *See*—
Stephens, Henry M., and R. J. 3,087,713.
Marathon Oil Co.: *See*—
Norton, Charles J. 3,072,568.
Van Poollen, Hendrik K. 3,072,192.
Marbach, Walter V., to Union Carbide Corp. Shirring machine. 3,110,058, 11–12–63, Cl. 17—42.
Marbach, Walter V., to Union Carbide Corp. Guide rod for shirred casings. 3,115,700, 12–31–63, Cl. 29—283.
Marban, Julian G. Writing instrument. 3,083,690, 4–2–63, Cl. 120—42.16.
Marbashi, Kazutomo: *See*—
Toyama, Yoshiyuki, Murata, and Marbashi. 3,105,844.
Marbelite Co., Inc.: *See*—
Cleary, Edward F., and Rudden. 3,090,033.
Marbet, Roman: *See*—
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Marble, Paul A. Water ski. 3,080,585, 3–12–63, Cl. 9—310.
Marble Products Co. of Georgia: *See*—
Boggus, James D. 3,079,209.
Boggus, James D. 3,092,836.
Marbury, Thomas K. Combination piercing and pouring spout tool. 3,077,662, 2–19–63, Cl. 30—6.3.
Marcellus, Nicholas. Progressive cutter for a web winding machine. 3,073,196, 1–15–63, Cl. 83—341.
Marcatili, Enrique A. J., to Bell Telephone Laboratories, Inc. Waveguide elbow. 3,087,130, 4–23–63, Cl. 333—98.
Marcatili, Enrique A. J., to Bell Telephone Laboratories, Inc. Waveguide elbow. 3,090,931, 5–21–63, Cl. 333—98.
Marcatili, Enrique A. J., and D. H. Ring, to Bell Telephone Laboratories, Inc. Crosstalk reduction in plural carrier multiplex systems. 3,084,223, 4–2–63, Cl. 179—15.
Marcell, George L., to Sta-Rite Products, Inc. Thread locking device for a discharge connection of a submersible pump. 3,072,070, 1–8–63, Cl. 103—219.
Marcellino, Carmen L., and W. P. Palanker, ⅓ to A. M. Shapiro. Safety control device. 3,088,516, 5–7–63, Cl. 158—28.
Marcey, Stephen D., to The National Cash Register Co. Process of joining polyethylene terephthalate films. 3,079,293, 2–26–63, Cl. 156—325.
March Mfg. Co.: *See*—
Zimmermann, Frederick N. 3,074,349.
Zimmermann, Frederick N. 3,085,513.
Marchal, Henri M. Apparatus for radiology, in particular for local densigraphic examination. 3,086,123, 4–16–63, Cl. 250—227.
Marchand, Jacques. Trellis-work structure composed of shaped metallic sections. 3,108,665, 10–29–63, Cl. 189—82.
Marchand, Jean F., to North American Philips Co., Inc. Dynamic magnetic storage circuit. 3,105,960, 10–1–63, Cl. 340—174.
Marchand, Nathan, to The Singer Mfg. Co. Non-scan spectrum analyzer. 3,089,086, 5–7–63, Cl. 324—77.
Marchand, William C., to Continental Aviation and Engineering Corp. Heat exchanger. 3,104,955, 9–24–63, Cl. 34—168.
Marchant, Alan, and M. D. Wynne, to Imperial Chemical Industries Ltd. Process for separating hydrocarbon mixtures. 3,097,249, 7–9–63, Cl. 260—681.5.
Marchant, Francis C. I.: *See*—
Hooker, Stanley G., and Marchant. 3,093,361.
Marchant, Francis C. I., and P. G. Batchelor, to Bristol Siddeley Engines Ltd. Aircraft jet propulsion power plants. 3,088,275, 5–7–63, Cl. 60—35.55.
Marchant, Norris. Shearing tool. 3,083,456, 4–2–63, Cl. 30—210.
Marchant, Paul A.: *See*—
Gonnella, Carmen J., and Marchant. 3,095,598.
Marchant, Paul A., to Consolidated Thermoplastics Co. Roller assembly-container engagement. 3,075,230, 1–29–63, Cl. 15—571.
Marchaterre, John F.: *See*—
Petrick, Michael, and Marchaterre. 3,088,895.
Marchetti, Augusto, to G. Buhler. Carrying trays for products to be dried in air dryers. 3,103,421, 9–10–63, Cl. 34—238.
Marchi, Fulvio: *See*—
Cevidalli, Guidobaldo, Marchi, Saccardo, and Scarfi. 3,082,063.
Marchi, Vito V., to American Radiator & Standard Sanitary Corp. Pumping method and apparatus. 3,074,596, 1–22–63, Cl. 222—1.
Marchi, Vito V., to American Radiator & Standard Sanitary Corp. Electric-selection multi-reservoir liquid dispenser. 3,094,247, 6–18–63, Cl. 222—54.
Marchioli, Giorgio, and G. Gremigni. Apparatus for shaping and compressing sheets of asbestos cement into particles of complex configuration. 3,099,061, 7–30–63, Cl. 25—43.

Marcianó, Domenico, to Conditioned Power Co. S.p.A. Tanker for shipping liquefied hydrocarbon gas. 3,083,668, 4-2-63, Cl. 114—74.

Marcini, Michael L.: *See*—
Suozzo, Leonard S., and Marcini. 3,112,909.

Marco Chemical Corp.: *See*—
Davies, Richard E., and Rosen. 3,078,253.

Marco Electronics, Inc.: *See*—
Mullin, Clayton D., and Rose. 3,105,876.

Marco, Gino J., and A. J. Speziale, to Monsanto Chemical Co. Triarylphosphinedihalomethylenes. 3,095,454, 6-25-63, Cl. 260—606.5.

Marco, Gino J., and A. J. Speziale, to Monsanto Chemical Co. Phosphinedichloromethylenes. 3,095,455, 6-25-63, Cl. 260—606.5.

Marco Industries Co.: *See*—
Jacobel, Herbert, Jr., and Jentges. 3,080,554.
Slater, Frank, and Weber. 3,106,676.

Marco Products Co.: *See*—
Hunt, Robert G. 3,095,592.

Marco Stickautomaten-Gesellschaft Markscheffel & Co.: *See*—
Zeltwanger, Karl F. 3,101,687.

Marcon, Lewis J., to United States of America, Navy. Missile umbilical assembly. 3,072,021, 1-8-63, Cl. 89—1.7.

Marconi Co. Ltd.: *See*—
Flocco, Giorgio D. 3,116,483.
Plaistowe, Donald L., and Brash. 3,115,629.

Marconi's Wireless Telegraph Co. Ltd.: *See*—
Beck, Geoffrey E. 3,072,900.
Bratt, Dennis W. G. 3,076,963.
Helsdon, Peter B. 3,109,892.
Hunter, Ian. 3,088,110.
Mortley, Wilfrid S., and Slocombe. 3,091,763.
Rout, Eric R. 3,074,027.
Rust, Noel M. 3,080,558.
Schelisch, Ernst F. 3,095,565.
Sosin, Boleslaw M., and Gerard. 3,097,343.

Marcotte, Alfred G.: *See*—
Ostroff, Edward D., Marcotte, and Miller. 3,094,629.

Marcotte, Jean C.: *See*—
Ducharme, Alphonse. 3,090,422.

Marcozzi, Arthur J.: *See*—
Smith, William G., and Marcozzi. 3,103,461.

Marcus, Abraham. Quick-acting vises. 3,088,729, 5-7-63, Cl. 269—97.

Marcus, Erich: *See*—
Fitzpatrick, John T., and Marcus. 3,072,706.

Mard, Kenneth C., to United Aircraft Corp. Viscous damped bearing support. 3,101,979, 8-27-63, Cl. 308—26.

Mard, Roland I. E., and W. Grunwald, to Aktiebolaget Electrolux. Method of and apparatus for forming a double-walled receptacle from thermoplastic sheeting. 3,074,-110, 1-22-63, Cl. 18—19.

Marden, Carleton S.: *See*—
Gordon, William J. J., Marden, and Sperry. 3,092,045.

Marden, Carleton S. Can opener. 3,083,455, 4-2-63, Cl. 30—9.

Marden, Carleton S., to King-Seeley Thermos Co. Pumping tank. 3,104,036, 9-17-63, Cl. 222—340.

Mardon, James: *See*—
Taylor, Geoffrey L., Logan, and Mardon. 3,079,990.

Mardiller, Francis J.: *See*—
Adams, Alfred B., Farkas, Mardiller, and Shanklin. 3,094,425.

Marechal, Andre G.: *See*—
Laloe, Michel F., and Marechal. 3,104,586.

Maréchal, Robert G. A., and P. L. Croce, to Centre National de la Recherche Scientifique. Optical systems. 3,090,-281, 5-21-63, Cl. 88—24.

Marek, Bruno S. V., and A. M. Keller, to Societe de la Viscose Suisse. Process for the production of wash-and-wear characteristics in woven fabrics of regenerated cellulose. 3,081,513, 3-19-63 Cl. 28—76.

Marek, Ronald W., to Olin Mathieson Chemical Corp. Dichlorocyanurate complex. 3,094,525, 6-18-63, Cl. 260—242.

Marek, Ronald W., to Olin Mathieson Chemical Corp. Dichlorocyanurate complex. 3,115,493, 12-24-63, Cl. 260—242.

Marelli S.p.A., Fabbrica Italiana Magneti: *See*—
Alfieri, Giuseppe. 3,073,653.
Alfieri, Giuseppe. 3,074,291.
Alfieri, Giuseppe. 3,074,382.
Alfieri, Giuseppe. 3,074,739.
Alfieri, Giuseppe. 3,075,814.

Marep, S. N., l'Etude d'Engine a Pistons Libres E.P.L.: *See*—
Ollier, Jasques G. H., Grosshans, Parre, Hellweg, and Carlou. 3,112,060.

Marette, George F.: *See*—
Franck, Abraham, Marette, and Parsegyan. 3,098,217.

Marette, Ralph T., to The Weatherhead Co. Hose accumulator. 3,091,258, 5-28-63, Cl. 138—30.

Marforio, Nerino, to Virginio Rimoldi & C., S.p.A. Sewing machine for effecting the two-thread chain stitch. 3,100,-463, 8-13-63, Cl. 112—16.

Marforio, Nerino, to Virginio Rimoldi & C., S.p.A. Sewing machine for sewing hides and skins. 3,111,918, 11-26-63, Cl. 112—16.

Margedant, James A., Jr.: *See*—
Knox, Roger E., and Margedant. 3,079,641.

Margerison, Richard B., A. C. Shabica, and J. B. Ziegler, to Ciba Corp. Haloalkylaniline disulfonyl chlorides. 3,095,-446, 6-25-63, Cl. 260—543.

Marggraff, Eugene A. Golf practice apparatus. 3,088,322, 5-7-63, Cl. 73—380.

Margon Corp.: *See*—
Samo, Harvey W. 3,092,931.
Wilhelm, John H., and Rosenblum. 3,072,963.

Margopoulos, William P., to International Business Machines Corp. Analog to-digital converter. 3,072,332, 1-8-63, Cl. 235—154.

Margopoulos, William P., to International Business Machines Corp. Peak sensing system employing sampling and logic circuits converting analog input to polarity-indicating digital output. 3,116,458, 12-31-63, Cl. 328—135.

Margot, Alfred, to J. R. Geigy, A.-G. Method for controlling plant-parasitic nematodes. 3,075,875, 1-29-63, Cl. 167—30.

Margraf, Harry J., D. J. Robinson, and C. E. Berglund, to United States of America, Army. Electro-mechanical igniter. 3,078,803, 2-26-63, Cl. 102—70.2.

Margraf, John W.: *See*—
King, Clarence V. H., Jr., and Margraf. 3,104,597.

Margraf, Philbert S., to Moor & Co. One-piece plural size rail anchor. 3,085,748, 4-16-63, Cl. 238—330.

Margreiter, Hans, R. Brunner, and E. Brandl, to Biochemie Gesellschaft mit beschraenkter Haftung. Process of preparing penicillins. 3,093,547, 6-11-63, Cl. 195—36.

Margulies, Herman, 20% to J. H. Quest, and 20% to J. Zeigler. Cigarette box and blank therefor 3,107,008. 10-15-63, Cl. 206—41.2.

Margulis, Joseph M. Hanger. 3,079,117, 2-26-63, Cl. 248—28.

Margus, Edward A., and G. Lewis, to Manning, Maxwell & Moore, Inc. Ball valve with adjustable seat seals. 3,096,-965, 7-9-63, Cl. 251—170.

Marie, Camille S.: *See*—
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Marie, Claude, and R. Thierry, to Societe a Responsabilite Limitee Dolttau Produits Metallurgie. Hot tops for ingot molds. 3,100,921, 8-20-63, Cl. 22—147.

Marie, Georges R. P. Pulse-jet aircraft and engine and diffusion systems for use therein. 3,078,061, 2-19-63, Cl. 244—12.

Marie, Georges R. P., to Bell Telephone Laboratories, Inc. Microwave frequency converter. 3,096,473, 7-2-63, Cl. 321—69.

Marie, Georges R. P., to Bell Telephone Laboratories, Inc. Microwave frequency converter. 3,096,474, 7-2-63, Cl. 321—69.

Marie, Robert, to Perfect Circle Corp. Speed control device for an automotive vehicle. 3,086,608, 4-23-63, Cl. 180—82.1.

Marien, Hendricus C. J.: *See*—
Van den Broek, Simon L., and Marien. 3,102,194.

Marien, Melvin W., to Ramsey Corp. Oil control piston ring assembly. 3,081,101, 3-12-63, Cl. 277—140.

Marien Metal Products Co.: *See*—
Marsh, Lyle. 3,112,932.

Marietta, Michael T. Helmet having a crown shielding device. 3,111,674, 11-26-63, Cl. 2—3.

Marietta, Michael T. Face mask for athletic helmets. 3,113,318, 12-10-63, Cl. 2—9.

Marinace, John C.: *See*—
Anderson, Richard L., Marinace, and Silvey. 3,072,507.

Marinace, John C., to International Business Machines Corp. Epitaxial deposition of semiconductor materials. 3,089,788, 5-14-63, Cl. 117—227.

Marinace, John C., to International Business Machines Corp. Fabrication of PN junctions by deposition followed by diffusion. 3,089,794, 5-14-63, Cl. 148—1.5.

Marinace, John C., and R. F. Ratz, to International Business Machines Corp. Formation of semiconductor devices. 3,100,166, 8-6-63, Cl. 148—1.5.

Marine Associates, Inc.: *See*—
Armstrong, Charles E. 3,099,924.

Marine Colloids, Inc.: *See*—
Stanley, Norman F. 3,094,517.

Marine Controls Laboratories: *See*—
Boylan, Frank V. 3,082,024.

Marinelli, Joseph: *See*—
De Giers, Clarence A., and Marinelli. 3,106,694.

Marinette and Menominee Box Co.: *See*—
Coffey, Daniel F., Jr. 3,099,351.

Maring, Robert J., to Toledo Scale Corp. Printer. 3,071,229, 1-1-63, Cl. 192—127.

Maring, Robert J., to Toledo Scale Corp. Variable system damping. 3,094,184, 6-18-63, Cl. 177—211.

Marini, Louis G.: *See*—
Marini, Thomas O. and L. G. 3,111,333.

Marini, Luigi. Load transferring installation. 3,083,847, 4-2-63, Cl. 214—88.

Marini, Thomas O. and L. G. Utility cart constructed of preformed tubular members. 3,111,333, 11-19-63, Cl. 280—47.19.

Marino, Anthony J., Jr., and D. C. Seeley, to International Telephone and Telegraph Corp. Method and means for growing and treating crystals. 3,086,850, 4-23-63, Cl. 23—273.

Marino, Nicholas A. Free motion girdle. 3,095,881, 7-2-63, Cl. 128—552.

Marino, Patrick J., to Bell Telephone Laboratories, Inc. Hub control circuit. 3,105,112, 9-24-63, Cl. 178—73.

Marino, Santino P.: *See*—
Wadsworth, Daniel V., Marino, and Ho. 3,085,879.
Wadsworth, Daniel V., Rosenberg, and Marino. 3,085,914.

Marinsky, Isaac. Bed sheet. 3,083,379, 4-2-63, Cl. 5—334.

Marion, Thomas E.: *See*—
Carter, Paul H., and Marion. 3,104,780.
Carter, Paul H., Marion, and Morse. 3,070,933.

Mariotti, Olinto F., and J. A. Williams. Stabilizer attachment. 3,104,772, 9-24-63, Cl. 214—654.

Marissal, Georges. Process for the stabilization by physical means of thermomineral planktonic complexes. 3,075,885, 1-29-63, Cl. 167—90.

Mark, Albert, to United States of America, Army. Process for producing single crystal silicon surface layers. 3,098,-774, 7-23-63, Cl. 148—1.5.

Mark, Alexander H.: *See*—
Klemm, Herman G., Mark, and Colestock. 3,082,044.

Mark, André. Pneumatic driers. 3,078,588, 2-26-63. Cl. 34—57.

Mark, Arthur M.: *See*—
Wohlrabe, Frank C., Mark, Roth, and Mehltretter. 3,116,-351.

Mark Chemical Co.: *See*—
Bills, Lloyd W., and Quesinberry. 3,104,674.

Mark-Clark, Inc.: *See*—
Clark, James L. 3,088,118.

Mark, Clayton, & Co.: *See*—
Dodson, Richard J. 3,087,560.
Parks, Asbury S. 3,084,903.

Mark, Herman F., to Polaroid Corp. Novel polymers and their preparation. 3,081,282, 3-12-63, Cl. 260—78.4.

Mark, Victor, to Monsanto Chemical Co. Tetracyclic chlorocarbons. 3,099,693, 7-30-63, Cl. 260—648.

Mark, Victor, to Monsanto Chemical Co. Method of preparing cyclopentadiene sulfides. 3,106,586, 10-8-63, Cl. 260—609.

Markem Machine Co.: *See*—
Harvey, Bertrand G. 3,091,174.
Sawtelle, Frank W. 3,101,666.
Sawtelle, Frank W. 3,103,166.
Tripp, Kenneth F. 3,103,165.

Marker, Hannes: *See*—
Von Bosio, Harald. 3,079,165.

Marker, Hannes. Marking device for the mounting of ski bindings. 3,091,039, 5-28-63, Cl. 33—189.

Marker, Hannes. Tightening device for ski bindings. 3,100,-119, 8-6-63, Cl. 280—11.35.

Marker, Roy C.: *See*—
Gordon, Hayden S., Marker, and Post. 3,070,873.

Marker, Roy C., and S. R. Farrell, to High Voltage Engineering Corp. Radiation beam window. 3,105,916, 10-1-63, Cl. 313—33.

Markert, Ferdinand, H. Nonnenmacher, W. Funk, and H. Bleher, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Removing carbon deposits from a cyclone in the fluid cracking of hydrocarbons. 3,090,746, 5-21-63, Cl. 208—48.

Markey, Francis J., to General Motors Corp. Brake fluid testing apparatus. 3,084,535, 4-9-63, Cl. 73—17.

Markey, Francis J., to General Motors Corp. Liquid vaporization testing apparatus. 3,107,516, 10-22-63, Cl. 73—17.

Markey, Harold G.: *See*—
Bond, Robert W., Ladd, Roberts, Keller, and Markey 3,094,299.

Markey, Harold G., to International Business Machines Corp. Intelligence communications system. 3,088,069, 4-30-63, Cl. 325—49.

Markham, Grace H. Brassiere shoulder strap. 3,115,878, 12-31-63, Cl. 128—510.

Markham, Wendell G., to Petrolite Corp., Ltd. Composition for preventing acid sludge in oil well acidizing process. 3,076,760, 2-5-63, Cl. 252—8.55.

Markham, Wendell G., to Petrolite Corp., Ltd. Composition for preventing acid sludge in oil well acidizing process. 3,076,761, 2-5-63, Cl. 252—8.55.

Markham, Wendell G., to Petrolite Corp. Anti-sludging agents. 3,083,158, 3-26-63, Cl. 252—8.55.

Markhart, Albert H.: *See*—
Lavin, Edward, Markhart, and Hunt. 3,072,596.
Lavin, Edward, Markhart, and Hunt. 3,072,597.
Lavin, Edward, Markhart, and Hunt. 3,105,775.
Lavin, Edward, Markhart, and Kass. 3,104,236.

Markiewicz, Michel: *See*—
Foulletier, Louis, and Markiewicz. 3,084,028.

Markite Corp.: *See*—
Coler, Myron A., and Louis. Re. 25,479.

Markle, Marina L. Lotion applicator. 3,103,682, 9-17-63, Cl. 15—244.

Markley, Robert F., to International Business Machines Corp. Card feed apparatus. 3,096,087, 7-2-63, Cl. 271—32.

Markley, Vern C., Jr., to Grand Haven Stamped Products Co. Instant hot water dispenser. 3,104,306, 9-17-63, Cl. 219—39.

Marko, Albert J., to General Telephone and Electronics Laboratories, Inc. Shift register. 3,073,963, 1-15-63, Cl. 250—213.

Markowitz, Abraham S.: *See*—
Scherr, George H., and Markowitz. 3,075,883.

Markowitz, Meyer M., and P. F. Winternitz. Method of preparing perchlorates and volatile compounds containing oxides of nitrogen. 3,110,558, 11-12-63, Cl. 23—85.

Marks, Barnard M.: *See*—
Benjamins, Edwin, and Marks. 3,096,313.

Marks, Barnard M., to E. I. du Pont de Nemours and Co. Preparation of purified methacrolein. 3,098,798, 7-23-63, Cl. 202—42.

Marks, Burton S., and B. O. Schoepfle, to Hooker Chemical Corp. Pentavalent derivatives of antimony salts of organic acids and methods of preparing same. 3,080,406, 3-5-63, Cl. 260—414.

Marks, Christiaan P.: *See*—
Hokkeling, Pieter, Koch, Marks, van der Steeg, de Vos, and Zijlstra. 3,116,181.

Marks, Craig, and F. A. Wyczalek, to General Motors Corp. Inter-cylinder combustion control system for an internal combustion engine. 3,095,865, 7-2-63, Cl. 123—55.

Marks, Ernest M.: *See*—
Tourtellotte, Dee, and Marks. 3,108,995.

Marks, Harry C.: *See*—
Eschenburg, William A., and Marks. 3,074,210.

Marks, Meyer, to Admiral Corp. Self powered compressional wave transmitter. 3,077,574, 2-12-63, Cl. 340—15.

Marks, Meyer, to Admiral Corp. Circuit for automatically maintaining the amplitude varying peaks within operating range of a signal of a vacuum tube. 3,100,873, 8-13-63, Cl. 328—165.

Marks, Meyer, to Admiral Corp. Compressional wave transmitter. 3,100,886, 8-13-63, Cl. 340—15.

Marks, Monte L.: *See*—
Bowen, Stuart W. and Marks. 3,097,517.

Marks, Ronald H., and L. E. Stokes; said Stokes assor. to said Marks. Method and apparatus for making threads from sheet material. 3,077,723, 2-19-63, Cl. 57—32.

Marks, Samuel B. Portable dental drill. 3,109,238, 11-5-63, Cl. 32—27.

Marks, Theodore, to American Technical Machinery Co., Inc. Machines for trimming twisted wire brushes. 3,095,240, 6-25-63, Cl. 300—17.

Marks, Wilbur, and P. E. Strausser, to United States of America, Navy. Energy spectrum and cross spectrum analysis system. 3,096,479, 7-2-63, Cl. 324—77.

Marks, Wilbur, R. G. Tuckerman, and W. S. Campbell, to United States of America, Navy. Disposable accelerometer wave buoy. 3,110,178, 11-12-63, Cl. 73—170.

Markstone Mfg. Co.: *See*—
Kaufman, Jack, and Lund. 3,100,579.
Kaufman, Jack, Lund, and Schwartz. 3,099,404.

Markus, Theodore: *See*—
Strobel, Charles J., and Markus. 3,092,079.

Markwood, Ronald L., to Textron Inc. Projector for testing visual acuity. 3,079,838, 3-5-63, Cl. 88—20.

Marlan Co.: *See*—
Dunn, Lyman D. 3,108,690.

Marlas, Remy M. P. Firearm extractor. 3,090,149, 5-21-63, Cl. 42—25.

Marlen Equipment Co.: *See*—
Miller, Jack M., Long, and Rapp. 3,096,540.
Miller, Jack M., Long, Rapp, and Alley. 3,108,318.

Marlett, Everett M.: *See*—
Cook, Shirl E., and Marlett. 3,080,409.

Marley Co., The: *See*—
Baker, Donald R., and Loetel. 3,088,845.
Dart, David M. 3,112,621.

Marley, James E., to Struthers-Dunn, Inc. Latch-in relay devices. 3,106,625, 10-8-63, Cl. 200—98.

Marley, John, to Hazeltine Research, Inc. Method of manufacturing magnetic deflection yokes. 3,080,641, 3-12-63, Cl. 29—155.57.

Marley, John, to Hazeltine Research, Inc. Deflection yoke. 3,081,420, 3-12-63, Cl. 317—200.

Marley, John, to Hazeltine Research, Inc. Magnetic deflection yokes. 3,094,649, 6-18-63, Cl. 317—200.

Marley, John, to Hazeltine Research, Inc. Color-television receivers and deflection yokes. 3,115,544, 12-24-63, Cl. 178—5.4.

Marley, Robert G., to American Viscose Corp. Method of producing staple fibers. 3,086,252, 4-23-63, Cl. 19—.46.

Marlin, Elmer D.: *See*—
Knight, Edward J., and Marlin. 3,073,511.

Marlin Firearms Co., The: *See*—
Robinson, Thomas R., Jr. 3,100,358.

Marlo, Angelo T., to Marlo Coil Co. Method and apparatus for controlling pressure entering refrigerant flow device. 3,082,610, 3-26-63, Cl. 62—113.

Marlo, Arvid. Centrifugal rotational molding apparatus. 3,115,679, 12-31-63, Cl. 18—26.

Marlo Coil Co.: *See*—
Marlo, Angelo T. 3,082,610.

Marlow, Gordon V.: *See*—
Farrar, Clayton L., and Marlow. 3,090,454.

Marlow, William H.: *See*—
Sandbage, Ellsworth R., and Marlow. 3,073,087.

Marlowe, Byron C. Pumping system. 3,078,806, 2-26-63, Cl. 103—113.

Marmac Products Inc.: *See*—
Marr, Russell G. 3,115,050.

Marmet Corp.: *See*—
Doede, Donald J. 3,093,217.

Marmo, Anthony B., to Ranco Inc. Electro-magnetically operated pilot valve. 3,103,338, 9-10-63, Cl. 251—45.

Marmo, Anthony B., to Ranco Inc. Solenoid operated valve. 3,103,612, 9-10-63, Cl. 317—178.

Marmo, Anthony B., to Ranco Inc. Three way valve. 3,111-960, 11-26-63, Cl. 137—315.

Marmo, Michael L., and R. F. Walsh. Wrist supported flashlight. 3,112,889, 12-3-63, Cl. 240—59.

Marmon-Herrington Co., Inc.: *See*—
Frost, Ralph S., and Niekrasz. 3,111,087.
Hesson, James C., and Frost. 3,105,437.
Long, John B. 3,096,082.
Long, John B. 3,105,588.
Long, John B. 3,107,776.
Long, John B., and Clay. 3,080,007.
Niekrasz, Francis M. 3,090,307.

Marmont, George H., to The Dalton Foundries, Inc. Remote door controller. 3,090,959, 5–21–63, Cl. 343—225.

Maro, Renate: *See*—
Dankwardt, Renate, and Ellrich. 3,084,689.

Maron, Meyer, to Fairchild Camera and Instrument Corp. Synchronization of electronically switched displays. 3,088,050, 4–30–63, Cl. 315—26.

Maropis, Nicholas: *See*—
Jones, James R., and Maropis. 3,106,856.

Maroth, Arthur M. Speed changing mechanism. 3,094,880, 6–25–63, Cl. 74—60.

Maroti, Rudolf: *See*—
Closner, John J., Maroti, and Magers. 3,092,933.

Marotta, Nicholas G.: *See*—
McGowan, John F., Jr., and Marotta. 3,074,803.

Marotta Valve Corp.: *See*—
Olson, Delwyn L. Re. 25,338.

Marple, Perry K.: *See*—
Graff, Alan R., Oesting, and Marple. 3,098,797.

Marquardt, Arthur. Pulling device. 3,088,513, 5–7–63, Cl. 153—32.

Marquardt Corp., The: *See*—
Babbitt, Robert P., and Clure. 3,074,469.
Bryant, Paul M. 3,096,617.
Day, Donald B., and Koerner. 3,102,517.
Henley, William H. 3,097,664.

Marquardt, Donald J. Protractor. 3,079,691, 3–5–63, Cl. 33—75.

Marquette Corp.: *See*—
Hakke, George V. 3,081,426.

Marquette, Edmond R. T. Portable cage for rabbits. 3,077,181, 2–12–63, Cl. 119—17.

Marquis, Camille: *See*—
Whitman, Henry B., Parry, Gatting, and Marquis. 3,107,945.

Marquis, David M., to E. I. du Pont de Nemours and Co. Process for the pyrolysis of $CHClF_2$ and CH_3Cl to prepare $CH_2{=}CF_2$. 3,073,870, 1–15–63, Cl. 260—653.3.

Marquis, David M., to E. I. du Pont de Nemours and Co. Preparation of fluorosulfur compounds. 3,097,236, 7–9–63, Cl. 260—543.

Marquis, John F.: *See*—
Desio, Frank B., and Marquis. 3,107 282.

Marquis, John F., to Furnas Electric Co. Magnetic contactor. 3,109,905, 11–5–63, Cl. 200—87.

Marr, Aldren A. Shot splitting and applying device for fishermen. 3,070,815, 1–1–63, Cl. 7—5.4.

Marr, Russell G., to Marmac Products Inc. Control mechanism. 3,115,050, 12–24–63, Cl. 74—472.

Marr, Stanwood E., Jr.: *See*—
Holzhoog, Walter H., Reinhart, and Marr. 3,090,560.

Marra, Ivan L.: *See*—
Humphreys, Robert E., and Marra. 3,110,205.

Marra, Maria V., and L. De Ilonis. Food cleaner type strainer pan. 3,091,339, 5–28–63, Cl. 210—232.

Marraffino, Leonard L. Marking device. 3,113,558, 12–10–63, Cl. 120—42.4.

Marran, John S.: *See*—
Bond, Elizabeth A., Gold, and Marran. 3,099,089.

Marrick Mfg. Co., Ltd.: *See*—
Marzilliler, Frederick. 3,079,637.

Marrujo, Fernando G., to Borg-Warner Corp. Heat exchanger. 3,100,523, 8–13–63, Cl. 165—160.

Marschak, Louis J., Jr.: *See*—
Baldwin, Brian E., and Marschak. 3,074,159.

Marschall, Franz, deceased (by I. D. Marschall, administratrix), and R. L. Mayhew, to General Aniline & Film Corp. Preparation of piperazine and piperazine hydrate. 3,112,317, 11–26–63, Cl. 260—268.

Marschall, Irmgard D.: *See*—
Marschall, Franz, and Mayhew. 3,112,317.

Marscher, William F., to General Electric Co. Turbine engine fuel control. 3,084,510, 4–9–63, Cl. 60—39.28.

Marschik, Eduard. Apparatus for carrying out automatic repeat change in embroidery machines. 3,092,054, 6–4–63, cl. 112—83.

Marsden, Herman A. Resuscitator-aspirator. 3,079,916, 3–5–63, Cl. 128—29.

Marsden, John E., G. Gee, and R. B. Saxton, to James North & Sons Ltd. Production of articles of protective clothing. 3,079,274, 2–26–63, Cl. 117—94.

Marsden, Peter B.: *See*—
Loftman, Kenneth A., and Marsden. 3,098,040.

Marsden, Terence B.: *See*—
Fentiman, William P., Morton, Ames, and Marsden. 3,105,759.

Marsee, Frederick J., to Holley Carburetor Co. Adjustable external vent valve. 3,110,749, 11–12–63, Cl. 261—34.

Marsh, Adam J.: *See*—
Garrett, Donald E., Weck, Marsh, and Foster. 3,111,383.

Marsh, Byron E., J. E. Haughn, and R. J. Michelini, to Armour and Co. Gas drilling method. 3,111,178, 11–19–63, Cl. 175—69.

Marsh, Byron E., and C. E. Tippett, to Armour & Co. Corrosion inhibitor compositions. 3,113,113, 12–3–63, Cl. 252—392.

Marsh, Byron E., and D. J. Tucek, to Armour and Co. Fuel composition. 3,115,399, 12–24–63, Cl. 44—66.

Marsh, Byron E., and D. J. Tucek, to Armour and Co. Motor fuel composition. 3,115,400, 12–24–63, Cl. 44—72.

Marsh, David C.: *See*—
Thoren, Theodore R., and Marsh. 3,107,626.

Marsh, De Loss L.: *See*—
Butler, Stanley C., and Marsh. 3,078,607.

Marsh, Donald A.: *See*—
Osburn, Carl L., and Marsh. 3,116,119.

Marsh, Elliott R., and W. D. Minnich, to International Business Machines Corp. Conversion apparatus. 3,111,648, 11–19–63, Cl. 340—172.5.

Marsh, Erwin: *See*—
Holley, Herschel Q., and Marsh. 3,111,058.

Marsh, Erwin, to United States of America, Army. Core release test fixture. 3,098,378, 7–23–63, Cl. 73—103.

Marsh, Erwin, to Thiokol Chemical Corp. Apparatus for handling thixotropic material. 3,111,059, 11–19–63, Cl. 86—20.

Marsh, Francis: *See*—
Penn, Arthur, and Marsh. 3,075,476.

Marsh, Francis X., to Continental Aviation and Engineering Corp. Gas turbine engine construction. 3,098,357, 7–23–63, Cl. 60—39.31.

Marsh, Frank D.: *See*—
Atadan, Erdem M., and Marsh. 3,085,862.

Marsh, George W. Outlet socket fitting for central vacuum-cleaning systems. 3,088,484, 5–7–63, Cl. 137—360.

Marsh, Glenn A.: *See*—
Schaschl, Edward, and Marsh. 3,073,154.

Marsh, Glenn A., and E. Schaschl, to The Pure Oil Co. Apparatus and method for measuring corrosiveness of aqueous liquids. 3,098,801, 7–23–63, Cl. 204—1.

Marsh, Glenn A., and E. Schaschl, to The Pure Oil Co. Apparatus for detecting crevice corrosion and/or stress corrosion. 3,116,117, 12–31–63, Cl. 23—253.

Marsh, Julius E. Machine for sanding edge surfaces of lumber. 3,092,936, 6–11–63, Cl. 51—138.

Marsh, Leslie E., to Westinghouse Brake & Signal Co. Cylinder with piston cushioning feature. 3,072,104, 1–8–63, Cl. 121—38.

Marsh, Lyle, to Marlen Metal Products Co. Automatic golf ball teeing device actuated by a battery energized motor. 3,112,932, 12–3–63, Cl. 273—201.

Marsh, Marvin R.: *See*—
Szady, Leopold T., Marsh, and Fuelberth. 3,107,621.

Marsh, Myron A.: *See*—
Cirves, Francis J., and Marsh. 3,073,544.

Marsh, Robert B., to Hawker Aircraft Ltd. VTOL aircraft with gas diversion means. 3,073,548, 1–15–63, Cl. 244—12.

Marsh, Robert W.: *See*—
Ickes, Gilbert P., Marsh, and Plas. 3,102,965.

Marsh, Ronald P.: *See*—
Martinovich, Robert J., and Marsh. 3,074,616.

Marsh, Stanley B., and J. D. Clare, to James Scott & Co. (Electrical Engineers) Ltd. Microwave frequency discriminator. 3,079,563, 2–26–63, Cl. 329—116.

Marsh, William S.: *See*—
Rao, Koppaka V., Marsh, and Renn. 3,116,222.

Marshall, Charlie R. Method and means for catching slubs in moving textile strands. 3,071,839, 1–8–63, Cl. 28—64.

Marshall, David W.: *See*—
Carden, Robert L., Feighner, and Marshall. 3,075,005.
Carden, Robert L., Feighner, and Marshall. 3,076,856.
Carden, Robert L., Feighner, and Marshall. 3,076,857.

Marshall, David W., to Continental Oil Co. Preparation of esters. 3,089,884, 5–14–63, Cl. 260—410.9.

Marshall, Edmund V., and W. S. Davies, to United States of America, Navy. Armament for jet aircraft. 3,099,938, 8–6–63, Cl. 89—37.5.

Marshall, Edward E., to Huntingdon Industries, Inc. Case sealer. 3,105,334, 10–1–63, Cl. 53—38.

Marshall, George W.: *See*—
Holer, Walter A., Marshall, and Waters. 3,089,293.

Marshall, Harry B.: *See*—
Effer, Walter R., Marshall, and Hopper. 3,095,265.

Marshall, James E.: *See*—
Lappin, Richard J., and Marshall. 3,103,707.

Marshall, Joe, Jr.: *See*—
Marshall, Joe S. 3,109,488.

Marshall, Joe S., ½ to J. H. Marshall, and ½ to J. Marshall, Jr. Device to dislodge off-bottom drill stems stuck in wall bores. 3,109,488, 11–5–63, Cl. 166—67.

Marshall, John E., to Whitworth Glaster Aircraft Ltd. Pattern controlled programming mechanism. 3,104,346, 9–17–63, Cl. 317—148.5.

Marshall, John E., Jr.: *See*—
Skwierinski, Albion. 3,094,430.

Marshall, John W. Rotary pumps and compressors, and like rotary machines. 3,081,707, 3–19–63, Cl. 103—124.

Marshall, Johnny H.: *See*—
Marshall, Joe S. 3,109,488.

Marshall, Milton, E. E. Milbury, and E. W. Shultz, to Humane Slaughtering Device Corp. Apparatus for holding cattle in position for slaughtering. 3,087,195, 4–30–63, Cl. 17—1.

Marshall, Milton, E. E. Milbury, and E. W. Shultz, to Humane Slaughtering Device Corp. Apparatus for holding cattle in position for humane slaughtering. 3,092,871, 6–11–63, Cl. 17—1.

Marshall, Nell A. Pulsed gas tube electrometer. 3,115,595, 12–24–63, Cl. 317—149.

Marshall, Nell A., and G. A. Work. Safety device for industrial machines comprising fluorescence detection apparatus. 3,109,094, 10–29–63, Cl. 250—71.

Marshall, Preston F., to The Kendall Co. Novelty core constructed yarn. 3,076,307, 2–5–63, Cl. 57—144.

Marshall, Preston F., to The Kendall Co. Wrapped elastic yarn. 3,078,653, 2–26–63, Cl. 57—152.

Marshall, Preston F., to The Kendall Co. Process for manufacturing wrapped elastic yarn. 3,078,654, 2–26–63, Cl. 57—163.

Marshall, Preston F., to The Kendall Co. Non-woven textile fabric. 3,079,290, 2–26–63, Cl. 154—46.

Marshall, Preston F., to The Kendall Co. Apparatus and process for manufacturing wrapped yarns. 3,082,591, 3–26–63, Cl. 57—6.

Marshall, Robert A., and L. Manoni, Jr., to United Aircraft Corp. Variable lift-drag re entry vehicle. 3,105,658, 10–1–63, Cl. 244—1.

Marshall, Robert B.: *See*—
Dixon, Morris S., Marshall, and Crerar. 3,096,181.

Marshall, Robert N.: *See*—
Moon, Thomas E., Mallick, and Marshall. 3,074,407.

Marshall, Theodore B., to Union Carbide Corp. Easy-open telescoping carton for sausage casings. 3,100,075, 8–6–63, Cl. 229—51.

Marshall, Thomas G., Jr., to Radio Corp. of America. Voltage and frequency memory system. 3,075,149, 1–22–63, Cl. 328—121.

Marshall, Thomas G., Jr., to Radio Corp. of America. Voltage regulators. 3,099,790, 7–30–63, Cl. 323—22.

Marshall, Thomas G., Jr., and C. G. Seright, to Radio Corp. of America. Television deflection circuit. 3,111,603, 11–19–63, Cl. 315—27.

Marshall, Vincent: *See*—
Sinha, Shyamal K., Marshall, and Stewart. 3,080,291.

Marshall, Walter L.: *See*—
Kitson, Harold, Jr., Marshall, and Mazanek. 3,079,519.

Marshall, Walton H., Jr. Ammonia synthesis gas process. 3,081,268, 3–12–63, Cl. 252—376.

Marsicano, Matthew F.: *See*—
Abbott, William B., Klepper, and Marsicano. 3,086,644.

Marsico Joseph W.: *See*—
Goldman, Leon, Marsico, and Anderson. 3,082,203.

Marsillo, Dominic O., to Philco Corp. Laundering apparatus. 3,098,581, 7–23–63, Cl. 220—46.

Marsland Engineering Ltd.: *See*—
Hass, Zygmunt K. 3,093,783.

Marsman, Geesje. Combination baby bed and furniture. 3,080,573, 3–12–63, Cl. 5—2.

Marsov, Serguei V., to All-Union Research Institute of Cinematography and Photography. Panoramic mixer. 3,082,295, 3–19–63, Cl. 179—1.

Martel, Jacques: *See*—
Muller, Georges, and Martel. 3,084,158.
Muller, Georges, and Martel. 3,101,359.

Martelli, Francesco: *See*—
Martelli, Guido, N., and F. 3,074,582.
Martelli, Guido, N., and F. 3,100,055.

Martelli, Guido, N., and F., to Compagnia Italiana Nestpack, S.p.A. Fruit-packing trays. 3,074,582, 1–22–63, Cl. 217—26.5.

Martelli, Guido, N., and F., to Compagnia Italiana Nestpack S.p.A. Fruit-packing trays. 3,100,055, 8–6–63, Cl. 217—26.5.

Martelli, Nerio: *See*—
Martelli, Guido, N., and F. 3,074,582.
Martelli, Guido, N., and F. 3,100,055.

Martellock, Arthur C., to General Electric Co. Stabilized organopolysiloxanes. 3,103,502, 9–10–63, Cl. 260—46.5.

Martens, Günter: *See*—
Kassel, Martin, and Martens. 3,097,789.

Martens, Jack E., to The Anderson Co. Window actuator. 3,081,994, 3–19–63, Cl. 268—108.

Martens, Jack E., to The Anderson Co. MION-transmitting device. 3,099,168, 7–30–63, Cl. 74—459.

Martens, Jack E., to The Anderson Co. Control mechanism for reclining seat back. 3,104,130, 9–17–63, Cl. 297—355.

Martens, Jean V., to International Standard Electric Corp. Combined limiter and two section bandpass filter. 3,098,937, 7–23–63, Cl. 307—88.5.

Martens, Paul B. Instrument mounting and housing. 3,112,144, 11–26–63, Cl. 312—284.

Martens, Ted F., to E. I. du Pont de Nemours and Co. Stabilizer for chlorohydrocarbons. 3,114,779, 12–17–63, Cl. 260—652.5.

Martl, René. Pliers and like tools. 3,082,652, 3–26–63, Cl. 81—415.

Martienssen, Anthony K., C. G. H. Scholten, P. Stam, R. A. Grijseels, and J. H. Veldkamp, to Hollandse Signaalapparaten, N.V. Air traffic control system. 3,088,107, 4–30–63, Cl. 343—7.

Martin, Adolphe, and F. Boisjoly, to Pole-Lite Ltd. Production of variations in the profiles of metal tubes. 3,071,992, 1–8–63, Cl. 80—11.

Martin, Albert E., to C. A. Parsons & Co. Ltd. Spectrometers. 3,079,834, 3–5–63, Cl. 88—14.

Martin, Albert E., to Sir Howard Grubb Parsons & Co. Ltd. Infrared spectrometer recorder wherein the spectra is recorded on a linear wavenumber scale. 3,095,503, 6–25–63, Cl. 250—43.5.

Martin, Alexander I.: *See*—
Nilssen, Hans G., and Martin. 3,084,616.

Martin, Alfred R., to Imperial Chemical Industries Ltd. Fungicidal compositions. 3,084,102, 4–2–63, Cl. 167—65.

Martin, Allan D., to The Dow Chemical Co. Extrusion apparatus. 3,112,526, 12–3–63, Cl. 18—12.

Martin, Arthur E. Swimming aid. 3,101,492, 8–27–63, Cl. 9—339.

Martin, Arthur T.: *See*—
Temple Norman S., and Martin. 3,082,172.

Martin, Bernard T. D., to Maywick Appliances Ltd. Gas operated heaters. 3,073,379, 1–15–63, Cl. 158—114.

Martin, Beverly R.: *See*—
Bloomer, Ward J., Martin, S. W. and B. B. 3,109,803.

Martin, Bruce E., to E. I. du Pont de Nemours and Co. Process of preparing a helically crimped polypropylene filament. 3,093,444, 6–11–63, Cl. 18—48.

Martin, Charles R.: *See*—
Abbott, Henry H., Martin, Previte, and H. J. and J. G. Walsh. 3,087,025.

Martin, Clarence B., Jr., to Style-Crafters, Inc. Life belt. 3,094,725, 6–25–63, Cl. 9—340.

Martin Co., The: *See*—
Jenkins, Carlton H. 3,084,603.
Wirsing, Charles E., Jr. 3,084,770.

Martin, Dalton W.: *See*—
Bahrs, George S., Martin, and McWhorter. 3,099,799.

Martin-Decker Corp.: *See*—
Decker, Elmer L. 3,080,758.
Matchett, Mahlon M. 3,107,431.

Martin, Edward G.: *See*—
Friedman, Ira J., and Martin. 3,074,795.
Pedersen, Peter S., and Martin. 3,102,367.

Martin, Elmore L., to E. I. du Pont de Nemours and Co. Process for the preparation of tetracyanoethylene by pyrolysis of dibromomalononitrile. 3,076,836, 2–5–63, Cl. 260—465.8.

Martin, Elmore L., to E. I. du Pont de Nemours and Co. Polycyanopolysulfonylethylenes. 3,079,421, 2–26–63, Cl. 260—464.

Martin, Elmore L., to E. I. du Pont de Nemours and Co. Aromatic halocarbyl chemical products. 3,093,677, 6–11–63, Cl. 260—465.

Martin, Elmore L., to E. I. du Pont de Nemours and Co. Selected negatively substituted maleimide dyes. 3,096,339, 7–2–63, Cl. 260—310.

Martin, Elmore L., to E. I. du Pont de Nemours and Co. Substituted maleic anhydrides and the corresponding lactones of 3-formylacrylic acid. 3,113,939, 12–10–63, Cl. 260—240.

Martin, Elmore L., to E. I. du Pont de Nemours and Co. N,N-dichloro-and N,N-dibromo-β-aminopropionitrile, and processes of preparing them and their derivatives. 3,115,516, 12–24–63, Cl. 260—465.5.

Martin Engineering Co.: *See*—
Bertelsen, William R. 3,074,499.
Bertelsen, William R. 3,074,764.
Bertelsen, William R. 3,095,938.

Martin, Erik: *See*—
Svensson, Birger O. 3,111,053.

Martin, Ernest N. Hot liquid dispenser. 3,081,764, 3–19–63, Cl. 126—362.

Martin, Ernest N. Hot liquid dispenser. 3,086,682, 4–23–63, Cl. 222—146.

Martin, Erwin H. E., to Dunlop Rubber Co. Ltd. Inflatable reflectors for radio waves. 3,115,631, 12–24–63, Cl. 373—18.

Martin, Francis W., to Corning Glass Works. Thermally devitrifiable sealing glasses and composite articles. 3,113,878, 12–10–63, Cl. 106—54.

Martin, Frank S., and J. P. McNamee, to United States Rubber Co. Paper mill rolls. 3,087,231, 4–30–63, Cl. 29—132.

Martin, Fred E., to Union Carbide Corp. Vinyl ether polymerization catalysts. 3,085,997, 4–16–63, Cl. 260—91.1.

Martin, Frederick E. Pumpette. 3,115,783, 12–31–63, Cl. 73—425.6.

Martin, George E.: *See*—
Henry, George L., and Martin. 3,109,171.

Martin, Georges J. R., to Sud-Aviation Societe Nationale de Constructions Aeronautiques. Self-oscillators with nuclear spins subjected to magnetic resonance. 3,085,196, 4–9–63, Cl. 324—.5.

Martin, Glenn E., to International Business Machines Corp. Strain relief device. 3,103,399, 9–10–63, Cl. 339—17.

Martin, Hans J., to Carl Zeiss, VEB. Sheet testing devices. 3,074,267, 1–22–63, Cl. 73—67.5.

Martin, Harold B.: *See*—
Crimmins, David J., and Martin. 3,098,688.

Martin, Harold B., H. B. Gibson, and F. A. O'Loughlin, to The Thomas & Betts Co. Unitary bundling straps. 3,102,311, 9–3–63, Cl. 24—16.

Martin, Harold E., to Lockheed Aircraft Corp. Endless loop tape magazine. 3,088,687, 5–7–63, Cl. 242—55.19.

Martin, Harold F.: *See*—
Branscomb, Charles E., and Martin. 3,088,665.

Martin, Harold F., L. C. Tidball, and W. A. Goddard, to International Business Machines Corp. Decoding device. 3,092,823, 6–4–63, Cl. 340—347.

Martin, Harold W., to American Machine & Foundry Co. Plastic bowling pin. 3,098,655, 7-23-63, Cl. 273—82.
Martin, Heinz: *See*—
Ziegler, Karl, Breil, Martin, and Holzkamp.
Martin, Heinz, and H. Schneider, to Siemens-Schuckertwerke Aktiengesellschaft. Dry rectifier device. 3,112,432, 11-26-63, Cl. 317—234.
Martin, Hollinshead T., and F. J. Lindholm, to Signode Steel Strapping Co. Power strapping machine. 3,088,397, 5-7-63, Cl. 100—26.
Martin, Homer Z., to Esso Research and Engineering Co. Reforming and hydrofining process. 3,109,804, 11-5-63, Cl. 208—89.
Martin, Horst-Edgar, to Siemens & Halske Aktiengesellschaft. Communication cable having transposed conductors. 3,099,703, 7-30-63, Cl. 174—34.
Martin, Horst-Edgar, to Siemens & Halske Aktiengesellschaft. Communication cable. 3,109,879, 11-5-63, Cl. 174—34.
Martin, Howard B., to Pullman-Standard Car Mfg. Co. Freight vehicle wall construction. 3,087,441, 4-30-63, Cl. 105—409.
Martin, Howard L., to Sperry Rand Corp. Bolometer mounting means for use in coaxial transmission lines. 3,098,984, 7-23-63, Cl. 333—22.
Martin, Irvin J., R. A. Stowe, and L. G. Meverden, to The Dow Chemical Co. Sampling device. 3,096,653, 7-9-63, Cl. 73—422.
Martin, James. Couplings. 3,104,439, 9-24-63, Cl. 24—205.17.
Martin, James C.: *See*—
Caldwell, John R., and Martin. 3,099,641.
Elam, Edward C., and Martin. 3,099,679.
Martin, James C., to Eastman Kodak Co. Tetraalkylacetoacetic thiolesters. 3,090,798, 5-21-63, Cl. 260—455.
Martin, James C., to Eastman Kodak Co. Products of the reaction of dialkyl ketenes with dihydropyrans. 3,101,348, 8-20-63, Cl. 260—345.2.
Martin, James H., Jr., to Marapost Space Corp. Water ski attachment. 3,103,673, 9-17-63, Cl. 9—310.
Martin, Jean, to Societe d'Etudes Chimiques Pour l'Industrie et l'Agriculture. Method for the treatment of potassium ores. 3,071,450, 1-1-63, Cl. 23—310.
Martin, Jerome L., to Commercial Solvents Corp. Process for the production of high-yielding soybean plants. 3,087,806, 4-30-63, Cl. 71—29.
Martin, Johannes J. Combustion gas flow control in boiler flues. 3,097,631, 7-16-63, Cl. 122—235.
Martin, John: *See*—
Downs, Charles D., and Martin. 3,093,589.
Martin, John, to Fabricacion de Maquinas, S.A. Structural building element. 3,103,042, 9-10-63, Cl. 20—15.
Martin, John, to Associated Fisheries and Foods (Fleetwood) Ltd. Apparatus for the treatment of edible crustacea. 3,110,926, 11-19-63, Cl. 17—2.
Martin, John C.: *See*—
Dustin, Miles O., and Martin. 3,080,878.
Martin, John C., to Diesel Equipment Ltd. Lifting and loading means. 3,097,009, 7-9-63, Cl. 294—63.
Martin, John C., to Diesel Equipment Ltd. Vehicle unloading or loading devices. 3,112,949, 12-3-63, Cl. 294—63.
Martin, John C., R. F. Brubaker, N. J. Bullock, and T. O. Stutrud, to General Motors Corp. Dispensing agitator for washing apparatus. 3,091,108, 5-28-63, Cl. 68—17.
Martin, John O., and R. W. Rodler, to United States of America, Army. Cargo pallet. 3,093,092, 6-11-63, Cl. 105—369.
Martin, John W.: *See*—
Walters, Arthur G., and Martin. 3,110,261.
Martin, John W., to Danly Machine Specialties, Inc. High speed tonnage indicator for power press. 3,108,470, 10-29-63, Cl. 73—88.5.
Martin, Joseph, to Eclipse Sleep Products, Inc. Border stabilizers. 3,093,840, 6-18-63, Cl. 5—351.
Martin, Joseph C. Retractable aircraft undercarriage. 3,111,292, 11-19-63, Cl. 244—102.
Martin, Joseph F., F. Niertit, and B. H. Root, to General Dynamics Corp. Pulse train detector. 3,071,732, 1-1-63, Cl. 328—112.
Martin, Joseph F., and F. Niertit, to General Dynamics Corp. High speed blocking oscillator employing means in output and feedback circuits to increase repetition rate. 3,105,914, 10-1-63, Cl. 307—88.5.
Martin, Joseph F., Jr.: *See*—
Rolfe, Herbert E., Jr., and Martin. 3,115,102.
Martin, Joseph R., to Flexnit Co., Inc. Girdle. 3,096,769, 7-9-63, Cl. 128—548.
Martin, Jules. Emergency water storage tank system for use in buildings. 3,095,893, 7-2-63, Cl. 137—216.
Martin, Lawrence L., to Consolidated Thermoplastics Co. Apparatus for the explosion treatment of a plastic container. 3,100,910, 8-20-63, Cl. 18—1.
Martin, Leo T., to Abercrombie & Fitch Co. Carrying bag. 3,092,223, 6-4-63, Cl. 190—1.
Martin, Leonard O. Ski heel retainer. 3,088,138, 5-7-63, Cl. 9—310.
Martin, Lester B., to Sperry Rand Corp. Shear bar mounting. 3,077,911, 2-19-63, Cl. 146—117.
Martin, Louis H., and E. J. Lucas, to Avco Corp. Direct access photomemory for storage and retrieval of information. 3,084,334, 4-2-63, Cl. 340—173.
Martin, Luciende S., to Institut de Recherches de la Siderurgie Francaise. Distributor seat provided with a pneumatically adjustable port. 3,111,243, 11-19-63, Cl. 222—193.
Martin, Lynn P., E. D. Thompson, R. L. Brannon, and L. W. Ross, to W. A. Sheaffer Pen Co. Writing implement. 3,073,286, 1-15-63, Cl. 120—42.03.
Martin-Marietta Corp.: *See*—
Bach, Henry J. 3,084,065.
Balcomb, Phillip E., and Beyer. 3,074,140.
Barbour, Charles W., Jr., and Humiston. 3,110,026.
Barr, Harold N., and Frank. 3,091,581.
Berkowitz, Howard, and Moes. 3,086,708.
Broderick, John E., and Behr. 3,104,694.
Chenicek, Albert G., and Alster. 3,080,341.
Cole, Elwood E., Jr. 3,110,030.
Cone, Charles N., and Gaiser. 3,080,244.
Dike, Sheldon H., Strickroth, and Jenkins. 3,087,155.
Fisk, Newton H. 3,111,088.
Friese, Charles L. 3,085,912.
Gafford, Robert D., and Rosenbaum. 3,114,640.
Grotta, Henry M. 3,074,959.
Hammond, Wardlaw M., Jr. 3,091,869.
Hanks, Hugh C., Jr. 3,092,788.
Higginbotham, John W. 3,105,198.
Hinds, Frank R., and Pommer. 3,090,525.
Huey, Homer D. 3,086,425.
Kahn, David. 3,108,444.
Kelly, Thomas M., and Mielenz. 3,090,692.
Kelly, Thomas M., and Mielenz. 3,090,693.
Lindenthal, Murray W. 3,089,091.
Lund, Albert H. 3,073,718.
Maxwell, William A. 3,109,797.
Monitor, Dean S. 3,091,434.
Nagey, Tibor F., Burriss, Spooner, and Maxwell. 3,113,089.
Nagey, Tibor F., Hunter, and Maxwell. 3,086,933.
Park, Richard I. 3,110,430.
Strang, Clifford B., and Furlow. 3,088,324.
Martin, Maurice S., and A. M. Nelson, to The Magnavox Co. Electro-magnetic transducer. 3,103,665, 9-10-63, Cl. 346—74.
Martin, Merritt W., Jr., to Hoover Ball and Bearing Co. Method and apparatus for blow molding hollow articles. 3,078,508, 2-26-63, Cl. 18—5.
Martin, Michael J.: *See*—
Brooksbank, Harry P., Dunster, and Martin. 3,082,664.
Martin, Michael J., to Filtration & Water Softening Proprietary Ltd. Suction filters. 3,111,487, 11-19-63, Cl. 210—136.
Martin, Paul A., to The Maytag Co. Interval timer. 3,090,249, 5-21-63, Cl. 74—568.
Martin, Paul N., to Consolidated Electronics Industries Corp. Counterbalanced relay. 3,096,412, 7-2-63, Cl. 200—87.
Martin, Paul W., to Republic Industries, Inc. Overhead door control arm. 3,089,183, 5-14-63, Cl. 16—49.
Martin, Paul W., and R. E. Baker, to The Airetool Mfg. Co. Rotary impact tool. 3,072,232, 1-8-63, Cl. 192—30.5.
Martin, Peter, and J. A. Bamford, to Minister of Supply, Her Majesty's Government of the United Kingdom of Great Britain and Northern Ireland. Method of relighting in combustion chambers. 3,092,964, 6-11-63, Cl. 60—39.09.
Martin, Philip W. Means and techniques for logging well bores. 3,079,549, 2-26-63, Cl. 324—1.
Martin, Phillip W. Tracer injector means utilizing a radioactive electrode. 3,116,419, 12-31-63, Cl. 250—106.
Martin, Ralph E., to Clary Corp. Strip measuring and marking apparatus. 3,087,248, 4-30-63, Cl. 33—34.
Martin, Ray C., to R. C. Martin. Process for incorporating resins into paper. 3,109,769, 11-5-63, Cl. 162—164.
Martin, Raymond R.: *See*—
Millard, George R., Bidelman, and Martin. 3,078,500.
Martin, Robert C.: *See*—
Mueller, Fritz K., W. H. and H. C. Rothe, Martin, and Longhead. 3,105,657.
Martin, Robert C., to The Dow Chemical Co. Method of cementing wells. 3,100,526, 8-13-63, Cl. 166—31.
Martin, Robert G. Fountain paint applicator. 3,070,824, 1-1-63, Cl. 15—554.
Martin, Robert G. Fountain paint applicator. 3,070,825, 1-1-63, Cl. 15—554.
Martin, Robert H. Wiper mechanism for conveyor belts. 3,101,837, 8-27-63, Cl. 198—230.
Martin, Robert L., to The Weatherproof Products Corp. Weather-seal guide and counterbalance assembly for removable window sash. 3,078,523, 2-26-63, Cl. 20—52.
Martin, Robert W., to Sperry Rand Corp. Composite reflector for two independent orthogonally polarized beams. 3,096,519, 7-2-63, Cl. 343—756.
Martin, Roger, to Commissariat a l'Energie Atomique. New method of connecting solid moderator rods in an atomic pile. 3,085,963, 4-16-63, Cl. 204—193.2.
Martin, Roger, to Commissariat a l'Energie Atomique. Fuel arrangements for use in nuclear reactors having vertical channels. 3,087,882, 4-30-63, Cl. 204—193.2.
Martin, Roger, to Commissariat a l'Energie Atomique. Apparatus for individually adjusting the regulation of cooling fluid flow in the channels of a nuclear reactor. 3,110,655, 11-12-63, Cl. 204—193.2.
Martin, Ross V., to Basic-Witz Furniture Industries, Inc. Furniture skid. 3,073,438, 1-15-63, Cl. 206—46.

Martin, Royce H. Fletching jig. 3,108,792, 10-29-63, Cl. 269—58.
Martin, Samuel W.: *See*—
Bloomer, Ward J., and Martin. 3,109,803.
Martin, Samuel W., to Great Lakes Carbon Corp. Fuels for nuclear reactors. 3,097,151, 7-9-63, Cl. 204—154.2.
Martin, Sidney C. Pressure indicating device. 3,084,552, 4-9-63, Cl. 73—417.
Martin, Spencer R., to The Carborundum Co. End opening box with self-locking cover and blank for forming the same. 3,112,058, 11-26-63, Cl. 229—36.
Martin, Stephen, to Pacific Semiconductors, Inc. Method of doping crystals. 3,078,233, 2-19-63, Cl. 252—62.3.
Martin, Sterling T., to Union Carbide Corp. Vapor fraction analyzer. 3,100,984, 8-20-63, Cl. 73—23.
Martin, Steve E., to The Bendix Corp. Automatic emergency power for vacuum powered braking systems. 3,094,843, 6-25-63, Cl. 60—54.5.
Martin Sweets Co., The: *See*—
Spragens, George F. 3,098,506.
Martin, Thomas B.: *See*—
Putzrath, Franz L., and Martin. 3,097,349.
Martin, Thomas B. Dynamometer. 3,085,427, 4-16-63, Cl. 73—136.
Martin, Thomas R., and H. F. Whatley, to Gerrard Industries Ltd. Method and machine for packaging bottles. 3,073,086, 1-15-63, Cl. 53—3.
Martin, Thomas S. Electric hot air furnace. 3,095,497, 6-25-63, Cl. 219—39.
Martin, Warner W. to The Lau Blower Co. Humidifiers. 3,073,297, 1-15-63, Cl. 126—113.
Martin, Warner W. to The Lau Blower Co. Humidifiers. 3,104,660, 9-24-63, Cl. 126—113.
Martin, Warren G.: *See*—
Le Blanc, Gerard J., and Martin. 3,079,043.
Martin, Wesley G., to A. O. Smith Corp. Fiber reinforced plastic vessel and method of making the same. 3,098,582, 7-23-63, Cl. 220—67.
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Martin, Wilhelm, and W. Heynen, to Vereinigte Glanzstoff-Fabriken A.G. Manufacture of spinnerettes with orifice inserts. 3,102,439, 9-3-63, Cl. 76—107.
Martin, William A., to Eastman Kodak Co. Automatic exposure control for photographic cameras. 3,072,035, 1-8-63, Cl. 95—64.
Martin, William A., D. O. Easterly, K. W. Thomson, D. L. Babcock, and G. L. Jenkins, to Eastman Kodak Co. Zoom lens drive mechanism. 3,106,125, 10-8-63, Cl. 88—16.
Martin, William B.: *See*—
Horrom, Bruce W., and Martin. 3,083,226.
Martin, William C., Jr., and C. W. Fall, to Carrier Corp. Window mounting for room air conditioning unit. 3,111,076, 11-19-63, Cl. 98—94.
Martin, William D. Shoe polish kit-can. 3,096,535, 7-9-63, Cl. 15—258.
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Bertelsen, William R. 3,074,764.
Bertelsen, William R. 3,095,938.
Martin, William E. Patch roller apparatus. 3,071,051, 1-1-63, Cl. 94—50.
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Martin, William McK. Aseptic filling machine. 3,101,752, 8-27-63, Cl. 141—92.
Martinek, Richard W., to Kimberly Clark Corp. Papermaking machine. 3,097,107, 7-9-63, Cl. 117—102.
Martinelli, Louis E., to Massachusetts Plastic Corp. Closure or lid. 3,112,841, 12-3-63, Cl. 220—44.
Martinez, Charles D. Leather working tool. 3,080,652, 3-12-63, Cl. 30—283.
Martinez, Eidel. Wheel toy. 3,099,105, 7-30-63, Cl. 46—241.
Martinez, Frank E., to Resiflex Laboratories, Inc. Unitary clamp means for flexible tubes. 3,103,335, 9-10-63, Cl. 251—4.
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Martini Arthur H. Camping and touring trailer. 3,078,117, 2-19-63, Cl. 296—23.
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Martinich, Thomas J., Jr., ¼ to himself as guardian of T. P. and E. M. Martinich, and ¾ to Tico, Inc. Garbage receptacle. 3,074,583, 1-22-63, Cl. 220—1.
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Martino, Carlo F., and J. C. Misko, to Union Carbide Corp. Plastic compositions having a speckled appearance. 3,095,400, 6-25-63, Cl. 260—43.
Martino, Stanley J. Game apparatus. 3,075,772, 1-29-63, Cl. 273—134.
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Martinovich, Robert J., and R. P. Marsh, to Phillips Petroleum Co. Article of blend of a copolymer of ethylene and 1-butene and polyisobutylene. 3,074,616, 1-22-63, Cl. 229—53.
Martins, Benjamin T. Power lawnmower. 3,074,221, 1-22-63, Cl. 56—26.5.
Martinson, Carl R., to Monsanto Chemical Co. Corrosion-inhibited liquid fertilizer compositions. Re. 25,394, 6-11-63, Cl. 71—64.
Martinson, Oscar M. Parking system for automobiles. 3,088,605, 5-7-63, Cl. 214—16.1.
Martinuzzi, Enzo A., and J. C. Aragon. Process of producing insecticidal chlorinated pine pinenes. 3,112,347, 11-26-63, Cl. 260—648.
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Martiny, Jean R. V. Process for protecting and lubricating mechanical assemblies. 3,097,424, 7-16-63, Cl. 29—460.
Martner, Samuel T.: *See*—
Landrum, Ralph A., Jr., Martner, and Eisler. 3,108,250.
Marton, Joseph, and E. Adler, to West Virginia Pulp and Paper Co. Oxidative demethylation of lignin. 3,071,570, 1-1-63, Cl. 200—124.
Marton, Louis. Mercury switch. 3,071,673, 1-1-63, Cl. 200—152.
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Smallpeice, Cosby D. P. 3,071,116.
Martt, Judson W., to National Steel Corp. Expansible mandrel mechanism. 3,086,728, 4-23-63, Cl. 242—72.1.
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Martz, Charles S., to The Tascope Co. Etching apparatus and method of etching. 3,072,133, 1-8-63, Cl. 134—183.
Martz, Roger G., to Stewart-Warner Corp. Low pressure oil burner. 3,096,810, 7-9-63, Cl. 158—28.
Marue, Edward. Automatic dishwasher and meal table. 3,075,215, 1-29-63, Cl. 15—77.
Marullo, Gerlando, G. Rinaudo, I. Dakli, M. Donati, E. Fornaseri, and T. Garlanda, to Montecatini Societa Generale per l'Industria Mineraria e Chimica. Process for preparing high-purity melamine from urea. 3,116,294, 12-31-63, Cl. 260—249.7.
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Marvel, Carl S., to E. I. du Pont de Nemours and Co. Emulsion polymerization of water-soluble with water-insoluble monomers. 3,112,295, 11-26-63, Cl. 260—85.5.
Marvel, Carl S., and R. D. Vest, to United States of America, Air Force. Process for producing polycarboxylic acids and esters. 3,098,867, 7-23-63, Cl. 260—485.
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Marvel Oil Co., Inc.: *See*—
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Parker, Harry W., and Marx. 3,081,185.
Marx, John W., to Phillips Petroleum Co. Catalytic in situ combustion. 3,095,925, 7-2-63, Cl. 166—11.
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Marx, John W., and H. W. Parker, to Phillips Petroleum Co. Manufacture of molded articles from mixtures of oil shale and a solid olefin polymer. 3,072,593, 1-8-63, Cl. 260—33.6.
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Case, Noel L., and Rexford. 3,095,515.
Case, Noel L., and Rexford. 3,100,270.
Flieger, Eugene W. 3,074,201.
Freund, Hans W. M. 3,095,190.
Hirsch, Mahlon E., and Merl. 3,098,474.
Lohr, Raymond J. 3,090,157.
Rexford, Willis E. 3,114,217.
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Marx, Robert D. Tank venting valve arrangement. 3,084,704, 4-9-63, Cl. 137—43.
Marx, Robert D. Plural compartment tank with vent and outlet valve control means. 3,115,894, 12-31-63, Cl. 137—576.
Marx, Rudolf and J. H. Automatic scooping dispensing device. 3,091,371, 5-28-63, Cl. 222—170.
Marx, Walter S., Jr., and C. P. Collier, to Printing Arts Research Laboratories, Inc. Softenable film material and method of using same. 3,104,175, 9-17-63, Cl. 117—10.

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Maschinenfabrik Winkler, Fallert & Co. AG.: *See*—
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Mason, Donald J.: *See*—
Bergy, Malcolm E., Herr, and Mason. 3,086,912.

Mason, Frederick P., to Creed & Co. Ltd. **Facsimile apparatus for deriving black and white signals from color copy.** 3,110,765, 11–12–63, Cl. 178—7.1.

Mason, George W.: *See*—
Peppard, Donald F., Horwitz, and Mason. 3,077,378.
Peppard, Donald F., and Mason. 3,110,556.

Mason, Harold, J. R. Sanderson, and T. Mason, to The United Kingdom Atomic Energy Authority. **Process for the treatment of an organic solvent containing uranium.** 3,099,537, 7–30–63, Cl. 23—230.

Mason, Harold F.: *See*—
Kozlowski, Robert H., Mason, and Scott. 3,092,567.

Mason, Henry L., to United States of America, Navy. **Crane warning system.** 3,079,080, 2–26–63, Cl. 235—15.

Mason, James A.: *See*—
Molins, Desmond W., and Mason. 3,088,510.

Mason, James A., to Warner Electric Brake & Clutch Co. **Band type friction coupling.** 3,095,071, 6–25–63, Cl. 192—81.

Mason, James C., to Mason-Carlton Tool Co. **Power operated pipe wrench and spinning means.** 3,086,413, 4–23–63, Cl. 81—53.

Mason, James H. Surgical appliance. 3,076,458, 2–5–63, Cl. 128—283.

Mason, James J. Corrugated paper container. 3,100,072, 8–6–63, Cl. 229—16.

Mason, James L., Jr., to Columbian Carbon Co. **Carbon black manufacture.** 3,100,689, 8–13–63, Cl. 23—209.6.

Mason, Jimmie L., to Mace. Plastic fitting for substantially non-deformable tubes. 3,108,827, 10–29–63, Cl. 285—342.

Mason, Lee E., to Sylvania Electric Products Inc. Turret terminal structure for vacuum tube sockets. 3,098,952, 7–23–63, Cl. 317—101.

Mason, Paul B., L. Rubinstein, and A. J. Sable, to Polaroid Corp. **Photographic apparatus.** 3,103,865, 9–17–63, Cl. 95—75.

Mason, Ralph R.: *See*—
Guttner, George, Mason, and Hamner. 3,090,748.

Mason, Robert E.: *See*—
Schultz, Harold R., Sr., and Mason. 3,084,284.

Mason, Roy, Jr. and B. W. Green. Loom sword. 3,081,799, 3–19–63, Cl. 139—188.

Mason, Roy C., Jr. to F. E. Taylor. **Fish hooks.** 3,082,563, 3–26–63, Cl. 43—43.16.

Mason, Russell I.: *See*—
Wainwright, Walter N., and Mason. 3,076,174.

Mason, Samuel J.: *See*—
Breen, Stanley, and Mason. 3,090,004.

Mason, Stuart A., to Westinghouse Electric Corp. **Wiring device.** 3,078,437, 2–19–63, Cl. 339—164.

Mason, Stuart A., and V. G. Krenke, to Westinghouse Electric Corp. **Temperature responsive control.** 3,078,361, 2–19–63, Cl. 219—20.

Mason, Tony: *See*—
Mason, Harold, Sanderson, and T. Mason. 3,099,537.

Mason, Walter R., Jr., and F. F. Furnish, to Hoge Warren Zimmerman Co. **System for producing a continuous supply of air generated foam.** 3,075,749, 1–29–63, Cl. 261—75.

Mason, Warren P., to Bell Telephone Laboratories, Inc. **High strain non-linearity compensation of semiconductive sensing members.** 3,102,420, 9–3–63, Cl. 73—88.5.

Mason, Wilbur A.: *See*—
Bracey, Frederick J., Joonase, and Mason. 3,094,825.

Masonite Corp.: *See*—
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McBride, Mark G. 3,078,176.

Massa, Cesar, to Conrad Zschokke Aktiengesellschaft. **Shooting installation.** 3,097,848, 7–16–63, Cl. 273—102.2.

Massa, David J.: *See*—
Gauthier, Theophile E., and Massa. 3,094,122.

Massa Division of Cohu Electronics, Inc.: *See*—
Hegener, Joseph. 3,083,689.
Massa, Frank. 3,085,847.
Massa, Frank. 3,088,059.

Massa, Frank, to Massa Division of Cohu Electronics, Inc. **Direct recording oscillograph.** 3,085,847, 4–16–63, Cl. 346—140.

Massa, Frank, to Massa Division of Cohu Electronics, Inc. Apparatus for improving the linearity of electromechanical transducers. 3,088,059, 4–30–63, Cl. 317—199.

Massa, Frank, to United States of America, Navy. **Tessellated electromechanical transducer elements.** 3,090,939, 5–21–63, Cl. 340—9.

Massachusetts Institute of Technology: *See*—
Draper, Charles S., Wrigley, Woodbury, and Hutzenlaub. 3,104,545.
Kingston, Robert H., and McWhorter. 3,077,578.

Massachusetts Mohair Plush Co., Inc.: *See*—
Thomas, William B. 3,070,950.

Massachusetts Plastic Corp.: *See*—
Martinelli, Louis E. 3,112,841.

Massacrier, Jean-Marie F. Plugging gun of the repeating type. 3,095,572, 7–2–63, Cl. 1—44.5.

Massarani, Elena: *See*—
Cavallini, Guido, and Massarani. 3,074,937.
Cavallini, Guido, and Massarani. 3,095,443.
Cavallini, Guido, and Massarani. 3,097,138.
Cavallini, Guido, and Massarani. 3,116,323.

Massell, Edward M., M. M. May, and G. J. Meyer, Jr., to Electronic Associates Inc. **Remote control signaling system.** 3,111,653, 11–19–63, Cl. 340—176.

Masser, Lloyd D., to Neway Equipment Co. **Operating structure for air brakes and the like.** 3,081,134, 3–12–63, Cl. 303—6.

Massey, Curtis L. Apparatus for use in pumping wells. 3,084,630, 4–9–63, Cl. 103—4.

Massey, Curtis L. Valve for subsurface pumps. 3,089,429, 5–14–63, Cl. 103—225.

Massey-Ferguson, S.A.: *See*—
Chamouard, André. 3,089,352.

Massey-Ferguson (Australia) Ltd.: *See*—
Williams, Alan F. 3,099,322.
Williams, Alan F. 3,108,643.

Massey-Ferguson Ltd.: *See*—
Andersen, Peter B. 3,073,099.
Davis, Charles J. 3,079,009.
Dillon, Robert M. 3,100,491.
Elfes, Lee E. 3,086,620.
Horne, Donald S., Ashton, and Kepkay. 3,108,703.
Kepkay, Leslie L. 3,115,142.
Klemm, Herman G., Mark, and Colestock. 3,082,044.
Merritt, Henry E., Tiberghien, and Gougelot. Re. 25,415.
Mortin, Arthur K., and Boyd. 3,114,357.

Massey-Ferguson Inc.: *See*—
Bunting, Ernest V. 3,095,933.
Klemm Herman G., and Wathen. 3,099,208.
Mitchell, Melville J. 3,098,491.
Turner, Robert G. 3,099,125.
Wathen, William A. 3,107,476.
Weber, Wilbert D., and Ashton. 3,105,496.

Massey-Ferguson (United Kingdom) Ltd.: *See*—
Grant, Leslie L. 3,108,064.
Merritt, Henry E. 3,073,622.

Massey, Lester G.: *See*—
Urban, Peter, and Massey. 3,099,536.

Massey, William P. Method and apparatus for producing oil from multiple strata from single well bore. 3,109,376, 11–5–63, Cl. 103—4.

Massier, John, to Selas Corp. of America. **Burner.** 3,115,-924, 12–31–63, Cl. 158—73.

Massillon-Cleveland-Akron Sign Co., The: *See*—
Frey, Edward, and Kles. 3,089,268.
Kles, Elliott J. 3,088,235.
Kles, Elliott J. 3,102,353.

Massing, Lyle E.: *See*—
Price, Robert A., and Massing. 3,096,854.

Massingill, Jess L.: *See*—
Bryant, Raymond W. 3,079,669.

Massman, Albert W., to Motorola, Inc. **Television receiver with transistorized video amplifier.** 3,091,659, 5–28–63, Cl. 178—5.8.

Massman, Irwin. Nail polish container, mixer and removable applicator. 3,085,281, 4–16–63, Cl. 15—510.

Masson, Claude M. E., to Societe d'Electronique et d'Automatisme. **Magnetic core switching systems.** 3,101,416, 8–20–63, Cl. 307—88.

Masson Seeley and Co. Ltd.: *See*—
Maunder, Claude A. 3,112,694.

Massoubre, Jean-Marie: *See*—
Boussu, Gabriel X. R., Neuville, and Massoubre. 3,100,-759.

Massoud, Antoine N. Windshield wipers. 3,092,865, 6–11–63, Cl. 15—250.23.

Mast, Aquila D., to Daffin Corp. **Apparatus having a controllable vent.** 3,104,905, 9–24–63, Cl. 55—417.

Mast Development Co., Inc.: *See*—
Saunders, Hugh E., and Kling. 3,073,246.

Mast, Lowell R., to Commercial Controls Corp. **Baseboard electric heating apparatus.** 3,071,677, 1–1–63, Cl. 219—34.

Mast, Lowell R., to Commercial Controls Corp., Electromode Division. **Electric baseboard heaters.** 3,084,240, 4–2–63, Cl. 219—34.

Mastabar Mining Equipment Co. Ltd.: *See*—
Tebb, Bernard. 3,107,406.
Tebb, Bernard, and Perry. 3,073,562.

Master Appliance Corp.: *See*—
Meitzer, Henry E. 3,109,083.

Master Etching Machine Co.: *See*—
Guenst, William. 3,078,857.

Master Mfg. Co., Inc.: *See*—
Strohmeier, Clem A. 3,084,376.

Master Metal Strip Service, Inc.: *See*—
Erck, Richard K. 3,077,631.

Master Power Corp.: *See*—
Sindelar, William F. 3,097,859.
Ziska, Egon. 3,080,851.

Master Vibrator Co.: *See*—
Varvel, Harold E. 3,101,193.

Masters, John E.: *See*—
Hicks, Darrell D., and Masters. 3,089,863.

Masters, William R., and L. D. Glenn, to General Electric Co. **Welding follower device.** 3,072,779, 1–8–63, Cl. 219—125.

Masterson, Earl E.: *See*—
Romeo, Albert J., and Masterson. 3,073,590.

Masterson, James E.: *See*—
Balmer, Clifford E., Brown, Hurwitz, and Masterson. 3,089,897.

Masterson, James E., A. W. Ritter, Jr., and R. F. Conyne, to Rohm & Haas Co. **Cycloalkanonetetraesters and vinyl chloride resins containing same.** 3,076,775, 2–5–63, Cl. 260—31.8.

Masterson, Melvin I., Jr. Transporting dolly for sheet material. 3,090,635, 5–21–63, Cl. 280—47.13.

Mastin, Thomas G.: *See*—
Larson, William M., and Mastin. 3,107,235.

Mastin, Thomas W.: *See*—
Norman, George R., Le Suer, and Mastin. 3,076,008.

Mastis, Victor: *See*—
Brodl, Edward J., Dobrikin, and Mastis. 3,109,347.

Mastis, Victor, to Berg Airlectro Products Co. **Moisture ejector valve.** 3,109,443, 11–5–63, Cl. 137—204.

Maston, Frederick G.: *See*—
Keith, John T., and Maston. 3,090,937.

Mastrolanni, Emilio G.: *See*—
Goodman, Robert C., and Mastrolanni. 3,081,686.

Masucci, Eugene D.: *See*—
Fulwiler, Edward R., Hayes, Masucci, and Wilson. 3,115,-552.

Masurel, Michel, G. Fauquenoi, and M. Vivien, to Industrielle & Commerciale Paris-Nord. **Process for obtaining textile end products using discontinuous fibers.** 3,099,907, 8–6–63, Cl. 57—156.

Masuzawa, Kenro: *See*—
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Matarese, John, to Sylvania Electric Products Inc. **Oscillator with electroluminescent and photoconductive elements.** 3,102,242, 8–27–63, Cl. 331—107.

Matasa, Gheorghe C.: *See*—
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Matchett, David W., and W. J. Edwards, to **The Singer Mfg. Co. Thread disposal system for sewing machines.** 3,084,-647, 4–9–63, Cl. 112—252.

Matchett, Mahlon M., to Martin-Decker Corp. **Well drilling string measuring apparatus.** 3,107,431, 10–22–63, Cl. 33—129.

Matchett, Thomas J.: *See*—
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Matea, Edmund, to General Motors Corp. **Means for encapsulating transistors.** 3,113,252, 12–3–63, Cl. 317—234.

Matecki, Edward A., to Union Carbide Corp. **Method of shirring casings.** 3,097,393, 7–16–63, Cl. 17—45.

Matecki, Edward A., to Union Carbide Corp. **Apparatus for shirring casings.** 3,115,669, 12–31–63, Cl. 17—42.

Mater, Bernardus E., to Baker Oil Tools, Inc. **Multiple zone well production apparatus.** 3,080,922, 3–12–63, Cl. 166—114.

Materials, Inc.: *See*—
White, James A. 3,113,532.

Materials Transportation Co.: *See*—
Avery, Fred J. 3,115,262.

Materiel Industriel, S.A.: *See*—
Moulin, Jean, Hego, and Mautemps. 3,113,631.

Matge, Pierre P.: *See*—
Robert, Roger A., and Matge. 3,088,373.
Robert, Roger A., Matge, and Jacquot. 3,106,863.

Matheisel, Rudolph A. Power supply auxiliary. 3,088,696, 5–7–63, Cl. 244—14.

Mathema Corp. Reg. Trust: *See*—
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Matheny, Carl C.: *See*—
Champney, Ralph P. 3,088,430.

Matheny, L. W. Self clothes-unloading device for laundry machines. 3,084,531, 4–9–63, Cl. 68—210.

Matheny, William F., to Arrow Industrial Mfg. Co. **Heat exchange device.** 3,077,226, 2–12–63, Cl. 165—125.

Mather, Glenn E., to Rockwell Standard Corp. **Levelizing suspension for vehicles.** 3,080,177, 3–5–63, Cl. 280—124.

Mather, Irwin E., to Stewart-Warner Corp. **Safety relay control.** 3,071,692, 1–1–63, Cl. 307—10.

Mather, Robert T.: *See*—
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Mathers, Harry W., to International Business Machines Corp. **Signal translating device.** 3,090,909, 5–21–63, Cl. 323—89.

Mathers, Wilson G.: *See*—
Morgan, William W., Mathers, and Hart. 3,092,446.

Mathes, Durant B. Means for securing the ends of tie means. 3,086,267, 4–23–63, Cl. 24—117.

Matheson Co., Inc., The: *See*—
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Matheson, James N., to Welsh Mfg. Co. **Respirator with removable cartridge.** 3,072,119, 1–8–63, Cl. 128—146.

Matheson, James N., to Welsh Mfg. Co. **Head straps for respirator.** 3,082,767, 3–26–63, Cl. 128—146.

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Matheson, Stuart N., to Bearing Inspection, Inc. **Apparatus for testing bearings.** 3,095,730, 7–2–63, Cl. 73—67.

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Mathews, Bernard C. Rotary cutter. 3,092,946, 6–11–63, Cl. 56—24.

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Fisk, Robert W. 3,075,630.
Forsyth, Emil J., and Weigle. 3,089,611.
Raynor, Warren S. 3,086,636.
Raynor, Warren S. 3,111,233.

Mathews, George P., and C. W. Nehr, to Rockwell-Standard Corp. Brake. 3,081,844 3–19–63, Cl. 188—78.

Mathews, Howard H., to Air Reduction Co., Inc. Arc welding. 3,089,944, 5–14–63, Cl. 219—74.

Mathews, Kenneth C. Magnetic signalling device. 3,071,703, 1–1–63, Cl. 310—111.

Mathews, Martin B.: *See*—
Warren, Paul V., Mathews, and Hirschhorn. 3,101,239.

Mathews, Martin B. Dry cleaning. 3,101,240, 8–20–63, Cl. 8—142.

Mathews, Max V., and J. E. Miller, to Bell Telephone Laboratories, Inc. **Vocoder apparatus.** 3,083,266, 3–26–63, Cl. 179—1.

Mathews, Robert G.: *See*—
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Mathews, Roderic G., to Magnet Cove Barium Corp. **Well fluids and additive therefor.** 3,107,739, 10–22–63, Cl. 175—72.

Mathews, William K., and C. C. Perkins, Jr., to Controls Co. of America. **Flexible mold.** 3,072,967, 1–15–63, Cl. 18—36.

Mathews, William K., and R. M. Wrob, to Hallmark Cards, Inc. **Embossing apparatus.** 3,075,435, 1–29–63, Cl. 93—73.

Mathey, Charles J.: *See*—
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Mathey, Charles J., to The Union Metal Mfg. Co. **Coupling for wire strand and the like.** 3,078,112, 2–19–63, Cl. 287—76.

Mathias, Benny B., to Owens-Illinois Glass Co. **Apparatus for acoustically measuring volume.** 3,075,382, 1–29–63, Cl. 73—149.

Mathias, Benny B., and E. M. Murley, Jr., to Owens-Illinois Glass Co. Inspecting rims of containers. 3,107,011, 10-15-63, Cl. 209—111.5.

Mathias, Emil A.: *See*—
Laager, Creston F., and Mathias. 3,090,228.

Mathias, Gerald E., C. G. Helmick, Jr., and R. W. Eggleston, to Westinghouse Electric Corp. Method and apparatus for synchronized drives. 3,078,402, 2-19-63, Cl. 318—72.

Mathias, Gerald E., and R. W. Eggleston, to Westinghouse Electric Corp. Synchronized conveyor control. 3,086,153, 4-16-63, Cl. 318—71.

Mathie, Richard G., to Eaton Mfg. Co. Self-drilling and self-tapping threaded fastener. 3,093,028, 6-11-63, Cl. 85—11.

Mathieu, Frédéric, to Compagnie d'Application Mecaniques a l'Electronique, Au Cinema et a l'Atomistique (C.A.M.E.C.A.). Film projector devices. 3,098,409, 7-23-63, Cl. 88—17

Mathis, Cecil E., to Regency Electronics, Inc. Code converting apparatus. 3,109,064, 10-29-63, Cl. 178—26.

Mathis, Clyde H., and E. H. Gray, to Phillips Petroleum Co. Dehydrogenation process and recovery of the resulting dehydrogenated products. 3,113,164, 12-3-63, Cl. 260—680.

Mathis, John B., to Geo. D. Roper Corp. Broiler control. 3,081,695, 3-19-63, Cl. 99—421.

Mathis, William C., Jr., to American Enka Corp. Thermoplastic yarns. 3,088,792, 5-7-63, Cl. 8—130.1.

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Mathison, Victor G., and H. L. Kruse, to Bourns, Inc. Multiturn rotary potentiometer. 3,099,809, 7-30-63, Cl. 338—143.

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McAlister, George A., Jr. 3,111,761.

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Mathues, Thomas O., G. W. Beck, R. C. Davis, and R. W. Forward, to General Motors Corp. Vehicle instrument and dashboard assemblies. 3,088,539, 5-7-63, Cl. 180—90.

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Matlack, Albert S.: *See*—
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Matlack, Albert S., to Hercules Powder Co. Stabilization of polypropylene. 3,074,909, 1-22-63, Cl. 260—45.75.

Matlack, Albert S., to Hercules Powder Co. Stabilization of polypropylene. 3,107,232, 10-15-63, Cl. 260—45.75.

Matlin, Nathaniel A.: *See*—
Kline, Benjamin B., and Matlin. 3,078,185.
Kline, Benjamin B., and Matlin. 3,101,292.

Matlin, Nathaniel A., and B. B. Kline, to Rohm & Haas Co. Non-woven fibrous products and methods for their production. 3,074,834, 1-22-63, Cl. 154—46.

Matousek, Ernest J. Razor plane. 3,087,243, 4-30-63, Cl. 30—169.

Matovich, Mitchel J., Jr.: *See*—
Christen, Charles C., and Matovich. 3,093,429.

Matovich, Mitchel J., Jr., to United States of America, Navy. Tape reel drive. 3,090,573, 5-21-63, Cl. 242—55.12.

Matranga, Joseph P. Window structure. 3,099,866, 8-6-63, Cl. 20—48.

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Walker, David E., and Matras. 3,087,879.

Matrau, Virgil A.: *See*—
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Matray, Otto J., and W. H. Stine, Jr., to E. I. du Pont de Nemours and Co. Process for producing non-pilling polyamide fibers. 3,114,192, 12-17-63, Cl. 28—76.

Matsch, Ladislas C., to Union Carbide Corp. Container construction using load carrying insulation. 3,101,862, 8-27-63, Cl. 220—11.

Matsch, Ladislas C., D. I. J. Wang, J. A. Raho, P. E. Pickert, and H. Cheung, to Union Carbide Corp. Apparatus for improving vacuum insulation. 3,108,706, 10-29-63, Cl. 220—9.

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Matson, Carl G., to Vibrator Mfg. Co. Surface-treating machine. 3,082,668, 3-26-63, Cl. 94—50.

Matson, Donald F. Truck mounted crane. 3,109,541, 11-5-63, Cl. 212—35.

Matson, Howard J., to Sinclair Research, Inc. Phosphosulfurized material and extreme pressure lubricant containing the same. 3,097,170, 7-9-63, Cl. 252—46.7.

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Matsui, Masanao, S. Saijo, K. Ohizumi, T. Nishida, and S. Okano, to Sumitomo Chemical Co., Ltd. Process for preparing vitamin A esters. 3,086,981, 4-23-63, Cl. 260—410.

Matsui, Masanno, A. Kobayashi, and S. Watanabe, to Meiji Seika Kaisha, Ltd. Method for the production of 2-methyl-3-cyano-6-pyridone-4-carboxylate. 3,108,112, 10-22-63, Cl. 260—294.9.

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Matsukame, Mikio, and J. Yamamoto, to Kunoshima Kagaku Kogyo Kabushiki Kaisha. Process for the catalytic production of polycarbonates with manganese salt catalysts. 3,083,182, 3-26-63, Cl. 260—47.

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Matsumoto, Masakazu, J. Ukida, and G. Takayama, to Kurashiki Rayon Co., Ltd. Polymerization of vinyl acetate in the presence of a ceric salt. 3,095,405, 6-25-63, Cl. 260—89.1.

Matsumoto, Masakazu, and K. Imai, to Kurashiki Rayon Co., Ltd. Radiation polymerization of vinyl acetate. 3,096,267, 7-2-63, Cl. 204—158.

Matsumoto, Saburo, to Asahi Optical Industry Co., Ltd. Camera incorporating exposure measuring device. 3,091,-161, 5-28-63, Cl. 95—10.

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Matsumoto, Tsunetaka, N. Kato, and K. Sumitani, to Sanzen Seishi Kabushiki Kaisha. Process for the production of a moisture-permeable film of plastic materials. 3,091,553, 5-28-63, Cl. 117—138.8.

Matsunoka, James T., to Stewart Boiling & Co., Inc. Discharge door mechanism for mixing machine. 3,099,040, 7-30-63, Cl. 18—2.

Matsushima, Takao, to Nippon Electric Co. Ltd. Self synchronizing system. 3,088,071, 4-30-63, Cl. 325—50.

Matsushima, Takehiko: *See*—
Fukui, Uatsuaki, and Matsushima. 3,105,922.

Matsushita, Fukusaburo: *See*—
Kurioka, Shohei, Yamamoto, and Matsushita. 3,097,053.

Matsushita, Masao: *See*—
Murata, Hiroshi, Matsushita, and Ito. 3,106,713.

Matsuura, Hiroshi. Reel for a film, tape and the like. 3,099,-415, 7-30-63 Cl. 242—74.2.

Matsuzaki, Soichiro. Exposure meter interlocking devices for camera. 3,074,329, 1-22-63, Cl. 95—10.

Matsuzaki, Soichiro. Automatic diaphragm control for cameras. 3,074,337, 1-22-63, Cl. 95—64.

Matt, Joseph Z., to Reichhold Chemicals, Inc. Water-soluble coating compositions comprising a water-soluble melamine formaldehyde resin and a salt of an acid. 3,095,393, 6-25-63, Cl. 260—21.

Matt, Joseph Z., to Reichhold Chemicals, Inc., Adduct of an anhydride of an aromatic polybasic acid and a fatty acid ester. 3,098,051, 7-16-63, Cl. 260—21.

Matt, Richard J., to Thompson Ramo Wooldridge Inc. Seal. 3,091,469, 5-28-63, Cl. 277—1.

Matt, Richard J., to Thompson Ramo Wooldridge Inc. Bearing suspension. 3,097,895, 7-16-63, Cl. 308—184.

Matt, Richard J., and A. L. Nasvytis, to Thompson Ramo Wooldridge Inc. Press fitted sleeves. 3,084,003, 4-2-63, Cl. 308—22.

Mattano, Leonard A., and C. E. Gabriel, to The Dow Chemical Co. Metal thiosulfates as stabilizers in vinyl-aryl sulfonates. 3,088,971, 5-7-63, Cl. 260—505.

Mattano, Leonard A., and C. E. Grabiel, to The Dow Chemical Co. Phenothiazine as a stabilizer in vinyl-aryl sulfonates. 3,088,972, 5-7-63, Cl. 260—505.

Mattatuck Mfg. Co., The: *See*—
Liebreich Oscar P. 3,082,042.

Mattel, Inc.: *See*—
Ryan, John W. 3,094,110.
Ryan, John W. 3,095,201.

Matteoli, Albert J., and A. N. Rocksvold; said Rocksvold assor to said Matteoli. Plant thinner. 3,091,297, 5-28-63, Cl. 172—546.

Matter, Max, R. Glatthard, M. Kuhn, and K. Michel, to HACO A.G. New sulfonamides. 3,087,933, 4-30-63, Cl. 260—310.

Matter, Theodore S.: *See*—
Braunlich, Richard H., and Matter. 3,112,158.

Mattern, John, to Westinghouse Electric Corp. D.C. coupled amplifier using complementary transistors. 3,099,802, 7-30-63, Cl. 330—17.

Mattes, Brenton L.: *See*—
Perls, Thomas A., Hartog, and Mattes. 3,088,670.

Matteson, Donald W.: *See*—
Sparks, William B. and C. W., and Matteson. 3,081,038.

Matteson, Frederick H., and J. Stuart III, to The Electric Auto-Lite Co. Yaw control system for VTOL tilt wing aircraft. 3,107,882, 10-22-63, Cl. 244—7.

Matteson, Kenneth L.: *See*—
Brockman, Frank G., and Matteson. 3,114,715.

Matthael, Curt: *See*—
Stolz, Herman. 3,071,830.

Matthael, George L., to Thompson Ramo Wooldridge Inc. Microwave filter. 3,104,362, 9-17-63, Cl. 333—73.

Matthaeus, Georg, and M. Quaedvlieg, to Farbenfabriken Bayer Aktiengesellschaft. Carbamide esters of sugars. 3,086,010, 4-16-63, Cl. 260—234.

Matthels, Harley H.: *See*—
Kriegs, Frank J., and Matthels. 3,090,065.

Matthes, Daniel N. Resuscitation tube. 3,106,916, 10-15-63, Cl. 128—29.

Matthews, Alfred C., to Philco Corp. Stereophonic transmission system for television broadcasting. 3,071,643, 1-1-63, Cl. 178—5.6.

Matthews, Arlie R.: *See*—
Davis, Donal B., and Matthews. 3,104,569.

Matthews & Birkhamshaw Ltd.: *See*—
Matthews, Denis. 3,107,075.

Matthews, Clifford N.: *See*—
Harris, John E, and Matthews. 3,098,878.

Matthews, Cyril G., to Plastic-Clad Metal Products, Inc. Fastener with a linearly oriented thermoplastic covering. 3,076,373, 2-5-63, Cl. 85—23.

Matthews, Denis, to Matthews & Birkhamshaw Ltd. Machine stands. 3,107,075, 10-15-63, Cl. 248—13.

Matthews Donald W.: *See*—
Looper, William D., and Matthews. 3,107,617.

Matthews, Earnest P., and J. J. Walker, to Xerox Corp. Method and apparatus for transferring images from xerographic to metallic plates. 3,071,070, 1-1-63, Cl. 101—149.2.

Matthews, Jas. H., & Co.: *See*—
Ayers, John S., and Brown. 3,101,013.
King, William R. 3,080,812.
King, William R., and Ayers. 3,100,957.
Lang, Joseph C. 3,100,442.

Matthews, John J., to Associated Electrical Industries Ltd. High voltage D.C. transmission systems. 3,105,171, 9-24-63, Cl. 317—11.

Matthews, Lyle E. Continuously adjustable eccentric crank. 3,107,540, 10-22-63, Cl. 74—571.

Matthews, Robert, and P. N. G. Knowles, to Decca Ltd. Radar displays. 3,076,120, 1-29-63, Cl. 315—26.

Matthews, Robert J., and L. J. Gee, to American Radiator & Standard Sanitary Corp. Constant mass flow regulator. 3,083,721, 4-2-63, Cl. 137—63.

Matthews, Robert M.: *See*—
Bobo, Frank E., Jr., and Matthews. 3,077,757.
Lathem, James M., Bobo, and Matthews. 3,115,745.

Matthews, Robert W.: *See*—
Bowman, Mark M., Jr., and Matthews. 3,108,374.

Matthews, Russell B., to Penn Controls, Inc. Night setback thermostat. 3,089,014, 5-7-63, Cl. 200—140.

Matthews, Russell R., to Mohasco Industries, Inc. Flat bed warp knitting machine having a pile forming and cutting attachment. 3,092,985, 6-11-63, Cl. 66—84.

Matthews, Thomas A., II, to Phillips Petroleum Co. Loop reactor and process for sulfonating asphalt. 3,108,060, 10-22-63, Cl. 208—44

Matthey, Roger, to Parechoc S.A. Shock-absorber bearing for arbors or pivots of small mechanisms. 3,112,964, 12-3-63, Cl. 308—158.

Matthias, Karl H. Supervising apparatus for maintaining predetermined mixture proportions in the dry constituents of a mixture more particularly for road construction. 3,110,421, 11-12-63, Cl. 222—57.

Matthias, Rudolph H.: *See*—
Pankratz, Paul M., Hovener, and Matthias. 3,112,527.

Matthiesen, Peter C., to Danfoss ved Ingenior Mads Clausen. Contact phial for thermostatically operated valves and similar devices which are subjected to the action of gaseous or liquid pressures. 3,104,551, 9-24-63, Cl. 73—368.

Matthiessen, Roy A. Leakage interceptor for pipe couplings. 3,113,790, 12-10-63, Cl. 285—45.

Matthysse, Irving F., and W. G. Osborn, to Burndy Corp. Crimp connector. 3,088,993, 5-7-63, Cl. 174—71.

Mattia, Virginius D., Jr.: *See*—
Magid, Louis, Mattia, and Vance. 3,077,435.

Mattingly, James T., to United States of America, Atomic Energy Commission. Rocket port closure. 3,077,113, 2-12-63, Cl. 73—431.

Mattingly, Lawrence J., to Motorola, Inc. Gain control of limiter stage of a quadrature grid detector. 3,115,606, 12-24-63, Cl. 325—487.

Mattingly, Virdean R. Packing ring with anti-extrusion end rings. 3,106,407, 10-8-63, Cl. 277—188.

Mattison, Edwin L., to E. I. du Pont de Nemours and Co. Process for purifying tetraethyllead compositions. 3,085,-069, 4-9-63, Cl. 252—386.

Mattke, Charles F.: *See*—
Harmon, Leon D., and Mattke. 3,109,226.

Mattke, Charles F., to Bell Telephone Laboratories, Inc. Space saver dial. 3,108,159, 10-22-63, Cl. 179—90.

Mattke, Charles F., and L. W. Mosing, to Bell Telephone Laboratories, Inc. Telephone set. 3,073,911, 1-15-63, Cl. 179—100.

Mattox, William J.: *See*—
Kimberlin, Charles N., Jr., and Mattox. 3,106,591.
Kimberlin, Charles N., Jr., Mattox, and Adams. 3,093,-575.

Mattox, William J., and C. N. Kimberlin, Jr., to Esso Research and Engineering Co. Hydrocarbon polymerization catalyst. 3,101,270, 9-17-63, Cl. 260—683.15.

Mattson, Charles A.: *See*—
Troka, Albin G., Mattson, and Ottosen. 3,102,375.

Mattson, Everett L., to Automatic Welding Co. Welding method and apparatus. 3,109,919, 11-5-63, Cl. 219—125.

Mattson, Raymond L.: *See*—
Bush, John J., Mattson, and Roberts. 3,073,022.

Mattson, Richard W., to The Electric Auto-Lite Co. Coaxial solenoid for starter motors. 3,084,561, 4-9-63, Cl. 74—6.

Matty, Pete. Urn system and beverage pump. 3,085,880, 4-16-63, Cl. 99—71.

Matusche, Heinz: *See*—
Dethloff, Jürgen, and Matusche. 3,095,566.

Matusewicz, Nicholas M., to United States of America, Navy. Tracer mechanism. 3,088,857, 5-7-63, Cl. 149—38.

Matuska, Stephen A., and A. J. Koury, to United States of America, Navy. Remover for fluorescent and temporary camouflage paint systems. 3,115,471, 12-24-63, Cl. 252—179.

Matuszak, Alfred H.: *See*—
Metro, Stephen J., and Matuszak. 3,102,098.
Morway, Arnold J., and Matuszak. 3,088,912.

Matuszak, Alfred H., G. J. Allen, and S. J. Metro, to Esso Research and Engineering Co. Ester oil compositions containing acid anhydride. 3,090,753, 5-21-63, Cl. 252—42.7.

Matuszek, Joseph. Shaping and sharpening tool. 3,108,410, 10-29-63, Cl. 51—204.

Matuszewski, Edmond, to Societe Generale de Constructions Electriques & Mecaniques (Alsthom). Bogie for a suspended railway. 3,074,358, 1-22-63, Cl. 105—148.

Matvay, Leo. Plasma flame hyperthermal exothermic furnace with catalyst and combination thereof with an internal combustion engine. 3,091,920, 6-4-63, Cl. 60—30.

Matys, Stanley J.: *See*—
O'Connor, John A., and Matys. 3,094,679.

Matz, Charles H.: *See*—
Casselman, Robert C., and Matz. 3,081,415.

Matz, Gunther, J. Wehn, and W. Teuffert, to Farbenfabriken Bayer Aktiengesellschaft. Process for effecting sublimation in a fluidized bed sublimer. 3,113,140, 12-3-63, Cl. 260—369.

Matz, Richard E., and R. W. Scheck, to Northern Electric Co. Variable speed vaporizer. 3,105,894, 10-1-63, Cl. 219—40.

Matzek, Lester T., to Zenith Radio Corp. High-frequency amplifier with input circuit stabilizing means. 3,105,203, 9-24-63, Cl. 330—130.

Matzen, Walter T.: *See*—
Bilard, James R., and Matzen. 3,076,152.

Matzuk, Alexander R.: *See*—
Brown, Horace D., Matzuk, and Sarett. 3,107,251.

Mau, Hans: *See*—
Langen, Viktor, and Mau. 3,095,224.

Maubach, Josef: *See*—
Kelzenberg, Matthias. 3,098,285.

Manborgne, Paul. Fixed-drum type fishing reel. 3,093,340, 6-11-63, Cl. 242—84.21.

Mauchly, John W., to Sperry Rand Corp. Error checking device. 3,105,955, 10-1-63, Cl. 340—146.1.

Mauck, Robert J. and W. P. Spring starter for internal combustion engines. 3,081,759, 3-19-63, Cl. 123—179.

Mauck, William P.: *See*—
Mauck, Robert J. and W. P. 3,081,759.

Maude, Stanley M., to Anderton Springs Ltd. Circlip feeding means. 3,082,886, 3-26-63, Cl. 214—8.

Maudlin, Wendell E., to Stewart-Warner Corp. Defrost control apparatus for a heat pump. 3,111,009, 11-19-63, Cl. 62—156.

Maudsley, Brian G., G. D. Maskens, and R. J. D. Reeves, to The Solartron Electronic Group Ltd. Printing apparatus. 3,072,047, 1-8-63, Cl. 101—93.

Mauer, Robert C., R. S. Leventhal, and W. F. Tenge, to Lockheed Aircraft Corp. Master caution light control. 3,084,-338, 4-2-63, Cl. 340—213.

Maugh, Murrel C. Combination fluid pressure control and gauge. 3,107,744, 10-22-63, Cl. 177—209.

Maughan, John, to International Harvester Co. Hydraulic lift control mechanism. 3,083,777, 4-2-63, Cl. 172—9.

Maunder, Claude A., to Masson Seeley and Co. Ltd. Method of making silk screen stencils. 3,112,694, 12-3-63, Cl. 101—128.2.

Maupin, Joseph T., to Minneapolis-Honeywell Regulator Co. Push-pull semiconductor amplifier. 3,094,673, 6-18-63, Cl. 330—15.

Maupin, Joseph T., to Minneapolis-Honeywell Regulator Co. Transistor amplifier with constant input impedance. 3,100,877, 8-13-63, Cl. 330—28.

Maure, Douglas R., and B. N. Nauss, to United States of America, Navy. Data selecting and synchronizing circuit comprising plural gates and flip-flops interconnecting data handling systems. 3,110,866, 11-12-63, Cl. 328—110.

Maurer, Albrecht. V-belt pulley variable transmission. 3,102,431, 9-3-63, Cl. 74—230.17.

Maurer, Albrecht, and W. Besel, to Ringspann Albrecht Maurer KG, Firma. Chain for an infinitely variable speed drive. 3,071,020, 1–1–63, Cl. 74—236.
Maurer, Carl M., to Kartonax G.m.b.H. Ball game. 3,086,778, 4–23–63, Cl. 273—85.
Maurer, Frank W.: *See*—
Vincent, Darrell M., Brown, Lamade, Bode, and Maurer. 3,085,274.
Maurer, John A. Apparatus for photographically printing on film. 3,094,057, 6–18–63, Cl. 95—75.
Maurer, John A. Apparatus for optically recording a sound record area on a strip of film. 3,108,160, 10–22–63, Cl. 179—100.3.
Maurer, John A., and E. W. Elliott, to Chicago Aerial Industries, Inc. Focal plane shutter. 3,087,401, 4–30–63, Cl. 95—57.
Maurer, John A., and V. R. Ferguson, to The Weber Dental Mfg. Co. Dental control assemblies. 3,094,780, 6–25–63, Cl. 32—28.
Maurer, John J., Jr., to Jersey Production Research Co. Preflood-secondary recovery water technique. 3,087,539, 4–30–63, Cl. 166—9.
Maurer, Philip W., and J. Wishart, Jr., to General Motors Corp. Manual-automatic cruise control circuit. 3,100,021, 8–6–63, Cl. 180—82.1.
Maurer, Richard E.: *See*—
Howe, Donald J., and Maurer. 3,110,594.
Maurer, William O.: *See*—
Baker, Harry L., and Maurer. 3,073,644.
Maurice, Jean, to Societe Anonyme Francaise du Ferodo. Motion transmissions, especially relating to clutches for engagement in synchronism. 3,080,025, 3–5–63, Cl. 192—.92.
Maurice, Jean, and M. Rist, to Francaise du Ferodo, Societe Anonyme. Clutch for transmitting reduced torque upon reverse rotation. 3,072,234, 1–8–63, Cl. 192—48.
Maurice, Jean, and M. Rist, to Francaise du Ferodo, Societe Anonyme. Centrifugal clutches. 3,091,315, 5–28–63, Cl. 192—105.
Maurice, Sylvio J. Picker-stick check. 3,077,210, 2–12–63, Cl. 139—165.
Maurice, Sylvio J. Picker-stick check bracket. 3,094,148, 6–18–63, Cl. 139—165.
Maurin, Joseph J.: *See*—
Lawson, Andrew L., and Maurin. 3,105,808
Maurits, Forrest: *See*—
Doner, Byron. 3,071,272.
Maurizi, Guido J., and A. J. English, to Roller Bearing Co. of America. Method for producing windows in cages of roller bearings. 3,080,639, 3–12–63, Cl. 29—148.4.
Mauro, Daniel A. Cutting blade for rotary mower. 3,080,697, 3–12–63, Cl. 56—295.
Mauro, Eugene: *See*—
Pestronk, Saul M., and Mauro. 3,107,356.
Mauro, Thomas J. Sheet metal legs. 3,081,841, 3–19–63, Cl. 182—224.
Maurushat, Joseph, Jr., to Bell Telephone Laboratories, Inc. Automatic test equipment for carrier type communication systems. 3,105,881, 10–1–63, Cl. 179—175.
Maury, Lucien G.: *See*—
Levering, Dewey R., and Maury. 3,090,786.
Maury, Marlo A., and H. K. Omiya, to United States of America, Navy. Centerless coaxial connector. 3,087,129, 4–23–63, Cl. 333—98.
Maus, Ottfrid G. H., and A. J. A. Giers, to Carl Schenck Maschinenfabrik G.m.b.H. Apparatus for electrically measuring unbalance of rotating workpieces 3,098,391, 7–23–63, Cl. 73—462.
Mauser, Alfons, to Mauser Kommandit-Gesellschaft. Device for connecting and supporting chair frame portions. 3,089,730, 5–14–63, Cl. 297—463.
Mauser, Alois A.: *See*—
Good, Romer F., and Mauser. 3,086,210.
Mauser Kommandit-Gesellschaft: *See*—
Mauser, Alfons. 3,089,730.
Maust, Frederick K. Method of leveling work material. 3,078,908, 2–26–63, Cl. 153—86.
Maust, Frederick K. Method of tension leveling work material. 3,078,909, 2–26–63, Cl. 153—86.
Mausteller, John W.: *See*—
Wright, Oscar L., Mausteller, and Vancheri. 3,096,382.
Mautemps, Maurice: *See*—
Moulin, Jean, Hego, and Mautemps. 3,113,631.
Mauthe, Gustav: *See*—
Luck, Wolfhard, and Mauthe. 3,101,237.
Mautner, Henry R.: *See*—
Freyermuth, Harlan B., and Mautner. 3,100,131.
Mauvernay, Roland Y., to Laboratoire d'Analyses et de Recherches R.Y. Mauvernay. Organic acid esters of adenosine phosphates. 3,089,869, 5–14–63, Cl. 260—211.5.
Mauz, Otto.: *See*—
Heuck, Claus, Rochlitz, Mauz, Winter, and Schulde. 3,100,197.
Mavity, Julian M.: *See*—
Bielawski, Mitchell S., and Mavity. 3,112,350.
Mavor & Coulson Ltd.: *See*—
Gillespie, William. 3,091,440.
Jackson, James S. 3,113,662.
Mawby, David H.: *See*—
Allen, Gordon S. J., Mawby, and Gresham. 3,096,394.
Allen, Gordon S. J., Mawby, and Gresham. 3,110,761.
Mawney, Robert G., and W. R. Harper, Jr., to Texas Instruments Inc. Terminal construction and method of making the same. 3,112,978, 12–3–63, Cl. 339—217.
Maxam, Inc.: *See*—
Hurwitz, Max. 3,085,508.
Hurwitz, Max. 3,092,023.
Maxant Button & Supply Co.: *See*—
Decker, William H. 3,091,141.
Maxeiner, Gottfried: *See*—
Gottschald, Rudolf, and Maxeiner. 3,090,642.
Maximoff, Paul A.: *See*—
Just, Alex, Maximoff, and Krause. 3,086,074.
Maxner, Richard B., G. H. Cooper, and L. W. Kupreance, to United Shoe Machinery Corp. Cutting apparatus. 3,078,749, 2–26–63, Cl 82—4.
Maxon Construction Co., Inc.: *See*—
Robertson, Haney M., and Ingle. 3,101,974.
Maxon Premix Burner Co., Inc.: *See*—
Yeo, Robert H., and Coulson. 3,082,627.
Max-Planck-Gesellschaft Zur Foerderung der Wissenschaften E.V.: *See*—
Riecke, Wolfgang D. 3,086,112.
Max-Planck-Institut fur Eisenforschung: *See*—
Fischer, Wilhelm A., Schutz, and Straube. 3,091,119.
Maxson, Darwin B. Machine for brewing and dispensing hot beverages. 3,084,613, 4–9–63, Cl. 99—275.
Maxson Electronics Corp: *See*—
Blass, Judd, and Kintzel. 3,112,459.
Danis, Alan H., and Nelson. 3,115,461.
Mooney, Vincent J. 3,103,008.
Wallace, Aaron. 3,102,953.
Maxwell, Carl R., to Caterpillar Tractor Co. Engine with turbocharger and aftercooler. 3,091,228, 5–28–63, Cl. 123—119.
Maxwell, Charles T., to Beckman Instruments, Inc. Dual column gas chromatograph and method for analysis. 3,112,639, 12–3–63, Cl. 73—23.
Maxwell, Charlie J. Masonry barbecue pit. 3,098,428, 7–23–63, Cl. 99—446.
Maxwell, John L.: *See*—
Cameron, Phillip G., and Maxwell. 3,078,336.
Maxwell, Joseph A., Jr., to Whirlpool Corp. Sliding and rotating shelf. 3,107,959, 10–22–63, Cl. 312—322.
Maxwell, Richard C.: *See*—
Fancher, Llewellyn W., Imel, and Maxwell. 3,076,807.
Maxwell, Russell L.: *See*—
Chabrek, Alex F., and Maxwell. 3,096,411.
Maxwell, William A.: *See*—
Nagey, Tibor F., Burriss, Spooner, and Maxwell. 3,113,689.
Nagey, Tibor F., Hunter, and Maxwell. 3,086,933.
Maxwell, William A., to Martin-Marietta Corp. Tubular fuel elements and fabricating techniques therefor. 3,109,797, 11–5–63, Cl. 204—154.2.
May, Alex. Interchangeable reinforced pull and rocking toy. 3,075,763, 1–29–63, Cl. 272—52.5.
May, Alex. Convertible pull and rocking toy base. 3,100,364, 8–13–63, Cl. 46—103.
May & Baker Ltd.: *See*—
Wright, Derek E. 3,102,890.
May, Claude H., to Walker Mfg. Co. Pressure actuated fuel injector. 3,081,758, 3–19–63, Cl. 123—139.
May, Claude H., to Walker Mfg. Co. Automotive device. 3,094,976, 6–25–63, Cl. 123—119.
May, Clifford H., to The Briggs Filtration Co. Water separator. 3,085,690, 4–16–63, Cl. 210—307.
May, Donald F. Door operating apparatus. 3,096,815, 7–9–63, Cl. 160—188.
May, Ellwood H., to Mayline Co., Inc. Lock mechanism for drafting table. 3,079,726, 3–5–63, Cl. 45—131.
May, Everette L.: *See*—
Frey, Edward M., and May. 3,093,650.
May-Fran Mfg. Co.: *See*—
Mayfarth, George H., Jr. 3,112,822.
May, Frank H., to American Potash & Chemical Corp. Boroxine compositions. 3,083,225, 3–26–63, Cl. 260—462.
May, Fred: *See*—
Breazeale, Hershel T., and F. and G. May. 3,086,578.
Breazeale, Hershel T., and F. and G. May. 3,094,156.
Breazeale, Hershel T., and F. and G. May. 3,099,300.
May, Fred, and G., to FMC Corp. Tire changing machine. 3,100,520, 8–13–63, Cl. 157—1.24.
May, George: *See*—
Breazeale, Hershel T., and F. and G. May. 3,086,578.
Breazeale, Hershel T., and F. and G. May. 3,094,156.
Breazeale, Hershel T., and F. and G. May. 3,099,300.
May, Fred, and G. 3,100,520.
May, George, and J. H. Gorell, to Messrs. Dufaylite Developments Ltd. Method of making honeycomb material. 3,074,839, 1–22–63, Cl. 156—197.
May, Gordon C., and C. G. Morley, to Rolls-Royce Ltd. Gas turbine engine fuel control with plural sleeve valves. 3,091,925, 6–4–63, Cl. 60—39.28.
May, Gordon H. Fin for water skis. 3,089,157, 5–14–63, Cl. 9—310.
May, Gordon H., to International Business Machines Corp. Fluid displacement device. 3,090,201, 5–21–63, Cl. 60—54.5.
May, Gordon H., to International Business Machines Corp. Random access data storage access mechanism. 3,105,680, 10–1–63, Cl. 271—3.
May, Griffith. Mechanical filter assembly. 3,079,001, 2–26–63, Cl. 210—492.
May, Harold L.: *See*—
Hay, Wayne W., and May. 3,073,301.

May, Harry: *See*—
Coulon, Edward, and May. 3,074,302.
May, Harry C., to Westinghouse Air Brake Co. Double check valve. 3,107,681, 10–22–63, Cl. 137—112.
May, Harry F. Drill location jig. 3,073,188, 1–15–63, Cl. 77—62.
May, Howard F., to General Electric Co. Combination heat exchanger and degasifier. 3,116,134, 12–31–63, Cl. 55—178.
May, Howard J., to The Bendix Corp. Fluid shock absorbing system. 3,106,993, 10–15–63, Cl. 188—88.
May, Jim. Motor scooter having detachable power trailing sections. 3,096,841, 7–9–63, Cl. 180—13.
May, L. Chester: *See*—
Garth, Ernest D. G. 3,079,292.
Garth, Ernest D. G. 3,087,492.
May, Matthew A. Sausage slitting hand tool. 3,095,603, 7–2–63, Cl. 17—25
May, Maxwell F. Livestock chute gate. 3,084,669, 4–9–63, Cl. 119—98.
May, Melvin M.: *See*—
Massell, Edward M., May, and Meyer. 3,111,653.
May, Michael, and F. W. Schmidlin, to Thompson Ramo Wooldridge Inc. Cryotrons with ferromagnetic elements positioned within superconductor for concentrating flux to provide controlled switching. 3,116,422, 12–31–63, Cl. 307—88.5.
May, Morrley W. Masonry butt gauge. 3,090,615, 5–21–63, Cl. 269—305.
May, Paul D., and E. Kohn, to Monsanto Chemical Co. Purification of diethylaluminum chloride with crystalline titanium trichloride. 3,100,218, 8–6–63, Cl. 260—448.
May, Richard J.: *See*—
Cline, William M., and May. 3,078,628.
May, Richard J., to Aeroquip Corp. Fitting for hose spring guard. 3,088,756, 5–7–63, Cl. 285—116.
May, Richard K., W. O. Sunafrank, and H. H. Powell, to General Dynamics Corp. Workholder with means for thermal compensation. 3,093,370, 6–11–63, Cl. 269—309.
May, Russell D., to The Youngstown Sheet and Tube Co. Pressure equalizing valve mechanism. 3,073,337, 1–15–63, Cl. 137—398.
May, Russell R., Jr.: *See*—
Benner, Floyd E., Jr., May, and Reich. 3,115,528.
May, Vivian G., to Checker Motors Corp. Latch structure. 3,094,347, 6–18–63, Cl. 292—228.
May, Walter M., to Mack Trucks, Inc. Vehicle cab door latch handle and mechanism. 3,094,352, 6–18–63, Cl. 296—44.
May, Walter M., and R. M. Webster, to Mack Trucks, Inc. Power drive assembly. 3,111,852, 11–26–63, Cl. 74—15.63.
Maybach-Motorenbau G.m.b.H.: *See*—
Meyer, Gustav. 3,105,578.
Maybee, Richard A. Multiple purpose portable and collapsible tent. 3,105,505, 10–1–63, Cl. 135—4.
Maychark, Valentine J. Traction apparatus. 3,114,366, 12–17–63, Cl. 128—75.
Maydl, Paul. Structural composition material and process for making same. 3,096,188, 7–2–63, Cl. 106—97.
Mayeau, Elwin F.: *See*—
Sanders, Vernon W., Georgia, and Mayeau. 3,111,975.
Mayer, Abbott F.: *See*—
Rooks, Howard B., and Mayer. 3,109,587.
Mayer, Adrian. Camera case. 3,071,172, 1–1–63, Cl. 150—52.
Mayer, Alan H. Heater for bowling balls. 3,091,681, 5–28–63, Cl. 219—19.
Mayer, Carl H., Jr., and D. W. Fergusson, to Rust-Oleum Corp. Can filling machine. 3,078,630, 2–26–63, Cl. 53—55.
Mayer, Charles B., to General Electric Co. Broadband matching circuit. 3,090,016, 5–14–63, Cl. 333—33.
Mayer, Edward: *See*—
Donner, Verne P., and Mayer. 3,083,645.
Wainer, Eugene, and Mayer. 3,096,144.
Mayer, Edward F., and V. E. Straughan, to Horizons Inc. Method for producing inorganic fibers. 3,082,054, 3–19–63, Cl. 18—54.
Mayer, Edward F., and V. E. Straughan, to Horizons Inc. Method for producing inorganic oxide fibers. 3,082,055, 3–19–63, Cl. 18—54.
Mayer, Edwin H., to Simmons Co. Exercise bar for bed. 3,077,613, 2–19–63, Cl. 5—317.
Mayer, Ehrhard, to Garlock Inc. Slide ring packing. 3,075,780, 1–29–63, Cl. 277—59.
Mayer, Endre A.: *See*—
Shramo, Daniel J., and Mayer. 3,110,228.
Mayer, Friedrich, to G. A. Messen-Jaschin. Apparatus for furnishing electrical signals for torque measurement. 3,081,624, 3–19–63, Cl. 73—136.
Mayer, Friedrich, to G.A. Messen-Jaschin. Apparatus for furnishing electrical signals for torque measurement. 3,095,734, 7–2–63, Cl. 73—136.
Mayer, George A., to Miami Stone, Inc. Stone splitter. 3,098,476, 7–23–63, Cl. 125—23.
Mayer, H. J., & Sons Co., Inc.: *See*—
Kasbaum, Felix E. 3,096,180.
Mayer, Hans F., and F. Butzke, to Siemens & Halske Aktiengesellschaft. Apparatus for punching a plurality of code combinations simultaneously. 3,101,172, 8–20–63, Cl. 234—42.
Mayer, Ivan, to Esso Research and Engineering Co. Emulsion alkylation of olefins. 3,082,274, 3–19–63, Cl. 260—683.46.
Mayer, Ivan, to Esso Research and Engineering Co. Olefin control in isoparaffin alkylation. 3,109,042, 10–29–63, Cl. 260—683.58.
Mayer, Joseph R.: *See*—
Sarvis, John W., and Mayer. 3,115,061.
Mayer, Oscar, & Co., Inc.: *See*—
Ahern, William B., and Orloff. 3,077,968.
Eberman, Augustus H. 3,074,106.
Maas, Russell H. 3,076,713.
Maas, Russell H., and Olson. 3,075,843.
Orloff, Daniel L., and Keating. 3,097,392.
Schmook, Edward, Jr. 3,095,022.
Schmook, Edward, Jr. 3,107,392.
Schmook, Edward, Jr., and Vedvik. 3,108,626.
Seiferth, Oscar E., and Austin. 3,108,005.
Seiferth, Oscar E., and Austin. 3,116,153.
Seiferth, Oscar E., Austin, and Snyder. 3,086,869.
Sloan, Edward C., Eberman, and Jensen. 3,083,106.
Vedvik, Andrew H., and Borsuk. 3,091,798.
Mayer, Oscar J., ½ to D. J. M. Carpenter. Instant coffee and tea dispensing machine. 3,092,292, 6–4–63, Cl. 222—185.
Mayer, Peter J., Jr., to Bell & Howell Co. Camera. 3,085,467, 4–16–63, Cl. 88—17.
Mayer, Phillip B. Flap holding device for cartons. 3,094,827, 6–25–63, Cl. 53—381.
Mayer, Rolf: *See*—
Braun, Artur, Mayer, and Laing. 3,109,582.
Mayer, Walter, to M. Grundig. Television camera regulating system. 3,086,077, 4–16–63, Cl. 178—7.2.
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Clejka, Rudolph J., and Mayerson. 3,075,277.
Mayes, Clell C. Brick laying device. 3,111,764, 11–26–63, Cl. 33—85.
Mayes, Fred M.: *See*—
Chaney, Preston E., Mayes, and Bennett. 3,086,167.
Chaney, Preston E., Mayes, and Jones. 3,096,401.
Mayes, Fred M., to Sun Oil Co. Tank gauge. 3,078,715, 2–26–63, Cl. 73—313.
Mayes, Fred M., to Sun Oil Co. Tank gauge. 3,090,232, 5–21–63, Cl. 73—321.
Mayes, Fred M., to Sun Oil Co. Bore hole logging apparatus providing a pulse space modulated record. 3,103,625, 9–10–63, Cl. 324—1.
Mayes, Paul E., and R. L. Carrel, to The University of Illinois Foundation. Log periodic backward wave antenna array. 3,108,280, 10–22–63, Cl. 343—792.5.
Mayes, Ronald W. Fuel feeding system. 3,080,819, 3–12–63, Cl. 103—10.
Mayes, Walter S., to Harvey Aluminum (Inc.). Reinforced light weight piston. 3,075,817, 1–29–63, Cl. 309—14.
Mayeux, Robert F., 50% to Johnson, Crawford Co., Inc. Apparatus for controlling a container valve and filling the container with a carbonated liquid. 3,105,527, 10–1–63, Cl. 141—275.
Mayfair Industries, Inc.: *See*—
Juggers, George A. 3,092,251.
Mayfield, Alfred B., and M. C. Darling, to Davis Mfg., Inc. Variable ratio drive mechanism. 3,091,132, 5–28–63, Cl. 74—722.
Mayfield, George C., to McQuay-Norris Mfg. Co. Piston ring assemblies. 3,080,172, 3–5–63, Cl. 277—141.
Mayfield, George C., to McQuay-Norris Mfg. Co. Piston ring assembly. 3,099,455, 7–30–63, Cl. 277—163.
Mayfield, Lawrence M.: *See*—
Cobb, Raymond L., Hudson, and Mayfield. 3,109,761.
Mayhew, Harry W., and H. E. Templeton, to Vulcan-Cincinnati, Inc. Centrifugal film evaporating apparatus and method. 3,110,646, 11–12–63, Cl. 159—6.
Mayhew, John T., to National Steel Corp. Coiling apparatus. 3,086,729, 4–23–63, Cl. 242—78.1.
Mayhew, John T., to National Steel Corp. Hot dip metal coating method. 3,104,981, 9–24–63, Cl. 117—46.
Mayhew, Ray W., and R. L. Vogelpohl, to Owens-Illinois Glass Co. Cathode-ray tube envelope. 3,071,280, 1–1–63, Cl. 220—2.1.
Mayhew, Raymond L.: *See*—
Marschall, Franz, and Mayhew. 3,112,317.
Randall, David I., Buc, Freyermuth, and Mayhew. 3,094,516.
Schultz, Herman S., Copes, and Mayhew. 3,073,822.
Mayhew, Raymond L., and E. P. Williams, to General Aniline & Film Corp. Sulfates of alkenoxylated butynediol. 3,089,888, 5–14–63, Cl. 260—458.
Mayhew Steel Products, Inc.: *See*—
Lawless, John W. 3,099,876.
Mayline Co., Inc.: *See*—
May, Ellwood H. 3,079,726.
Maynard, George C. Door latching mechanism. 3,112,945, 12–3–63, Cl. 292—173.
Maynard, Harlan J. Mist cooled cutting tool. 3,096,668, 7–9–63, Cl. 77—68.
Maynard, Robert W., to The Mosler Safe Co. Time lock. 3,076,329, 2–5–63, Cl. 70—272.
Maynard, Robert W., to The Mosler Safe Co. Tamper proof combination lock. 3,106,083, 10–8–63, Cl. 70—333.
Maynard, Robert W., to The Mosler Safe Co. Tamper proof lock. 3,111,022, 11–19–63, Cl. 70—333.
Mayne, Charles, to Hawley Products Co. Manufacture of articles from fibrous material. 3,090,432, 5–21–63, Cl. 162—393.

Mayne, Robert A., deceased, (R. D. Mayne, executrix), and W. H. Teeter; said Teeter assor. to said Mayne. Hub. 3,072,424, 1–8–63, Cl. 287—52.

Mayne, Ruth D.: *See*—
Mayne, Robert A., and Teeter. 3,072,424.

Maynier, Louis X. H. Laying of permanent way. 3,088,674, 5–7–63, Cl. 238—24.

Mayo, Alfred M., and B. Nichols, Jr., to Douglas Aircraft Co., Inc. Anti-blackout valve. 3,106,203, 10–8–63, Cl. 128—1.

Mayo, Bernard J., to Electric & Musical Industries Ltd. Apparatus for generating picture signals. 3,106,605, 10–8–63, Cl. 178—5.4.

Mayo, Edward L., to Minneapolis-Honeywell Regulator Co. Machine for producing thin walled tubing. 3,076,359, 2–5–63, Cl. 80—12.

Mayo, George L., to Clary Corp. Wood component member cutting apparatus. 3,080,895, 3–12–63, Cl. 143—38.

Mayo, John S., to Bell Telephone Laboratories, Inc. Pulse repeater marginal testing system. 3,083,270, 3–26–63, Cl. 179—175.31.

Mayo, William J. Sling psychrometer. 3,092,996, 6–11–63, Cl. 73—338.6.

Mayon, Leon, and D. P. Schnoorr, to Burroughs Corp. Control apparatus. 3,095,754, 7–2–63, Cl. 74—471.

Mayor, Yoland P. P.: *See*—
Mercier, Robert M., Mayor, and Bieselaar. 3,077,488.

Mayrath, Martin. Auger conveyor carriage. 3,074,535, 1–22–63, Cl. 198—120.5.

Mayrath, Martin. Carriage for corn and hay elevators. 3,092,239, 6–4–63, Cl. 198—120.5.

Mayrath, Martin. Carriage for elevators. 3,096,872, 7–9–63, Cl. 198—120.5.

Mayrath, Martin. Articulated conveyor with transfer means. 3,103,274, 9–10–63, Cl. 198—108.

Mayron, David, to American Home Products Corp. Pharmaceuticals with delayed release. 3,074,852, 1–22–63, Cl. 167—82.

Mays, Charles E. Fluid dispensing systems for gasoline and the like. 3,079,960, 3–5–63, Cl. 141—232.

Mays Equipment Development Corp.: *See*—
Mays, James R. 3,091,004.

Mays, Howard D.: *See*—
Jordan, Roy E., Jr., Mays, and Claus. 3,084,402.

Mays, James R., to Mays Equipment Development Corp. Sliding door. 3,091,004, 5–28–63, Cl. 20—19.

Maytag Co., The: *See*—
Decatur, Paul S. 3,083,557.
Decatur, Paul S. 3,084,799.
Kaldenberg, Henry J., and Dutcher. 3,090,391.
Martin, Paul A. 3,090,249.

Mazanek, Henry E.: *See*—
Kitson, Harold, Jr., Marshall, and Mazanek. 3,079,519.

Mazanek, John B., and L. J. Paquin, to International Paper Co. Planographic printing plates. 3,115,829, 12–31–63, Cl. 101—149.2.

Mazanek, Walter J.: *See*—
Silwa, Arthur W., and Mazanek. 3,073,950.

Maze, Perry V. Illuminated sign. 3,076,277, 2–5–63, Cl. 40—130.

Mazur, Erwin, and H. Reiter, to Franz Muller Fulminawerk K.G. Steering gear for motor vehicles. 3,075,500, 1–29–63, Cl. 121—41.

Mazzagatti, Roy P.: *See*—
Savage, Kerry D., Mazzagatti, and Herzog. 3,102,992.

Mazzagatti, Roy P., and B. D. Schuetze, to Texaco Inc. Coaxial cable coupling. 3,111,356, 11–19–63, Cl. 339—154.

Mazzanti, Giorgio: *See*—
Giustiniani, Piero, Natta, Mazzanti, and Crespi. 3,115,478.
Natta, Giulio, Pino, and Mazzanti. 3,112,300
Natta, Giulio, Pino, and Mazzanti. 3,112,301.

Mazzarella, Emil D.: *See*—
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Mazzarins, Janis, to General Motors Corp. Tractor suspension permitting pivotal movement of track frames. 3,096,840, 7–9–63, Cl. 180—9.5.

Mazzi, Aramis. Circular knitting machines having a plurality of needle selection cams for the formation of tuck stitch patterns, underwelt patterns and the like. 3,076,326, 2–5–63, Cl. 66—50.

Mazzio, Anthony J.: *See*—
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Mazziotti, Philip J., and E. H. Sharp, to Dana Corp. Universal joint. 3,071,944, 1–8–63, Cl. 64—21.

Mazziotti, Philip J., and E. H. Sharp, to Dana Corp. Constant velocity universal joint. 3,105,369, 10–1–63, Cl. 64—21.

Mazzola, Claude J.: *See*—
Morley, Richard E., and Mazzola. 3,110,889.

McAdam, Raymond L.: *See*—
Shaler, Richard G., McAdam, and R. G. Shaler, Jr. 3,100,707.
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McAdams, Bruce, to International Telephone and Telegraph Corp. Multichannel communication system. 3,073,902, 1–15–63, Cl. 179—15.

McAdams, Frederick L. Wire tightener. 3,078,534, 2–26–63, Cl. 24—71.1.

McAdams, Hiramie T.: *See*—
Andersen, Niels Y., Jr., and McAdams. 3,094,868.

McAdams, Paul F., to Clark Equipment Co. Two speed power steering. 3,099,327, 7–30–63, Cl. 180—79.2.

McAdams, Paul F., C. L. Ellis, and B. V. Christensen, to Clark Equipment Co. Cleaner for compaction machines. 3,085,484, 4–16–63, Cl. 94—50.

McAdams, Willie E.: *See*—
Ray, Richard L., and McAdams. 3,111,498.

McAfee, Kenneth B., Jr., to Bell Telephone Laboratories, Inc. Light gas detector using thin walled glass tubes for diffusion. 3,100,868, 8–13–63, Cl. 324—33.

McAfee, Kyle E., Jr., to The New York Air Brake Co. Hydraulic device. 3,094,937, 6–25–63, Cl. 103—42.

McAfee, Kyle E., Jr., and C. A. L. Ruhl, to The New York Air Brake Co. Hydraulic system. 3,106,135, 10–8–63, Cl. 91—217.

McAfee, Robert E., J. R. Eddy, and R. L. Moser, to International Harvester Co. Lubricating means for a power transmission. 3,083,790, 4–2–63, Cl. 184—6.

McAfee, Robert E., and H. K. Arnold, to International Harvester Co. Motor vehicle lock device. 3,093,212, 6–11–63, Cl. 188—69.

McAfee, Samuel H. Bench plane cutter. 3,084,729, 4–9–63, Cl. 145—17.

McAllister, Craig L., to McGraw-Edison Co. Protectors for electric circuits. 3,076,079, 1–29–63, Cl. 200—118.

McAllister, George A., Jr., to Math-Master Labs., Inc. Desk and interpolator combination. 3,106,789, 10–15–63, Cl. 35—60.

McAllister, George A., Jr., to Math-Master Labs, Inc. Chalkboard compass. 3,111,761, 11–26–63, Cl. 33—27.

McAllister, Gordon: *See*—
Heise, Howard L., and McAllister. 3,089,634.

McAllister, Jess L. Tong return block. 3,094,222, 6–18–63, Cl. 212—87.

McAllister, L. D., to Hupp Corporation. Compressors. 3,080,103, 3–5–63, Cl. 230—17.

McAlpine, Charles H., K. G. McGowan, and H. C. Winkel, to Winkel Machine Co., Inc. Panel dispensing device. 3,075,671, 1–29–63, Cl. 221—238.

McAlpine, John R., to Symington Wayne Corp. Platform operating system. 3,094,192, 6–18–63, Cl. 187—28.

McAlvay, John C., to Webster Electric Co. Rotary pump or motor. 3,096,719, 7–9–63, Cl. 103—126.

McAndrew, John B., ½ to W. C. Jennings, ½ to I. T. Swartwood, and ⅛ to R. A. Sampson. Handle. 3,086,806, 4–23–63, Cl. 294—33.

McAnneny, Adrian W., to Trunkline Gas Co. Method of increasing efficiency of pipelines. 3,082,073, 3–19–63, Cl. 51—317.

McAnulty, Gerald M.: *See*—
Adams, Arthur A., Aryal, Bartson, Dudzinski, Grant, and McAnulty. 3,113,019.

McArthur, Bruce E., to Light Metals Corp. Mechanism for breaking extrusions from dies. 3,084,795, 4–9–63, Cl. 207—1.

McArthur, Colin S., to American Machine & Foundry Co. Cigarette making machine. 3,074,413, 1–22–63, Cl. 131—84.

McArthur, Ralph F., and M. R. Mecusker, to Kobe, Inc. Fluid operated pump system with external pump passages. 3,078,804, 2–26–63, Cl. 103—4.

McAulay, Robert, and W. G. Richardson, to Megator Pumps and Compressors Ltd. Liquid strainers. 3,109,812, 11–5–63, Cl. 210—242.

McAuley, Anthony, to A. B. Chance Co. Stringing block. 3,098,638, 7–23–63, Cl. 254—134.3.

McAuley, James E., to California Mfg. and Equipment Co. Vacuum breaker. 3,086,543, 4–23–63, Cl. 137—216.

McAuley, James W., to Libbey-Owens Ford Glass Co. Sonic treating apparatus. 3,099,759, 7–30–63, Cl. 310—26.

McAuliffe, Gerard K., to Westinghouse Electric Corp. Generator for producing a signal having a symbolic waveform. 3,078,416, 2–19–63, Cl. 328—27.

McAuliffe, Gerard K., to Westinghouse Electric Corp. Individually triggered pulse generators feeding a buffer adder to produce particular output waveforms. 3,097,339, 7–9–63, Cl. 328—61

McAuslan, James H. L., and W. Nock, to Imperial Chemical Industries Ltd. Exploders. 3,075,125, 1–22–63, Cl. 317—80.

McAx Corp.: *See*—
Gray, George W. 3,087,586.

McBee, Earl T., and O. R. Pierce, to Research Corp. Fluorine-containing alkoxychlorosilanes. 3,114,760, 12–17–63, Cl. 260—448.8.

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McBride, Joseph J., Jr., and A. Mais, to Armour and Co. Preparing esters of phosphinic acids. 3,092,650, 6–4–63, Cl. 260—461.

McBride, Mark G., to Masonite Corp. Decorative sheet articles. 3,078,176, 2–19–63, Cl. 117—10.

McBride, William R.: *See*—
Branda, Robert W., Davey, Ebbert, and McBride. 3,076,548.
Davey, Sidney M., Ebbert, and McBride. 3,094,826.

McBride, Richard A. Excavating tooth structure. 3,106,256, 10–8–63, Cl. 172—750.

McBrien, Edward F., to The Ohio Crankshaft Co. Induction heating coil. 3,081,989, 3–19–63, Cl. 266—4.

McBrien, Edward F., to The Ohio Crankshaft Co. Adjustable inductor for induction heating. 3,109,909, 11–5–63, Cl. 219—10.79.

McBurney, Alvin D. Adjustable jigs for holding elongated parts in predetermined angular positions. 3,072,396, 1–8–63, Cl. 269—45.

McBurnie, Stuart G. Latch set. 3,073,640, 1–15–63, Cl. 292—254.

McCabe, John B., and U. J. Schmid; said McCabe assor. to The Creamery Package Mfg. Co., and said Schmid, assor. to Foremost Dairies, Inc. Case filling mechanism. 3,099,906, 8–6–63, Cl. 53—59.

McCabe, Owen J., to The Superior Electric Co. Transistor discriminating circuit with diode bypass means for the emitter-base circuit of each transistor. 3,100,266, 8–6–63, Cl. 307—88.5.

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Balogh, Roy O. 3,073,397.
Balogh, Roy O. 3,082,842.
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McCadam, William W., to Chedi-O-Matic Corp. Method for making cheese. 3,078,169, 2–19–63, Cl. 99—116.

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McCain, Billy R.: *See*—
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McCain, George H.: *See*—
Fordham, James W. L., and McCain. 3,100,199.

McCain, William B., to Chicago Machinery Laboratory, Inc. Signature gathering and stitching machine. 3,087,721, 4–30–63, Cl. 270—54.

McCaleb, Kirtland E.: *See*—
Harrison, Stuart A., McCaleb, and Ward. 3,073,864.

McCall, Jane L.: *See*—
McCall, Oliver L. and J. L. 3,072,918.

McCall, Marvin A., and N. H. Shearer, Jr., to Eastman Kodak Co. Preparation of [2-cyano-3-alkoxy (or hydroxy)] thio-2-alkenamides. 3,076,015, 1–29–63, Cl. 260—465.5.

McCall, Marvin A., and R. L. McConnell, to Eastman Kodak Co. Phosphorothiolothionate derivatives of cyanoacrylates. 3,106,566, 10–8–63, Cl. 260—332.2.

McCall, Oliver L. and J. L. Sitz bath pan. 3,072,918, 1–15–63, Cl. 4—6.

McCall, Richard H., to Texaco Inc. Down hole tool. 3,105,554, 10–1–63, Cl. 166—169.

McCall, William A. Model train electrical motor control system. 3,101,438, 8–20–63, Cl. 318—400.

McCallion, John J.: *See*—
Downey, Thomas A., and McCallion. 3,116,240.

McCalls Macalloy Ltd.: *See*—
Pennington, John S. 3,072,988.

McCallum, Albert R., and P. H. Danly, to Danly Machine Specialties, Inc. Mechanically operated friction clutch and brake assembly. 3,084,777, 4–9–63, Cl. 192—144.

McCallum, Charles W.: *See*—
Miller, Ira A. 3,084,898.

McCallum, Duncan L.: *See*—
Schwartz, Daniel M., Hackett, and McCallum. 3,081,890.

McCallum, John, T. B. Johnson, W. E. Ditmars, Jr., and L. D. McGraw, to Remington Arms Co., Inc. Current generator cell. 3,093,512, 6–11–63, Cl. 136—100.

McCallum, John, T. B. Johnson, W. E. Ditmars, Jr., and L. D. McGraw, to Remington Arms Co., Inc. Current generator cell. 3,093,513, 6–11–63, Cl. 136—100.

McCallum, John, T. B. Johnson, W. E. Ditmars, Jr., and L. D. McGraw, to Remington Arms Co., Inc. Current generator cell. 3,093,514, 6–11–63, Cl. 136—100.

McCallum, John H., to Collins Radio Co. Continuous counter. 3,095,146, 6–25–63, Cl. 235—117.

McCallum, Laurette C.: *See*—
Schwartz, Daniel M., Hackett, and McCallum. 3,081,890.

McCally, William J., to National Rejectors, Inc. Money-handling devices. 3,101,981, 8–27–63, Cl. 312—222.

McCammon, George A., to Esso Research and Engineering Co. Offshore combination ship mooring and ship loading apparatus-bow mooring. 3,093,167, 6–11–63, Cl. 141—387.

McCammon, George A., to Jersey Production Research Co. Mobile marine drilling foundation. 3,104,531, 9–24–63, Cl. 61—46.5.

McCammon, Robert F., to Minneapolis-Honeywell Regulator Co. Slide projector with remote control for reversing the slide storage tray. 3,072,016, 1–8–63, Cl. 88—28.

McCammon, Robert F., to Minneapolis-Honeywell Regulator Co. Remote control unit for a photographic projector. 3,078,763, 2–26–63, Cl. 88—28.

McCammon, Robert F., to Minneapolis-Honeywell Regulator Co. Tray advancing mechanism in a picture slide projector. 3,115,810, 12–31–63, Cl. 88—28.

McCampbell, William M., and J. C. McCaig, to United States of America, National Aeronautics and Space Administration. Electric arc welding. 3,102,948, 9–3–63, Cl. 219—137.

McCance, Henry B., and F. R. W. Sloan, to Bleachers Association Ltd. Treatment of fibrous materials. 3,071,430, 1–1–63, Cl. 8—116.4.

McCandless, Ira L.: *See*—
McCullough, Ray A., and McCandless. 3,080,798.

McCandlish, Edgar A. Apparatus for frightening animals. 3,071,104, 1–1–63, Cl. 116—22.

McCandliss, Robert K., to General Dynamics Corp. Vibration suppressor. 3,075,619, 1–29–63, Cl. 188—1.

McCann, Francis D., to The Singer Mfg. Co. Controllable stitch fingers for sewing. 3,086,485, 4–23–63, Cl. 112—16.

McCann, Frederick. Pressure operated shut-off valve. 3,079,938, 3–5–63, Cl. 137—118.

McCann, Joe G., R. J. Stegen, and W. Falstrom, to Canoga Electronics Corp. Split parabolic radar antenna utilizing means to discriminate against cross-polarized energy. 3,092,834, 6–4–63, Cl. 343—756.

McCann, Joseph A., to United States of America, Atomic Energy Commission. Subcooling detector. 3,114,263, 12–17–63, Cl. 73—359.

McCann, Keith: *See*—
Craggs, Joseph, and McCann. 3,106,284.

McCann, Keith, to Goodman Mfg. Co. Troughing roller assembly and belt conveyor. 3,098,557, 7–23–63, Cl. 198—192.

McCann, Samuel: *See*—
Garrett, Frederick W., and McCann. 3,079,229.

McCann, Thomas S. Lambswool duster. 3,092,864, 6–11–63, Cl. 15—235.

McCann, William F., to Lyon Van & Storage Co. Pallet. 3,090,331, 5–21–63, Cl. 108—51.

McCardell, Willard B., to Michigan Tool Co. Tooth forming tool. 3,115,052, 12–24–63, Cl. 80—16.

McCarroll, Sidney J., to Howe Sound Co. Treatment of manganese ores. 3,085,875, 4–16–63, Cl. 75—101.

McCarthy, Donald O.: *See*—
Arnold, Melvin R., McCarthy, and Dienes. 3,075,915.

McCarthy, George F.: *See*—
Tuttle, Thomas W., and McCarthy. 3,081,416.

McCarthy, Jeremiah T., 20% to M. St. J. McCarthy, Sr. and M. St. J. McCarthy, Jr., and 10% to L. S. Knox. Child's toy. 3,098,316, 7–23–63, Cl. 46—43.

McCarthy, John: *See*—
Wagner, Eric G., and McCarthy. 3,093,814.

McCarthy, John, to Gar Wood Industries, Inc. Telescopic hoist assembly for tilting bodies of dumping vehicles. 3,085,828, 4–16–63, Cl. 298—22.

McCarthy, John F.: *See*—
Barnitz, Richard W., and McCarthy. 3,109,330.

McCarthy, John J.: *See*—
Russell, Robert A., and McCarthy. 3,108,086.

McCarthy, John J. Sitz bath. 3,102,273, 9–3–63, Cl. 4—6.

McCarthy, Joseph H., Jr., to Rheem Mfg. Co. Water heater and method of heating water. 3,080,118, 3–5–63, Cl. 236—32.

McCarthy, Michael J.: *See*—
Ganey, Alan B., and McCarthy. 3,111,379.

McCarthy, Michael St. J., Sr.: *See*—
McCarthy, Jeremiah T. 3,098,316.

McCarthy, Patrick B., 20% to L. T. Saftig, 20% to B. J. Stansbury, and 20% to P. F. Loveridge. Electric oil well heater apparatus. 3,114,417, 12–17–63, Cl. 166—60.

McCarthy, Paul R., and T. R. Orem, to Gulf Research & Development Co. Polyorgano siloxane thickened to a grease consistency with a diazo compound and an arylurea. 3,082,170, 3–19–63, Cl. 252—49.6.

McCarthy, Raymond G.: *See*—
Thornton, Paul, and McCarthy. 3,102,333.

McCarty, Donald L. Reverse wash strainer. 3,081,878, 3–19–63, Cl. 210—411.

McCarty, George W., and S. H. Kohler, to The Black and Decker Mfg. Co. Pivoting shoe for portable electric jig saw. 3,087,519, 4–30–63, Cl. 143—68.

McCarty, Horace G.: *See*—
Bumm, Leonard M., and McCarty. 3,082,589.
Sadler, Loren G., and McCarty. 3,077,722.

McCarty, Horace G., to Sperry Rand Corp. Hay conditioner. 3,086,344, 4–23–63, Cl. 56—1.

McCarty, James P., and C. H. Curtis, to Duval Sulphur & Potash Co. Sensing and control apparatus for classifiers. 3,114,510, 12–17–63, Cl. 241—34.

McCarty, John C., and F. D. Stewart, to Celanese Corp. of America. Blend of vinylidene cyanide: vinyl acetate copolymer with a 4-vinyl pyridine copolymer. 3,103,497, 9–10–63, Cl. 260—41.

McCarty, Lourdes V.: *See*—
Biermann, William A., Bauer, and McCarty. 3,080,143.

McCarver, Aarol D.: *See*—
Fouts, H. D., and McCarver. 3,098,925.

McCary, Richard O., to General Electric Co. Current regulator. 3,079,541, 2–26–63, Cl. 323—7.

McCaskill, Robert B.: *See*—
Wilcox, Stanley W., Crossland, and McCaskill. 3,092,311.

McCaskill, Robert B., to Seismograph Service Corp. Apparatus for use in setting voting machine for voter classification. 3,098,607, 7–23–63, Cl. 235—54.

McCaulay, David A., to Standard Oil Co. Hydrogen fluoride alkylation process. 3,078,322, 2–19–63, Cl. 260—683.51.

McCaulay, David A., to Standard Oil Co. Paraffin alkylation process using a hydrogen fluoride-silver fluoride catalyst solution. 3,080,439, 3–5–63, Cl. 260—683.51.

McCauley, Harry J.: *See*—
Bechtold, Max F., Little, and McCauley. 3,110,092.
Little, Ernest L., Jr., McCauley, and Penoza. 3,110,091.

McCauley, Herbert J. Toy automobile direction indicator. 3,091,212, 5–28–63, Cl. 116—50.

McCauley, Herbert J., Jr. Sheet metal screw. 3,099,184, 7–30–63, Cl. 85—1.

McCauley, John H., and S. Gavurnik, to Burroughs Corp. Gaseous cold cathode indicator glow tube. 3,101,427, 8–20–63, Cl. 313—188.

McCay, Frank V., Jr.: *See*—
Nellson, Jay C., and McCay. 3,099,289.

McClaflin, Gifford G.: *See*—
Atwood, Mark T., McClaflin, and Shadan. 3,080,411.
McClaflin, Gifford G., to Continental Oil Co. Process for the preparation of aluminum alkoxides. 3,087,954, 4–30–63, Cl. 260—448.
McClaflin, Gifford G., and M. T. Atwood, to Continental Oil Co. Preparation of alcohols from aluminum trialkyls. 3,093,691, 6–11–63, Cl. 260—638.
McClain, Roy H. Insulated junction tapping device. 3,087,006, 4–23–63, Cl. 174—71.
McClain, Walte. Power lawn trimmer. 3,110,997, 11–19–63, Cl. 56—25.4.
McClanahan, Bernard E., to Ace Tank and Heater Co. Water heating system. 3,109,414, 11–5–63, Cl. 122—33.
McClanahan, Otis E. Live minnow fishing lure. 3,087,272, 4–30–63, Cl. 43—41.
McClane, Elmer H.: *See*—
Stupfel, Clifford L., and McClane. 3,101,755.
McClaren, Jay L. Grain dryer. 3,107,160, 10–15–63, Cl. 34—174.
McClarnon, Roscoe B. Wheeled vehicle steering device. 3,110,352, 11–12–63, Cl. 180—26.
McClay, Marvin, to Beckman Industries, Inc. Combined variable resistance device and mechanism for driving same. 3,114,126, 12–10–63, Cl. 338—116.
McCleary, Robert E.: *See*—
Page, John, and McCleary. 3,083,756.
McCleary, Roy E., to Atwood Vacuum Machine Co. Sheet metal wheel construction. 3,108,838, 10–29–63, Cl. 301—63.
McCleery, Robert N., to The Delman Co. Bellows actuated switch. 3,113,190, 12–3–63, Cl. 200—83.
McCleery, Robert N., and R. R. Mandy, to The Delman Co. Pump for windshield clearing system and the like. 3,103,685, 9–17–63, Cl. 15—250.02.
McClellan, Allen. Shoe protector. 3,095,659, 7–2–63, Cl. 36—72.
McClellan, Ralph E., to The Mellink Steel Safe Co. Tamper proof safes. 3,076,420, 2–5–63, Cl. 109—38.
McClellan, William R., to E. I. du Pont de Nemours and Co. Coupling by hydroxyl radicals and new triamino compounds. 3,076,846, 2–5–63, Cl. 260—583.
McClelland, Alan L.: *See*—
Fawcett, Frank S., and McClelland. 3,097,067.
McClelland, Alan L., to E. I. du Pont de Nemours and Co. Process for making diborane and higher boron hydrides. 3,088,804, 5–7–63, Cl. 23—204.
McClelland, Howard L.: *See*—
Baier, Leonard J., and McClelland. 3,100,495.
McClelland, James B. Weed puller. 3,077,336, 2–12–63, Cl. 254—132.
McClelland, James F., Jr., and W. L. Brown, to Admos, Inc. Article releasing device for inclined chutes or rollerways. 3,088,569, 5–7–63, Cl. 193—40.
McClelland, Norman H.: *See*—
Joyce, Allan L., and McClelland. 3,115,998.
McClenachan, Ellsworth C.: *See*—
Fugate, Wesley C., and McClenachan. 3,093,629.
McClenny, Robert W., and H. M. Falson, Jr. Cultivator attachment. 3,086,597, 4–23–63, Cl. 172—119.
McCleskey, Frank G. Air preheating assembly for use upon carburetors of internal combustion engines. 3,075,508, 1–29–63, Cl. 123—122.
McClintick, William E. Household reminder turn knob. 3,073,281, 1–15–63, Cl. 116—133.
McClintock, Fred L. Automobile leg rest. 3,106,425, 10–8–63, Cl. 297—436.
McClintock, Ralph M., to United States of America, Air Force. Tensile cryostat. 3,078,708, 2–26–63, Cl. 73—15.6.
McClintock, Ross A., R. E. Thompson, and K. E. Waggener. Pipe hanger detachable by an axial force. 3,097,000, 7–9–63, Cl. 285—142.
McCloskey, Albert R., to SKF Industries, Inc. Process for manufacturing antifriction bearings. 3,109,223, 11–5–63, Cl. 29—148.4.
McCloskey, Allen L.: *See*—
Brotherton, Robert J., and McCloskey. 3,101,369.
Kitasaki, Kiyoshi, McCloskey, and Woods. 3,082,234.
Newsom, Herbert C., Woods, and McCloskey. 3,072,718.
Newsom, Herbert C., Woods, and McCloskey. 3,082,252.
Petterson, Lowell L., Brotherton, Willcockson, and McCloskey. 3,079,432.
McCloskey, Allen L., R. J. Brotherton, and L. L. Petterson, to United States Borax & Chemical Corp. Organoboron polymers and their preparation. 3,103,514, 9–10–63, Cl. 260—289.
McCloskey, Jack W.: *See*—
Negra, John S., and McCloskey. 3,087,778.
McCloskey Varnish Co. of the West: *See*—
Hershey, Alan U., Zack, and Worrall. 3,077,459.
McCloud, Don B., and D. E. Albon, to Airmite-Midwest Inc. Blasting agent of multi-sized and multi-density ammonium nitrate with fuel oil. 3,095,335, 6–25–63, Cl. 149—21.
McCloud, James, to Skil Corp. Pneumatic system for a rotary hammer device. 3,114,421, 12–17–63, Cl. 166—138.
McCloud, James R., to The I-T-E Circuit Breaker Co. Operating mechanism for circuit breakers. 3,106,137, 10–8–63, Cl. 92—10.
McCloud, Willys W., to Douglas Aircraft Co., Inc. Duplex transmit-receive antenna system employing a dipole and a loop. 3,105,236, 9–24–63, Cl. 343—180.
McClow, John H., Jr.: *See*—
Knacke, Theodore W., and McClow. 3,104,857.
McClung, Jack P. Telescoping inside gage instrument. 3,082,536, 3–26–63, Cl. 33—143.
McClure, Arthur W., to The Trane Co. Motor-compressor apparatus. 3,094,272, 6–18–63, Cl. 230—117.
McClure, Charles G., to Automation Industries, Inc. Ultrasonic inspection apparatus. 3,107,521, 10–22–63, Cl. 73—67.8.
McClure, John L., to General Electric Co. Timed switch actuation means. 3,096,407, 7–2–63, Cl. 200—38.
McClure, Louis C., Sr. Expansible trailer. 3,070,850, 1–1–63, Cl. 20—2.
McClure, Marshall R., Jr.: *See*—
Gross, Howard H., Murphey, and McClure. 3,074,882.
McClure, Robert E., Jr., to United States Steel Corp. Mechanism for preventing loss of steam from a space heater. 3,092,324, 6–4–63, Cl. 237—9.
McClure, Robert R.: *See*—
Moody, Lamar, and McClure. 3,083,986.
McClure, Stanley R. Auxiliary dynamotor for the ignition system of an internal combustion engine. 3,099,772, 7–30–63, Cl. 315—218.
McClure, William L., to Sun Oil Co. Elevation of granular solids. 3,083,064, 3–26–63, Cl. 302—59.
McClusky, Lonnie N.: *See*—
McKnight, William B., McClusky, and Cleven. 3,071,036.
McCobb, Paul W. Storage arrangements. 3,096,130, 7–2–63, Cl. 312—111.
McColl, David R. S., to Raytheon Co. Means for modulating high frequency generators. 3,095,543, 6–25–63, Cl. 332—51.
McCollough, William R., to Hewlett Packard Co. Current limited transistor voltage regulator. 3,100,863, 8–13–63, Cl. 323—22.
McCollum, Andrew O., to Novi Tool & Machine Co. Recycling poppet valve. 3,087,508, 4–30–63, Cl. 137—466.
McCollum, Jack W., ½ to Deere & Co. Convertible hitch. 3,093,394, 6–11–63, Cl. 280—415.
McCollum, Jack W., ½ to Deere & Co. Rotary beater with suction flails. 3,099,121, 7–30–63, Cl. 56—121.44.
McCollum, Jack W. Projectile launcher. 3,111,938, 11–26–63, Cl. 124—19.
McCombs, Edward E. Duplex apparatus for skipping and jumping rope. 3,072,402, 1–8–63, Cl. 272—74.
McCombs, Howard L., and A. P. Schnaible, to The Bendix Corp. Gas turbine fuel control including timing device for scheduling acceleration. 3,075,350, 1–29–63, Cl. 60—39.28.
McCombs, Howard L., Jr., to The Bendix Corp. Control for hydraulic servo-actuated apparatus. 3,075,351, 1–29–63, Cl. 60—39.28.
McCombs, Howard L., Jr., to The Bendix Corp. Fuel control for combustion engines. 3,105,354, 10–1–63, Cl. 60—39.28.
McConathy, J D. Game table with projectors. 3,082,003, 3–19–63, Cl. 273—126.
McConeghy, George, Jr., and H. N. Grillot, to International Harvester Co. Hay baler. 3,110,246, 11–12–63, Cl. 100—139.
McConegly, John P., to The Weinman Pump & Supply Co. Coil positioning control. 3,108,759, 10–29–63, Cl. 242—79.
McConkey, James F., Jr., and D. J. Van Slooten, to Bell Telephone Laboratories, Inc. Cushion mounting for electrical apparatus. 3,087,095, 4–23–63, Cl. 317—101.
McConkie, Howard S. Safety inner tube with means for securing same to wheel rim. 3,081,810, 3–19–63, Cl. 152—350.
McConnaughay, Kenneth E. Paving composition and method of making it. 3,110,604, 11–12–63, Cl. 106—277.
McConnaughey, Robert K. Venting closures and separators for hypodermic syringes. 3,075,525, 1–29–63, Cl. 128—218.
McConnaughey, Robert K., Disposable hypodemic syringe. 3,084,688, 4–9–63, Cl. 128—218.
McConnaughey, Robert K., and M. J. Cohen. Holder for hypodermic syrnige cartridges. 3,076,455, 2–5–63, Cl. 128—218.
McConnaughey, Robert K., and M. J. Cohen. Hypodermic syringe and ventable closure means. 3,091,240, 5–28–63, Cl. 128—218.
McConnaughey, Robert K., and M. J. Cohen. Hypodermic syringes and needle hubs therefor. 3,096,763, 7–9–63, Cl. 128—221.
McConnell, David P., to Mining Research Corp. Crushing apparatus. 3,079,096, 2–26–63, Cl. 241—218.
McConnell, Duane J., to Foley Mfg. Co. Indexing device for saw grinding machine. 3,100,327, 11–5–63, Cl. 76—40.
McConnell, James L., to Daystrom, Inc. Electronic pulse repetition rate indicator. 3,090,005, 5–14–63, Cl. 324—70.
McConnell, John R. Welding machine for connecting structural details to structural steel members. 3,085,148, 4–9–63, Cl. 219—139.
McConnell, Lattimer J.: *See*—
Powell, Milton W. 3,096,961.
McConnell, Peter J.: *See*—
Miserocchi, Henry F., and McConnell. 3,105,625.
McConnell, Richard L.: *See*—
McCall, Marvin A., and McConnell. 3,106,566.
McConnell, Richard L., and H. W. Coover, Jr., to Eastman Kodak Co. Organophosphorus derivatives of 1,2,3-thiadiazole. 3,072,669, 1–8–63, Cl. 260—302.
McConnell, Richard L., and H. W. Coover, Jr., to Eastman Kodak Co. Phosphorothiolothionates derived from glycols. 3,089,850, 5–14–63, Cl. 252—32.7.
McConnell, Richard L., and H. W. Coover, Jr., to Eastman Kodak Co. Process for preparing α-monoolefinic hydrocarbons. 3,096,385, 7–2–63, Cl. 260—683.15.

McConnell, Wayne V., and H. E. Davis, to Eastman Kodak Co. Alkylation of phenols. 3,082,258, 3–19–63, Cl. 260—624.
McConnell, William M., to Taylor-Wilson Mfg. Co. Pipe tester with automatic screw-off stations. 3,095,729, 7–2–63, Cl. 73—49.1.
McConville, Joseph H., to Bell Telephone Laboratories, Inc. Semiconductor device contact. 3,075,282, 1–29–63, Cl. 29—155.55.
McCook, Mildred T. Tether for babies' toys. 3,087,277, 4–30–63, Cl. 46—1.
McCord, Eugene B., and P. T. Scott, to E. I. du Pont de Nemours and Co. Process of preparing linear terephthalate polyester structures. 3,091,510, 5–28–63, Cl. 18—54.
McCord, Jesse L. Bushing removing and inserting tool. 3,110,958, 11–19–63, Cl. 29—263.
McCord, Robert C.: *See*—
O'Neill, Joseph V., Homanick, and McCord. 3,095,048.
McCorkle, Jimmie D. Spinner attachment for shoes. 3,091,043, 5–28–63, Cl. 36—8.3.
McCorkle, Max, to Thompson Ramo Wooldridge Inc. Liquid separator, vapor-gas injection steering system. 3,070,957, 1–1–63, Cl. 60—35.55.
McCorkle, Max, to Thompson Ramo Wooldridge Inc. Missile roll control valve system. 3,115,887, 12–31–63, Cl. 137—82.
McCorkle, Miles R., R. E. Baarson, S. H. Shapiro, and H. B. Treweek, to Armour and Co. Ore flotation collector and ore flotation process. 3,073,448, 1–15–63, Cl. 209—166.
McCormack, John F.: *See*—
Zeblisky, Rudolph J., McCormack, Williamson, and Schneble. 3,095,309.
McCormack, Thomas L.: *See*—
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McCormick, Alan G. Fuel injector. 3,106,164, 10–8–63, Cl. 103—38.
McCormick, Dale B., to General Motors Corp. Method and apparatus for making flexible belts. 3,091,837, 6–4–63, Cl. 29—148.8.
McCormick, David W.: *See*—
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McCormick, Frank, and O. Dorfmann, to Federal Carton Corp. Locked container. 3,105,626, 10–1–63, Cl. 229—33.
McCormick, Hamilton L., to General Motors Corp. Stacked plate heat exchangers. 3,098,522, 7–23–63, Cl. 164—166.
McCormick, James R. Slingshot. 3,101,704, 8–27–63, Cl. 124—20.
McCormick, James B., to Lab-Tek Plastics Co. Centrifuge container. 3,115,460, 12–24–63, Cl. 233—26.
McCormick, James W.: *See*—
Rinbaugh, Sylvester H. 3,075,310.
Rinbaugh, Sylvester H. 3,075,854.
McCormick, Jerry R. D., and W. E. Gardner, to American Cyanamid Co. Naphthacenequinones. 3,074,975, 1–22–63, Cl. 260—377.
McCormick, Milton H.: *See*—
Ray, William A., Deubel, and McCormick. 3,076,495.
McCormick, Rayna H. Football cleaning machine. Re. 25,462, 10–15–63, Cl. 15—21.
McCormick, Rayna H. Football cleaning machine. 3,072,936, 1–15–63, Cl. 15—21.
McCormick, Rayna H., to Gil-Mac Machine Co. Gauge for measuring diameters and pitches of holes in bowling balls. 3,109,243, 11–5–63, Cl. 33—174.
McCormick, Richard F.: *See*—
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McCoubrey, Arthur: *See*—
Copp, Frederick C., McCoubrey, and Billinghurst. 3,090,725.
McCoubrey, Arthur O.: *See*—
Holloway, Joseph H., and McCoubrey. 3,076,942.
McCoubrey, Arthur O., and A. Gansaen, to National Co., Inc. Nuclear maser. 3,080,519, 3–5–63, Cl. 324—.5.
McCoubrey, George A.: *See*—
Posniak, Benjamin, McCoubrey, and Babiarz. 3,106,963.
McCoy, Benjamin F.: *See*—
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McCoy, Charles E., Jr., to The Dow Chemical Co. Solid gels of liquid hydrocarbons containing salts of alkylphenoxybenzoic acids. 3,113,849, 12–10–63, Cl. 44—7.
McCoy, Claudius T., to Philco Corp. Modular circuitry. Re. 25,317, 1–8–63, Cl. 330—66.
McCoy, Lawrence B., to Key Equipment Co. Filled can depalletizer. 3,075,652, 1–29–63, Cl. 214—8.5.
McCoy, Richard W.: *See*—
Miller, Harold E., and McCoy. 3,114,487.
McCoy, Thomas A., to Carando Machine Works. Welding unit for lap-welding machines. 3,109,914, 11–5–63, Cl. 219—64.
McCracken, John H., and J. G. D. Schuls, to Gulf Research & Development Co. Nitric acid oxidation of 1,1-diarylalkanes to produce carboxy substituted diaryl ketones. 3,075,007, 1–22–63, Cl. 260—517.
McCracken, John H., and J. G. D. Schuls, to Gulf Research & Development Co. Benzophenone-tetracarboxylic dianhydrides. 3,078,279, 2–19–63, Cl. 260—346.3.
McCracken, Lyde S., to Economy Forms Corp. Adjustable aligner clamp for concrete forms. 3,092,363, 6–4–63, Cl. 248—316.
McCracken, Norman L. Journal lubricator clearance gauge. 3,079,692, 3–5–63, Cl. 33—168.
McCreary, Harold J., to Automatic Electric Laboratories, Inc. Full stroke energized rotary magnet. 3,092,737, 6–4–63, Cl. 307—112.
McCreary, Harold J., to Automatic Electric Laboratories, Inc. Telephone line concentrator. 3,096,402, 7–2–63, Cl. 179—18.
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McCrory, Rollin J., and R. D. Wilson, to The Battele Development Corp. Mechanical starter for free-piston engine. 3,071,120, 1–1–63, Cl. 123—7.
McCue, Allen P.: *See*—
Bauer, William C., McCue, and Rule. 3,072,466.
McCuen, Donald H. Liquid fuel system for vehicles. 3,101,771, 8–27–63, Cl. 158—36.3.
McCulloch Corp.: *See*—
Barr, Edward J. 3,104,617.
Carlson, Byron, and Kuhn. 3,115,908.
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Henry, Nelson R. 3,101,821.
Kruckenberg, Perry L. 3,074,388.
Millar, Gordon H. 3,096,751.
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Munson, Lyle G. 3,107,644.
McCulloch, Doyle W.: *See*—
Hanggi, George J., McCulloch, and Meyer. 3,071,686.
McCullough, Arthur E. Means for producing axonometric drawing projections. 3,077,667, 2–19–63, Cl. 33—75.
McCullough and Associates: *See*—
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McCullough, Campbell R., to Monsanto Chemical Co. Method of reducing water evaporation losses in open reservoirs. 3,098,701, 7–23–63, Cl. 21—60.5.
McCullough, Douglas G.: *See*—
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McCullough, Ira J. Power tool. 3,094,166, 6–18–63, Cl. 166—63.
McCullough, Jack A., and W. R. Stuart, to Eitel-McCullough, Inc. Apparatus for making electron tubes. 3,102,180, 8–27–63, Cl. 219—9.5.
McCullough, Ray A., and I. L. McCandless, to Blaw-Knox Co. Adjustable screed and adjustment linkage therefor. 3,080,798, 3–12–63, Cl. 94—45.
McCullough, Robert W. Textile room traversing arrangement including bobbin doffing and room cleaning devices. 3,112,601, 12–3–63, Cl. 57—52.
McCullough, Russell H., to Cinemiracle Internation Picture Inc. Mosaic motion picture projection apparatus. 3,101,643, 8–27–63, Cl. 88—16.6.
McCullough, Stuart N.: *See*—
Hollowich, Garrison G., and McCullough. 3,096,512.
McCullough, Stuart N. Switching servo system with anti-hunt feedback. 3,100,277, 8–6–63, Cl. 318—28.
McCune, James D., to Klean-Kote Inc. Method for the cleaning of pipelines. 3,073,687, 1–15–63, Cl. 51—317.
McCune, James D., to Klean-Kote Inc. Method for cleaning pipelines. 3,073,688, 1–15–63, Cl. 51—317.
McCurdy, William H.: *See*—
Miller, Carl F., Smart, and McCurdy. 3,081,520.
McCurtain, Frank, ½ to Z. E. Gibbs. Flock applying device. 3,096,213, 7–2–63, Cl. 118—638.
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McCutcheon, Samuel R., C. N. Winningstad, and C. H. Moulton, to Tektronix, Inc. Signal energy take off device. 3,105,945, 10–1–63, Cl. 333—9.
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McDaniel, Victor E., to Shell Oil Co. Wax deoiling process. 3,108,943, 10–29–63, Cl. 208—31.
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McDermott, Martin A. Storage container. 3,092,302, 6-4-63, Cl. 229—52.
McDill, William H., to Douglas Aircraft Co., Inc. Joint for honeycomb structure. 3,114,470, 12-17-63, Cl. 220—10.
McDonagh, Andrew C. Safety guard for power lawn mower. 3,106,812, 10-15-63, Cl. 56—254.
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McDonald, Robert M., to James R. Kearney Corp. Adapter for switch operator. 3,090,853, 5-21-63, Cl. 200—114.
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McDonald, Russell M. Voltage regulator for generators. 3,074,005, 1-15-63, Cl. 322—81.
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McDougall, Franklin M., to B., H., and C. J. Deutsch. Fluid mixing device. 3,072,137, 1-8-63, Cl. 137—216.
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McDowell, Thomas E., and C. C. Whiteford; said McDowell assor. to Brandon Equipment Co., Inc., and said Whiteford assor. to Ford Motor Co. Winch mechanism for vehicle tie down. 3,092,368, 6-4-63, Cl. 254—164.
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McDuffie, James W., to Sperry Rand Corp. Tying mechanism. 3,074,343, 1-22-63, Cl. 100—31.
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McEachern, Loyd R., to The American Mono Rail Co. Fiber collecting apparatus. 3,080,598, 3-12-63, Cl. 15—312.
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McElroy, Charles W., and J. S. Klein, to Safety Electrical Equipment Corp. Cargo cushioning systems. 3,098,455, 7-23-63, Cl. 105—369.
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McEver, James W., to Shell Oil Co. Method of acidizing wells. 3,115,931, 12-31-63, Cl. 166—42.
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Jackson, John G., Jr., and Rhodes. 3,095,004.
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McGeary, Robert K., and F. R. Winslow, to United States of America, Atomic Energy Commission. Fuel element for a neutronic reactor. 3,100,742, 8-13-63, Cl. 204—154.2.
McGeary, Robert K., and F. R. Winslow, to United States of America, Atomic Energy Commission. Fuel element for a neutronic reactor. 3,105,030, 9-24-63, Cl. 204—193.2.
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McGraw, George P., Jr., to Western Electric Co., Inc. Capacitor winding apparatus. 3,073,008, 1–15–63, Cl. 29—25.42.

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McCallum, John, Johnson, Ditmars, and McGraw. 3,093,514.

McGraw, Leslie D., and J. L. Stockdale, to Shuron Optical Co. Process for coating titanium articles. 3,075,896, 1–29–63, Cl. 204—37.

McGraw, Woodrow W., to Allied Chemical Corp. Dual wheel assembly for coal cutting machines. 3,079,201, 2–26–63, Cl. 301—36.

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McKee, William H., and L. B. Johnson, to United-Carr Fastener Corp. Closed-entry contact. 3,078,439, 2–19–63, Cl. 339—217.

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McKegney, Edgar L., and S. Ilnyckyj, to Esso Research and Engineering Co. Oil composition having low pour point. 3,087,894, 4–30–63, Cl. 252—56.

McKellar, Malcolm R., to General Motors Corp. Engine with side reservoir oil pan. 3,106,263, 10–8–63, Cl. 184—106.

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McKibben, Horace E., and P. F. Jones, to Blueberry Equipment, Inc. Machine for packaging loose articles such as blueberries. 3,099,115, 7–30–63, Cl. 53—67.

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McKinley, William. Interchangeable turnable heels. 3,087,265, 4–30–63, Cl. 36—35.
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McKinnis, Art C., and I. D. Webb, to Union Oil Co. of California. Azeotropic distillation method. 3,114,680, 12–17–63, Cl. 202—42.
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McKinnon, Roy A., to Thompson Ramo Wooldridge Inc. Rocket engine. 3,084,504, 4–9–63, Cl. 60—35.6.
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McLarnon, Thomas J., J. B. Stark, and C. O. Sutton, to Foremost Dairies, Inc. Photographic recording apparatus. 3,101,232, 8–20–63, Cl. 346—107.
McLarty, Frank W. Amphibious vehicles. 3,099,977, 8–6–63, Cl. 115—1.
McLauchlan, A. B., Co., Inc.: *See*—
McLauchlan, Robert D. 3,095,055.
McLauchlan, James C. Sweat cooled articles. 3,103,885, 9–17–63, Cl. 102—49.
McLauchlan, Robert D., to A. B. McLauchlan Co., Inc. Automatic filling and weighing device for successive containers. 3,095,055, 6–25–63, Cl. 177—53.
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McLaughlin, Donal, Jr. Rubber stamp. 3,096,713, 7–9–63, Cl. 101—379.
McLaughlin, Donald J.: *See*—
Fluhr, Frederick R., and McLaughlin. 3,102,926.
McLaughlin, Frank L., to Containers Corp. of America. Interlocking container and cover arrangement. 3,077,284, 2–12–63, Cl. 220—60.
McLaughlin, George F. Aseptic milk shake product and method of producing same. 3,084,052, 4–2–63, Cl. 99—189.
McLaughlin, James A. Mowing machine. 3,077,718, 2–19–63, Cl. 56—25.4.
McLaughlin, James H., to Lever Brothers Co. Dispensing device. 3,079,944, 3–5–63, Cl. 137—453.
McLaughlin, John J., to The Wilkie Co. Deflector mechanism. 3,093,236, 6–11–63, Cl. 198—185.
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Dunn, Donald A., McLaughlin, and Turnblom. 3,072,820.
McLaughlin, John W., to Ettel-McCullough, Inc. Interdigital line magnetron. 3,084,280, 4–2–63, Cl. 315—39.73.
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Henry, Harold H., and McLaughlin. 3,111,107.
McLaughlin, Robert D., R. M. Landsman, and J. L. Borden, to The Perkin-Elmer Corp. Multiple prism optical scanner. 3,093,736, 6–11–63, Cl. 250—83.3.
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McLaughlin, Samuel C., Jr. Strabismus therapy device. 3,082,763, 3–26–63, Cl. 128—76.5.
McLaughlin, William I. Vapor separator and filter for compressed air. 3,093,467, 6–11–63, Cl. 55—218.
McLaughlin, William J., to Huyck Corp. Papermakers felts and method of making them. 3,093,880, 6–18–63, Cl. 28—72.2.
McLaughlin, William R., to Picker X-ray Corp., Waite Mfg. Division, Inc. X-ray tube protection mechanism. 3,094,618, 6–18–63, Cl. 250—93.
McLaurin, Colin A., to Northwestern University. Hip joint. 3,090,964, 5–28–63, Cl. 3—15.
McLay, Gavin S. Flexible couplings. 3,084,524, 4–9–63, Cl. 64—14.
McLean, Bob N., to Santa Barbara Research Center. Composite infrared radiation detector. 3,082,392, 3–19–63, Cl. 338—18.
McLean, David A., to Bell Telephone Laboratories, Inc. Film-forming metal capacitors. 3,079,536, 2–26–63, Cl. 317—230.
McLean, Donald, N. H. Kent, and T. Steel, to Rolls-Royce Ltd. Gas turbine engine having adjustable guide vanes. 3,095,010, 6–25–63, Cl. 137—601.
McLean, Douglas K., to Harvest Queen Mill & Elevator Co. Pipeline coating thickness control. 3,079,888, 3–5–63, Cl. 118—7.
McLean, Douglas K., to Harvest Queen Mill & Elevator Co. Apparatus for pipeline treatment with contaminant-free fluid. 3,104,671, 9–24–63, Cl. 134—168.
McLean, Douglas K., to Harvest Queen Mill & Elevator Co. Pipeline access joint assembly. 3,107,380, 10–22–63, Cl. 15—104.6.
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Hay, Arthur D. 3,080,695.
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McLean, I William, Jr., and W. A. Rightsel, to Parke, Davis & Co. Antigens and process of producing same. 3,105,011, 9–24–63, Cl. 167—78.
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McLean, Melville J.: *See*—
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McLean, Ronald L., to Lord Mfg. Co. Temperature compensated viscous damper. 3,107,752, 10–22–63, Cl. 188—87.
McLean, Wayne W. Buoyancy apparatus. 3,084,358, 4–9–63, Cl. 9—337.
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McLennon, Peter J. Shoe cleaner. 3,109,188, 11–5–63, Cl. 15—3.
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McLeod, Willard W., Jr., to Raytheon Co. Antenna systems. 3,096,515, 7–2–63, Cl. 343—9.
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McMackin, Robert E. and E. E. 3,075,424.
McMackin, John J., and M. J. Paruolo, to Brockway Glass Co., Inc. Light collecting apparatus for photosensitive device. 3,092,728, 6–4–63, Cl. 250—239.
McMackin, Robert E. and E. E. Shot hole pole and coupling. 3,075,424, 1–29–63, Cl. 86—21.
McMacklin, Luther V., to The Springs Cotton Mills. Continuous peroxide bleaching of cross linked cellulose fabrics. 3,104,152, 9–17–63, Cl. 8—111.
McMahon, Howard O., to Kalvar Corp. Photo-thermolytical vesicular composition. 3,108,872, 10–29–63, Cl. 96—91.
McMahon, Howard O., and A. E. Slade, to Arthur D. Little, Inc. Superconductive data processing devices. 3,106,648, 10–8–63, Cl. 307—88.5.
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McMahon, Martin E., to Phillips Petroleum Co. Waste disposal method and apparatus. 3,084,107, 4–2–63, Cl. 202—48.
McManama, Charles E. Band-saw machine. 3,115,909, 12–31–63, Cl. 143—19.
McManus, Albert T., to United States Rubber Co. Pneumatic member. 3,076,564, 2–5–63, Cl. 214—10.5.
McManus, James M., to Chas. Pfizer & Co., Inc. Novel N-morpholinesulfonyl ureas. 3,108,098, 10–22–63, Cl. 260—247.1.
McManus, James M., and W. M. McLamore, to Chas. Pfizer & Co., Inc. Derivatives of 3,4-dihydro-1,2,4-benzothiadiazine-1,1-dioxide. 3,102,882, 9–3–63, Cl. 260—243.
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McMaster, Archie J., to G-M Laboratories Inc. Floor cleaning and polishing machine. 3,072,941, 1–15–63, Cl. 15—98.
McMaster, Archie J., and K. M. Maiershofer, to G-M Laboratories, Inc. Automatic slide projector. 3,079,840, 3–5–63, Cl. 88—28.
McMaster, Clarence O., to Minnesota Mining and Mfg. Co. Developer. 3,076,752, 2–5–63, Cl. 204—18.
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McMaster, John B., to California Research Corp. Process for the manufacture of polybutenes. 3,073,876, 1–15–63, Cl. 260—683.15.
McMath, Marl, and C. R. Sims, to The Cincinnati Butchers' Supply Co. Electric stunner for livestock. 3,110,925, 11–19–63, Cl. 17—1.
McMath, Robert R., to United Aircraft Corp. Sump tank including pump. 3,082,784, 3–26–63, Cl. 137—207.
McMichael, John D., to General Motors Corp. Fuel tank strainer. 3,108,065, 10–22–63, Cl. 210—172.
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McMillan, Donald, and C. C. Quarles, to E. I. du Pont de Nemours and Co. Preparation of hydrogen fluoride. 3,102,787, 9–3–63, Cl. 23—153.
McMillan, Peter W., and B. P. Hodgson, to The English Electric Co. Ltd. Electrically conductive glasses. 3,093,598, 6–11–63, Cl. 252—521.
McMillan, Stephen L., to General Electric Co. Brake mechanism for washing machine. 3,100,030, 8–6–63, Cl. 188—68.
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McMillen, George H., to Morgan Construction Co. Oil cleaning apparatus. 3,109,811, 11–5–63, Cl. 210—172.
McMillen, Jack W., Jr., and G. E. Rhodes, to Westinghouse Electric Corp. Bus bar apparatus and supporting means. 3,097,259, 7–9–63, Cl. 174—153.
McMillian, Lonnie S., Jr., and W. T. Eddins, to Radiation Inc. Broken ring counter circuit with internal pulse reset means. 3,100,850, 8–13–63, Cl. 307—88.5.
McMinn, Talmage D., Jr.: *See*—
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McMordie, Warren C., Jr., and G. J. Petrovich, Jr., to General Dynamics Corp. Reclamation of hydraulic fluid. 3,098,826, 7–23–63, Cl. 252—78.
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Ripley, Kenneth C. 3,083,671.
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Ripley, Kenneth C. 3,109,403.
McMullin, Earl L. Telescoping pole. 3,103,375, 9–10–63, Cl. 287—58.
McMurray, Eugene C.: *See*—
Brenner, John B., Force, McMurray, McDougal, and Harada. 3,088,538.
McMurray, Eugene C., and H. H. Harada, to General Motors Corp. Vehicle speed warning and cruise control system. 3,087,340, 4–30–63, Cl. 73—506.
McMurray, Eugene C., and R. C. Schniers, to General Motors Corp. Vehicle speed warning and cruise control system. 3,109,507, 11–5–63, Cl. 180—82.1.
McMurray, George F.: *See*—
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McMurray, Herman J., to said H. J. McMurray and N. B. McMurray. Ear tag pliers. 3,091,770, 6–4–63, Cl. 1—220.
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McMurray, Herman J. 3,091,770.
McMurray, Paul H., and J. M. Haggard, to A. O. Smith Harvestore Products, Inc. Farrowing pen construction. 3,084,668, 4–9–63, Cl. 119—20.
McMurray, Paul H. Farrowing pen. 3,106,188, 10–8–63, Cl. 119—20.
McMurry, Marshall, and L. C. Labbe. Conformable, reinforced, soft base denture. 3,083,459, 4–2–63, Cl. 32—2.
McMurtry, George: *See*—
Carson, Oliver S., and McMurtry. 3,105,174.
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Del Chiocca, Frank. 3,082,423.
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McNabb, Robert W., and H. L. Dahlstrom, to Walker Mfg. Co. Filter. 3,116,245, 12–31–63, Cl. 210—508.
McNair, Melvin L. Cultivator. 3,080,004, 3–5–63, Cl. 172—587.
McNally, Arthur F., and W. L. White, to Collins & Aikman Corp. Tufted pile fabric and method. 3,096,561, 7–9–63, Cl. 28—72.
McNally Bros. Machine & Gear Co., Inc.: *See*—
McNally, Donald L. 3,091,131.
McNally, Donald L. 3,097,871.
McNally, Donald L., to McNally Bros. Machine & Gear Co., Inc. Spacer cage. 3,091,131, 5–28–63, Cl. 74—606.
McNally, Donald L., to McNally Bros. Machine & Gear Co., Inc. Coupling device. 3,097,871, 7–16–63, Cl. 287—117.
McNally, Paul H., and N. W. Rosenberg. Process for producing a stable silica sol. 3,113,112, 12–3–63, Cl. 252—313.
McNamara, Robert J., to Joseph Bancroft & Sons Co. Method and apparatus for making textured fabrics. 3,096,559, 7–9–63, Cl. 28—1.
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McNaney, Joseph T., to General Dynamics Corp. Recorder utilizing electrostatic charges. 3,071,645, 1–1–63, Cl. 178—6.6.
McNaney, Joseph T. Light radiation sensitive variable resistance device. 3,085,159, 4–9–63, Cl. 250—211.
McNaney, Joseph T. Electrostatic data recording apparatus with radiant energy input converter means. 3,086,113, 4–16–63, Cl. 250—49.5.
McNaney, Joseph T., to General Dynamics Corp. Electron beam control apparatus for light responsive display tubes. 3,087,087, 4–23–63, Cl. 315—8.5.
McNaney, Joseph T. Photosensitive light amplifier with regenerative element. 3,091,698, 5–28–63, Cl. 250—213.
McNaney, Joseph T., to General Dynamics Corp. Means for converting an input to mechanical output control. 3,098,223, 7–16–63, Cl. 340—347.

McNaney, Joseph T. Binary code actuated alphanumeric symbol presentation apparatus. 3,101,233, 8–20–63, Cl. 346—104.
McNaney, Joseph T., to General Dynamics Corp. Image projection system. 3,102,162, 8–27–63, Cl. 178—6.6.
McNaney, Joseph T., to General Dynamics Corp. Photosensitive data providing system. 3,102,203, 8–27–63, Cl. 250—209.
McNaney, Joseph T. Bolometer. 3,106,692, 10–8–63, Cl. 338—18.
McNaney, Joseph T., to General Dynamics Corp. Decoder. 3,109,065, 10–29–63, Cl. 178—30.
McNaughtan, Thomas J., to The Borden Co. Preparation of addition products of fatty acid compounds with phenol aldehyde condensation products. 3,108,978, 10–29–63, Cl. 260—19.
McNeal, Raymond F., to Chicago Downdraft Furnace Co. Boilers having a combustion chamber encircled with water tubes. 3,107,656, 10–22–63, Cl. 122—236.
McNeally, John T.: *See*—
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McNeil, Edward A., and W. E.: said W. E. assor. to said E. A. Boat hull for planing craft. 3,108,561, 10–29–63, Cl. 144—66.5.
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Metcalfe, Kenneth A., Wright, and McNeil. 3,102,026.
McNeil Laboratories, Inc.: *See*—
Brenner, Ronald J. 3,089,825.
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Meschino, Joseph A. and Poos. 3,115,494.
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Rotter, Lutwin C. 3,081,913.
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McNeill, Jon J., to Westinghouse Electric Corp. Annunciator system. 3,107,348, 10–15–63, Cl. 340—213.
McNeill, William, J. E. Chrostowski, and T. J. Mackus, to United States of America, Army. Method of making lamellar sheets of fluorphlogopite mica. 3,100,186, 8–6–63, Cl. 204—181.
McNeill, William, and J. E. Chrostowski, to United States of America, Army. Means for reducing thermal gradients in the hot-pressing of synthetic mica. 3,100,436, 8–13–63, Cl. 100—93
McNeir, George, and J. A. Oppel, to General Electric Co. Low-inductance resistor. 3,074,042, 1–15–63, Cl. 338—280.
McNellis, Edward J., to Sun Oil Co. Preparation of phenyl benzoate and conversion thereof to phenol. 3,078,299, 2–19–63, Cl. 260—476.
McNellis, Edward J., to Sun Oil Co. Preparation of 1,2,3,4-tetraphenyl naphthalene. 3,082,268, 3–19–63, Cl. 260—668.
McNenney, William, to The Goodyear Tire & Rubber Co. Apparatus for shaping tires. 3,107,192, 10–15–63, Cl. 156—416.
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McNutt, John: *See*—
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McOrlly, Joseph, to Edwin L. Wiegand Co. Electric heater assembly. 3,087,134, 4–23–63, Cl. 338—273.
McOrlly, Joseph, to Edwin L. Wiegand Co. Electric heater. 3,116,400, 12–31–63, Cl. 219—37.
McPeek, Lewis D., Jr. Chalk board eraser. 3,110,917, 11–19–63, Cl. 15—118.
McPhaden, Lawrence A. Combined gate and hinge structure. 3,074,475, 1–22–63, Cl. 160—160.
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McPherson, Alexander, to Associated Electrical Industries Ltd. Means for orienting valve bases and similar components. 3,109,530, 11–5–63, Cl. 198—33.
McPherson, Harry L. Altitude sensing device for aircraft controls. 3,077,322, 2–12–63, Cl. 244—78.
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Goldberg, Jay S. 3,072,375.
McPhilben Mfg. Co., Inc.: *See*—
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McQuaid, John W., to Esso Research and Engineering Co. Sampling device. 3,080,759, 3–12–63, Cl. 73—422.
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Mayfield, George C. 3,099,455.
McQueen, Irel S., to United States of America, Interior. Cooler and humidifier for subsoil centrifuge. 3,109,872, 11–5–63, Cl. 261—24.
McQuillan, Marion K., and E. W. Evans, to Imperial Chemical Industries Ltd. Titanium-beryllium-silicon alloy. 3,106,495, 10–8–63, Cl. 148—13.
McQuillen, Edward J., and F. X. Murphy, to United States of America, Navy. Apparatus for towed aircraft. 3,100,093, 8–6–63, Cl. 244—3.
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McRae, Edwin C. Engine accessory drive. 3,096,662, 7–9–63, Cl. 74—336.
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McRae, Kenneth M., and C. E. Hoover. Method and apparatus for fastening of structural members. 3,090,961, 5–28–63, Cl. 1—151.
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McRobbie, John A. and A. F. Light-dome, suspended sponge-washed traffic line reflector. 3,093,038, 6–11–63, Cl. 94—1.5.
McRobbie, Robert M., to Richmond Screw Anchor Co., Inc. Supports for pre-stressing strands in concrete construction. 3,100,803, 10–15–63, Cl. 50—130.
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McStravick, Peter R., W. C. Lindsey, and G. C. Terrel, to Jersey Production Research Co. Apparatus for positioning well pipe. 3,100,529, 8–13–63, Cl. 166—52.
McTaggart, Robert B., E. F. Jackson, and R. M. Huck, to Monsanto Chemical Co. Producing fast-curing novolac resins. 3,100,547, 10–8–63, Cl. 260—57.
McThomas, William D., to United States of America, Army. Recoil-operated multiple barrel gun. 3,071,043, 1–1–63, Cl. 89—12.
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McWaid, John A., to Borg-Warner Corp. Linearizing system. 3,071,725, 1–1–63, Cl. 324—79.
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Meek, Cicero P., and S. P. Wall, Jr. Microdermatome. 3,076,462, 2-5-63, Cl. 128—305.

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Mosig, Willy, Meisezahl, Schilling, and Kohler. 3,115,-023.

Meisinger, Erwin E., to Universal Oil Products Co. Process for the alkylation of saturated hydrocarbons. 3,113,988, 12-10-63, Cl. 260—683.53.

Meisner, Herbert I. Outrigger line release. 3,081,575, 3-19-63, Cl. 43—43.12.

Meisser, Marc A., to Brevets Aero-Mecaniques S.A. Textile spindle clutch. 3,076,305, 2-5-63, Cl. 57—129.

Meissner, Hans W., 50% to W. G. Finch. Superconducting contact devices. 3,096,421, 7-2-63, Cl. 200—166.

Meissner, Hans W., ½ to W. G. Finch. Superconducting films. 3,115,612, 12-24-63, Cl. 338—32.

Meissner, William E., to FMC Corp. Method for closing and sealing containers. 3,111,796, 11-26-63, Cl. 53—38.

Meissner-Bub, Marta. Device for securing the external turns of a ball of yarn or cord. 3,107,407, 10-22-63, Cl. 24—150.

Meister, Eugene N., to The Firewel Co., Inc. Quick donning mask. 3,095,876, 7-2-63, Cl. 128—146.

Meister, Hans U.: *See—*
Razavi, Djavad, Floroni, and Meister. 3,087,935.

Meister, Heinrich, to Baxter Laboratories, Inc. Liquid chill proofing composition. 3,095,358, 6-25-63, Cl. 195—63.

Meister, Jack B., to Monroe Calculating Machine Co. Read-out and recording apparatus. 3,106,340, 10-8-63, Cl. 235—60.27.

Meiswinkel, Frederick, Inc.: *See—*
Thompson, George A. 3,074,090.

Meixner, Willi: *See—*
Schmitt, Karl, Lindner, and Meixner. 3,103,516.

Mekelburg, Earl F., to Square D Co. Indicating light assembly. 3,090,892, 5-21-63, Cl. 315—129.

Mekjean, Matthew, to Hooker Chemical Corp. Salt bath for electrolytic cleaning of metals. 3,096,261, 7-2-63, Cl. 204—141.

Melaas, Bruce A.: *See—*
Wheeler, Edward N., Stearns, Melaas, and Gesting. 3,102,905.

Melabs: *See—*
McPhail, James H., and Budd. 3,074,008.

Melas, Constantin M., to International Business Machines Corp. Self-clocking system for binary data signal. 3,114,109, 12-10-63, Cl. 328—63.

Melan, Rudolf: *See—*
Simon, Walter, Waldmann, Melan, and Plauth. 3,093,-686.

Melander, Bengt O., and T. R. Nilsson, to A/B Kabi. Therapeutic compositions against virus diseases. 3,073,744, 1-15-63, Cl. 167—65.

Melanson, Everett: *See—*
Barlow, Norman M., and Melanson. 3,083,429.

Melcher, Albert: *See—*
Jacobs, Gerhard, and Melcher. 3,100,828.

Melcher, Alton R.: *See—*
Rothberg, Jack L., and Melcher. 3,093,374.

Melcher, Ronald E.: *See—*
Wallace, Burgess P., and Melcher. 3,086,874.
Wallace, Burgess P., and Melcher. 3,086,875.
Wallace, Burgess P., and Melcher. 3,095,310.

Melchione, Raymond J.: *See—*
Branman, Solomon, and Melchione. 3,111,810.

Melchior, Frederick: *See—*
Pike, Edward W., Little, and Melchior. 3,112,649.

Melchior, Frederick C.: *See—*
Pike, Edward W., Little, and Melchior. 3,091,122.

Melchior, Frederick C. Submarine surface sensing system. 3,098,389, 7-23-63, Cl. 73—384.

Melchiore, John J.: *See—*
Douros, John D., Jr., Raymond, and Melchiore. 3,080,278.
Mills, Ivor W., and Melchiore. 3,097,231.

Melchor, Jack L.: *See—*
Ayres, Wesley P., Melchor, and Vartanian. 3,095,546.

Mele, John M. Beer can holder. 3,074,678, 1-22-63, Cl. 248—145.6.

Melen, Ralph B., to Flex-O-Loc Corp. Spring assembly. 3,087,169, 4-30-63, Cl. 5—259.

Meletti, Adolph, to Vacuum Cleaner Corp. of America. Cord reel. 3,093,341, 6-11-63, Cl. 242—107.

Melhart, Leonard J. Capacitor discharging device. 3,097,256, 7-9-63, Cl. 174—5.

Melikian, Gorken, and G. T. Peters, to United Aircraft Corp. CO_2 freezeout system. 3,093,470, 6-11-63, Cl. 62—39.

Melikian, Vaughn W. Fruit drying tray. 3,097,077, 7-9-63, Cl. 34—93.

Melill, Joseph, and S. Salmassy, to North American Aviation, Inc. Method for improving machinability characteristics of semi-austenitic stainless steels. 3,082,132, 3-19-63, Cl. 148—136.

Melill, Joseph, R. A. Happe, S. G. Smithhart, C. H. Hall, and L. W. Myers, to North American Aviation, Inc. Honeycomb sandwich panel brazing. 3,110,961, 11-19-63, Cl. 29—471.1.

Melim, Ltd.: *See—*
Melim, Theodore C., Jr. 3,101,509.

Melim, Theodore C., Jr., to Melim, Ltd. Production of camelback ribbon. 3,101,509, 8-27-63, Cl. 18—2.

Melin, Arthur K., to Wham-O Mfg. Co. Jet-propelled toy. 3,079,727, 3-5-63, Cl. 46—41.

Melin, Arthur K. Hoop toy. 3,079,728, 3-5-63, Cl. 46—47.

Mellss, Kurt M., to Esso Leuna Gesellschaft m.b.H. Apparatus for separating paraffin wax from mixtures of wax and hydrocarbon oils. 3,074,856, 1-22-63, Cl. 196—14.5.

Mell, Jack R. Display package. 3,089,590, 5-14-63, Cl. 206—78.

Mellan, Charles H.: *See—*
Skronek, Robert E., Tuttle, and Mellan. 3,104,471.

Mellan, Ibert, to Polychrome Corp. Photosensitive lithographic plate comprising photosensitive diazo resins and method for preparing same. 3,113,023, 12-3-63, Cl. 96—33.

Melle, Heinz, to Voigtlander, A.G. Photographic camera with exposure meter photocell adjustable for discrete scanning. 3,075,440, 1-29-63, Cl. 95—10.

Melle, Heinz, to Voigtlander, A.G. Photographic camera with exposure meter photocell adjustable in accordance with objective focusing. 3,093,041, 6-11-63, Cl. 95—10.

Mellen, Edward J., Jr., R. J. de Fasselle, and J. M. Webb; said de Fasselle and said Webb assors. to said Mellen. Dusting apparatus. 3,082,737, 3-26-63, Cl. 118—309.

Mellen, William F. Two-way plow. 3,107,735, 10-22-63, Cl. 172—226.

Mellen, William F. Means operated in response to movement of an implement to a raised positon for locking the implement against lateral sway. 3,107,736, 10-22-63, Cl. 172—457.

Mellette, Francis M., to Minneapolis-Honeywell Regulator Co. Multiple burner monitor. 3,111,160, 11-19-63, Cl. 158—28.

Mellin, Kenneth R.: *See—*
Smith, Alfred J., and Mellin. 3,089,078.

Mellin, L. H., Inc.: *See—*
Anderson, Dwight A., and Gretz. 3,115,118.
Gretz, Charles. 3,106,908.

Mellinger, Ernest F., to Ryan Aeronautical Co. Brazing and heat treating apparatus for honeycomb core panels. 3,087,-046, 4-23-63, Cl. 219—85.

Mello, William. Modified pump for viscous material. 3,113,-525, 12-10-63, Cl. 103—126.

Mellon, Charles A.: *See—*
Tuttle, Robert S., and Mellon. 3,093,378.

Mellon, John J., Jr.: *See—*
Harding, Jonathan, Mellon, and Rubilotta. 3,103,022.

Mellon, John J., Jr., and P. J. Rubilotta, to United States of America, Navy. Inlet control for escape appliance. 3,107,373, 10–22–63, Cl. 9—313.

Mellon National Bank and Trust Co., The: *See*—
Aspey, Wayne S., and Baker. 3,110,791.
Cromer, Charles F., Sandin, Baker, and Mellon National Bank and Trust Co. 3,095,490.

Mellott, Robert N., to Thompson Ramo Wooldridge, Inc. Gating circuit. 3,109,104, 10–29–63, Cl. 307—88.5.

Mellott, Robert N., and A. D. Scarbrough, to Thompson Ramo Wooldridge Inc. Timing signal generator. 3,080,487, 3–5–63, Cl. 307—88.5.

Mellow, Ernest W., to Phillips Petroleum Co. Polymerization control. 3,074,919, 1–22–63, Cl. 260—93.7.

Mellow, Paul A. Grain elevator control system. 3,095,097, 6–25–63, Cl. 214—2.

Mellowes, Charles N., to Positive Lock Washer Co. Apparatus for producing lock washers. 3,086,228, 4–23–63, Cl. 10—73.

Melloy, George F.: *See*—
Epstein, Samuel, Frame, and Melloy. 3,076,861.

Melman, Israel J.: *See*—
Knoll, Joseph, and Melman. 3,111,556.

Melnick, Daniel: *See*—
Josefowicz, Edmund L., and Melnick. 3,094,420.

Melnikoff, Zachery. Reservoir seal for semi-fluent materials. 3,115,270, 12–24–63, Cl. 220—60.

Melnor Industries, Inc.: *See*—
Rinkewich, Isaac. 3,081,950.

Melone, Gaetano: *See*—
Vecchi, Alberto, and Melone. 3,102,841.

Melpar, Inc.: *See*—
Asten, William P. 3,106,124.
Campanella, Samuel J., and Bayston. 3,078,345.
Coulter, David C. 3,115,605.
Varela, Arthur A. 3,114,909.
Williams, Richard E. 3,076,191.

Melrose Hospital Uniform Co., Inc.: *See*—
Bodnar, John J., and Lewis. 3,108,292.

Melser, Lorrain E.: *See*—
Lower, Donald P., and Melser. 3,071,419.

Meltendorf, Kurt: *See*—
Butenuth, Günther, Meltendorf, Gäbler, and Sennewald. 3,079,325.

Melton, Charles W.: *See*—
Nelson, Christian K., Melton, and Jernigan. 3,080,884.
Nelson, Christian K., Melton, and Jernigan. 3,088,638.

Melton, Donald F.: *See*—
Froehlich, Harold E., Kizzek, Melton, and Schwoebel. 3,077,779.
James, Thomas R., Melton, and Hedin. 3,108,498.

Melton, Donald F., and H. E. Froehlich, to General Mills, Inc. Underwater vehicle system. 3,099,913, 8–6–63, Cl. 61—69.

Melton, James F., to Alto Scientific Co., Inc. Temperature sensor. 3,085,216, 4–9–63, Cl. 338—28.

Melton, James O., and T. B. Wilkinson, to Jamco, Inc. Pivotal bearing assembly for connecting two relatively moving members. 3,072,448, 1–8–63, Cl. 308—238.

Melton, James O., and I. M. Carpenter, to The Geolograph Co. Device for compensating for temperature changes in a hydraulic system. 3,074,272, 1–22–63, Cl. 73—141.

Melton, James O., and T. B. Wilkinson. Ball joint assembly. 3,079,183, 2–26–63, Cl. 287—90.

Melton, James O., and T. B. Wilkinson. Ball joint assembly. 3,079,184, 2–26–63, Cl. 287—90.

Melton, James O., and T. B. Wilkinson. Bearing assembly for connecting two relatively moving members. 3,088,784, 5–7–63, Cl. 308—72.

Melton, James O., and I. M. Carpenter, to The Geolograph Co. Automatic control device for drilling apparatus. 3,104,864, 9–24–63, Cl. 254—173.

Melton, Thomas M., to Virginia-Carolina Chemical Corp. S,S-dipropyl O-methyl phosphorodithioite. 3,095,439, 6–25–63, Cl. 260—461.

Meltzer, Henry E., to Master Appliance Corp. Heat blow gun with scraper. 3,109,083, 10–29–63, Cl. 219—39.

Meltzer, Henry E. Heat blow gun. 3,115,557, 12–24–63, Cl. 219—39.

Meltzer, Jacques: *See*—
Koopmans, Martinus J., Meltzer, Hutsman, van den Bos, Wellinga, and Schoot. 3,111,526.

Meltzer, Jacques, B. G. van den Bos, and C. J. Schoot, to North American Philips Co., Inc. Acaricidal diamido phosphate phenol complex. 3,089,808, 5–14–63, Cl. 167—30.

Meltzer, Jacques, K. Wellinga, and B. G. van den Bos, to North American Philips Co., Inc. Certain phosphorus ester derivatives of 3-aminotriazole. 3,111,525, 11–19–63, Cl. 260—308.

Meltzer, Robert I., to Warner-Lambert Pharmaceutical Co. Process for preparing 3-nitrobenzaldehyde ethers. 3,085,111, 4–9–63, Cl. 260—600.

Meltzer, Robert I., to Warner-Lambert Pharmaceutical Co. Process of preparing diiodinated analogs of thyronine. 3,102,136, 8–27–63, Cl. 260—519.

Meltzer, Robert I., and W. B. Lutz, to Warner-Lambert Pharmaceutical Co. Polyalkyl substituted-4-guanido-piperidines. 3,072,663, 1–8–63, Cl. 260—293.

Meltzer, Robert I., and W. B. Lutz, to Warner-Lambert Pharmaceutical Co. Alkylated derivatives of 4,4'-bis(4-piperidinols). 3,072,667, 1–8–63, Cl. 260—294.7.

Meltzer, Robert I., and W. B. Lutz, to Warner-Lambert Pharmaceutical Co. 1,4-bis (tetramethyl-4-hydroxy-4-piperidyl) butadiyne. 3,072,668, 1–8–63, Cl. 260—294.7.

Meltzer, Robert I., and W. B. Lutz, to Warner-Lambert Pharmaceutical Co. 1,6-bis(2,2,6,6-tetramethylpiperidino)-2,4-hexadiyne. 3,085,093, 4–9–63, Cl. 260—293.

Meltzer, Robert I., and W. B. Lutz, to Warner-Lambert Pharmaceutical Co. 1,4-bis(polyalkyl substituted-4-hydroxy-4-piperidyl) butanes. 3,086,022, 4–16–63, Cl. 260—294.7.

Meltzer, Robert I., and R. J. Stanaback, to Warner-Lambert Pharmaceutical Co. Method of preparing thyroxine and its analogs. 3,109,024, 10–29–63, Cl. 260—519.

Meltzer, Robert J., to Bausch & Lomb Inc. Contour projector with means for adjusting the viewing angle. 3,099,185, 7–30–63, Cl. 88—24.

Melville, John W.: *See*—
Elchorn, Roger H., and Melville. 3,100,111.

Melville, Wilbur J. Control means for registration control device. 3,084,579, 4–9–63, Cl. 83—74.

Melvin, Fred J., and M. P. Haverstick, to National Rejectors Inc. Coin-actuated devices. 3,082,852, 3–26–63, Cl. 194—10.

Melvin, James M.: *See*—
Hoose, Francis D., and Melvin. 3,091,345.

Melvin, John R., to The Brush Beryllium Co. Method for trepanning tapered metal shapes. 3,109,232, 11–5–63, Cl. 29—413.

Melvin, Myron F. Variable resistor. 3,090,024, 5–14–63, Cl. 338—170.

Melvin, Paul A., and H. L. Wallin; said Wallin assor. to said Melvin. Adjustable portable strike-off. 3,095,789, 7–2–63, Cl. 94—45.

Melzer, Julius F. Heating method and apparatus. 3,094,280, 6–18–63, Cl. 236—93.

Membrino, Herman. Container forming mechanism and process. 3,111,063, 11–19–63, Cl. 93—8.

Memelink, Oscar W., to North American Philips Co., Inc. P-I-N semi-conductor device having negative differential resistance properties. 3,081,404, 3–12–63, Cl. 307—88.5.

Memering, Leroy J.: *See*—
Einhorn, Stanley C., and Memering. 3,114,722.

Memsco Mfg. Co.: *See*—
Selikson, Nathan. 3,100,108.

Mench, John W.: *See*—
Malm, Carl J., Fulkerson, and Mench. 3,103,506.

Mench, John W., and B. Fulkerson, to Eastman Kodak Co. Process for preparing nitrogen-containing cellulose derivatives. 3,089,870, 5–14–63, Cl. 260—226.

Mendels, Irwin J. Copyholder attachment. 3,081,739, 3–19–63, Cl. 120—33.

Mendels, Irwin J. Copyholder. 3,089,464, 5–14–63, Cl. 120—33.

Mendelsohn, Bernard E. Storm window. 3,080,620, 3–12–63, Cl. 20—55.

Mendelsohn, Bernard E. Storm window. 3,080,621, 3–12–63, Cl. 20—55.

Mendelsohn, Bernard E. Storm sash. 3,080,622, 3–12–63, Cl. 20—55.

Mendelsohn, Bernard E. Storm window. 3,081,503, 3–19–63, Cl. 20—52.2.

Mendelsohn, Bernard E. Window frame for storm sash. 3,081,852, 3–19–63, Cl. 189—75.

Mendelsohn, Meyer: *See*—
Yardney, Michel N., and Mendelsohn. 3,087,861.

Mendelsohn, Meyer, to Yardney International Corp. Metal-polyvinylpyrrolidone compound and process for preparing same. 3,082,193, 3–19–63, Cl. 260—88.3.

Mendelsohn, Meyer, and C. Horowitz, to Yardney International Corp. Antimicrobial treatment of organic materials and composition therefor. 3,079,213, 2–26–63, Cl. 8—115.5.

Mendelsohn, Meyer, and C. Horowitz, to Yardney International Corp. Antimicrobial composition and process for applying same. 3,087,774, 4–30–63, Cl. 8—115.5.

Mendelsohn, Meyer, and C. Horowitz, to Yardney International Corp. Method of dyeing with polyvinyl alcohol ester and quaternary ammonium compounds. 3,104,933, 9–24–63, Cl. 8—85.

Mendelsohn, Robert A.: *See*—
Wagner, Charles E., and Mendelsohn. 3,099,433.

Mendelson, Emanuel S. Ear plug. 3,110,356, 11–12–63, Cl. 181—23.

Mendelson, Hans, and C. I. Tighe, Jr., to Radio Corp. of America. Portable radio receiver casing and battery holder means. 3,071,639, 1–1–63, Cl. 136—173.

Mendenhall, Charles A.: *See*—
Hood, Edwin E., and Mendenhall. 3,090,247.

Mendez Llamozas, Juan D. High pressure ejection impeller. 3,098,354, 7–23–63, Cl. 60—35.54.

Mendiola, Emilio S. Washers in predetermined form made of plastic for screw caps for bottles and containers. 3,079,023, 2–26–63, Cl. 215—40.

Mendius, Carl, Jr., to Silbrico Corp. Process for material abatement of odor arising from sewage effluent. 3,113,924, 12–10–63, Cl. 210—63.

Menell, Hans: *See*—
Beckadolph, Richard, Menell, and Nicias. 3,081,814.

Menemotron Corp.: *See*—
Clynes, Manfred E. 3,087,487.

Meng, Karl H.: *See*—
Brown, Winton, and Meng. 3,108,120.

Mengani, Carl M.: *See*—
Relis, Matthew J., and Mengani. 3,091,738.

Menge, Carl. Plant guard and support. 3,088,245, 5–7–63, Cl. 47—47.

Mengel, William F. Machine for spreading concrete and other road materials. 3,107,592, 10–22–63, Cl. 94—46.

Mengelkamp, Richard A.: *See*—
Grantham, Lloyd B., and Mengelkamp. 3,077,745.

Menicanti, Adriano, to Ing. C. Olivetti & C., S.p.A. Type action for hand-operated typewriters. 3,073,428, 1–15–63, Cl. 197—27.

Menk, Melvin A., to General Motors Corp. Timer controlled clothes dryer. 3,071,864, 1–8–63, Cl. 34—45.

Menkart, John H., and R. S. Allan, to Chemical Development of Canada, Ltd. Readily dissolving cellulose derivatives and process therefor. 3,072,635, 1–8–63, Cl. 260—232.

Menke, John R., to United States of America, Atomic Energy Commission. Composite neutronic reactor. 3,093,563, 6–11–63, Cl. 204—193.2.

Menke, Joseph F., to Eltro Gesellschaft fur Strahlungstechnik m.b.H. Electrical power source for rockets. 3,088,988, 5–7–63, Cl. 136—4.

Menkin, Benjamin D.: *See*—
Phinizy, Robert B., and Menkin. 3,073,995.

Menn, Walter A.: *See*—
Kress, George H., and Menn. 3,099,413.

Mennell, Alton I. Fireplace log conserver. 3,110,342, 11–12–63, Cl. 158—12.

Mennen Co., The: *See*—
Gonnella, Carmen J., and Marchant. 3,095,598.

Mennen, Frederick C., to American Home Products Corp. Apparatus for shaping metal foil. 3,110,233, 11–12–63, Cl. 93—84.

Mennesson, André L., to Societe Industrielle de Brevets et d'Etudes S.I.B.E. Carburetors comprising an auxiliary device to increase the fuel feed for cold starting conditions. 3,109,874, 11–5–63, Cl. 261—39.

Mennesson, Bernard R., to The Societe d'Appareils de Controle et d'Equipment des Moteurs (S.A.C.E.M.). Internal combustion engines protected against transmission of radio interferences, in particular for lightweight vehicles. 3,100,480, 8–13–63, Cl. 123—148.

Mennie, Cecil A., 20% to J. L. Roche, 10% to H. I. Shealey, 5% to A. M. Healey, and 10% to S. McGuinness. Sound reproducing device. 3,073,605, 1–15–63, Cl. 274—25.

Mennitt, Joseph L., to Owens-Illinois Glass Co. Apparatus for supporting and cutting semiplastic bodies. 3,088,186, 5–7–63, Cl. 25—112.

Meno, Stanley J. Quick release anchor. 3,071,096, 1–1–63, Cl. 114—208.

Menolasino, Dominic: *See*—
Menolasino, Nicholas J. and D. 3,115,992.

Menolasino, Nicholas J. and D., ¼ to A. S. Belcove and ¼ to S. Santow. Disc dispenser. 3,115,992, 12–31–63, Cl. 221—264.

Menoret, Yves, and R. Gantheret, to Societe en nom collectif Pernod & Ricard. Apparatus for storing fermentable liquids. 3,094,060, 6–18–63, Cl. 99—269.

Mense, Inc.: *See*—
Younger, Joy M. 3,098,484.

Mensforth, Thomas. Single-phase or like alternating current electric motors. 3,082,365, 3–19–63, Cl. 318—244.

Mentel, Raymond, and A. W. Curtis, to International Radiant Corp. Gas-fueled infrared generator. 3,084,736, 4–9–63, Cl. 158—114.

Menter, Daniel J.: *See*—
Conti, Alfred R., and Menter. 3,102,326.

Mentink, John P.: *See*—
Manning, Edward V., and Mentink. 3,106,057.

Mention, Maurice, to Les Usines de Melle (Societe Anonyme). Process for separating mixtures containing carbonyl compounds and corresponding alcohols. 3,073,752, 1–15–63, Cl. 202—42.

Mentzer, Charles R., to AMP Inc. Crimping machine. 3,091,275, 5–28–63, Cl. 153—1.

Mentzer, Everett K., and E. C. Webb, to The Cleveland Trust Co. Bowling game apparatus. 3,091,457, 5–28–63, Cl. 273—54.

Mentzer, Robert E., to Philco Corp. Electrical apparatus. 3,084,237, 4–2–63, Cl. 200—122.

Menuhin, Yehudi, and E. M. Goldberger. Violin with chin rest. 3,090,275, 5–21–63, Cl. 84—279.

Menz, Charles N., and J. B. Clancy, to The Bendix Corp. Feeding mechanism calendering machine. 3,074,105, 1–22–63, Cl. 18—9.

Menz, Lothar: *See*—
Hering, Hans, Menz, and Caffier. 3,082,603.

Menzel, Ilse: *See*—
Andreas, Holger, Klump, and Menzel. 3,080,408.

Menzel, Karl H.: *See*—
Menzel, Martin and K. H. 3,110,074.

Menzel, Karl-Heinz: *See*—
Wahl, Ottmar, and Menzel. 3,079,255.

Menzel, Martin and K. H. Apparatus for the production of masts, tubes, columns and the like. 3,110,074, 11–12–63, Cl. 25—127.

Menzel, Wolfgang A., to United States of America, Navy. Aerodynamic computer and method. 3,095,735, 7–2–63, Cl. 73—147.

Menzi, Robert F., to Dr. A. Wander, S.A. Edible low calorie composition and process of production. 3,097,946, 7–16–63, Cl. 99—1.

Meopta-Praha, narodni podnik: *See*—
Kadlec, Zdeněk, and Lebeda. 3,093,204.

Meranto, Samuel R. Automobile window screen. 3,085,621, 4–16–63, Cl. 160—91.

Merbler, Rudolph, and C. Sroka. Spare wheel locking device. 3,081,924, 3–19–63, Cl. 224—42.24.

Mercer, Frank B., to Plastic Textile Accessories Ltd. Extrusion of plastic sheeting or netting. 3,070,840, 1–1–63, Cl. 18—12.

Mercer, George K., to Dunlop Rubber Co. Ltd. Automatic release hook assembly. 3,109,676, 11–5–63, Cl. 294—84.

Mercer, George K., and D. Dewar, to Dunlop Rubber Co. Ltd. Quick-release device. 3,075,208, 1–29–63, Cl. 9—33.

Mercer, Neil H., and R. J. Bequette, to Mead Johnson & Co. Bronchodilator expectorant composition containing theophylline and a guaiacol. 3,109,773, 11–5–63, Cl. 167—55.

Mercer, Roy C., Sr. Clamp-on lubricating appliance. 3,101,812, 8–27–63, Cl. 184—105.

Mercer, William R., to ACF Industries Inc. Pressure actuated closure assembly. 3,079,035, 2–26–63, Cl. 220—46.

Mercer, William R., to Sanders Associates, Inc. Automatic range tracking radar system. 3,092,831, 6–4–63, Cl. 343—7.3.

Merchant, Chester O., to Swanson-Erie Corp. Horizontal tube flaring machine. 3,077,095, 2–12–63, Cl. 65—177.

Merchant, Donald R.: *See*—
Harbers, Henry C., and Merchant. Re. 25,315.
Harbers, Henry C., and Merchant. 3,111,346.

Merchant, Dorriss H.: *See*—
Phenix, Bruce C., Jr., Merchant, and Mitchell. 3,100,744.

Merchant, Robert L.: *See*—
Recknor, Clarence E., Merchant, and D. W. and D. O. Miller. 3,109,503.

Mercier, Henri: *See*—
Soudan, Paul, and Mercier. 3,095,280.

Mercier, Jean. Piston accumulator. 3,074,437, 1–22–63, Cl. 138—31.

Mercier, Jean. Pressure container. 3,077,208, 2–12–63, Cl. 138—30.

Mercier, Jean. Pressure vessels. 3,088,492, 5–7–63, Cl. 138—30.

Mercier, Jean. Pressure vessels. 3,095,013, 6–25–63, Cl. 138—30.

Mercier, Jean. Control valves. 3,100,508, 8–13–63, Cl. 137—625.66.

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Benzing, Walter C., Schaarschmidt, and Grammer. 3,112,997.
Beyler, Roger E. 3,105,840.
Bicking, John B. 3,097,210.
Bicking, John B. 3,113,940.
Brown, Horace D. 3,102,074.
Brown, Horace D., Matzuk, and Sarett. 3,107,251.
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Chamberlin, Earl M. 3,094,542.
Chemerda, John M., and Erickson. 3,074,934.
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Christensen, Burton G. 3,100,210.
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Conn, John B. 3,091,516.
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Currie, Robert B. 3,113,947.
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Demain, Arnold L. 3,116,216.
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Fried, John, and Bry. 3,072,646.
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Grim, Wayne M. 3,113,073.
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Miller, Brinton M., and Putter. 3,102,076.
Novello, Frederick C., and Sprague. 3,097,204.
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Patchett, Arthur A. 3,103,510.
Patchett, Arthur A., Arth, and Hoffman. 3,094,521.
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Patchett, Arthur A., and Glarrusso. 3,083,200.
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Poos, George I., and Sarett, 3,074,979.
Reisfeld, Ralph A., and Tong. 3,098,792.
Rogers, Edward F., and Clark. 3,088,867.
Sarett, Lewis H., Beyler, and Hoffman. 3,079,407.
Schuchardt, Lee F. 3,097,140.
Schuchardt, Lee F., and Zullick. 3,097,142.
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Shen, Tsung Y., Rogers, and Sarett. 3,080,876.
Shunk, Clifford H. 3,080,282.
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Slates, Harry L., and Wendler. 3,082,219.
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Taub, David, and Wendler. 3,116,304.
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Topas, Benjamin. 3,105,784.
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Mericola, Francis C.: *See*—
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Merker, Alfred H. Universal press. 3,100,438, 8-13-63, Cl. 100—214.

Merker, Dwight R., to Swift & Co. Color improvement of peanut butter. 3,085,016, 4-9-63, Cl. 99—128.

Merkle, Charles R. Feed dispenser. 3,099,980, 8-6-63, Cl. 119—57.

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Merli, Bruno, and G. Jannuzzi, to Ing. C. Olivetti & C., S.p.A. Recording machine for a sheet record having two opposite recording faces. 3,093,436, 6-11-63, Cl. 346—125.

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Merrill, Bennett W., to New Castle Products, Inc. Foldable door sealing arrangement. 3,082,817, 3-26-63, Cl. 160—40.

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Merrill, Charles W., and A. A. Gebhardt, to Mefco Sales & Service Corp. Remotely controlled positioning apparatus. 3,110,177, 11-12-63, Cl. 73—143.

Merrill, Howard E., to Esso Research and Engineering Co. Isomerization process and catalyst. 3,072,731, 1-8-63, Cl. 260—683.75.

Merrill, Jesse P. Sweeper scrubber. 3,110,055, 11-12-63, Cl. 15—544.

Merrill, Joseph R., to Magic Seal Truck Door Corp. Multiple interlocking closure. 3,100,483, 11-5-63, Cl. 160—209.

Merrill, Leland H. Capsule and tablet inspection machine. 3,084,781, 4-9-63, Cl. 198—33.

Merrill, Leland H., and C. F. Bross; said Bross assor. to said Merrill. Capsule cleaning and polishing machine. 3,105,986, 10-8-63, Cl. 15—21.

Merrill, Richard D., and M. L. Tinker, to Union Wadding Co. Seed planter. 3,080,681, 3-12-63, Cl. 47—56.

Merrill, Speeter E., and W. C. Anthony, to The Upjohn Co. Novel process for the preparation of tryptophols and to novel compounds produced therein. 3,076,814, 2-5-63, Cl. 260—319.

Merrill, Stewart H., and C. C. Unruh, to Eastman Kodak Co. Polymeric azides and azidophthalic anhydrides. 3,096,311, 7-2-63, Cl. 260—78.5.

Merrimac Research and Development, Inc.: *See*—
Oliner, Arthur A. 3,089,103.
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Merriman, Glenn A. Game apparatus. 3,115,129, 12-24-63, Cl. 124—5.

Merriman, Henry H. Coupling for tube expander. 3,084,961, 4-9-63, Cl. 285—242.

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Merriman, Henry H. Insert bushing. 3,108,500, 10-29-63, Cl. 77—62.

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Merritt, Earl L. Rocket toy. 3,113,398, 12-10-63, Cl. 56—235.

Merritt, Everett L., to Photogrammetry, Inc. Zenith camera system. 3,080,801, 3-12-63, Cl. 95—1.1.

Merritt, Henry B., R. C. Geitz, and W. J. Nellen, to American Machine & Foundry Co. Drum dryer. 3,101,722, 8-27-63, Cl. 131—136.

Merritt, Henry B., to Massey-Ferguson (United Kingdom) Ltd. Trailer hitch arrangement. 3,073,622, 1-15-63, Cl. 280—405.

Merritt, Henry E., P. F. Tiberghien, and A. H. E. Gongelot, to Massey-Ferguson, Ltd. Hydraulic power unit and control system for tractors. Re. 25,415, 7-16-63, Cl. 172—9.

Merritt, Jimmie L. Manual transmission gear shift controls for speed shifting. 3,088,329, 5-7-63, Cl. 74—473.

Merritt, Philip E., and C. M. Steele, to General Electric Co. Spurious signal suppression in automatic symbol reader. 3,092,809, 6-4-63, Cl. 340—146.3.

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Merritt, Thomas W., and C. A. Thomas, to Babson Bros. Co. Vacuum regulator. 3,078,870, 2-26-63, Cl. 137—534.

Merritt, Willie M., and F. F. Forth, to Merritt Bird Feeder Co. Bird feeders. 3,090,354, 5-21-63, Cl. 119—52.

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Hornberger, Harry M., Sr. 3,109,399.
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Merry, John M. P., to News Syndicate Co. Inc. Transversely scanning transducer with fixed electromagnet and moving pole pieces. 3,081,381, 3-12-63, Cl. 179—100.2.

Merry Maid Co., Inc.: *See*—
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Merten, Rudolf, ½ to Farbenfabriken Bayer Aktiengesellschaft and ½ to Mobay Chemical Co. Polyethers from polyacetals and olefins. 3,081,343, 3-12-63, Cl. 260—491.

Mertens, Edward W., to California Research Corp. Cationic bituminous emulsions. 3,096,292, 7-2-63, Cl. 252—311.5.

Mertens, Edward W., to California Research Corp. Storage-stable cationic bituminous emulsions. 3,097,174, 7-9-63, Cl. 252—311.5.

Mertens, Edward W., to California Research Corp. Bituminous emulsions containing adhesion agents. 3,108,971, 10-29-63, Cl. 252—311.5.

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Mertens, Heinrich, and J. Stadler, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Process for feltproofing and shrinkproofing wool and textiles contaiaing wool in alkaline baths and treatment baths therefor. 3,071,431, 1-1-63, Cl. 8—128.

Mertens, Johan J., to Onderzoekingsinstituut Research, N.V. Balloon-control on false-twist spindle. 3,087,299, 4-30-62, Cl. 57—77.3.

Mertes, Thomas S., to Sun Oil Co. Gas oil hydrocracking process to produce a high octane gasoline. 3,080,311, 3-5-63, Cl. 208—78.

Mertin, Theodor, to Olympia Werke A.G. Control circuit arrangement for electric typewriter. 3,091,320, 5-28-63, Cl. 197—13.

Mertler, Charles S., to Stevens Mfg. Co., Inc. Temperature sensing unit. 3,107,288, 10-15-63, Cl. 219—37.

Mertler, Charles S., and J. G. Jessen to Stevens Mfg. Co., Inc. Indicator thermostat. 3,086,399, 4-23-63, Cl. 73—378.3.

Mertler, Charles S., and R. H. Jordan, to Stevens Mfg. Co., Inc. Thermo-sensing unit. 3,088,016, 4-30-63, Cl. 219—37.

Mertwoy, Abraham, M. I. Trachtman, and H. Gisser, to United States of America, Army. Oxidatively auto-inhibitive compounds. 3,112,273, 11-26-63, Cl. 252—52.

Mertz, Clyde W., to Phillips Petroleum Co. Process for controlling O_2 content during polymerization. 3,073,808, 1-15-63, Cl. 260—82.1.

Mertz, Clyde W., to Phillips Petroleum Co. Automatic control of fluid blending. 3,116,242, 12-31-63, Cl. 210—70.

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Walker, Robert S., and Mertz. 3,083,846.

Mertz, Roland F.: *See*—
Yarrick, Charles J., and Mertz. 3,097,904.

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Meryman, Harold T., to United States of America, Navy. Apparatus for freeze-drying at atmospheric pressure. 3,096,163, 7-2-63, Cl. 34—43.

Merz Engineering, Inc.: *See*—
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Merz, Kenneth A., to The Torrington Mfg. Co. Blower wheel. 3,080,105, 3-5-63, Cl. 230—134.

Merz, Max G. Weed burner. 3,112,742, 12-3-63, Cl. 126—271.2.

Merz, Rudolf, to Crosman Arms Co., Inc. Underwater projectile. 3,071,883, 1-8-63, Cl. 43—6.

Merz, Rudolf, to Crosman Arms Co., Inc. Semi-automatic gas powered gun. 3,103,212, 9-10-63, Cl. 124—11.

Meschino, Joseph A., and G. I. Poos, to McNeil Laboratories, Inc. 2-amino-5,6-dihydro-4 H-1,3-oxazines and a process for their preparation. 3,115,494, 12-24-63, Cl. 260—244.

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Meserve, Forrest C., to Micro Machinery Products, Inc. Sole slitting machine. 3,089,164, 5-14-63, Cl. 12—40.

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Meshberg, Philip. Selective dispensing nozzle. 3,083,872, 4-2-63, Cl. 222—42.

Mesick, Donald B. and J. M. Means for cleaning paint brushes. 3,085,282, 4-16-63, Cl. 15—544.

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Mesick, Donald B. and J. M. 3,085,282.

Mesinger, Robert H. Cycle saddle covers. 3,077,363, 2-12-63, Cl. 297—214.

Mesrobian, Robert B., and C. J. Ammondson, to Continental Can Co., Inc. Method of preparing mixtures of hydrocarbon polymer resins and linear polyamide resins and product thereof. 3,093,255, 6-11-63, Cl. 215—1.

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Mayer, Friedrich. 3,095,734.
Oswald, Karl. 3,079,791.

Messenger, Charles B.: *See*—
Swanberg, Harry W. and E. W. 3,100,946.

Messer, Chester R., to Page Belting Co. Picker stick control strap. 3,114,397, 12-17-63, Cl. 139—161.

Messer, Elmer S., to Conch International Methane Ltd. Dispensing means having liquid storage tank and liquid removal means. 3,093,269, 6-11-63, Cl. 222—333.

Messer, Elmer S., to Conch International Methane Ltd. Portable insulated storage tanks and valve means. 3,107,498, 10-22-63, Cl. 62—45.

Messer, Elmer S., to Conch International Methane Ltd. Storage tank and liquid flow control means. 3,109,294, 11-5-63, Cl. 62—55.

Messer, Elmer S., to Conch International Methane Ltd. Pumping system for cold liquids. 3,112,049, 11-26-63, Cl. 222—333.

Messerly, George H., to The Bendix Corp. Pneumatic temperature measurement and control system. 3,083,574, 4-2-63, Cl. 73—357.

Messerschmidt, Sebastian. Method for the production of round, profiled mouldings, particularly for ball bearing races. 3,110,953, 11-19-63, Cl. 29—148.4.

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Madelung, Gero. 3,099,422.
Madelung, Gero. 3,100,611.
Messerschmitt, Willy. 3,073,552.
Messerschmitt, Willy, and Madelung. 3,099,420.

Messerschmitt, Willy, to Messerschmitt AG. Means for mounting a power unit or units on thin wings or control surfaces of aircraft. 3,073,552, 1-15-63, Cl. 244—54.

Messerschmitt, Willy. Telescopic strut. 3,112,102, 11-26-63, Cl. 267—64.

Messerschmitt, Willy, and G. Madelung, to Messerschmitt AG. Wing-tip mounted, pivotable jet power units on an aircraft. 3,099,420, 7-30-63, Cl. 244—12.

Messin, Sam, and G. D. Haville, to Varo Inc Eleckrokinetics Div. Frequency tracking and deviation indicating system including signal storage means. 3,105,192, 9-24-63, Cl 324—79.

Messing, Hjalmar S., to The Block-Clawson Co. Cone press. 3,105,434, 10–1–63, Cl. 100—158.
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Messinger, Bernard L., to Lockheed Aircraft Corp. System for starting gas turbine power plants. 3,098,626, 7–23–63, Cl. 244—53.
Messinger, Frederic C. Portable snow remover. 3,107,446, 10–22–63, Cl. 37—130.
Messinger, Joseph H.: *See*—
Carroll, Lawrence K., Messinger, Whitcomb, and Baxter. 3,101,758.
Messinger, Lester H., to E. I. du Pont de Nemours and Co. Process for hot-wet calendering fabrics. 3,096,557, 7–9–63, Cl. 26—1.
Messinger, Lester H., to E. I. du Pont de Nemours and Co. Novel fabric of improved cover and reduced slickness. 3,096,563, 7–9–63, Cl. 28—78.
Messinger, Lester H., to E. I. du Pont de Nemours and Co. Apparatus for compressional finishing of fabrics. 3,100,925, 8–20–63, Cl. 26—18.6.
Messinger, Werner: *See*—
Futterer, Bodo, and Messinger. 3,111,755.
Messner, Georg. Aluminum production from alloy. 3,102,805, 9–3–63, Cl. 75—68.
Messner, Georg, to Oronzio de Nora Impianti Elettrochimici. Anodes for electrolytic chlorine evolution. 3,103,484, 9–10–63, Cl. 204—290.
Messrs. Dufaylite Developments Ltd.: *See*—
May, George, and Gorell. 3,074,839.
Messwarb, Günter: *See*—
Kramer, Hans B. A., Messwarb, and Denk. 3,105,064.
Messwarb, Gunter, K. T. Schott, and W. Dunmer, to Farbwerk Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Coating organic films with mixture of amorphous and crystalline dispersions of vinylidene chloride copolymers. 3,108,017, 10–22–63, Cl. 117—138.8.
Mester, Paul J.: *See*—
Mersereau, John M., and Mester. 3,097,187.
Mesthos, George A. Portable coin counter. 3,093,148, 6–11–63, Cl. 133—8.
Mestre, Luis. Stapling machine. 3,076,196, 2–5–63, Cl. 1—7.
Mestre, Luis. Collator with fixed storage pockets. 3,108,797, 10–29–63, Cl. 270—58.
Metachemical Processes Ltd.: *See*—
Hughes, Herbert D., and Lewis. 3,092,558.
Metailler, Roger, to Societe Auxiliaire de l'Entreprise (Auxen). Arrangement of lateral spades for an earthmoving appliance mounted on pneumatic tires. 3,113,641, 12–10–63, Cl. 188—7.
Metal Box Co. Ltd., The: *See*—
Cookson, Harold. 3,112,692.
Hill, John C. 3,086,672.
Jackson, John M., and Whitbourn. 3,081,489.
Kalman, John. 3,071,868.
Mosse, Richard W. E. 3,088,644.
Mosse, Richard W. E., Cookson, and Virgo. 3,083,511.
Mosse, Richard W. E., and Partridge. 3,107,469.
Mosse, Richard W. E., and Partridge. 3,110,433.
Oakley, John R. 3,087,391.
Simpson, Alfred M. 3,096,693.
Stuchbery, Arthur L. 3,084,382.
Stuchbery, Arthur L., and Brookes. 3,094,092.
Stuchbery, Arthur L., and Cook. 3,098,725.
Stuchbery, Arthur L., and Franek. 3,083,663.
Stuchbery, Arthur L., and Franek. 3,089,533.
Metal Closures Ltd.: *See*—
Podesta, Armando, and Vignati. 3,104,773.
Metal Diffusions Ltd.: *See*—
Weatherley, Eric G., and Garnett. 3,083,122.
Metal Edge Industries: *See*—
Flynn, William, and Wilson 3,078,769.
Speidel, George B. 3,076,389.
Metal Fabrications, Inc.: *See*—
Kruck, Ralph E. 3,107,826.
Metal Film Co., Inc.: *See*—
Scharf, Walter G. 3,099,066.
Metal Hydrides Inc.: *See*—
Banus, Mario D. 3,112,989.
Burr, Francis K. 3,081,265.
Hinckley, Alfred A. 3,072,698.
Hinckley, Alfred A. 3,112,982.
Metal Improvement Equipment Co.: *See*—
Fuchs, Henry O. 3,086,278.
Metal Research and Development Ltd.: *See*—
Jury, Harold R. 3,080,650.
Metal Specialties Mfg. Co.: *See*—
Semler, Loren H. 3,087,367.
Metal Specialty Co., The: *See*—
Rebka, Glen A. 3,103,266.
Metal Textile Corp.: *See*—
Goodloe, Alfred M., and Hartwell. 3,083,952.
Metal & Thermit Corp.: *See*—
Leaming, Robert R. 3,093,727.
Pasaal, Frank. 3,088,884.
Ramaden, Hugh E. 3,072,699.
Metalastik Ltd.: *See*—
Hirst, Archie J. 3,097,839.
Hirst, Archie J. 3,101,938.
Hirst, Archie J., and Liversage. 3,099,967.
Horovitz, Marcus. 3,099,879.
Metalastik Ltd.: *See*—Continued
Horovitz, Marcus. 3,113,173.
Reed, Alun J. 3,082,613.
Metaline Corp.: *See*—
Rubrecht, Charles J., and Minnotte. 3,100,634.
Metallbau Semler, G.m.b.H.: *See*—
Schoppe, Fritz. 3,098,704.
Metallgesellschaft A.-G.: *See*—
Friese, Gunter. 3,098,886.
Müller, Curt. 3,107,385.
Steuernagel, Walter. 3,113,852.
Stieler, Jurg, and Munch. 3,102,153.
Metallic Engineering Co. Inc.: *See*—
Valverde, David E. 3,110,340.
Valverde, David E. 3,110,374.
Metallizing Co. of America, Inc.: *See*—
Kenshol, Kenneth W. 3,085,750.
Metallizing Engineering Co., Inc.: *See*—
Tour, Sam. 3,088,196.
Metallurgical Development Co.: *See*—
Davey, Thomas R. A., and Linton. 3,098,110.
Woods, Stephen E., and Davey. 3,080,227.
Metallurgical Processes Ltd.: *See*—
Davey, Thomas R. A., and Linton. 3,098,110.
Lumsden, John, and Keeping. 3,073,696.
Woods, Stephen E., and Davey. 3,080,227.
Metallurgique de Prayon, Societe Anonyme: *See*—
Hoffait, Nicolas. 3,114,787.
Metallwerk Bahre K.G.: *See*—
Greten, Ernst. 3,098,781.
Metallwerke Adolf Hopf K.G.: *See*—
Hoffmann, Franz. 3,072,277.
Metals & Thermit Corp.: *See*—
Sawyer, Albert K., and Kulvila. 3,083,217.
Metal-Tech, Inc.: *See*—
Bryand, Edward T. 3,100,928.
Metalwash Machinery Co.: *See*—
Nolte, Robert K. Re. 25,421.
Nolte, Robert K. 3,103,936.
Nolte, Robert K., and Cowles. 3,094,997.
Metalwash Machinery Corp.: *See*—
Nolte, Robert K. Re. 25,488.
Nolte, Robert K. 3,076,730.
Metaux d'Overpelt-Lommeli et de Corphalie S.A., Compagnie des: *See*—
Quintin, Albert A. J. 3,097,835.
Metaverpa, N.V.: *See*—
Van de Bilt, Pieter A. 3,081,957.
Van de Bilt, Pieter A. 3,115,085.
Metcalf, Helen S.: *See*—
Metcalf, Walter W. 3,090,572.
Metcalf, Walter W., deceased, by H. S. Metcalf, administratrix, to Stevens & Thompson Paper Co. Toilet tissue holding and dispensing device. 3,090,572, 5–21–63, Cl. 242—55.3.
Metcalfe, Kenneth A., and R. J. Wright, to The Commonwealth of Australia, Department of Supply. Controlled developer for use in electrophotography and electro-radiography. 3,078,231, 2–19–63, Cl. 252—62.1.
Metcalfe, Kenneth A., and R. J. Wright, to Commonwealth of Australia, The Department of Supply. Precipitation of particulate or molecular materials in electrostatic developing. 3,081,263, 3–12–63, Cl. 252—62.1.
Metcalfe, Kenneth A., R. J. Wright, J. F. McNeil, and D. Jolly, to The Commonwealth of Australia, as represented by The Secretary of the Department of Supply. Electrophotographic reflex and contact printing. 3,102,026, 8–27–63, Cl. 96—1.
Metcalfe, Kenneth A., and R. J. Wright, to The Commonwealth of Australia, Care of The Secretary, Department of Supply. Production of patterns on cloth or similar substances. 3,102,045, 8–27–63, Cl. 117—37.
Metcalfe, Kenneth A., and R. J. Wright, to The Commonwealth of Australia, care of the Secretary of the Department of Supply. Production of printing blocks, resists, transparencies, prints and the like by electro-deposition. 3,104,169, 9–17–63, Cl. 96—1.
Metcalfe, Samuel N., Jr.: *See*—
Achorn, Glenwood B., Bokesch, Dapper, Lebherz, Schwab, Smith, Rawson, and Metcalfe. 3,075,888.
Metco Inc.: *See*—
Shepard, Arthur P., and Dittrich. 3,111,267.
Wilson, Charles K., and Siebein. 3,073,528.
Meter-All Mfg. Co., Inc.: *See*—
New, Russel W. 3,114,443.
Meterflo Dispensers, Inc.: *See*—
Daniels, Paul J. 3,094,154.
Metevia, Virgil L.: *See*—
Polmanteer, Keith E., and Metevia. 3,086,954.
Metivier, Jean, to Societe des Usines Chimiques Rhone-Poulenc. Phytohormonal methods. 3,087,805, 4–30–63, Cl. 71—2.6.
Metivier, Jean, to Societe des Usines Chimiques Rhone-Poulenc. Thiocarbamic esters. 3,089,887, 5–14–63, Cl. 260—455.
Metko, Earl D., to Sunbeam Corp. Portable electric drill. 3,077,547, 2–12–63, Cl. 310—50.
Metlesics, Werner: *See*—
Zeiss, Harold H., Metlesics, and Tsutsui. 3,097,232.
Metrailler, William J., to Esso Research and Engineering Co. Shale oil refining process. 3,085,061, 4–9–63, Cl. 208—98.

Metrailler, William J., to Esso Research and Engineering Co. Residuum feed injection in transfer line coking. 3,113,985, 12–10–63, Cl. 260—683.
Metreaud, Claude G., to The International Silver Co. Cosmetic container. 3,083,823, 4–2–63, Cl. 206—56.
Metrimpex Magyar Muszeripari Kulkereskedelmi Vallalat: *See*—
Takatsy, Gyula. 3,077,780.
Metro Corp.: *See*—
Smith, Horace V. 3,090,323.
Metro, Stephen J.: *See*—
Matuszak, Alfred H., Allen, and Metro. 3,090,753.
Metro, Stephen J., and A. H. Matuszak, to Esso Research and Engineering Co. Lubricating compositions comprising esters of tricarboxy acids. 3,102,098, 8–27–63, Cl. 252—56.
Metrodynamics Corp., The: *See*—
Wales, Nathaniel B., Jr. 3,100,400.
Wales, Nathaniel B., Jr. 3,100,440.
Wales, Nathaniel B., Jr. 3,100,825.
Metro-Mac, Inc.: *See*—
Chakiris, Demetrius G. 3,106,981.
Metropolitan Oil & Gas Industries Inc.: *See*—
Pavia, Robert. 3,074,459.
Metropolitan-Vickers Electrical Co. Ltd.: *See*—
Kenyon, Harold F. 3,078,432.
Meta, Edwin J., to General Electric Co. Method of protecting metal from corrosion. 3,073,720, 1–15–63, Cl. 117—105.
Metsky, Donald: *See*—
Nashman, Alvin E., and Metsky. 3,090,240.
Mettentleiter, Michael W. Admixture of aluminum metal powder and powdered vegetable gum for treatment of open wounds. 3,098,790, 7–23–63, Cl. 167—58.
Mettersheimer, John H., Jr., to AAPCD Antomotive, Inc. Oil pump. 3,090,322, 5–21–63, Cl. 103—126.
Mettetal, Donald, Jr., ½ to H. W. Kasper and ½ to A. F. Wintercorn. Power steering and shifting mechanisms. 3,080,721, 3–12–63, Cl. 60—60.
Mettetal, Jean-Claude, and G. Fritz, to Electricite de France-Service National. Manipulator. 3,095,095, 6–25–63, Cl. 214—1.
Mettler, Carlo. Pneumatic-effected delayed-action tripping devices. 3,094,935, 6–25–63, Cl. 102—70.
Mettler's Fr., Sohne, Aktiengesellschaft: *See*—
Aschwanden, Paul. 3,092,341.
Metz, Harald: *See*—
Mannhardt, Heinz-Jurgen, Bork, Bruckner, and Metz. 3,074,977
Metz, Paul, to ARBED, Acieries Reunies de Burbach-Eich-Dudelange, Societe Anonyme. Manufacture of steel. 3,076,703, 2–5–63, Cl. 75—52.
Metz, Paul, to ARBED, Acieries Reunies de Burbach-Eich-Dudelange, Societe Anonyme. Tuyere arrangement. 3,101,384, 8–20–63, Cl. 266—41.
Metz, Paul, to ARBED, Acieries Reunies de Burbach-Eich-Dudelange. Method of producing dense refractory blocks having large dimensions. 3,111,397, 11–19–63, Cl. 25—156.
Metz, Paul, to ARBED Acieries Reunies de Burbach-Eich-Dudelange, Societe Anonyme. Process for the production of refractory material. 3,111,415, 11–19–63, Cl. 106—58.
Metz, Peter P., to Northwest Metal Products, Inc. Roof ventilator with removable hood. 3,093,059, 6–11–63, Cl. 98—42.
Metzger, Benjamin A.: *See*—
Shafer, Homer J., and Metzger. 3,089,430.
Metzger, Hans S., to Moeller & Neumann G.m.b.H. Rolling mill structure. 3,098,403, 7–23–63, Cl. 80—38.
Metzger, Hans S. Hydraulic adjusting means for rolling mills. 3,111,047, 11–19–63, Cl. 80—56.
Metzger, Horst: *See*—
Von Schlekh, Otto, and Metzger. 3,078,306.
Von Schlekh, Otto, and Metzger. 3,103,534.
Metzger, James F., to M. Tucker. Slidable door mounting. 3,085,298, 4–16–63, Cl. 20—19.
Metzger, Louis G., to A. S. Minchenberg. Apparatus and control device for forming belt loops on garments. 3,095,842, 7–2–63, Cl. 112—104.
Metzger, Louis G., and H. Goodman, to Cosmos Industries, Inc. Serially connected coarse and fine inductors with continuous adjustment. 3,098,989, 7–23–63, Cl. 336—131.
Metzger, Martin C.: *See*—
Kauffmann, William M., Metzger, and Schults. 3,114,358.
Metzger, Samuel W.: *See*—
Calebuff, James M., Englert, and Metzger. 3,074,441.
Metzger, William J., to National Malleable and Steel Castings Co. Transitional coupling device. 3,071,256, 1–1–63, Cl. 213—112.
Metzger, William J., to National Castings Co. Coupler operating mechanism. 3,079,010, 2–26–63, Cl. 213—167.
Metzger, William J., to National Castings Co. Car coupler. 3,086,662, 4–23–63, Cl. 213—100.
Metzger, William J., to National Castings Co. Car coupler. 3,088,601, 5–7–63, Cl. 213—166.
Metzger, William J., to National Castings Co. Car coupler centering device. 3,108,697, 10–29–63, Cl. 213—21.
Metzler, Charles L., and J. D. Wark, to American Can Co. Dish or the like. 3,099,377, 7–30–63, Cl. 229—2.5.
Metzler, Hermann: *See*—
Hopff, Heinrich, Hoffmann, and Metzler. 3,110,700.
Hopff, Heinrich, and Metzler. 3,114,783.
Metzler, Kurt. Adjustable V-belt pulley assembly. 3,071,019, 1–1–63, Cl. 74—230.17.
Metzler, Phares H. Line retaining means for fishing line accessories. 3,091,050, 5–28–63, Cl. 43—44.88.
Metzmeier, Erwin. Force measuring. 3,087,330, 4–30–63, Cl. 73—140.
Metzner, Arthur B.: *See*—
Hamilton, Gene E., Metzner, and Ehrreich. 3,091,647.
Metzner, Robert B., to Wheeling Steel Corp. Shear means having intermittently operated cam means to hold shear in open position. 3,093,022, 6–11–63, Cl. 83—320.
Meuche, Howard, to Powered Staplers, Inc. Water sprinkler. 3,078,045, 2–19–63, Cl. 239—98.
Meulendyk, John W., to Pneumo Dynamics Corp. Hydraulic control valve. 3,081,787, 3–19–63, Cl. 137—83.
Meulien, Henri: *See*—
Mission, Gilbert, and Meulien. 3,102,089.
Meunier, Gerard: *See*—
Brichard, Edgard, Plumat, Meunier, and Dellere. 3,088,850.
Meurer, Alfred, to F. Soennecken. Paper retaining devices for files. 3,083,713, 4–2–63, Cl. 129—11.
Meurer, Siegfried, to Maschinenfabrik Augsburg-Nurnberg A.G. Process and apparatus for operating a continuous or intermittent combustion engine. 3,078,672, 2–26–63, Cl. 60—39.71.
Meurer, Siegfried, to Maschinenfabrik Augsburg-Nurnberg. Combustion chambers for pistons. 3,085,557, 4–16–63, Cl. 123—32.
Meurer, Siegfried, to Augsburg-Nurnberg A.G., Maschinenfabrik. Ignition device. 3,107,658, 10–22–63, Cl. 123—32.
Meurer von Inffeld, Karl L. G. Food dicer. 3,115,172, 12–24–63, Cl. 146—78.
Meverden, Leslie G.: *See*—
Martin, Irvin J., Stowe, and Meverden. 3,096,653.
Mewbourne, Curtis A.: *See*—
Meriwether, Henry R., Jr., Mewbourne, Warren, and Badger. 3,094,578.
Nyquist, Roy A., Zellers, and Mewbourne. 3,107,162.
Mewhinney, Albert B.: *See*—
Busch, Paul A., Mewhinney, and Wirtz. 3,072,349.
Meybeck, Jean, R. Kircher, and J. Leclerc, to Societe d'Etudes Chimiques Pour l'Industrie l'Agriculture. Production of bromine oxygen compounds. 3,085,854, 4–16–63, Cl. 23—85.
Meybeck, Jean, and C. Shirle, deceased (by A. J. A. C. Shirle, administratrix). Process for bleaching and shrinkproofing wool. 3,097,049, 7–9–63, Cl. 8—108.
Meyer, A. F., Mfg. Co.: *See*—
Batterton, Elmo L., and Lonsdale. 3,078,590.
Meyer, Alvin. Matrix for interproximal anterior restorations. 3,108,377, 10–29–63, Cl. 32—66.
Meyer, Alvin L., Jr., and R. D. Meyer. Three-point hitch. 3,076,512, 2–5–63, Cl. 172—448.
Meyer, Andre J., Jr.: *See*—
Faget, Maxime A., Meyer, Chilton, Blanchard, Kehlet, Hammack, and Johnson. 3,093,346.
Meyer, Andre J., Jr., to United States of America, National Aeronautics and Space Administration. Vehicle parachute and equipment jettison system. 3,079,113, 2–26–63, Cl. 244—140.
Meyer, Barthold F., and T. A. Schaad, to General Motors Corp. Clutch. 3,110,380, 11–12–63, Cl. 192—8.
Meyer, Beverly: *See*—
Meyer, Joseph E. 3,094,966.
Meyer, Burton C.: *See*—
Glass, Marvin I., and Meyer. 3,081,997.
Meyer, Charles A., and D. D. Rosard, to Westinghouse Electric Corp. Fluid control apparatus. 3,073,563, 1–15–63, Cl. 251—86.
Meyer, Charles F.: *See*—
Eckl, James J., and Meyer. 3,071,699.
Meyer, Cornelis A., to Van Leer Industries Ltd. Sheet metal containers and a method of and apparatus for the manufacture thereof. 3,076,670, 2–5–63, Cl. 285—221.
Meyer, David, to E. W. Bliss Co. Liquid fuel atomizer. 3,093,314, 6–11–63, Cl. 239—417.
Meyer, Davis: *See*—
Meyer, Joseph E. 3,094,966.
Meyer, Delbert H.: *See*—
Wise, Robert H., and Meyer. 3,102,137.
Meyer, Delbert H., and M. M. Garvey, to Standard Oil Co. Purification of phthalates by treatment with phosphites. 3,076,018, 1–29–63, Cl. 260—475.
Meyer, Donald J. Retractable water ski fin. 3,087,173, 4–30–63, Cl. 9—310.
Meyer, Edward: *See*—
Kling, Harry P., and Meyer. 3,074,873.
Meyer, Edward, to Overload Control, Inc. Overload release. 3,111,211, 11–19–63, Cl. 192—150.
Meyer, Edward J.: *See*—
Nachtsheim, Henry G., Meyer, and Grande. 3,089,786.
Meyer, Engelbert A., to General Motors Corp. Sheet metal fastener with an angularly oriented screw receiving body portion. 3,073,368, 1–15–63, Cl. 151—41.75.
Meyer, Engelbert A., to General Motors Corp. Moulding fastener. 3,080,629, 3–12–63, Cl. 24—73.
Meyer, Engelbert A., to General Motors Corp. Moulding fastener. 3,103,265, 9–10–63, Cl. 189—88.
Meyer, Engelbert A., to General Motors Corp. Molding fastener. 3,107,939, 10–22–63, Cl. 296—93.
Meyer, Engelbert A., to General Motors Corp. Fastening device. 3,114,949, 12–24–63, Cl. 24—73.
Meyer, Eugen, to Brown, Boveri & Cie, Aktiengesellschaft. Rotor construction for waterwheel driven electrical generator. 3,112,420, 11–26–63, Cl. 310—261.

Meyer, Ferdinand, and K. Demmler, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Production of diglycidyl ethers of diols. 3,096,349, 7–2–63, Cl. 260—348.6.
Meyer, Frank H.: *See*—
Hanggi, George J., McCulloch, and Meyer.
Meyer, Franklin, and A. M. Multari. Electronic timing apparatus with precise starting point for selected interval. 3,082,329, 3–19–63, Cl. 307—88.5.
Meyer, Frederick F.: *See*—
Perkins, Russell C., and Meyer. 3,114,990.
Meyer, Friedrich, to Ebauches S.A. Watch with jump operated indicator. 3,093,958, 6–18–63, Cl. 58—58.
Meyer, Fritz O. W. G., to E. D. Jones Corp. Dissolving gas in liquid. 3,100,810, 8–13–63, Cl. 261—115.
Meyer, George J. Kitchen range ventilator. 3,109,358, 11–5–63, Cl. 98—115.
Meyer, George J., Jr.: *See*—
Massell, Edward M., May, and Meyer. 3,111,653.
Meyer, Geo. J., Mfg. Co.: *See*—
Calhoun, Frederick L., and Browning. 3,081,666.
Carter, Sidney T. 3,108,033.
Carter, Sidney T. 3,109,529.
Carter, Sidney T. 3,115,232.
Meyer, George L. N. 3,101,834.
Meyer, George L. N. 3,106,283.
Meyer, George L. N., and Spies. 3,110,387.
Meyer, George L. N., Werner, and Spies. 3,081,859.
Meyer, George L. N., to Geo. J. Meyer Mfg. Co. Bottle carrier construction for bottle washer. 3,101,834, 8–27–63, Cl. 198—131.
Meyer, George L. N., to Geo. J. Meyer Mfg. Co. Bottle carrier construction for bottle washers. 3,106,283, 10–8–63, Cl. 198—131.
Meyer, George L. N., C. C. Werner, and R. H. Spies, to Geo. J. Meyer Mfg. Co. Bottle loading apparatus. 3,081,859, 3–19–63, Cl. 198—27.
Meyer, George L. N., and R. H. Spies, to Geo. J. Meyer Mfg. Co. Bottle handling apparatus. 3,110,387, 11–12–63, Cl. 198—25.
Meyer, Gerhardt E.: *See*—
Bigliano, Robert P., Meyer, and Morse. 3,102,534.
Meyer, Glen E.: *See*—
Pierson, Robert M., Weinstein, Wargotz, and Meyer. 3,072,707.
Meyer, Gustav, to Maybach-Motorenbau G.m.b.H. Clutch-actuating system. 3,105,578, 10–1–63, Cl. 192—.084.
Meyer, H. D.: *See*—
English, John A. 3,111,322.
Meyer, Hans: *See*—
Smith, Geoffrey, and Meyer. 3,078,910.
Smith, Geoffrey, and Meyer. 3,089,694.
Meyer, Hans R.: *See*—
Gabler, Rudolf, and Meyer. 3,105,833.
Gabler, Rudolf, Meyer, and Kohlik. 3,088,923.
Meyer, Helmut P.: *See*—
Clark, Richard B., and Meyer. 3,100,422.
Meyer, Henry L.: *See*—
Penote, Vincent S., and Meyer. 3,091,044.
Meyer, Herbert: *See*—
Meyer, Joseph E. 3,094,966.
Meyer, Herbert, to J. M. Voith G.m.b.H. Method of and apparatus for quickly and safely withdrawing water from fiber suspensions. 3,091,563, 5–28–63, Cl. 162—217.
Meyer, Horst. Method for making hollow bodies from plastic material. 3,095,261, 6–25–63, Cl. 18—59.
Meyer, James: *See*—
Meyer, Joseph E. 3,094,966.
Meyer, James R., to Chemical Design, Inc. Adsorption apparatus and method. 3,103,425, 9–10–63, Cl. 55—62.
Meyer, Jerome H., and R. P. La Branche. Cleansing apparatus. 3,085,573, 4–16–63, Cl. 128—240.
Meyer, John C., to Jonathan Mfg. Co. Shock resisting support for slide structure for drawers, shelves and the like. 3,074,766, 1–22–63, Cl. 308—3.8.
Meyer, John F.: *See*—
Dryden, Hugh L. 3,100,294.
Meyer, John S. Photovoltaic device for translating signals. 3,093,741, 6–11–63, Cl. 250—212.
Meyer, Joseph E., 2nd to W. H., M., H., J., B., D., and E. Meyer. Screw-type propulsion unit. 3,094,966, 6–25–63, Cl. 115—15.
Meyer, Karl-Heinrich, and H. Schnell, to Farbenfabriken Bayer Aktiengesellschaft. Process for the recovery of phenols and carbonyl compounds from crude bisphenolic condensation products. 3,075,015, 1–22–63, Cl. 260—586.
Meyer, Kenneth H.: *See*—
Hunt, Nathan C., and Meyer. 3,079,947.
Meyer, Lambert: *See*—
Pechtold, Walter, Carstensen, and Meyer. 3,090,685.
Meyer, Leo J. Conveyor bucket control. 3,083,814, 4–2–63, Cl. 198—145.
Meyer, Leonard S. Archery or similar targets and their associated supporting easels. 3,088,738, 5–7–63, Cl. 273—102.4.
Meyer, Ludwig J., to Hazemag. Impellers for comminutors. 3,098,614, 7–23–63, Cl. 241—193.
Meyer, Martha: *See*—
Meyer, Joseph E. 3,094,966.
Meyer, Maurice A., to Laboratory for Electronics, Inc. Signal switching apparatus. 3,072,903, 1–8–63, Cl. 343—16.
Meyer, Maurice A., to Laboratory for Electronics, Inc. Signal selection system. 3,082,417, 3–19–63, Cl. 343—8.
Meyer, Maurice A., to Laboratory for Electronics, Inc. Signal processing apparatus. 3,088,109, 4–30–63, Cl. 343—8.
Meyer, Maurice A., to Laboratory For Electronics, Inc. Doppler radar system. 3,102,263, 8–27–63, Cl. 343—8.
Meyer, Owen L., to United States of America, Army. Semiconductor solid circuits. 3,100,276, 8–6–63, Cl. 317—234.
Meyer, Peter R. Device for mounting cameras on tripods. 3,109,617, 11–5–63, Cl. 248—186.
Meyer, Ralph J., to Collins Radio Co. Rocker switch assembly. 3,098,902, 7–23–63, Cl. 200—5.
Meyer, Raymond: *See*—
Otten, Philip S., and Meyer. 3,079,992.
Meyer, Ree V. L., to Midwest Rubber Reclaiming Co. Pads. 3,081,035, 3–12–63, Cl. 238—283.
Meyer, Robert F., to Parke, Davis & Co. Oxazoline compounds and method for producing same. 3,074,936, 1–22–63, Cl. 260—307.
Meyer, Robert F., to Parke, Davis & Co. 3-alkyl-4-hydroxy-7-chlorocoumarin-6-sulfonamides. 3,089,878, 5–14–63, Cl. 260—343.2.
Meyer, Robert F., to Parke, Davis & Co. Novel 2-chloro-4-hydroxy-5-sulfamoylacylbenzenesulfonamides and the process for producing the same. 3,111,540, 11–19–63, Cl. 260—556.
Meyer, Ronald F.: *See*—
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Meyer, Alvin L., Jr., and R. D. 3,076,512.
Meyer, Roy E. Tower hoist. 3,088,545, 5–7–63, Cl. 187—6.
Meyer, Rudolf X.: *See*—
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Meyer, Rudolf X. to Space Technology Laboratories, Inc. Gas accelerating method and apparatus. 3,113,427, 12–10–63, Cl. 60—35.5.
Meyer, Saul, to Minneapolis-Honeywell Regulator Co. Electrical apparatus. 3,088,054, 4–30–63, Cl. 317—120.
Meyer, Vernon H.: *See*—
Hidden, William P., and Meyer. 3,077,619.
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Neher, Karl, Reinhard, and Meyer. 3,107,960.
Meyer & Wenthe, Inc.: *See*—
Priesmeyer, Charles. 3,094,920.
Meyer, Wilhelm: *See*—
Benk, Karl, and Meyer. 3,073,209.
Meyer, William. Calculating divider. 3,100,938, 8–20–63, Cl. 33—149.
Meyer, William C., to American Telephone and Telegraph Co. Pressure transducer testing circuit. 3,105,882, 10–1–63, Cl. 179—175.3.
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Meyer, Joseph E. 3,094,966.
Phelan, Richard R., Hammel, Meyer, and Dunkel. 3,112,285.
Meyercordt, Fritz, and H. Honnens, to Maimedie Maschinenfabrik G.m.b.H. Continuously operable apparatus for chamfering the ends of elongated workpieces. 3,097,378, 7–16–63, Cl. 10—21.
Meyerdick, Clarence E., to C. F. Meyerdick. Structural connector. 3,099,468, 7–30–63, Cl. 287—54.
Meyerdick, Clarence F.: *See*—
Meyerdick, Clarence E. 3,099,468.
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Veith, Werner, and Meyerer. 3,099,766.
Meyerer, Paul, to Siemens & Halske Aktiengesellschaft. Travelling wave tube. 3,099,765, 7–30–63, Cl. 315—3.5.
Meyerhoefer, Carl E., to Lewyt Corp. Vacuum cleaner assembly. 3,085,279, 4–16–63, Cl. 15—323.
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Disson, Stanley B., Meyerhoff, and Winsor. 3,100,869.
Schneider, Robert P., Meyerhoff, and Shafer. 3,103,617.
Meyerhoff, Leonard, to L. and S. A. Meyerhoff, d.b.a. Eastern Research Group. Propeller design. 3,096,930, 7–9–63, Cl. 230—120.
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Meyerhoff, Leonard. 3,096,930.
Meyer-Jagenberg, Gunther, to Jagenberg-Werke Akt.-Ges. Method of treating adhesive coated blanks to nullify the adhesive effect in selected areas. 3,094,432, 6–18–63, Cl. 117—63.
Meyer-Jagenberg, Gunther, to Jagenberg-Werke A.G. Container of paper, cardboard or like carton-forming material. 3,101,879, 8–27–63, Cl. 229—7.
Meyerotto, Beatrice M. Anti-fence-jumping attachment for dogs. 3,115,867, 12–31–63, Cl. 119—137.
Meyers, Cal Y.: *See*—
Baum, Bernard O., and Meyers. 3,089,860.
Meyers, Douglas C., to Shell Oil Co. Method and apparatus for producing high-pressure wells. 3,098,523, 7–23–63, Cl. 166—45.
Meyers, Douglas C., to Shell Oil Co. Low-temperature dehydration of well fluids. 3,105,853, 10–1–63, Cl. 260—676.
Meyers, Ellwood H., to Klaas Machine and Mfg. Co. Ball or jar mill. 3,104,836, 9–24–63, Cl. 241—175.
Meyers, Fredric J., to Cutler-Hammer, Inc. Hinged oven heating element. 3,086,102, 4–16–63, Cl. 219—37.
Meyers, Frederick C. Disposable lighter construction. 3,092,988, 6–11–63, Cl. 67—7.1

Meyers, George L., to American Can Co. Carton opening means. 3,085,736, 4–16–63, Cl. 229—51.
Meyers, George L., to American Can Co. Opening means for vermin-proof carton. 3,097,785, 7–16–63, Cl. 229—51.
Meyers, George L., to American Can Co. Dispensing carton. 3,108,735, 10–29–63, Cl. 229—51.
Meyers, Harold S., to Waldorf Paper Products Co. Extra panel cartons. 3,099,381, 7–30–63, Cl. 229—37.
Meyers, Joseph. Electron storage and power cell. 3,105,178, 9–24–63, Cl. 317—262.
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Meyers, Norman H., to International Business Machines Corp. Superconductor commutator circuits. 3,114,845, 12–17–63, Cl. 307—88.5.
Meyers, Norman H., N. Rochester, and E. S. Schlig, to International Business Machines Corp. Cryogenic coupling device. 3,086,130, 4–16–63, Cl. 307—88.5.
Meyers, Norman W.: *See*—
Young, David M., and Meyers. 3,074,812.
Meyers, Richard K., and S. M. Pier, to Texaco Inc. Oil-in-water emulsion lubricants. 3,089,854, 5–14–63, Cl. 252—49.5.
Meyers, Robert A., H. B. O. Davis, and W. E. Dietrich, to United States of America, Navy. Function control unit (difference in absolute magnitude method). 3,105,145, 9–24–63, Cl. 235—193.
Meyers, Robert L. Fruit and vegetable container. 3,086,646. 4–23–63, Cl. 206—45.33.
Meyers, Stanley T., to Bell Telephone Laboratories, Inc. Remote testing arrangement. 3,084,231, 4–2–63, Cl. 179—175.
Meyers, Sydney: *See*—
Cox, Wilbur C., Meyers, and Keon. 3,097,122.
Meyers, Vernon J., to United States of America, Navy. Bidirectional cold-cathode counting control circuit. 3,098,946, 7–23–63, Cl. 315—84.6.
Meyers, William F., to W. H. & G. Corson, Inc. Current-producing cell and method of generating current with same. 3,083,252, 3–26–63, Cl. 136—90.
Meyfarth, George H., Jr., to May-Fran Mfg. Co. Bucket type conveyor mechanism. 3,112,822, 12–3–63, Cl. 198—145.
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Meystre, Charles: *See*—
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Wettstein, Albert, Anner, Meystre, Wieland, Ehmann, Heusler, Hunger, and Kebrle. 3,098,085.
Wettstein, Albert, Heusler, Kebrle, Meystre, and Wieland. 3,072,686.
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Wettstein, Albert, and Meystre. 3,109,850.
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Meystre, Charles, A. Wettstein, G. Anner, K. Heusler, and P. Wieland, to Ciba Corp. 9-halogenated 18:11-lactones of 11β-hydroxy-pregnane-18-acids. 3,098,070, 7–16–63, Cl. 260—239.57.
Mezei, Ernesto. Vegetable one-bath pretanning process. 3,081,142, 3–12–63, Cl. 8—94.19.
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Anderson, Richard W., Smart, and Miale. 3,106,943.
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Miami Herald Publishing Co., The: *See*—
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Mangus, George. 3,071,866.
Miami Stone, Inc.: *See*—
Mayer, George A. 3,098,476.
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Beushausen, Wild. 3,090,569.
Gertsch, Georges-Albert. 3,111,619.
Micallef, Lewis A., to Leeds and Micallef. Dispensing containers. 3,078,497, 2–26–63, Cl. 15—547.
Micallef, Lewis A., to Leeds and Micallef. Pressure discharge container. 3,089,624, 5–14–63, Cl. 222—386.5.
Mican, George S., and C. W. Sidwell, to United States Steel Corp. Soaking pit. 3,100,107, 8–6–63, Cl. 263—15.
Miccio, Arthur, and R. E. West, to Cascade Industries, Inc. Swimming pool. 3,094,709, 6–25–63, Cl. 4—172.
Michael, Arthur B., L. F. Yntema, and R. A. Haskell, to Fansteel Metallurgical Corp. Alloys. 3,085,005, 4–9–63, Cl. 75—171.
Michael, Bayard H., to Lake Shore, Inc. Load handling apparatus. 3,107,791, 10–22–63, Cl. 212—58.
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Michael, Johannes: *See*—
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Michael, Paul L., J. P. Strange, and K. C. Stewart, to Mine Safety Appliances Co. Industrial noise hazard meter. 3,089,561, 5–14–63, Cl. 181—.5.
Michael, Vesta F., to Rock Island Oil & Refining Co., Inc. Apparatus and method for making parallel strand assemblages. 3,080,700, 3–12–63, Cl. 57—1.
Michaelis, Harold A.: *See*—
Chase, David R., and Michaelis. 3,077,530.
Michaelis, John L., to Pittsburgh Plate Glass Co. Method and apparatus for controlling a direct current power source. 3,098,963, 7–23–63, Cl. 321—11.
Michaelis, John L., to Pittsburgh Plate Glass Co. Voltage regulator. 3,114,100, 12–10–63, Cl. 323—45.
Michaels, Edwin B. and M. U. Cohen, to Stamford Chemical Co. Process for making a moisture sensing element for dry cleaning an article. 3,102,051, 8–27–63, Cl. 117—213.
Michaels, Glenn O.: *See*—
Bartlett, Ronald S., Michaels, and Thomas. 3,079,447.
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Zaugg, Harold E., De Net, and Michaels. 3,103,519.
Zaugg, Harold E., De Net, and Michaels. 3,103,520.
Michaelsen, John D., to International Business Machines Corp. Vesicular image photography process with polyketone photographic films. 3,091,532, 5–28–63, Cl. 96—48.
Michalak, Stanley J., to Mechanical Power Corp. Piston cylinder apparatus. Re. 25,334, 2–19–63, Cl. 121—40.
Michalchik, Michael, to Radio Corp. of America. Method of preparing lithographic printing plates. 3,106,158, 10–8–63, Cl. 101—149.2.
Michalke, Max: *See*—
Silbereisen, Hermann, and Michalke. 3,073,695.
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Collins, Robert C., and Michalos. 3,105,721.
Doundoulakis, Hellas. 3,092,800.
Michalowski, Conrad M., to Pekay Machine & Engineering Co., Inc. Apparatus for moistening sand and the like. 3,082,497, 3–26–63, Cl. 22—89.
Michalski, John P., to United States of America, Navy. Detecting and classifying bodies on an ocean floor. 3,106,437, 10–8–63, Cl. 346—33.
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Horton, William H., Sturm, and Michatek. 3,081,683.
Michaud, George E. Rheostat voltage compensator for ignition systems. 3,075,029, 1–22–63, Cl. 123—148.
Michel, David D. Valve and dispensing apparatus for pressure containers and the like. 3,101,875, 8–27–63, Cl. 222—394.
Michel, Donald P., and J. E. Irvine, to The Bauer Bros. Co. Refiner construction. 3,114,061, 12–10–63, Cl. 310—60.
Michel, Erhard J.: *See*—
Jensen, Dennis C., and Michel. 3,098,167.
Michel, Henri: *See*—
Perraut, Jean M., and Michel. 3,075,714.
Michel, Karl: *See*—
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Michel, Philip L., to United Aircraft Corp. Variable stabilizing means. 3,081,052, 3–12–63, Cl. 244—17.19.
Michel, Raymond E., to Minneapolis-Honeywell Regulator Co. Control apparatus. 3,082,743, 3–26–63, Cl. 121—38.
Michel, Raymond E., to Minneapolis-Honeywell Regulator Co. Control apparatus. 3,100 963, 8–20–63, Cl. 60—35.6.
Michel, Rupprecht, to Siemens-Schuckertwerke Aktiengesellschaft. Once-through steam generator. 3,108,576, 10–29–63, Cl. 122—6.
Michel, Rupprecht, and J. Dutt, to Siemens-Schuckertwerke Aktiengesellschaft. Steam generator of the drumless type. 3,106,193, 10–8–63, Cl. 122—235.
Michelin & Cie: *See*—
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Boussu, Gabriel X. R., Neuville, and Saint-Frison. 3,090,189.
Boussu, Gabriel X. R., Neuville, and Saint-Frison. 3,090,190.
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Marsh, Byron E., Haughn, and Michelini. 3,111,178.
Michell, William P., and R. B. Singer, to Dana Corp. Automatic clutch control system. 3,074,524, 1–22–63, Cl. 192—103.
Michels, Julian G., to The Norwich Pharmacal Co. Ethyl 2-[1-(5-nitrofurfurylideneamino) - 2,4 - dioxo-3-dioxo-3-imidazolidyl]ethylcarbamate. 3,075,972, 1–29–63, Cl. 260—240.
Michels, Julian G., to The Norwich Pharmacal Co. 3-aminoalkylated-1-(5-nitrofurfurylideneamino) hydantoins. 3,075,973, 1–29–63, Cl. 260—240.

Michels, Julian G., to The Norwich Pharmacal Co. 3-(2-(4-morpholino)ethyl)-1-(5-nitrofurfurylideneamino)hydantoin and acid addition salts thereof. 3,075,974, 1–29–63, Cl. 260—240.

Michels, Julian G., to The Norwich Pharmacal Co. New 1-(hydroxy-(lower) alkyl)-3-(5-nitrofurylideneamino)-2-imidazolidine-thiones. 3,076,805, 2–5–63, Cl. 260—240.

Michels, Julian G., to The Norwich Pharmacal Co. 3-[acetonyl; hydroxyethyl; and 2-(4-pyridyl)-ethyl]-1-(5-nitrofurylideneamino) hydantoin. 3,097,202, 7–9–63, Cl. 260—240.

Michels, Julian G., to The Norwich Pharmacal Co. 1-(2-hydroxyethyl)-3-amino-2-imidazolidine-thione. 3,115,499, 12–24–63, Cl. 260—309.7.

Michels, Lawrence: *See*—
Van Alstyne, Alvin G., and Michels. 3,111,643.

Michels, Roy S., Jr. Stroller convertible to walker and carriage. 3,079,162, 2–26–63, Cl. 280—7.1.

Michelson, Charles: *See*—
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Michie, Amanda A.: *See*—
Michie, John S. 3,081,022.

Michie, John S., deceased; A. A. Michie, executrix, to A. A. Michie. Rotary compressor. 3,081,022, 3–12–63, Cl. 230—147.

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Michigan Equity Corp.: *See*—
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Michigan Oven Co.: *See*—
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Olson, Birger H., Harvey, Junek, and Jennings. 3,104,208.

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Michigan Tool Co.: *See*—
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Mick, Stanley H., to General Motors Corp. Air valve carburetor. 3,078,079, 2–19–63, Cl. 261—44.

Mick, William F., to The Dow Chemical Co. Steel pipe having organic thermoplastic liner with glass fiber reinforcement. 3,071,162, 1–1–63, Cl. 138—140.

Mickel, Blanchard L.: *See*—
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Mickel, Blanchard L., to Standard Oil Co. Engine fuel test device. 3,108,468, 10–29–63, Cl. 73—61.

Mickel, Blanchard L., and F. K. Kawahara, to Standard Oil Co. Hydrocarbon jet fuel containing decaborane and alkanols or phenols. 3,086,355, 4–23–63, Cl. 60—35.4.

Mickelson, Nils R., to United States of America, Navy. Analog computing device. 3,113,170, 12–3–63, Cl. 35—10.4.

Mickleover Transport Ltd.: *See*—
Squier, Benjamin T., and Jervis. 3,082,899.

Mickley, Günter: *See*—
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Micks, William R., to The Rand Corp. Novel structural composite material. 3,098,723, 7–23–63, Cl. 29—183.5.

Micro Balancing, Inc., a subsidiary of Giannini Scientific Corp.: *See*—
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Microcell Ltd.: *See*—
Horrocks, David L., and Trenchard. 3,088,773.

Micro Controls, Inc.: *See*—
Douglas, Bradley C. 3,085,715.
Douglas, Bradley C. 3,091,395.
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Holzboog, Walter H., and Reinhart. 3,107,856.
Holzboog, Walter H., Reinhart, and Marr. 3,090,560.

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Felts, Gordon P. 3,074,597.
Felts, Gordon P. 3,077,513.
Felts, Gordon P. 3,091,749.
Felts, Gordon P. 3,097,033.
Russell, John D. 3,092,993.
Russell, John D. 3,105,139.
Wedemeyer, George W. 3,114,887.

Micro Machinery Products, Inc.: *See*—
Meserve, Forrest C. 3,089,164.

Micromatic Hone Corp.: *See*—
Ellis, Rollo G. 3,083,816.
Engle, Robert C. 3,084,487.
Greening, John H., and Horgan. 3,087,281.

Micro-Mega, Societe Anonyme: *See*—
Garnier, Marcel, and Léonard. 3,107,101.

Micro-Poise Engineering and Sales Co.: *See*—
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Micro Products Inc.: *See*—
Zeigle, Kenneth C., and Wersal. 3,113,656.

Microseal Products, Inc.: *See*—
Rocheville, Charles F. 3,100,724.

Micro-Systems, Inc.: *See*—
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Microwave Associates, Inc.: *See*—
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Lanciani, Daniel A. 3,074,022.
Roberts, Louis W. 3,072,865.
Roberts, Louis W. 3,072,866.

Microwave Associates, Inc.: *See*—Continued
Walker, Richard M. 3,072,870.
Walker, Richard M. 3,085,213.
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Microwave Development Laboratories, Inc.: *See*—
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Saffer, Alfred, and Barker. 3,089,907.

Middendorf, Eugene H., to International Harvester Co. Engine coolant system. 3,080,857, 3–12–63, Cl. 123—41.1.

Middendorf, Karl H., to The Prescon Corp. Anchors for stranded pretensioned members. 3,115,727, 12–31–63, Cl. 50—128.

Middendorf, William H., to The Wadsworth Electric Mfg. Co., Inc., Toggle common trip interlock for multi-pole circuit breakers. 3,116,387, 12–31–63, Cl. 200—116.

Middendorf, William H., and E. W. Landmeier, deceased (L. Landmeier, executrix), to Wadsworth Electric Mfg. Co., Inc. Panel board and circuit breaker combination. 3,089,063, 5–7–63, Cl. 317—119.

Middleditch, Stanley W., to De La Rue Instruments, Ltd. Banknote handling machine. 3,077,983, 2–19–63, Cl. 209—73.

Middle States Corp.: *See*—
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Middleton, Carl W., Jr., and E. F., to The Warner Brothers Co. Press for forming continuous planar thermoplastic sheet material. 3,073,499, 1–15–63, Cl. 226—120.

Middleton, Carl W., Jr., and E. F., to The Warner Brothers Co. Stand-up blister packages. 3,093,244, 6–11–63, Cl. 206—78.

Middleton, Carlesle A. and T. B., and H. P. Johnson. Material spreader. 3,094,334, 6–18–63, Cl. 275—8.

Middleton, Carlisle A.: *See*—
Johnson, Howard P., and C. A. and T. B. Middleton. 3,078,059.

Middleton, Earl F.: *See*—
Middleton, Carl W., Jr., and E. F. 3,073,499.
Middleton, Carl W., Jr., and E. F. 3,093,244.

Middleton, Forest L., to Lescoa, Inc. Ash tray. 3,109,688, 11–5–63, Cl. 312—248.

Middleton, Robert E. Lens soaking kit. 3,072,132, 1–8–63, Cl. 134—137.

Middleton, Robert E., and C. C. Christopherson, to Superior Visual Products Co. Grinding tool for lenses. 3,122,585, 12–3–63, Cl. 51—204.

Middleton, Thomas B.: *See*—
Johnson, Howard P., and C. A. and T. B. Middleton. 3,078,059.
Middleton, Carlesle A. and T. B., and Johnson. 3,094,334.

Middleton, William J., to E. I. du Pont de Nemours and Co. Substituted 3,6-dihydro-2H,1-thiapyrans and the process for producing them. 3,073,845, 1–15–63, Cl. 260—327.

Middleton, William J., to E. I. du Pont de Nemours and Co. Fluorothiacyl chlorides and polymers thereof. 3,113,936, 12–10–63, Cl. 260—79.

Middletown Mfg. Co.: *See*—
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Midgley, Noel H., to Midgley Shoe Systems, Inc. Method of forming a laminated insole of varying thickness. 3,080,589, 3–12–63, Cl. 12—146.

Midgley, Noel H., to Midgley Shoe Systems, Inc. Laminated insole of varying thickness. 3,095,658, 7–2–63, Cl. 36—44.

Midgley Shoe Systems, Inc.: *See*—
Midgley, Noel H. 3,080,589.
Midgley, Noel H. 3,095,658.

Midkiff, James C., to Avco Corp. Signal selector and automatic gain control for satellite command receiver. 3,108,225, 10–22–63, Cl. 325—415.

Midland Bank Executor and Trustee Co.: *See*—
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Midland Chemical Corp.: *See*—
Berry, John M. 3,080,257.

Midland Industrial Finisher Co.: *See*—
Bromstead, Edward J., and Himelbloom. 3,084,051.
Kaufman, Herbert A., Jr., and Caplan. 3,114,725.

Midland Mfg. Co., Inc.: *See*—
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Midland-Ross Corp.: *See*—
Barr, Robert A., and Waechter. 3,083,009.
Beggs, Donald, and Phillips. 3,097,836.
Burkholder, Aiden H. 3,072,064.
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Dailey, William H., Jr. 3,107,904.
Hansen, Erwin G. 3,109,486.
Jacobs, Robert J., and Waechter. 3,096,947.
Jaeger, Kirt S. 3,082,760.
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McLellan, Kenneth M. 3,109,279.
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Siddle, John K., and Miller. 3,099,486.
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States, William H. 3,097,697.

Midway Mfg. Co.: *See*—
Wolverton, Marcine P. 3,089,476.

Mid-West Abrasive Co.: *See*—
Vekovius, Charles W., and Woodward. 3,096,889.

Midwest Conveyor Co., Inc.: *See*—
Peterson, Alge T., Jr., and Potter. 3,073,259.

Mid-West Metallic Products, Inc.: *See*—
Mutto, Theodore R. 3,091,355.

Midwest Mower Corp.: *See*—
Fox, Richard E. 3,098,331.

Midwest Research Institute: *See*—
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Midwest Rubber Reclaiming Co.: *See*—
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Midwest Supply and Mfg. Co.: *See*—
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Midwestern Instruments, Inc.: *See*—
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Hilgoe, Vernon J., and Doyle. 3,099,211.
Pasquinelli, Bruno B. 3,080,163.
Pasquinelli, Bruno B. 3,097,595.
Peabody, Glenn R., and Tyma. 3,095,811.
Sites, Benjamin L. 3,099,557.
Sorenson, William H. 3,095,193.
Thumin, Carl. 3,078,201.
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Thumin, Carl. 3,097,752.
Tyma, Louis S., Jr., and Doyle. 3,098,437.
Tyma, Louis S., Jr., and Pasquinelli. 3,078,240.
Wickland, Joseph R. 3,071,371.
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Miehle, Walter F., to Seal, Inc. Process of preparing transparencies. 3,083,132, 3–26–63, Cl. 156—234.

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Kelly, Thomas M., and Mielenz. 3,090,692.
Kelly, Thomas M., and Mielenz. 3,090,693.

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Mieras, John H., to American Radiator & Standard Sanitary Corp. Oil burner control system. 3,109,480, 11–5–63, Cl. 158—28.

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Mieville, André, to M.-L. Spira-Klein. Machine for drilling holes in hard materials. 3,105,482, 10–1–63, Cl. 125—30.

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Mighell, Russell L., to Kewanee Machinery & Conveyor Co. Wing gang coupling. 3,102,598, 9–3–63, Cl. 172—568.

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Mihalek, Robert M.: *See*—
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Mihalik, Robert, to The Patent Scaffolding Co. Inc. Safety ladder. 3,112,010, 11–26–63, Cl. 182—106.

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Mihelich, Joseph B., to North American Aviation, Inc. Apparatus for comparing maps. 3,102,260, 8–27–63, Cl. 343—5.

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Mika, Henry S., to United States Rubber Co. Apparatus for developing a signal representing the condition of balance of an object. 3,098,392, 7–23–63, Cl. 73—485.

Mika, Thomas F., to Shell Oil Co. Cyano-substituted polyamides and their use as curing agents for polyepoxides. 3,091,595, 5–28–63, Cl. 260—18.

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Mike, John G. Pneumatic anti-skid or snow tire. 3,095,918, 7–2–63, Cl. 152—208.

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Mikula, Adam, to Sandoz Ltd. (also known as Sandoz A.G.). Process for the dyeing of copolymers of acrylonitrile and vinyl-acetate or vinyl-pyridine. 3,079,210, 2–26–63, Cl. 8—55.

Mikulak, John: *See*—
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Mikulski, Henry M., and E. F. Holben, to Conoflow Corp. Positioner. 3,083,696, 4–2–63, Cl. 121—41.

Milam, Robert A. Radar resolutions. 3,107,351, 10–15–63, Cl. 343—5.

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Milan, Emil P., to Magnatron Corp. Magnetic conveyor. 3,109,532, 11–5–63, Cl. 198—41.

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Milanovits, Thomas: *See*—
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Milanovits, William T. and T., to M.L. Mfg. Co. Pipeline stopping tool. 3,091,260, 5–28–63, Cl. 138—94.

Milazzo, Victor, to Van-Mico Products, Inc. Pin-attached button forming machine. 3,083,596, 4–2–63, Cl. 79—3.

Milbert, Arthur H. Medical applicator. 3,078,848, 2–26–63, Cl. 128—251.

Milbourne, Benjamin K., to R. S. Curtis. Folding chair. 3,083,051, 3–26–63, Cl. 297—19.

Milbourne, Benjamin K. Denture cleaner. 3,098,496, 7–23–63, Cl. 134—166.

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Milburn, Frank L., to General Motors Corp. Counterbalanced door for an oven door. 3,096,755, 7–9–63, Cl. 126—191.

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Marshall, Milton, Milbury, and Shultz. 3,092,871.

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Milek, Robert C. Portable material handling apparatus. 3,092,264, 6–4–63, Cl. 214—2.

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Miles, George N., to G. O. Halsted. Surgical stapling device. 3,082,426, 3–26–63, Cl. 1—349.

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Adams, Ernest C., Jr., and Peterson. 3,092,463.
Adams, Ernest C., Jr., and Peterson. 3,092,464.
Adams, Ernest C., Jr., and Smeby. 3,092,465.
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Borchert, Peter J. 3,095,444.
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Slager, James E. 3,086,969.
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Miles, Marshall, to Stewart-Warner Corp. Electric tachometer sender. 3,094,656, 6–18–63, Cl. 323—60.
Miles, Merthen L., S. W. Brown, and O. K. Ward. Seed potato cutter. 3,096,801, 7–9–63, Cl. 146—78.
Miles, Ray P. Pallet sling. 3,115,361, 12–24–63, Cl. 294—112.
Miles, Thomas D., F. A. Hoffman, and A. Merola, to United States of America, Army. Flame resistant finish for textiles. 3,085,029, 4–9–63, Cl. 117—137.
Miles, William B. Type holder. 3,079,860, 3–5–63, Cl. 101—394.
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Milewski, Victor, to The Valeron Corp. Lever adjustment for cutter cartridge. 3,102,441, 9–3–63, Cl. 77—58.
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Milford, Richard E., to General Electric Co. Waveform recognition system. 3,111,645, 11–19–63, Cl. 340—146.3.
Milford, Richard E., to General Electric Co. Apparatus for reading human language. 3,112,469, 11–26–63, Cl. 340—146.3.
Millonis, Jerry P., and W. B. Hardy, to American Cyanamid Co. Vinylbenzyloxy phenylbenzotriazoles. 3,072,585, 1–8–63, Cl. 260—22.
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Millar, Gordon H., to McCulloch Corp., Scott Division. Supplemental fuel feed system for internal combustion engines. 3,096,751, 7–9–63, Cl. 123—119.
Millard, George R., B. B. Bidelman, and R. R. Martin, to Ronan & Kunzl, Inc. Automatic door closer and check mechanism. 3,078,500, 2–26–63, Cl. 16—52.
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Davis, William D., and Miller. 3,087,857.
Miller, Alf: *See*—
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Miller, Alfred L., E. M. Burns, Jr., and J. Berch, to Esso Research and Engineering Co. Non-woven fabric bonded with butyl rubber phenol-formaldehyde resol. 3,116,164, 12–31–63, Cl. 117—140.
Miller, Alfred L., F. P. Baldwin, and S. B. Robison, to Esso Research and Engineering Co. Tire cord adhesion. 3,091,560, 5–28–63, Cl. 154—52.
Miller, Alice. Cooking unit. 3,088,395, 5–7–63, Cl. 99—340.
Miller, Alvin E., to The Pease Woodwork Co. Inc. Wood building construction. 3,114,176, 12–17–63, Cl. 20—2.
Miller, Alvin J., to Phillips Petroleum Co. Separation of gases and liquids by sorption. 3,116,130, 12–31–63, Cl. 55—19.
Miller, Andrew H., to FMC Corp. Fruit preparation machine. 3,096,870, 7–9–63, Cl. 198—33.
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Miller, Arthur H.: *See*—
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Miller, Avy L. Hot water distribution system. 3,111,942, 11–26–63, Cl. 126—362.
Miller, Bernard, and M. R. Forbes, to American Cyanamid Co. Improvement in production of O,O-dialkyl-O,-2-pyrazinyl phosphorothioate. 3,091,614, 5–28–63, Cl. 260—250.
Miller, Bernard, and T. P. O'Leary, Jr., to American Cyanamid Co. N-vinyl phosphoramidothioates and method for preparing same. 3,113,958, 12–10–63, Cl. 260—461.
Miller, Bernard F. Milking cup assembly. 3,079,891, 3–5–63, Cl. 119—14.50.
Miller, Billy M. Setting tool for lead cinch anchors. 3,083,855, 4–2–63, Cl. 218—36.
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Miller, Brinton M., and I. Putter, to Merck & Co., Inc. Thermycetin and method for preparation. 3,102,076, 8–27–63, Cl. 167—65.
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Miller, Carl S., and B. W. Neher, to Minnesota Mining and Mfg. Co. Electrical photography. 3,082,085, 3–19–63, Cl. 96—1.
Miller, Chan A., and J. A. Boat winch and transmission therefor. 3,072,931, 1–15–63, Cl. 9—30.
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Miller, Charles W., to General Motors Corp. Rechargeable flashlight assembly. 3,096,941, 7–9–63, Cl. 240—6.4.
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Miller, Clarence S., to The Butcher Polish Co. Polishing pad. 3,075,222, 1–29–63, Cl. 15—209.
Miller, Coleman J., to Westinghouse Electric Corp. Electronically-controlled-scanning directional antenna apparatus utilizing velocity modulation of a traveling wave tube. 3,080,523, 3–5–63, Cl. 325—15.
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Miller, De Witt H., to General Electric Co. Closed loop control device. 3,098,965, 7–23–63, Cl. 322—28.
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Miller, Donald P., to Texas Instruments Inc. Mesa diode with guarded junction and reverse bias means for leakage control. 3,076,104, 1–29–63, Cl. 307—88.5.
Miller, Donald P., to Texas Instruments Inc. Method of forming clean iron-lead telluride high temperature pressure contacts. 3,093,719, 6–11–63, Cl. 219—9.5.
Miller, Donald W., and A. Clarkson. Rotary plug valve. 3,111,299, 11–19–63, Cl. 251—175.
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Miller, Earle C., to Riley Stoker Corp. Slag tap furnace. 3,110,272, 11–12–63, Cl. 110—28.
Miller, Earle C., to Riley Stoker Corp. Steam generating unit. 3,110,291, 11–12–63, Cl. 122—479.
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Miller, Eli A. Center fill tube for silos. 3,078,127, 2–19–63, Cl. 302—60.
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Miller, Frank H., Jr., to Miller Engineering Corp. Conveyor transfer machine. 3,082,495, 3–26–63, Cl. 22—31.
Miller, Frederick J., to General Foods Corp. Process of preparing a quick-cooking brown rice. 3,086,867, 4–23–63, Cl. 99—80.
Miller, Frederick L. B., to Chipper Machines and Engineering Corp. Veneer feeder. 3,086,769, 4–23–63, Cl. 270—93.
Miller, Garrett H. Stone grapple. 3,099,476, 7–30–63, Cl. 294—112.
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Miller, George. Apparatus for cleaning feathers and the like. 3,081,553, 3–19–63, Cl. 34—2.
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Miller, George B., to Associated Electrical Industries Ltd. Inductive loop communication systems. 3,076,058, 1–29–63, Cl. 179—82.
Miller, George T., to Hooker Chemical Corp. Method of preparing phosphine. 3,109,790, 11–5–63, Cl. 204—101.
Miller, George T., and J. Steingart, to Hooker Chemical Corp. Process for the preparation of phosphine. 3,109,786, 11–5–63, Cl. 204—101.
Miller, George T., and J. Steingart, to Hooker Chemical Corp. Electrolytic production of phosphine. 3,109,788, 11–5–63, Cl. 204—101.
Miller, George T., and J. Steingart, to Hooker Chemical Corp. Preparation of phosphine. 3,109,789, 11–5–63, Cl. 204—101.
Miller, Glen E., to Boeing Airplane Co. Stabilized phase-sensitive servo loop demodulators. 3,099,798, 7–30–63, Cl. 329—124.
Miller, Gustave: *See*—
Hancock, Charles L. 3,106,797.
Huber, Robert D. 3,101,163.
Johnson, Kirby R. 3,101,021.
Miller, H. Paul, and W. A. Soper, to The B. F. Goodrich Co. Pipe joint sealing wrapper. 3,100,658, 8–13–63, Cl. 255—230.
Miller, Harold A., to Francis Earle Laboratories, Inc. Nacreous material from titanium dioxide. 3,071,482, 1–1–63, Cl. 106—148.
Miller, Harold A., and W. P. Kurtenbach, to Francis Earle Laboratories, Inc. Method of preparing plastic articles exhibiting variegated colors and resulting article. 3,082,-179, 3–19–63, Cl. 260—17.
Miller, Harold E., and R. W. McCoy. Ski equipment carrier. 3,114,487, 12–17–63, Cl. 224—45.
Miller, Harold G., to Racine Hydraulics and Machinery, Inc. Material compacting device. 3,073,219, 1–15–63, Cl. 94—48.
Miller, Harold G. to Racine Hydraulics and Machinery, Inc. Railroad maintenance machine. 3,073,258, 1–15–63, Cl. 104—7.
Miller, Harold L.: *See*—
Siddle, John K., and Miller. 3,099,436.
Miller, Harold L., to Vemco Products, Inc. Card key system. 3,116,380, 12–31–63, Cl. 200—46.
Miller, Harry: *See*—
Glaser, Myron B., and Miller. 3,115,319.
Jude, George F., and Miller. 3,079,109.
Pippert, Elvin B., Sr., and Miller. 3,101,599.
Miller, Harry, to Sperry Rand Corp. Control wheel force transducer. 3,114,124, 12–10–63, Cl. 336—30.
Miller, Harry B., to Leesona Corp. Yarn retaining device 3,102,702, 9–3–63, Cl. 242—128.
Miller, Harry B., to Clevite Corp. Folded transducer. 3,110,-825, 11–12–63, Cl. 310—8.7.
Miller, Harry C. Compromise resisting combination lock. 3,098,376, 7–23–63, Cl. 70—333.
Miller, Harry J., Jr.: *See*—
Linsley, Douglas F., and Miller. 3,090,253.
Linsley, Douglas F., and Miller. 3,101,627.
Miller, Harry L., to Ways & Means, Inc. Conveyor arrangement. 3,092,237, 6–4–63, Cl. 198—19.
Miller, Henry, Spring and Mfg. Co.: *See*—
Chambers, Isaac M. 3,101,112.
Miller, Herbert E.: *See*—
Ostroff, Edward D., Marcotte, and Miller. 3,094,629.
Miller, Herman G.: *See*—
Hickman, Carl V., Taylor, Butterworth, Miller, Young, and Powell. 3,075,434.
Miller, Herman, Inc.: *See*—
Albinson, Don. 3,075,235.
Albinson, Don. 3,082,036.
Eames, Charles. 3,088,127.
Eames, Charles. 3,109,679.
Eames, Charles, Albinson, and Pearce. 3,093,414.
Eames, Charles, and Staples. 3,114,575.
Nelson, George, and Pile. 3,110,534.
Propst, Robert L. 3,088,178.
Propst, Robert L. 3,095,625.
Propst, Robert L. 3,110,912.
Propst, Robert L. 3,114,577.
Van Harn, Willard, and Blodee. 3,112,635.
Miller-Holzwarth, Inc.: *See*—
Miller, William E. 3,104,847.
Miller, Imrich M., to Universal Mfg. Corp. Terminal board. 3,116,099, 12–31–63, Cl. 339—198.
Miller, Ira A., ½ to C. W. McCallum. Fluid actuated valve. 3,084,898, 4–9–63, Cl. 251—1.
Miller, J. Vance. Two speed motor. 3,097,331, 7–9–63, Cl. 318—221.
Miller, Jack: *See*—
Dale, Thomas L. 3,080,911.
Miller, Jack. Sectional fountain type toothbrush. 3,081,783, 3–19–63, Cl. 132—84.
Miller, Jack, to United States of America, Atomic Energy Commission. Method for air carbon-arc cutting or gouging. 3,100,255, 8–6–63, Cl. 219—70.
Miller, Jack M., M. Long, and C. F. Rapp, to Marlen Equipment Co. Control apparatus for forming mechanism. 3,096,540, 7–9–63, Cl. 17—32.
Miller, Jack M., M. Long, C. F. Rapp, and L. F. Alley, to Marlen Equipment Co. Machine for stuffing sausage and similar casings. 3,108,318, 10–29–63, Cl. 17—39.
Miller, James A.: *See*—
Miller, Chan A., and J. A. 3,072,931.
Miller, James A., to Reynolds Metals Co. Cathode structure for electrolytic reduction cell. 3,110,660, 11–12–63, Cl. 204—243.
Miller, James C., to Radio Corp. of America. Negative resistance diode memory. 3,089,126, 5–7–63, Cl. 340—173.
Miller, James C., to Radio Corp. of America. Shift register including two tunnel diodes per stage. 3,097,312, 7–9–63, Cl. 307—88.5.
Miller, James F.: *See*—
Griffin, William F., and Miller. 3,082,115.
Miller, James H., to Gould-National Batteries, Inc. Battery vent plugs. 3,108,911, 10–29–63, Cl. 136—177.
Miller, James K. Apparatus for making and projecting stereoscopic pictures employing a spherical mirror segment. 3,083,612, 4–2–63, Cl. 88—16.6.
Miller, James K., and J. N. Lomonte, to The Dow Chemical Co. Recovery of hexamethylphosphorictriamide. 3,084,-190, 4–2–63, Cl. 260—551.
Miller, James L.: *See*—
Pansing, Nelson J., Long, and Miller. 3,102,008.
Miller, James N., to Gulf Oil Corp. Process and apparatus for distilling and visbreaking reduced crude. 3,110,663, 11–12–63, Cl. 208—93.
Miller, James R., and D. H. Willson, to Jersey Production Research Co. Hydraulic fracturing fluid. 3,105,047, 9–24–63, Cl. 252—8.55.
Miller, Jennings F., Jr. Miniature solar system displays. 3,089,259, 5–14–63, Cl. 35—45.
Miller, Jerome F.: *See*—
Andres, William A., and Miller. 3,113,329.
Miller, Jerry: *See*—
Hahn, Norman E., and Miller. 3,105,342.
Miller, Joan E.: *See*—
Mathews, Max V., and Miller. 3,083,266.
Miller, John C. Pump and operating means. 3,075,471, 1–29–63, Cl. 103—151.
Miller, John C., to Mine safety Appliances Co. Helmet eyeshield adjustor. 3,081,460, 3–19–63, Cl. 2—6.
Miller, John C., to Mine Safety Appliances Co. Coupling between helmet and pressure suit. 3,112,130, 11–26–63, Cl. 285—276.
Miller, John D., to Miller Dial & Name Plate Co. Edgelighted panel 3,070,913, 1–1–63, Cl. 40—130.
Miller, John H., and M. O. Helms. Soil agitator. 3,094,174, 6–18–63, Cl. 172—531.
Miller, John L. Folding machine for tubular knitted fabrics. 3,083,008, 3–26–63, Cl. 270—31.
Miller, John L. Earth tamper. 3,091,159, 5–28–63, Cl. 94—49.
Miller, John L., to The Bendix Corp. Fluid brake pedal arrangement. 3,108,651, 10–29–63, Cl. 180—90.6.
Miller, John M. Gas warning device. 3,102,257, 8–27–63, Cl. 340—237.

Miller, John R.: *See*—
Aldrich, Barry I., Frew, Miller, and Rayner. 3,107,605.
Miller, John W. Electrical lead connectors. 3,092,430, 6–4–63, Cl. 339—32.
Miller, John W., and H. W. Nidenberg, to General Electric Co. Material working machine with multiple tool holder. 3,074,147, 1–22–63, Cl. 29—26.
Miller, Joseph, and P. Staudhammer, to The Regents of the University of California. Analyzer for determining concentration of combustibles in gases. 3,076,697, 2–5–63, Cl. 23—254.
Miller, Joseph F.: *See*—
Pettit, Lewis F., Jr., and Miller. 3,078,354.
Miller, Joseph F. Reverse gear transmission shifter. 3,106,852, 10–15–63, Cl. 74—365.
Miller, Joseph N., to Jackes-Evans Mfg. Co. Valve. 3,079,952, 3–5–63, Cl. 137—625.49.
Miller, Joseph P. Machine and method for loading portable tanks. 3,113,685, 12–10–63, Cl. 214—77.
Miller, Joseph P., Co., Inc.: *See*—
Miller, Francis A., and Albert. 3,111,347.
Miller, Joseph R., and C. O. Wilson. Derrick. 3,111,225, 11–19–63, Cl. 212—8.
Miller, Keith W.: *See*—
Wolf, Jack J., and Miller. 3,082,999.
Miller, Kenneth. Gastight pressure vessel. 3,109,552, 11–5–63, Cl. 220—46.
Miller, Kenneth C., to Baldwin-Lima-Hamilton Corp. Welding control construction. 3,108,181, 10–22–63, Cl. 219—131.
Miller, Kenneth F., and T. M. Place, Sr., to Beckman Instruments, Inc. Variable resistor contact. 3,102,990, 9–3–63, Cl. 338—162.
Miller, Kenneth J., to Bell Telephone Laboratories, Inc. Etching of germanium surfaces prior to evaporation of aluminum. 3,116,184, 12–31–63, Cl. 148—179.
Miller, Kenneth W. Acceleration devices and indicating apparatus. 3,073,922, 1–15–63, Cl. 200—61.48.
Miller, Laura E., ½ to L. L. Shelton. Rug and method of making the same. 3,071,777, 1–8–63, Cl. 2—278.
Miller, Lawrence E., to Rockford Sewing Machine Co. Sewing machine. 3,083,656, 4–2–63, Cl. 112—158.
Miller, Lee A.: *See*—
Katon, John E., and Miller. 3,097,086.
Miller, Lee A., to Monsanto Chemical Co. Nitrile-ester pesticide. 3,078,210, 2–19–63, Cl. 167—22.
Miller, Lee A., to Monsanto Chemical Co. Sulfonyl glycol diproplolates. 3,082,244, 3–19–63, Cl. 260—486.
Miller, Lee A., to Monsanto Chemical Co. Polyalkylene glycol diproplolates. 3,082,245, 3–19–63, Cl. 260—486.
Miller, Lee A., to Monsanto Chemical Co. Acetylenic diamides. 3,093,646, 6–11–63, Cl. 260—268.
Miller, Lee A., to Monsanto Chemical Co. Diphosphonate alkyl esters. 3,093,672, 6–11–63, Cl. 260—461.
Miller, Lee A., to Monsanto Chemical Co. Estervinylation of aromatic amines. 3,093,679, 6–11–63, Cl. 260—471.
Miller, Lee A., to Monsanto Chemical Co. Esters. 3,093,680, 6–11–63, Cl. 260—486.
Miller, Lee A., to Monsanto Chemical Co. Aryl proplolates. 3,097,230, 7–9–63, Cl. 260—473.
Miller, Lee A., to Monsanto Chemical Co. Haloacrylate pesticides. 3,097,998, 7–16–63, Cl. 167—22.
Miller, Lee A., to Monsanto Chemical Co. Esters of acetylenic acids. 3,100,794, 8–13–63, Cl. 260—486.
Miller, Lee A., and J. M. Butler, to Monsanto Chemical Co. Esters of acetylenic acids and polyhydric alcohols. 3,082,242, 3–19–63, Cl. 260—486.
Miller, Leo D. Humidifier preservative. 3,110,684, 11–12–63, Cl. 252—389.
Miller, Leon F., to The Osborn Mfg. Co. Blow-squeeze molding machine. 3,089,207, 5–14–63, Cl. 22—36.
Miller, Leonidas C.: *See*—
Plumb, Lewis R., and Miller. 3,106,837.
Miller, Leonidas C., to L. W. Kuhn. Tool head with removable tool holder. 3,107,562, 10–22–63, Cl. 82—36.
Miller, Lewis F., and N. M. Callaghan, Jr., to International Business Machines Corp. Moisture set magnetic inks. 3,072,577, 1–8–63, Cl. 252—62.5.
Miller, Lloyd G., to United Shoe Machinery Corp. Inseam sewing and upper tensioning machines. 3,077,844, 2–19–63, Cl. 112—35.
Miller, Lloyd G., to United Shoe Machinery Corp. Shoe inseam sewing machines. 3,088,426, 5–7–63, Cl. 112—58.
Miller, Louis D., and E. M. Musselman, to Radio Corp. of America. Photoconductive pickup tube having an electrically isolated mesh assembly. 3,073,981, 1–15–63, Cl. 313—65.
Miller, Lowell A.: *See*—
Whitfield, Robert E., Miller, and Wasley. 3,079,216.
Whitfield, Robert E., Miller, and Wasley. 3,079,217.
Whitfield, Robert E., Miller, and Wasley. 3,084,018.
Whitfield, Robert E., Miller, and Wasley. 3,084,019.
Whitfield, Robert E., Miller, and Wasley. 3,093,441.
Miller, Lowell A., R. E. Whitfield, and W. L. Wasley, to United States of America, Agriculture. Shrinkproofing wool with polyamides. 3,078,138, 2–19–63, Cl. 8—128.
Miller Lubricator Co.: *See*—
Harkenrider, Robert J. 3,076,685.
Miller, Marcell J., to The Liberty Steel Chest Corp. Rod holder for fishing tackle boxes. 3,095,663, 7–2–63, Cl. 43—21.2.
Miller, Marlow W., to Milleo Corp. Can and jug washing machine. 3,078,861, 2–26–63, Cl. 134—96.
Miller, Marshall A. Weigher controlled bagging machine. 3,115,943, 12–31–63, Cl. 177—109.
Miller, Martin P., and J. S. Pratt, to Brillo Mfg. Co., Inc. Metal wool pad. 3,078,489, 2–26–63, Cl. 15—209.
Miller, Marvin O., to United States of America, Navy. Apparatus and method for launching and recovering lifeboats in rough seas. 3,109,185, 11–5–63, Cl. 9—34.
Miller, Mary L., to American Cyanamid Co. Method of making a crystallizable polymer with lithium as catalyst. 3,088,939, 5–7–63, Cl. 260—88.7.
Miller, Mary L., to American Cyanamid Co. Preparation of high molecular weight polyacrylonitrile with N-butyl lithium as catalyst. 3,098,060, 7–16–63, Cl. 260—88.7.
Miller, Meritt L., to General Electric Co. Converter for converting alternating current signals to proportional constant polarity signals including compensating diode feedback. 3,112,449, 11–26–63, Cl. 328—26.
Miller, Monroe A., to Electronic Associates, Inc. Suppression of grid current effects in D.C. amplifiers. 3,081,435, 3–12–63, Cl. 330—9.
Miller, Montgomery K., and W. L. Kumler. Well screening device. 3,099,318, 7–30–63, Cl. 166—227.
Miller, Norman. Boat bumpers. 3,079,884, 3–5–63, Cl. 114—219.
Miller, Norman R., M. T. Pigott, D. C. Whitmarsh, and R. O. Rowlands, to United States of America, Navy. Acoustical wave direction determining device. 3,113,286, 12–3–63, Cl. 340—6.
Miller, Norman J., to Solidaire, Inc. Radial drill press. 3,102,440, 9–3–63, Cl. 77—28.
Miller, Orville C.: *See*—
Walker, Earl E., and Miller. 3,101,641.
Miller, Paul C. Materials proportioning device. 3,101,801, 8–27–63, Cl. 177—70.
Miller, Paul J., to The Weatherhead Co. Control valve for vehicle suspension. 3,071,394, 1–1–63, Cl. 280—124.
Miller, Paul J., to The Weatherhead Co. Rotary selector valve. 3,082,791, 3–26–63, Cl. 137—625.21.
Miller, Paul M., to The National Cash Register Co. Method of making ferrite cores. 3,109,817, 11–5–63, Cl. 252—62.5.
Miller, Paul O. Shock absorbing attachment for fork lift trucks. 3,080,080, 3–5–63, Cl. 214—750.
Miller, Peter H. Stock material for use as edging strip. 3,090,087, 5–21–63, Cl. 20—92.
Miller and Poston Mfg. Co.: *See*—
Hinz, Walter W., Stansbury, Parkison, and Boutwell. 3,103,068.
Miller Printing Machinery Co.: *See*—
Saul, August A. 3,083,011.
Saul, August A. 3,106,154.
Young, William G. 3,096,088.
Miller, Ralph D., and W. E. Stanford, to Spencer Chemical Co. Nitrogen solutions with corrosion inhibitor. 3,104,969, 9–24–63, Cl. 71—50.
Miller, Ray A.: *See*—
Vetter, Ronald F., Miller, and Herzog. 3,103,784.
Miller, Ray R. Audio visual exhibitor. 3,078,593, 2–26–63, Cl. 35—8.
Miller, Raymond J.: *See*—
Macintyre, John R., and Miller. 3,109,167.
Miller, Raymond J., R. L. Erwin, and D. R. King, to Ford Motor Co. Multiple speed power transmission mechanism. 3,080,764, 3–12–63, Cl. 74—15.84.
Miller, Richard: *See*—
Tazuma, James J., and Miller. 3,075,979.
Miller, Richard A.: *See*—
Coles, Robert F., Tulagin, and Miller. 3,076,721.
Miller, Richard H.: *See*—
Carey, Edward J., and Miller. 3,109,961.
Miller, Richard H., to Astravac Corp. Method of melting materials. 3,084,032, 4–2–63, Cl. 23—308.
Miller, Richard M., and H. I. Patzelt, to Nalco Chemical Co. Preventing fouling of metal conductors in a refinery process. 3,105,810, 10–1–63, Cl. 208—48.
Miller, Robert E., to The National Cash Register Co. Photochemical printing process and sheet material. 3,116,148, 12–31–63, Cl. 96—48.
Miller, Robert E., T. E. Kolany, and W. E. Soong, to United States of America, Army. Mechanical wiper assembly. 3,102,294, 9–3–63, Cl. 15—97.
Miller, Robert H.: *See*—
Parks, John H., Miller, and Paluska. 3,077,873.
Miller, Robert K.: *See*—
Eleftherion, Michael P., Frank, and Miller. 3,115,234.
Hinkle, James O., Miller, and Monahan. 3,076,049.
Miller, Robert L., and R. J. Wolf, Jr., to Minneapolis-Honeywell Regulator Co. Control apparatus. 3,101,433, 8–20–63, Cl. 317—149.
Miller, Roger B.: *See*—
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Miller, Roland M. Method for releasably mounting dental models in plaster of Paris on dental articulators. 3,092,909, 6–11–63, Cl. 32—32.
Miller, Roman R.: *See*—
Grand, Joseph A., and Miller. 3,093,107.
Miller, Ross J., to E. I. du Pont de Nemours and Co. Initiator. 3,106,892, 10–15–63, Cl. 102—27.
Miller, Ross J., and G. A. Noddin, to E. I. du Pont de Nemours and Co. Sonic pulse generating device. 3,102,474, 9–3–63, Cl. 102—1.
Miller, Roy G., ½ to Dayton T. Brown, Inc. Stabilizing mine roofs. 3,108,442, 10–29–63, Cl. 61—45.

Miller, Russell C., to Cowles Chemical Co. Metal treating. 3,106,484, 10–8–63, Cl. 117—71.
Miller, Ruth S. Closure cap for waxed paper cup. 3,090,542, 5–21–63, Cl. 220—51.
Miller, Samuel A., G. C. Mash, and J. A. Tebboth, to The British Oxygen Co. Ltd. Granular porous mass for storage of acetylene and method of manufacturing same. 3,094,492, 6–18–63, Cl. 252—430.
Miller, Solomon L., to Raytheon Co. Solar cells. 3,081,370, 3–12–63, Cl. 136—89.
Miller, Solomon L., to International Business Machines Corp. Binary full adder utilizing asymetric P-N-P-N transistors operated at different saturation current levels. 3,094,633, 6–18–63, Cl. 235—176.
Miller, Stanley J.: *See*—
Cline, Robert F., and Miller. 3,103,440.
Cline, Robert F., and Miller. 3,103,441.
Miller, Stewart C.: *See*—
Janes, Ralph, and Miller. 3,113,431.
Lefebvre, Arthur H., and Miller. 3,088,280.
Miller, Stewart E., to Bell Telephone Laboratories, Inc. Spurious mode suppressing wave guide. 3,078,428, 2–19–63, Cl. 333—95.
Miller, Stewart E., to Bell Telephone Laboratories, Inc. Electromagnetic wave devices. 3,112,460, 11–26–63, Cl. 333—9.
Miller, Stewart F., and F. W. Zimmerman, to National Broach & Machine Co. Lead control structure. 3,106,805, 10–15–63, Cl. 51—95.
Miller, Theodore, to North American Aviation, Inc. Error measuring system for scanners. 3,085,158, 4–9–63, Cl. 250—203.
Miller, Theodore A. Apparatus for casting hollow articles. 3,072,965, 1–15–63, Cl. 18—26.
Miller, Thomas F., S. L. Fudaley, and R. N. Reinertson, to International Telephone and Telegraph Corp. Circuit for canceling oscillating in public address systems. 3,105,877, 10–1–63, Cl. 179—1.
Miller, Tom B., and H. W. Nimmo, to General Motors Corp. Radiator cap with release valve. 3,112,840, 12–3–63, Cl. 220—44.
Miller, Walter A.: *See*—
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Merriam, Charles N., and Miller. 3,099,067.
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Miller, Walter P.: *See*—
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Miller, Walter W., to Novo Industrial Corp. Automatic controls for dispensing machine. 3,110,418, 11–12–63, Cl. 222—25.
Miller, Ward B., and W. H. Ewing, to Owens-Corning Fiberglas Corp. Apparatus for forming tubular insulating bodies of fibrous structure. 3,093,532, 6–11–63, Cl. 156—430.
Miller, Warren P.: *See*—
Williams, Ralph E., and Miller. 3,099,484.
Miller, Warren S., and E. B. Strong. Patient transfer mechanism for weighing scale. 3,109,179, 11–5–63, Cl. 5—81.
Miller, Wayne G., to Divco-Wayne Industries, Inc. Bay window assembly for house trailers and the like. 3,074,125, 1–22–63, Cl. 20—40.
Miller, Wayne K. Furrowing crate. 3,105,462, 10–1–63, Cl. 119—20.
Miller, Wendell S. Mechanical power amplifier. 3,071,021, 1–1–63, Cl. 74—377.
Miller, Wendell S. Intermittent operation mechanical power amplifier. 3,084,564, 4–9–63, Cl. 74—388.
Miller, Wendell S. Gear type fluid handling device. 3,110,265, 11–12–63, Cl. 103—120.
Miller, Wendell S. Variable delay pin-setting apparatus. 3,110,063, 12–31–63, Cl. 273—48.
Miller, Wilbur A., and E. B. Glenger, Jr., to International Latex Corp. Manufacture of deposited latex articles. 3,079,643, 3–5–63, Cl. 18—58.7.
Miller, William B. Y., to Colvilles Ltd. Method of producing slag in fragmented form. 3,109,727, 11–5–63, Cl. 65—19.
Miller, William C., to International Telephone and Telegraph Corp. Delayed call telephone system. 3,110,773, 11–12–63, C. 179—41.
Miller, William E., to Miller-Holzwarth, Inc. Film supply magazine. 3,104,847, 9–24–63, Cl. 242—71.7.
Miller, William J., to Jackson Buff Corp. Buffing wheel of woven fabric with warp yarns arranged radially, and method of making same. 3,110,138, 11–12–63, Cl. 51—193.
Miller, William J., to Jackson Buff Corp. Segment buff with inclined segments. 3,110,139, 11–12–63, Cl. 51—193.
Miller, William L.: *See*—
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Miller, William L., to Continental Can Co., Inc. Rotary molding machine. 3,071,812, 1–8–63, Cl. 18—21.
Miller, William L., to Continental Can Co., Inc. Composite cup and bottom therefor. 3,083,888, 4–2–63, Cl. 229—1.5.
Miller, William R., to General Electric Co. Magnetic amplifier. 3,092,769, 6–4–63, Cl. 323—89.
Miller, William R. Disposable protective cap on contact tube of welding gun. 3,103,576, 9–10–63, Cl. 219—130.
Miller, William R., R. E. Vaughan, and G. B. Anderson, to Farrel-Birmingham Co., Inc. Process for assembling railroad wheels and axles. 3,073,018, 1–15–63, Cl. 29—168.
Miller, William R., F. W. Young, and P. Hold, to Consolidated Machine Tool Division of Farrel-Birmingham Co., Inc. Axle lathe. 3,079,822, 3–5–63, Cl. 82—14.
Miller, William R., and G. M. Lance. Pressure operated valve means for controlling flow in a flow line. 3,099,282, 7–30–63, Cl. 137—87.
Miller, William R., Jr., P. Hold, F. E. Compton, and G. B. Anderson, to Farrel-Birmingham Co., Inc. Automated railroad wheel shop. 3,085,311, 4–16–63, Cl. 29—33.
Miller, William S.: *See*—
Hibbert, Gilbert S., Miller, and Schofield. 3,094,372.
Topham, Michael J., and Miller. 3,106,460.
Miller Wrapping & Sealing Machine Co.: *See*—
Arvidson, Bengt A. 3,093,944.
Arvidson, Bengt A. 3,093,945.
Milleron, Norman, to United States of America, Atomic Energy Commission. Cold trap. 3,081,068, 3–12–63, Cl. 62—332.
Milleron, Norman, and L. L. Levenson, to United States of America, Atomic Energy Commission. Vacuum trap and valve combination. 3,077,712, 2–19–63, Cl. 55—208.
Millership, Ronald, to Elliott Brothers (London) Ltd. Magnetometers. 3,103,622, 9–10–63, Cl. 324—5.
Millerwise, Carl H., to American Radiator & Standard Sanitary Corp. Switch. 3,076,070, 1–29–63, Cl. 200—67.
Milles, Karl, to Wacker-Chemie G.m.b.H. Herbicidal compositions. 3,080,226, 3–5–63, Cl. 71—2.4.
Milleville, Bertram J., to Edward Valves, Inc. Valve for high pressure abrasive carrying fluids. 3,071,343, 1–1–63, Cl. 251—175.
Millhiser Bag Co., Inc.: *See*—
Golden, Bertie C. 3,077,168.
Golden, Bertie C. 3,109,394.
Millhiser, Robert G., and P. Kosar, to Ajem Laboratories, Inc. Power washer and the like. 3,094,207, 6–18–63, Cl. 198—209.
Millhouse, Murray S.: *See*—
Beck, George W., Harris, Millhouse, and Moorman. 3,110,938.
Millhouse, Murray S., and W. Ziffer, to General Motors Corp. Trim and seal means. 3,082,491, 3–26–63, Cl. 20—69.
Milligan, Frederick H., to Crown Zellerbach Canada Ltd. Wood defect removing apparatus. 3,103,961, 9–17–63, Cl. 144—2.
Milligan, Harry R. Clothes hanger. 3,102,668, 9–3–63, Cl. 223—95.
Milligan, James W., to Duncan Electric Co., Inc. Magnetic suspension. 3,114,582, 12–17–63, Cl. 308—10.
Milligan, John G., to Jefferson Chemical Co., Inc. Method for preparing N,N'-dimethyl-triethylene-diammonium dinitrate. 3,083,203, 3–26–63, Cl. 260—268.
Milligan, Rex V., and A. P. Weiner, to Cluett, Peabody & Co., Inc. Edge guide automatic sewing. 3,072,081, 1–8–63, Cl. 112—2.
Milligan, Terry W., to Polaroid Corp. Novel chemical synthesis for alkylsulfonium perchlorates. 3,081,351, 3–12–63, Cl. 260—607.
Milligan, Wilbur E., to The New York Air Brake Co. Automatic control device. 3,078,012, 2–19–63, Cl. 222—57.
Milligan, William C. Method and apparatus for electrical power generation. 3,089,079, 5–7–63, Cl. 322—2.
Millikan, Allen F., to The Pure Oil Co. Preparation of cyclic alkylene thiocarbonates. 3,073,846, 1–15–63, Cl. 260—327.
Millikan, Allen F., to The Pure Oil Co. Separation of m-xylene and p-xylene by distillation in the presence of benzyl alcohol. 3,089,829, 5–14–63, Cl. 202—39.5.
Millikan, Allen F., and G. W. Crosby, to The Pure Oil Co. Method of preparing phosphorotetrathioate esters. 3,073,857, 1–15–63, Cl. 260—461.
Millikan, Allen F., and G. W. Crosby, to The Pure Oil Co. Lubricating composition. 3,098,824, 7–23–63, Cl. 252—46.7.
Millikan, Allen F., and G. W. Crosby, to The Pure Oil Co. Preparation of phosphorothioate esters from benzyl alcohol and phosphorus pentasulfide. 3,102,130, 8–27–63, Cl. 260—461.
Millikan, Allen F., and W. E. Kramer, to The Pure Oil Co. Method of retarding evaporation from an open body of water. 3,112,167, 11–26–63, Cl. 21—60.5.
Milliken, Spencer R., and E. J. Schafer, to Aluminum Co. of America. Method for continuous casting. 3,087,213, 4–30–63, Cl. 22—192.
Milliken, Thomas H., to The M. W. Kellogg Co. Halogen production. 3,114,607, 12–17–63, Cl. 23—215.
Milliken, Thomas H., Jr., J. H. Krause, and J. J. Donovan, to Air Products and Chemicals, Inc. Method of treating radioactive wastes. 3,101,998, 8–27–63, Cl. 23—25.
Millikin, Lee D. Low air speed indicator. 3,089,457, 5–14–63, Cl. 116—112.
Millionis, Jerry P.: *See*—
Boyle, Richard J., Susi, and Millionis. 3,079,366.
Millious, Wyatt A.: *See*—
Berquist, Leonard G., Millious, and Newhouse. 3,076,558.
Millis, Edwin G.: *See*—
Armand, Harold A., Gilchrist, Millis, and Westmoreland. 3,101,555.
Millis, Walter T., to General Electric Co. Electron discharge device. 3,092,749, 6–4–63, Cl. 313—350.
Militest Corp.: *See*—
Adise, Herbert H., and Siegel. 3,075,411.
Millman, Nathan, and J. B. Whitley, to J. M. Huber Corp. Method of reducing clay viscosity. 3,106,476, 10–8–63, Cl. 106—72.

Millman, Nathan, and R. E. Homm, to Ortho Pharmaceutical Corp. Spermicidal sheet-like material for internal solution. 3,108,043, 10–22–63, Cl. 167—58.

Millman, William V.: *See*—
Greene, Earnest J., and Millman. 3,098,731.

Millman, William V., and E. J. Greene, to American Air Filter Co., Inc. Condensate drip pan construction and mounting arrangement therefor. 3,102,654, 9–3–63, Cl. 220—1.

Millner, Beverly R., and C. D. Hodges. Slide changer. 3,110,217, 11–12–63, Cl. 88—28.

Millrich Engineering Co., a Division of Int'l. Electronic Research Corp.: *See*—
Spurling, John E. 3,080,751.

Mills, Allan K., to Tamar Electronics Industries Inc. Gyroscope caging mechanism. 3,114,269, 12–17–63, Cl. 74—5.1.

Mills, Ann M.: *See*—
Hitzman, Donald O., and Mills. 3,084,106.

Mills, Archie W. Food holding and turning apparatus. 3,096,707, 7–9–63, Cl. 99—423.

Mills, Carroll B., to United States of America, Atomic Energy Commission. Ion source (R.F. induction type). 3,084,281, 4–2–63, Cl. 315—111.

Mills, Christopher S. Supporting devices. 3,114,529, 12–17–63, Cl. 248—168.

Mills, Clarence A., to Reflectotherm, Inc. Therapeutic radiant cooling system. 3,097,650, 7–16–63, Cl. 128—402.

Mills Co., The: *See*—
Harwood, Frank D. 3,072,226.
Warga, Steve M. 3,113,649.

Mills, Cyril R.: *See*—
Romanchuk, Steve, and Mills. 3,091,969.

Mills, Edward J., Jr.: *See*—
Steele, Arthur B., Jr., Mills, and Leis. 3,078,315.

Mills, Edward K., Jr.: *See*—
Cross, Eason, Jr., and Mills. 3,072,283.

Mills, Edwin S.: *See*—
Williams, Charles A., and Mills. 3,083,307.

Mills, Eugene V.: *See*—
Hestand, Preston E., and Mills. 3,093,916.

Mills, Fred Corp., The: *See*—
Krup, Donald E. 3,105,616.

Mills, George R.: *See*—
Vogel, Alvin R., Garrett, and Mills. 3,079,758.

Mills, Gerald J., to Chalco Engineering Corp. Tape program apparatus. 3,071,317, 1–1–63, Cl. 234—79.

Mills, Ivor W., and J. J. Meichlore, to Sun Oil Co. Manufacture of dibasic acids and esters thereof from petroleum fractions. 3,097,231, 7–9–63, Cl. 260—475.

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Mills, John A. Gear finishing machines. 3,097,566, 7–16–63, Cl. 90—1.6.

Mills, John J.: *See*—
Hickey, James B., and Mills. 3,102,769.

Mills, John K., to Bell Telephone Laboratories, Inc. Transistor oscillator employing current and voltage feedback. 3,078,422, 2–19–63, Cl. 331—113.

Mills, John K., to Bell Telephone Laboratories, Inc. Output voltage control for power conversion apparatus. 3,106,672, 10–8–63, Cl. 320—1.

Mills, John K., to Bell Telephone Laboratories, Inc. Compensating apparatus for frequency sensitive regulators. 3,109,133, 10–29–63, Cl. 321—2.

Mills, Joseph A. W., and D. H. Cannon, to Dowty Mining Equipment Ltd. Expandable bolt with auxiliary stressing means. 3,093,026, 6–11–63, Cl. 85—2.4.

Mills, Kenneth R., B. Franzus, and P. J. Canterino, to Phillips Petroleum Co. Hexa-substituted benzenes as resin stabilizers. 3,102,870, 9–3–63, Cl. 260—45.7.

Mills, Leonard: *See*—
Peters, Walter E., and Mills. 3,101,595.

Mills, Mark M., deceased, by P. R. Mills, executrix, now by change of name P. R. Plesset, 25% to Lippincott, Ralls & Hendrieson. Educational nuclear reactor. 3,110,656, 11–12–63, Cl. 204—193.2.

Mills, Norman T. Jouncing foot toy. 3,078,092, 2–19–63, Cl. 272—55.

Mills, Norman T. Self-sealing shaker top. 3,111,244, 11–19–63, Cl. 222—196.4.

Mills, Pauline R.: *See*—
Mills, Mark M. 3,110,656.

Mills, Peter D.: *See*—
Davies, Raymond J., and Mills. 3,081,109.

Mills, Robert H., to Monsanto Chemical Co. Preparation of diphenyl phthalates. 3,076,837, 2–5–63, Cl. 260—475.

Mills, Russell K. Milking machine inflation cleaner. 3,076,988, 2–12–63, Cl. 15—56.

Mills, Tonk, and W. J. Lynn. Air operated vibrator for dentistry. 3,082,529, 3–26–63, Cl. 32—56.

Mills, Victor A.: *See*—
Wood, Henry C., and Mills. 3,103,804.

Mills, Walter P., to Imperial Chemical Industries Ltd. New dyeing process. 3,097,043, 7–9–63, Cl. 8—55.

Mills, William C., to Celanese Corp of America. Preparation and recovery of olefin polymers. 3,084,150, 4–2–63, Cl. 260—94.9.

Millspaugh, Louise N.: *See*—
Nordell, Carl H. 3,091,337.
Nordell, Carl H. 3,091,338.

Millspaugh, Marion G. Air conditioning apparatus. 3,084,741, 4–9–63, Cl. 165—28.

Millward, Arthur W., to The National Acme Co. Gas fired face plate. 3,114,181, 12–17–63, Cl. 22—10.

Millward, Arthur W., to The National Acme Co. Electrical heater plate. 3,114,823, 12–17–63, Cl. 219—37.

Milmore, Oswald H.: *See*—
Pruss, Hugo E. 3,103,288.

Milne, Charles B.: *See*—
Beynon, John H., and Milne. 3,081,294.

Milne, John N., to E. I. du Pont de Nemours and Co. Reaction product of an alkylene oxide-polyvinyl alcohol mixture with untreated polyvinyl alcohol. 3,106,543, 10–8–63, Cl. 260—45.5.

Milner, Clifford E., Jr., to E. I. du Pont de Nemours and Co. Photographic film element with antihalation layer. 3,091,535, 5–28–63, Cl. 96—84.

Milner, Cobb, to The Elmore Corp. Apparatus for irregularly dyeing yarn and the like. 3,083,640, 4–2–63, Cl. 101—172.

Milnes, Alfred H., to Cooke & Co. Pneumatic stripping of carding engines. 3,100,914, 8–20–63, Cl. 19—109.

Milnes, Frank J., and C. M. White, to Olin Mathieson Chemical Corp. Foam inhibited glycol based antifreeze composition. 3,088,913, 5–7–63, Cl. 252—73.

Milnes, James A.: *See*—
Dykeman, George, and Milnes. 3,111,555.

Miloradovitch, Leonid: *See*—
Devé, Vaga, and Miloradovitch. 3,097,003.

Miloradovitch, Leonid, to Dominion Engineering Works Ltd. Adjustment of clearances in vertical hydrodynamic engines. 3,086,473, 4–23–63, Cl. 103—87.

Milosevic, Ljubimko, to Thomson-Houston Compagnie Francaise. Signal receiver. 3,082,418, 3–19–63, Cl. 343—11.

Milosevich, Rudolph G. M.: *See*—
Dougherty, Allison L., and Milosevich. 3,104,757.

Milprint, Inc.: *See*—
Bock, Fred J. 3,116,033.
Gilbert, Seymour G., and Merky. 3,111,418.
Griem, Milton E. 3,079,912.
Griem, Milton E. 3,088,255.
Krzyzanowski, Robert A., and Furtney. 3,077,978.
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Nelson, Fred O. 3,079,913.
Perino, Dominic A., and Andrews. 3,088,654.

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Taylor, Kirman, and Milstead. 3,076,833.

Miltimore, Kenneth L.: *See*—
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Milton, Charles B.: *See*—
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Milton, Clare L., Jr.: *See*—
Steingass, Hermann, and Milton. 3,096,078.

Milton, Robert H.: *See*—
Marwing, Kenneth G., Greenaway, and Milton. 3,107,271.

Milton, Robert M., to Union Carbide Corp. Sweetening and drying of natural gas. 3,078,634, 2–26–63, Cl. 55—33.

Milton, Robert M., to Union Carbide Corp. Water separation from a vapor mixture. 3,078,635, 2–26–63, Cl. 55—35.

Milton, Robert M., to Union Carbide Corp. Unsaturated hydrocarbon separation. 3,078,636, 2–26–63, Cl. 55—63.

Milton, Robert M., to Union Carbide Corp. Process for the removal of carbon dioxide from ethylene. 3,078,637, 2–26–63, Cl. 55—68.

Milton, Robert M., to Union Carbide Corp. Carbon dioxide removal from vapor mixtures. 3,078,638, 2–26–63, Cl. 55—68.

Milton, Robert M., to Union Carbide Corp. Carbon dioxide removal from vapor mixtures. 3,078,639, 2–26–63, Cl. 55—68.

Milton, Robert M., to Union Carbide Corp. Separation of sulfur compounds from vapor mixtures. 3,078,640, 2–26–63, Cl. 55—73.

Milton, Robert M., to Union Carbide Corp. Separation of sulfur compounds from vapor mixtures. 3,078,641, 2–26–63, Cl. 55—73.

Milton, Robert M., to Union Carbide Corp. Separation of heavier from lighter saturated hydrocarbons. 3,078,642, 2–26–63, Cl. 55—75.

Milton, Robert M., to Union Carbide Corp. Separation of aromatic from saturated hydrocarbons. 3,078,643, 2–26–63, Cl. 55—75.

Milton, Robert M., to Union Carbide Corp. Method for adsorbing and separating unsaturated aliphatic hydrocarbons. 3,078,644, 2–26–63, Cl. 55—75.

Milton, Robert M., to Union Carbide Corp. Hydrocarbon separation. 3,078,645, 2–26–63, Cl. 55—75.

Milton, Taylor, to U.S. Industries, Inc. Free piston. 3,090,315, 5–21–63, Cl. 103—52.

Milwaukee Chaplet & Mfg. Co., Inc.: *See*—
Welch, Elmer S., and Roberts. 3,101,435.

Milwaukee Faucets, Inc.: *See*—
Hartmann, Gilbert L. 3,081,040.

Milwaukee Valve Co., Inc.: *See*—
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Mims, Bruce L., and J. E. Fitzgerald, to The Barden Corp. Thermoelectric cooling assembly. 3,097,027, 7–9–63, Cl. 308—189.

Mims, Oscar B.: *See*—
Mims, Powell O. 3,095,144.

Mims, Powell O., ½ to O. B. Mims. Manual calculator. 3,095,144, 6–25–63, Cl. 235—77.

Mims, Sam S.: *See*—
Giles, Jesse A., and Mims. 3,096,346.

Minard, Everett S.: *See*—
Albrecht, William J., and Minard. 3,073,359.

Minard, Everett S., to Chemetron Corp. Magnetic valve control mechanism for receptacle filling machines. 3,097,672, 7–16–63, Cl. 141—142.

Minard, William F., to Burroughs Corp. Selective control apparatus for electrical read-in. 3,109,922, 11–5–63, Cl. 235—61.6.

Minarik, Rudolf G., to Kimberly-Clark Corp. Cutting device for paper making machine. 3,086,416, 4–23–63, Cl. 83—345.

Minchenberg, Alfred S.: *See*—
Metzger, Louis G. 3,095,842.

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Cottle, Delmer L., Lemiszka, and Minckler. 3,084,142.
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Lemiszka, Theodore, Cottle, and Minckler. 3,086,955.
Serniuk, George E., Cottle, and Minckler. 3,081,284.

Minckler, Leon S., Jr., I. J. Gardner, and D. L. Cottle, to Esso Research and Engineering Co. Composition of halogenated butyl rubber and ethylene trithiocarbonate and vulcanized product of same. 3,076,778, 2–5–63, Cl. 260—41.5.

Minckler, Leon S., Jr., D. L. Cottle, and T. Lemiszka, to Esso Research and Engineering Co. Novel tripolymers of isobutylene, a cyclodiene, and isoprene. 3,080,337, 3–5–63, Cl. 260—45.5.

Minco Products, Inc.: *See*—
Nunn, Edwin C. 3,114,890.

Minden, Henry T., and L. Berenbaum, to Sylvania Electric Products Inc. Method of making a permanent magnet. 3,090,107, 5–21–63, Cl. 29—155.6.

Minder, Peter M., to McGraw-Edison Co. Capacitor bank protective arrangement. 3,080,506, 3–5–63, Cl. 317—12.

Mindheim, Daniel J., and H. C. Lindemann, to Lindley & Co., Inc. Yarn tensioning device. 3,100,091, 8–6–63, Cl. 242—150.

Mindler, Albert B.: *See*—
Manchester, Donald F., Hossain, Gilwood, and Mindler. 3,083,078.

Mindlin, Raymond D.: *See*—
Porter, Henry H., Karrer, Mindlin, and Van Allen. 3,113,235.

Mine Safety Appliances Co.: *See*—
Austin, Harry W. 3,083,371.
Austin, Harry W. 3,092,837.
Bixby, Guy T. 3,091,771.
Black, Ronald C., and Hibbs. 3,089,552.
Bub, Robert A. 3,070,937.
Bub, Robert A. 3,076,554.
Bub, Robert A. 3,112,264.
Ducker, Gordon W., and Sebens. 3,070,989.
Henke, Robert L. 3,099,374.
Leffler, Charles L., Jr., and Curran. 3,111,947.
Lohr, Paul L. R. 3,093,136.
Michael, Paul L., Strange, and Stewart. 3,089,561.
Miller, John C. 3,081,440.
Miller, John C. 3,112,130.
Ross, Edward J. 3,080,535.
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Temple, Robert, Glebel, and E. E. Temple. 3,111,927.
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Mine and Smelter Supply Co.: *See*—
Kautz, Harry P. 3,075,711.
Kautz, Harry P. 3,075,712.
Kautz, Harry P. 3,075,713.
Kautz, Harry P. 3,099,406.

Mineah, Lawrence E., to Coast Pro-Seal & Mfg. Co. Process for manufacturing structural metal bars. 3,071,855, 1–8–63, Cl. 29—480

Mineau, Paul J., and B. A. Winton. Aerator pump. 3,086,715, 4–23–63, Cl. 239—281.

Mineck, Fred. Automotive front suspension stabilizer. 3,075,787, 1–29–63, Cl. 280—96.2.

Mineck, Fred, to Bee Line Co. Wheel alignment machine. 3,079,695, 3–5–63, Cl. 33—203.12.

Miner, Carroll R., to Hoffman Electronics Corp. Loudspeaker. 3,114,429, 12–17–63, Cl. 181—31.

Miner, Donald B.: *See*—
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Miner, Floyd E. Odometer mechanism. 3,107,855, 10–22–63, Cl. 235—139.

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Miner, Raymond, Jr. Dial indicator extension attachment. 3,079,693, 3–5–63, Cl. 33—172.

Miner, Richard Y., and C. D. Bock, to American Bosch Arma Corp. Ordnance calculator. 3,113,203, 12–3–63, Cl. 235—61.5.

Miner, Robert G.: *See*—
Van Den Berge, Dick, and Miner. 3,091,944.

Miner, Robert G., to The Trane Co. Refrigeration system control. 3,110,160, 11–12–63, Cl. 62—164.

Minera, Salvador A. Fruit stemmer. 3,103,240, 9–10–63, Cl. 146—55.

Minera, Salvador A. Fruit stemmer. 3,104,691, 9–24–63, Cl. 146—55.

Minerals & Chemicals Philipp Corp.: *See*—
Albert, Charles G. 3,076,728.
Allegrini, Aldo P., and Cecil. 3,098,045.
Duke, James B. 3,097,801.
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Minerals & Chemicals Philipp Corp.: *See*—Continued
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Greene, Ernest W., Duke, and Hunter. 3,072,255.
Haden, Walter L., Jr., and Dzierzanowski. 3,100,684.
Haden, Walter L., Jr., and Dzierzanowski. 3,112,176.
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Malone, Thomas S., and Allegrini. 3,079,333.
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Robinson, Alfred J., and Haden. 3,078,518.

Minerva, Vito P., to Collins Radio Co. Log periodic antenna with accordioned radiators to increase shunt capacitance. 3,106,714, 10–8–63, Cl. 343—795.

Mines, Irving and S., to General Plating Co. Anodizing racks. 3,108,058, 10–22–63, Cl. 204—297.

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Mines, Irving and S. 3,108,058.

Minet, Ronald G., to United Engineers & Constructors Inc. Process for the low temperature carbonization of bituminous coal. 3,076,751, 2–5–63, Cl. 202—9.

Minetti, Ralf. Time-setting device. 3,104,646, 9–24–63, Cl. 116—133.

Minganti, Ernesto. Key duplicating machine. 3,091,157, 5–28–63, Cl. 90—13.05.

Mingasson, Georges R. H., and M. H. Ferrand, to Compagnie Francaise des Matieres Colorantes. Azo dyestuffs containing a quaternized pyrazolone radical. 3,092,615, 6–4–63, Cl. 260—163.

Minick, Dean K., to Capitol Products Corp. Weather seal for sliding window. 3,070,856, 1–1–63, Cl. 20—69.

Minick, Dean K., to Capitol Products Corp. Latch for sliding window. 3,078,524, 2–26–63, Cl. 20—52.

Minick, Lee E., to Pention Electronics Corp. Apparatus for thermoplastic sealing. 3,102,286, 9–3–63, Cl. 12—33.2.

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Mining Research Corp.: *See*—
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Minisci, Francesco, to Montecatini Societa Generale per l'Industria Mineraria e Chimica. Process for preparing halogenated esters of carboxylic acids. 3,089,903, 5–14–63, Cl. 260—487.

Minister of Aviation, in Her Majesty's Government of the United Kingdom of Great Britain and Northern Ireland: *See*—
Ayerst, Ronald P. 3,105,735.
Bickerdike, Robert L., and Hughes. 3,084,394.
Bickerdike, Robert L., Hughes, and Watt. 3,107,973.
Prescott, Thomas W., and Scrimshaw. 3,092,357.

Minister of Supply, in Her Majesty's Government of the United Kingdom of Great Britain and Northern Ireland, The: *See*—
Hewson, Walter N. 3,073,242.
Martin, Peter, and Bamford. 3,092,964.

Ministerul Industriei Petrolului Si Chimiei: *See*—
Primus, Iosif, Matasa, and Klang. 3,115,527.
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Minneapolis-Honeywell Regulator Co.: *See*—
Adams, Frederick G. 3,101,432.
Alderson, Ross C. 3,072,369.
Anderson, John E. 3,111,850.
Armstrong, Robert W., and Pullen. 3,085,595.
Avery, Harold T. 3,081,966.
Belcher, Wallace E., Jr. 3,072,846.
Berggren, Lloyd E. 3,090,328.
Bolmgren, Lester N. 3,075,130.
Bouchard, John R. 3,104,552.
Brekke, Byron O. 3,083,930.
Briney, Gerald S., and Kliever. 3,079,084.
Burgarella, John P., and Oliver. 3,101,451.
Burgwin, Stephen L. 3,076,111.
Burgwin, Stephen L., and Green. 3,101,424.
Burwen, Richard S. 3,088,076.
Byrne, John F., and Kurz. 3,105,762.
Carey, William M., Jr. 3,114,896.
Carlson, William L., Jr. 3,091,023.
Carlson, William L., Jr., 3,099,136.
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Demay, Peter P. 3,111,259.
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Dornbusch, Aaron P. 3,103,649.
Dudley, John W. 3,084,331.
Duke, John A. 3,105,150.
Falkner, Victor L., Hendrick, and Lee. 3,079,108.
Faulds, Malcolm H. 3,075,123.
Fenlty, Robert D., and Janssen. Re. 25,499.
Fillmore, Robert L., and Hawkins. 3,079,540.
Flagg, Raymond P. 3,109,449.
Freeborn, John C. 3,104,333.
Ganley, Gregory J., and Sanford. 3,108,183.
Gran, Burton E. Holmen, and Prosen. 3,102,048.
Gray, William T. 3,111,841.
Hamelink, William B. 3,082,813.
Harmon, Hubert N. 3,111,789.
Harper, Samuel D. 3,091,700.
Harper, Samuel D. 3,091,753.

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Hedges, George D. 3,098,400.
Heltinstine, Robert F. 3,092,356.
Hendrick, Russell C. 3,082,979.
Hermanson, Harry M. 3,079,797.
Jenkins, John W. 3,082,792.
Jensen, James L., and White. 3,085,211.
Joannou, Kyriacos. 3,105,965.
Joesting, Frederick D. 3,098,504.
Joesting, Frederick D. 3,116,016.
Jokela, Veikko J. 3,095,487.
Jokela, Veikko J. 3,107,499.
Jones, Keith C. 3,077,077.
Jordan, Arthur H. 3,079,074.
Kennedy, Buford K. 3,099,376.
King, William R. 3,093,432.
Kompelien, Arlon D. 3,081765.
Kotas, Donald E. 3,071,739.
Kunz, Walden H. 3,071,976.
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Kutzler, Robert J. 3,104,083.
Lawrance, Richard B. 3,082,509.
Lee, Robert C. K. 3,113,749.
Lee, Robert C. K., and Ljungwe. **Re. 25,491.**
Leger, Alton, Jr. 3,099,792.
Le Masena, Robert A. 3,107,138.
Levine, Abraham. 3,091,705.
Liebrecht, Waldemar W. 3,093,977.
Lindgren, Harold A. 3,075,393.
Lorenz, Jerome L. 3,087,114.
Lostetter, James A. 3,105,944.
Lourie, Norman M. 3,075,175.
Loveland, Roger S. 3,078,916.
Loveland, Roger S. 3,079,480.
Maupin, Joseph T. 3,094,673.
Maupin, Joseph T. 3,100,877.
Mayo, Edward L. 3,076,359.
McCammon, Robert F. 3,072,016.
McCammon, Robert F. 3,078,763.
McCammon, Robert F. 3,113,810.
McKeegan, Warren J. 3,102,770.
Mellette, Francis M. 3,111,160.
Meyer, Saul. 3,088,054.
Michel, Raymond E. 3,082,743.
Michel, Raymond E. 3,100,963.
Miller, Robert L., and Wolf. 3,101,433.
Minnick, Robert C. 3,110,015.
Mintzer, Lester. 3,097,306.
Mobarry, John W. 3,100,972.
Mobarry, John W. 3,115,018.
Nelson, Lorne W. 3,074,643.
Newbold, William F. 3,081,425.
Newbold, William F., and Latham. 3,088,073.
Newby, Murrell P. 3,109,880.
Otis, William C. 3,094,899.
Pearson, Robert P. 3,083,572.
Pearson, Robert P. 3,103,002.
Pesola, Raymond H. 3,081,968.
Peterson, Jack A., and Wagner. 3,082,630.
Pinckaers, Balthasar H. 3,082,814.
Prindle, James H. 3,102,423.
Reach, Roy W., Jr. 3,092,807.
Reach, Roy W., Jr. 3,102,208.
Reese, David N. 3,090,234.
Reichow, William A. 3,086,583.
Renier, James J. 3,082,624.
Ricke, Donald W. 3,088,060.
Rohmann, Charles P., and Watrous. 3,072,326.
Sapino, Theodore. 3,081,940.
Schmidt, Ronald G., and Tomkinson. 3,071,681.
Schrimpf, Henry W. 3,088,101.
Schuck, Oscar H. 3,082,324.
Schuck, Oscar H. 3,090,030.
Scott, Troy A. 3,109,737.
Sear, Arthur W., and Stert. 3,083,276.
Severson, Asbjorn M. 3,080,886.
Sidaris, Nicholas J. 3,096,971.
Siegel, William A. 3,078,738.
Sparrow, Hubert T. 3,091,393.
Sparrow, Hubert T. 3,091,394.
Strohmeier, Walter, and Shansky. 3,089,035.
Stucka, Edward P. 3,100,079.
Taylor, Daniel G. 3,094,693.
Thews, Richard F. 3,113,211.
Thorsheim, Joseph O. 3,087,004.
Thorsheim, Joseph O. 3,103,652.
Thorsheim, Joseph O. 3,106,494.
Vollmer, James. 3,071,038.
Voorhees, Russell L. 3,094,690.
Watrous, Robert B., and Rohmann. 3,099,281.
Wilkins, Robert E., and Fowle. 3,090,297.
Wolf, Richard N. 3,084,881.
Woo, Way D. 3,114,897.
Wyman, Irma N., and Barbagallo. 3,111,224.
Zimbel, Norman S. 3,104,379.
Zimbel, Norman S. 3,112,413.

Minneapolis-Moline, Inc.: *See*—
Hedtke, Robert G. 3,109,272.

Minneapolis Sewing Machine, Inc.: *See*—
Scharmer, Edward H., Jr. 3,082,718.

Minner, Willy, to Telefunken G.m.b.H. Automatic gain control circuit. 3,090,927, 5–21–63, Cl. 330—29.

Minnerly, Robert D., Jr. Fastener. 3,083,425, 4–2–63, Cl. 24—66.

Minnesota Mining and Mfg. Co.: *See*—
Ahlbrecht, Arthur H., and Smith. 3,102,103.
Anderson, Arthur A. 3,094,260.
Anderson, James A., and Jungbauer. 3,115,271.
Appeldorn, Roger H. 3,111,584.
Bauer, William H., Jr., and Gervasi. 3,075,939.
Berg, Jack V. 3,076,493.
Berry, Henry W. 3,097,816.
Bollmeier, Emil W., and Vokaty. 3,074,544.
Bollmeier, Emil W., and Vokaty. 3,087,606.
Borders, Alvin M. 3,072,625.
Bowman, Robert L., and Hinkley. 3,078,235.
Branco, Flavio S. C. 3,086,157.
Brueckner, Hubert U., Fluskey, and Werbyckyj. 3,114,286.
Brundage, Clinton F. 3,085,618.
Carlson, Norman G., and Tiers. 3,075,953.
Case, John M. 3,085,008.
Casement, James S. 3,090,793.
Coles, Robert F., Tulagin, and Miller. 3,076,721.
Copenhaver, John W., and Ney. 3,095,423.
Crawford, George H., Jr. 3,072,592.
Crawford, George H., Jr. 3,084,144.
Crawford, George H., Jr. 3,089,866.
Craycraft, Donald D. 3,080,893.
Davis, Horace R., Jr., Honn, Griffis, and Montermoso. 3,071,565.
De Neui, Richard P., and Casey. 3,107,193.
Doncaster, Daniel P., Bauer, and Goldberg. 3,090,574.
Elm, Robert A., Krawczak, Schley, and Levin. 3,075,080.
Errede, Louis A. 3,084,146.
Fingerhut, Solomon. 3,073,475.
Fitz Harris, Leo J. 3,093,264.
Fram, Paul, and Charbonneau. 3,079,367.
Fredrick, Russell E. 3,112,790.
Friedlander, William S. 3,088,849.
Fritts, Robert W., and Richards. 3,080,261.
Goldberg, Abraham A. 3,072,753.
Goodell, John D., Ivins, and Wistrand. 3,092,346.
Goodell, John D., Ivins, Wistrand, and Tasi. 3,100,090.
Grant, Edwin A., Jr. 3,080,254.
Grant, Edwin A., Jr. 3,094,619.
Grieshaber, Emil W. 3,103,881.
Hamm, Frank A., and Weiher. 3,087,869.
Hamm, Franklin A., and Weiher. 3,085,051.
Hanes, Robert H., and Youngquist. 3,107,279.
Heasley, Charles K. 3,101,845.
Heine, Richard F. 3,078,245.
Heine, Richard F. 3,081,274.
Heine, Richard F. 3,094,547.
Herrig, Harold C., and Bollmeier. 3,111,269.
Honn, Francis J. 3,116,269.
Jensen, James L. 3,098,200.
Johnson, James R. 3,079,273.
Johnson, James R. 3,079,316.
Johnson, James R., and Rowe. 3,087,779.
Johnson, Lemoine L., O'Brien, and Watson. 3,109,715.
Johnson, Wayne R. 3,086,087.
Johnson, Wayne R. 3,106,688.
Johnson, Wayne R., and Shaw. 3,082,293.
Johnston, James E. 3,114,840.
Kaufman, Herman S. 3,105,827.
Koontz, Robert D. 3,074,585.
Koontz, Robert D. 3,096,958.
Koontz, Robert D. 3,110,064.
Knutson, Andrew T., and Kalleberg. 3,092,250.
Kravig, Robert S., and Johnson. 3,112,240.
Krogh, Lester C. 3,074,789.
Krueger, Alfred P. 3,077,919.
Krueger, Alfred P. 3,102,670.
Krueger, Loren L. 3,097,502.
Landrum, Billy F., Davis, and Errede. 3,087,916.
Lang, Arthur H. 3,102,010.
Larson, Gerald W., and Mallak. 3,110,626.
Lo, Elizabeth S. 3,085,996.
McMaster, Clarence O. 3,076,752.
Miller, Carl S., and Neher. 3,082,085.
Monnikendam, Philip, and Dawson. 3,078,314.
Muilin, John T. 3,093,284.
Muilin, John T. 3,097,332.
Nachtsheim, Henry G., Meyer, and Grande. 3,089,786.
Nellessen, Alfred H. 3,099,637.
Neumayer, John J. 3,085,319.
Ostlie, Dean A. 3,111,423.
Owen, Richard. 3,074,809.
Owen, Richard. 3,108,896.
Park, Joseph D., and Stefani. 3,072,705.
Pendleton, Robert A. 3,097,778.
Petryk, William W. 3,073,437.
Petryk, William W., and De Vout. 3,076,590.
Raymond, Albert E. 3,090,106.
Reitter, John L. 3,094,420.
Riedesel, Richard G. 3,072,615.
Sandberg, Carl L., and Mullins. 3,080,347.
Scott, Warren H. 3,098,138.
Shely, Benjamin L., and Clark. 3,072,541.
Smith, George H. 3,110,687.
Smith, George H. 3,115,474.
Smith, George H. 3,115,482.
Smith, George H. 3,115,490.
Smith, Gordon B. 3,088,271.

Minnesota Mining and Mfg. Co.: *See*—Continued
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Splees, Harry A. 3,080,781.
Stivers, David A., and Peterson. 3,096,814.
Stivers, David A., and Peterson. 3,116,266.
Stoothoff, Stanley T. 3,104,573.
Tierney, Hubert J., and Thurnauer. 3,089,801.
Toensing, James W. 3,081,815.
Wartman, Thomas G. 3,107,174.
Wartman, Thomas G., and O'Mara. 3,089,952.
Wasserman, David. 3,074,900.
Wear, Robert L. 3,087,910.
Wear, Robert L. 3,110,701.
West, Fred W., Seffi, and Reilly. 3,076,765.
Wicklund, Leslie G. 3,115,246.
Winthrop, Arthur S., and Skotnicki. 3,102,043.
Workman, Wesley R. 3,074,869.
Workman, Wesley R. 3,094,417.
Wright, Charles D., and Friedlander. 3,072,616.

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Barrett, William H., and Hart. 3,092,508.
Lauring, Edgar A. 3,086,878.

Minnesota Rubber Co.: *See*—
Stocking, Hobart L. 3,100,904.

Minnesota Scale Mfg. Co.: *See*—
McDermid, Malcolm, and Pidany. 3,090,409.

Minnich, Gilbert A.: *See*—
Joswig, Fred W., and Minnich. 3,112,831.

Minnich, John B.: *See*—
Castle, William S., and Minnich. 3,081,021.

Minnich, Walter D.: *See*—
Marsh, Elliott R., and Minnich. 3,111,648.

Minnick, Gerald D., to Conforming Matrix Corp. Paint spraying machine. 3,104,181, 9–17–63, Cl. 118—70.

Minnick, Leonard J., to G. & W. H. Corson, Inc. Compositions for building load supporting surfaces. 3,076,717, 2–5–63, Cl. 106—118.

Minnick, Robert C., to Minneapolis-Honeywell Regulator Co. Memory circuitry for digital data. 3,110,015, 11–5–63, Cl. 340—174.

Minnotte, Albert J.: *See*—
Rubrecht, Charles J., and Minnotte. 3,100,634.

Minogue, Robert B.: *See*—
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Min-O-Matic, Inc.: *See*—
Gay, Newsome W. 3,081,174.

Minor, William F.: *See*—
Perron, Yvon G., and Minor. 3,109,844.

Minshall, George T.: *See*—
Farris, Joseph A., and Minshall. 3,081,969.

Minsk, Louis M., to Eastman Kodak Co. Photographic element having a stripping or antihalation layer comprising a resinous carboxy ester-lactone. 3,102,028, 8–27–63, Cl. 96—83.

Minter, Jerry B. Precision regulated high voltage source. 3,113,275, 12–3–63, Cl. 331—109.

Minto, Wallace L., to Modern Aids, Inc. Air purifier. 3,072,978, 1–15–63, Cl. 21—74.

Minton, Clarence W., to Morpul, Inc. Lubricating system for knitting machines and the like. 3,078,960, 2–26–63, Cl. 184—81.

Minton, Clarence W., to Morpul, Inc. Apparatus for handling hosiery. 3,103,302, 9–10–63, Cl. 223—39.

Minty, John E., to Manning, Maxwell & Moore Inc. Steerable gantry crane. 3,081,883, 3–19–63, Cl. 212—13.

Minty, John E., to Manning, Maxwell & Moore Inc. Crane with anti-sway mechanism. 3,081,884, 3–19–63, Cl. 212—14.

Mintz, Albert E., 50% to R. O. Richardson, and Dock & Dock. Safety lock. 3,081,616, 3–19–63, Cl. 70—93.

Mintz, Charles. Dental process and products. 3,102,337, 9–3–63, Cl. 32—12.

Mintz, Henry A. Stamping machine. 3,094,926, 6–25–63, Cl. 101—318.

Mintz, Julius. Ring binder. 3,104,667, 9–24–63, Cl. 129—11.

Mintz, Leon J., and R. Yil, to Burroughs Corp. Magnetic shift register. 3,089,127, 5–7–63, Cl. 340—174.

Mintzer, Alfred L., to United States of America, Navy. Simplified aided tracking and coasting system. 3,093,784, 6–11–63, Cl. 318—327.

Mintzer, Lester, to Minneapolis-Honeywell Regulator Co. Magnetic core digital storage and transfer circuits. 3,097,306, 7–9–63, Cl. 307—88.

Mirecki, Zdzislav S., to Simms Motor Units Ltd. Speed governors. 3,103,822, 9–17–63, Cl. 73—551.

Miranda, Angel A. Sizing compositions. 3,108,889, 10–29–63, Cl. 106—142.

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Harmer, Harold M. 3,102,059.
Harmer, Harold M. 3,102,220.
Harmer, Harold M. 3,102,221.
Harmer, Harold M. 3,102,222.

Miranda, William. Adjustable pipe wrench. 3,109,334, 11–5–63. Cl. 81—100.

Mirando, Frank. Method of shipping watermelons. 3,115,977, 12–31–63, Cl. 214—152.

Mirkovich, Zhivan J. Can destroyer. 3,095,806, 7–2–63, Cl. 100—173.

Miron Ltee, Compagnie: *See*—
Duplessis, Jacques. 3,078,539.

Miron, Vladimir C., deceased, by The First National Bank in Sioux City, Iowa, executor, to Wincharger Corp. Variable-load voltage regulation for alternators. 3,105,185, 9–24–63, Cl. 322—25.

Mirow, Nathan. Cartridge seal and needle holder with air-lock device. 3,089,491, 5–14–63, Cl. 128—218.

Mische, Friedrich: *See*—
Reiche, Wilhelm, Mische, and Papke. 3,094,911.

Miscoe, Anthony J., and H. R. Pratt, Jr., to United States Steel Corp. Method and apparatus for determining conditions at spaced points within a chamber. 3,085,435, 4–16–63, Cl. 73—344.

Miserocchi, Henry F., and P. J. McConnell, to Barnes Engineering Co. Rod mill loop control by imaging loop on differential detector system. 3,105,625, 10–1–63, Cl. 226—42.

Mish, William A., Jr. Tobacco harvester. 3,107,018, 10–15–63, Cl. 214—83.1.

Mish, William A., Jr. Loading and stripper table. 3,107,792. 10–22–63, Cl. 214—5.5.

Mishcon, Lester, to Singer-Supreme Co., Inc. Fabric yield computing device. 3,099,142, 7–30–63, Cl. 66—1.

Misicka, Arthur D. Saliva ejector control system. 3,091,858, 6–4–63, Cl. 32—33.

Miskel, John J., to White Laboratories, Inc. Anti-nausea compositions. 3,073,745, 1–15–63, Cl. 167—65.

Misko, John C.: *See*—
Martino, Carlo F., and Misko. 3,095,400.

Misner, Charles P., to The Bendix Corp. Quick disconnect device for waveguide flanges. 3,076,948, 2–5–63, Cl. 333—98.

Misner, David M., to C. R. Swaney Co., Inc. Boiler feed system. 3,082,750, 3–26–63, Cl. 122—451.

Misove, Paul. Adjustable guide plate for fur machines. 3,099,235, 7–30–63, Cl. 112—20.

Misra, Raj P., to Texas Instruments Inc. Mesa type transistor and method of fabrication thereof. 3,098,954, 7–23–63, Cl. 317—234.

Missile Corp.: *See*—
Linscott, Austin B., Bellamy, and Kober. 3,072,365.

Mission, Gilbert, and H. Meullen, to Societe Nationale d'Etude et de Construction de Moteurs d'Aviation. Assembly of solid moderator elements for high temperature nuclear reactors subjected to accelerations. 3,102,089, 8–27–63, Cl. 204—193.2.

Mission Mfg. Co.: *See*—
Collier, Samuel L., and Fly. 3,105,559.
Jaschinsky, Erich, Sombold, and Spies. 3,077,897.
Stroud, Buck C. 3,072,071.

Mission Valve and Pump Co.: *See*—
Wheeler, Joseph S., Jr. 3,072,141.
Wheeler, Joseph S., Jr. 3,074,427.

Misson, George W.: *See*—
Huffman, Charles O., Galey, and Misson. 3,107,834.

Missouri Wood Heel Co.: *See*—
Gudermuth, Clyde S. 3,074,186.

Missioux, Jean: *See*—
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Mississippi Chemical Corp.: *See*—
Brown, Marion L., Jr., and Green. 3,088,919.

Missriegler, Gerhard, and F. Laa, to North American Philips Co. Inc. Device on or in a recording and/or reproducing apparatus, preferably a magnetic reproducer, with magazines. 3,104,843, 9–24–63, Cl. 242—55.13.

Mistars, Marion. Contoured sole for footwear. 3,086,532, 4–23–63, Cl. 128—586.

Mitacek, Bill, and G. E. Holman, to Phillips Petroleum Co. Internal combustion engine lubricant. 3,085,978, 4–16–63, Cl. 252—33.4.

Mitacek, Bill, and J. P. Graham, to Phillips Petroleum Co. Lubricants. 3,112,270, 11–26–63, Cl. 252—41.

Mitchel, Carl E. and G. F. Swimming instructing machine and exerciser. 3,074,716, 1–22–63, Cl. 272—71.

Mitchel, George F.: *See*—
Mitchel, Carl E. and G. F. 3,074,716.

Mitchell, Arthur G., and J. R. Bagnall, to English Electric Valve Co. Ltd. Manufacture of delay lines. 3,083,444, 4–2–63, Cl. 29—155.5.

Mitchell Camera Corp.: *See*—
Austin, Charles L., and Lotspeich. 3,078,757.
Sparling, Arthur J. 3,115,897.

Mitchell, Charles F.: *See*—
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Mitchell, Charles F. Porous bowling ball patch. 3,078,097, 2–19–63, Cl. 273—63.

Mitchell, Charles L.: *See*—
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Mitchell, Charles L., to The Cincinnati Milling Machine Co. Mounting construction for diaphragm in forming press. 3,075,486, 1–29–63, Cl. 113—44.

Mitchell, Charles L., to The Cincinnati Milling Machine Co. Hydraulic press. 3,115,858, 12–31–63, Cl. 113—45.

Mitchell, Charles V.: *See*—
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Mitchell, Clifford E., R. E. Prescott, L. Schenker, and D. G. Tweed, to Bell Telephone Laboratories, Inc. Telephone call transmitter. 3,109,071, 10–29–63, Cl. 179—90.

Mitchell, Dennis M., and A. Safianoff, to The Gillette Co. Hair curler. 3,105,502, 10–1–63, Cl. 132—40.

Mitchell, Donita L. Infant medicine self-feeder. 3,077,279, 2–12–63, Cl. 215—11.

Mitchell, Earland R., and F. D. Friedrich, to Her Majesty The Queen in right of Canada, as represented by the Minister of Mines and Technical Surveys. Dump grate. 3,078,839, 2–26–63, Cl. 126—179.

Mitchell, Edward: *See*—
Fareri, Elizabeth L., and Mitchell. 3,116,128.

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Quinn, Edward, and Mitchell. 3,102,283.

Mitchell Engineering Ltd.: *See*—
Coles, Harold J., and Sutherland. 3,076,443.
Jones, Thomas M., and Robinson. 3,072,239.

Mitchell, George A., to Lombard Corp. Apparatus for coiling lengths of stock. 3,097,811, 7–16–63, Cl. 242—80.

Mitchell, George F., to Everyday Mfg. Co. Conveyor. 3,077,972, 2–19–63, Cl. 198—64.

Mitchell, Harold H., to I-T-E Circuit Breaker Co. Bushing support. 3,071,672, 1–1–63, Cl. 200—150.

Mitchell, Henry D., Jr., to Western Electric Co., Inc. Apparatus for transferring articles. 3,081,860, 3–19–63, Cl. 198—27.

Mitchell, James A., to E. I. du Pont de Nemours and Co. Film and method of casting film. 3,073,733, 1–15–63, Cl. 154—46.

Mitchell, James A., to Union Carbide Corp. Collapsible containers. 3,097,677, 7–16–63, Cl. 150—1.

Mitchell, James L., and E. Weiss, to The Bendix Corp. Navigational device and reversible counter driving mechanism therefor. 3,097,793, 7–16–63, Cl. 235—132.

Mitchell, James P. Trouser length gauge. 3,088,208, 5–7–63, Cl. 33—2.

Mitchell, James S.: *See*—
Bridle, Edgar A., Firth, and Mitchell. 3,076,633.

Mitchell, James W., Jr., and R. H. Vetter, to Ford Motor Co. Core assembly by welding. 3,112,390, 11–26–63, Cl. 219—107.

Mitchell, John D.: *See*—
Harrington, Joseph J., Mitchell, and Jordan. 3,098,340.

Mitchell, John E., Co.: *See*—
Lents, Charles M. 3,108,449.
Mitchell, Orville. 3,093,301.
Mitchell, Orville, and Walton. 3,070,942.
Mitchell, Orville, and Walton. 3,086,254.

Mitchell, John F., to Motorola, Inc. Portable transmitter apparatus with selective diverse antenna means. 3,087,117, 4–23–63, Cl. 325—118.

Mitchell, Lawrence R., to Wallace & Tiernan Inc. Fluid metering device. 3,073,349, 1–15–63, Cl. 138—45.

Mitchell, Leonard G. H., to General Steel Wares Ltd. Gas driers. 3,096,972, 7–9–63, Cl. 263—33.

Mitchell, Leonard G. H., to General Steel Wares Ltd. Tub fill control. 3,106,081, 10–8–63, Cl. 68—12.

Mitchell, Lois D. Hand grips. 3,072,955, 1–15–63, Cl. 116—114.

Mitchell, Maurice E., to Lift-A-Loft Corp. Overhead service unit. 3,095,945, 7–2–63, Cl. 182—14.

Mitchell, Melville J., to Massey-Ferguson Inc. Corn snapping rolls. 3,098,491, 7–23–63, Cl. 130—5.

Mitchell, Orville, to John E. Mitchell Co. Lubricating system for compressor. 3,093,301, 6–11–63, Cl. 230—206.

Mitchell, Orville, and E. G. Walton, Jr., to John E. Mitchell Co. Cotton picker and cleaner. 3,070,942, 1–1–63, Cl. 56—35.

Mitchell, Orville, and E. G. Walton, Jr., to John E. Mitchell Co. Cotton cleaning machinery. 3,086,254, 4–23–63, Cl. 19—203.

Mitchell, Ottie C.: *See*—
Himler, Gary J., and Mitchell. 3,078,457.

Mitchell, Owen R.: *See*—
Phenix, Bruce C., Jr., Merchant, and Mitchell. 3,100,744.

Mitchell, Peter W. D., to American Home Products Corp. Preparation of 2,3-dicyano-5,6-dichlorobenzoquinone. 3,102,124, 8–27–63, Cl. 260—396.

Mitchell, Robert, Co. Ltd. The: *See*—
Hardie, James H. 3,072,445.

Mitchell, Robert E. Soil sampler. 3,075,588, 1–29–63, Cl. 175—20.

Mitchell, Randolph N., Jr., and J. N. Edwards, to Reynolds Metals Co. Apparatus for trimming marginal edges of metal strip and for chopping marginal trimmings. 3,110,208, 11–12–63, Cl. 83—302.

Mitchell, Roscoe A. Drill bit dressing and conditioning apparatus. 3,104,561, 9–24–63, Cl. 76—5.

Mitchell, Samuel E.: *See*—
Fulkner, Raymond P., Mitchell, and Fertig. 3,079,372.

Mitchell, Samuel E., to Union Carbide Corp. Capacity displacement transducer. 3,098,183, 7–16–63, Cl. 317—246.

Mitchell, Samuel S. Sliding vane type rotary steam engine. 3,084,677, 4–9–63, Cl. 121—85.

Mitchell, Vincent L.: *See*—
Nashold, Robert W., Baldwin, and Mitchell. 3,101,649.

Mitchell, Walter B., to Transitron Electronic Corp. Means for measuring and testing components. 3,084,326, 4–2–63, Cl. 324—158.

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Finucane, Thomas P., Mitchell, and Raymond. 3,096,179.

Mitchell, William A., and V. V. Studer, to General Foods Corp. Method of dehydrating eggs. 3,077,411, 2–12–63, Cl. 99—210.

Mitchell, William P.: *See*—
Davidson, Charles R., Jr., and Mitchell. 3,084,969.

Mitchnick, Victor: *See*—
Platz, Elwood T., and Mitchnick. 3,075,058.

Mitchum, Leonard L.: *See*—
Boehm, Josef, and Mitchum. 3,109,608.

Mitchum, Leonard L., Jr., and H. R. Wagner, to United States of America, National Aeronautics and Space Administration. Collapsible loop antenna for space vehicle. 3,077,599, 2–12–63, Cl. 343—705.

Mite Corp.: *See*—
Habicht, Helmut. 3,108,670.

Mithras, Inc.: *See*—
Rubin, Eugene S., and Ross. 3,086,357.

Mitoray, Jane P., and W. G. Bauer, to Monsanto Chemical Co. Color stabilizers for detergents containing bacteriostats. 3,085,066, 4–9–63, Cl. 252—107.

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Mitsubishi Rayon Co., Ltd.: *See*—
Fujii, Toshio. 3,087,197.
Owashi, Toshiro, Onoe, Ito, and Kawai. 3,108,849.

Mitsuhashi, Hiroshi, to Shionogi & Co., Ltd. 12-aminosteroids and production thereof. 3,113,130, 12–3–63, Cl. 260—239.55.

Mitsuyasu, Robert U. Note and notebook holder. 3,099,102, 7–30–63, Cl. 45—82.

Mittag, Fritz, to International Standard Electric Corp. File record selection arrangement. 3,073,313, 1–15–63, Cl. 129—16.1.

Mittag, Walter, to J. M. Voith, Gesellschaft mit beschrankter Haftung. Belt-aligning structure. 3,101,005, 8–20–63, Cl. 74—241.

Mitteldeutsche Emaillierwerke M. Fratscher & Co., Firma: *See*—
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Mittelmann, Eugene. Flowmeter. 3,094,870, 6–25–63, Cl. 73—194.

Mittelstadt, Clarence F., to Mosebach Mfg. Co. Resistor. 3,102,247, 8–27–63, Cl. 338—97.

Mittelsteadt, Glenn L., to Herter's, Inc. Reloading tool. 3,087,372, 4–30–63, Cl. 86—25.

Mitten, Robert W., to Sheller Mfg. Corp. Continuous weather strip machine. 3,078,505, 2–26–63, Cl. 18—4.

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Allen, Robert C., Jr., and Mitter. 3,091,232.

Mittermaier, Armin F., to General Electric Co. Unitary clamping and support arrangement for coil and core assembly. 3,110,873, 11–12–63, Cl. 336—210.

Mitthauer, John R., and R. Vetere. Weight-responsive switch. 3,082,832, 3–26–63, Cl. 177—117.

Mitthauer, John R., and R. Vetere. Means for and method of connecting stranded electric wires and/or stranded wire cables. 3,083,350, 3–26–63, Cl. 339—100.

Mitty, Jerald: *See*—
Mitty, Sol, N., and J. 3,087,740.

Mitty, Jerald I.: *See*—
Mitty, Sol, N. H. and J. I. 3,092,395.

Mitty, Nell: *See*—
Mitty, Sol, N., and J. 3,087,740.

Mitty, Nell H.: *See*—
Mitty, Sol, N. H. and J. I. 3,092,395.

Mitty, Sol, N., and J. Corrugated shopping cart and parts. 3,087,740, 4–30–63, Cl. 280—47.26.

Mitty, Sol, N. H. and J. I. Corrugated shopping cart and parts. 3,092,395, 6–4–63, Cl. 280—36.

Mity-Didy Corp.: *See*—
Brooks, Hallie V. and V. A., and J. M. and M. N. Fushie. 3,081,772.

Mitz, Milton A., to Armour Pharmaceutical Co. Omega conversion of fatty acid derivatives. 3,116,215, 12–31–63, Cl. 195—30.

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Miwag Mikrowellen A.G.: *See*—
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Mixermobile Manufacturers, Inc.: *See*—
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Mixing Equipment Co., Inc.: *See*—
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Miyachi, Noboru: *See*—
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Miyachi, Noboru, to Sanraku Shuzo Kabushiki Kaisha. Process for preparing alconolic beverage. 3,082,089, 3–19–63, Cl. 99—48.

Miyahara, Hisao: *See*—
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Miyake, Akira: *See*—
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Miyauchi, Hideo, to Yashica Co., Ltd. Motion picture film rewinding device. 3,082,971, 3–26–63, Cl. 242—71.3.

Miyazaki, Sadamaru: *See*—
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Mizell, Louis R., to Appleton Mills. Method of making and finishing papermaker's felts. 3,075,274, 1–29–63, Cl. 28—74.

Mizell, Louis R., to The Williamson-Dickie Mfg. Co. Garment component and method of making same. 3,089,806, 5–14–63, Cl. 156—264.

Mizell, Louis R., to Williamson-Dickie Mfg. Co. Process for improving crease-retention properties of cotton garments. 3,096,524, 7–9–63, Cl. 2—243.

Mizell, Louis R., and J. Berch, to Western Felt Works. Stabilization of the dimensions of felt materials. 3,092,888, 6–11–63, Cl. 26—18.5.

Mizell, Louis R., and C. G. Tewksbury, to Appleton Mills. Method of finishing papermakers' felt and the finished felt. 3,094,763, 6–25–63, Cl. 28—76.

Mizelle, Ned W.: *See*—
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Mizelle, Ned W., to General Steel Products, Inc. Reclining chair fixture. 3,094,353, 6–18–63, Cl. 297—85.

Mizelle, Ned W., to General Steel Products, Inc. Reclining chair fixture. 3,107,117, 10–15–63, Cl. 297—89.

Mizelle, Ned W., to General Steel Products, Inc. Reclining chair fixture. 3,114,573, 12–17–63, Cl. 297—75.

Mizuno, Keichi, to Economics Laboratory, Inc. Liquid dispenser. 3,094,245, 6–18–63, Cl. 222—43.

Mládek, Bedřich, to Závody potravinarskych a chladicich stroju narodnu podnik. Meat grinder having floating cutter member. 3,099,306, 7–30–63, Cl. 146—182.

Mládek, Bedřich, J. Vodrážka, L. Budíček, and J. Stransky, to Závody potravinarskych a chladicich stroju. Device for transferring bakery products or other articles by gravity between two superposed conveyor belts. 3,084,779, 4–9–63, Cl. 198—27.

Mládek, Bedřich, V. Konopík, J. Vodrážka, J. Jindřich, and M. Lamač, to Zárody Potravinarskych a chladicich stroju narodni podnik. Device for automatic production of baker's ware. 3,111,913, 11–26–63, Cl. 107—4.

Mnemotron Corp.: *See*—
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Mo, Shih C., and D. A. Kassner. Shoe lace fastener. 3,108,343, 10–29–63, Cl. 24—121.

Moan, Richard D., to Ford Motor Co. Transmission control system. 3,115,049, 12–24–63, Cl. 74—472.

Moar, John. Floating conveyor belt. 3,089,581, 5–14–63, Cl. 198—201.

Mobarry, John W., to Minneapolis-Honeywell Regulator Co. Control apparatus. 3,100,972, 8–20–63, Cl. 62—161.

Mobarry, John W., to Minneapolis-Honeywell Regulator Co. Control apparatus for air conditioning system. 3,115,018, 12–24–63, Cl. 62—160.

Mobay Chemical Co.: *See*—
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Hardy, Edgar E. 3,085,983.
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Heiss, Herbert L. 3,102,875.
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Holtschmidt, Hans, and Müller. 3,099,642.
Holtschmidt, Hans, von Spulak, Muller, and Bayer. 3,098,840.
Hudson, George A. 3,095,386.
Loew, Gunther, Thomä, and Bernhard. 3,074,894.
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Merten Rudolf. 3,081,343.
Muller, Erwin, Bayer, Wilms, von Spulak, and Theis. 3,095,399.
Nischk, Gunther, Holtschmidt, Bongard, and Bayer. 3,096,296.
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Rinke, Heinrich, and Bayer. 3,078,257.
Saunders, James H., Szabat, and Morecroft. 3,076,770.
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Windemuth, Erwin, Bunge, and Mielke. 3,115,479.
Windemuth, Erwin, Schnell, and Bayer. 3,073,802.

Mobberley, Thomas W. Hair curlers. 3,108,603, 10–29–63, Cl. 132—34.

Moberg, Ivar O., to Fieldcrest Mills, Inc. Terry selvage filling holder and method. 3,079,955, 3–5–63, Cl. 139—195.

Moberg, Ivar O., to Fieldcrest Mills, Inc. Knock-off for terry looms. 3,099,295, 7–30–63, Cl. 139—353.

Mobil Finishes Co., Inc.: *See*—
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Mobilaid, Inc.: *See*—
Shea, William C., and Pivacek. 3,072,437.

Mobile, Arthur, to Schering Corp. 11-oxygenated 9α-halogeno-1,4-pregnadienes. 3,084,103, 4–2–63, Cl. 167—74.

Mobius, Walter, to Werkzeugmaschinenfabrik Gildemeister & Co. A.G. Apparatus for controlling a machine tool or the like. 3,075,418, 1–29–63, Cl. 82—2.

Mobley, Edward L., Jr.: *See*—
Molitor, Robert P., Mobley, and Zoker. 3,079,644.

Mobley, Paul R.: *See*—
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Mobley, Paul R., to General Electric Co. Brazing alloy. 3,096,743, 7–23–63, Cl. 75—171.

Mobley, Paul R., to General Electric Co. Brazing alloy. 3,110,588, 11–12–63, Cl. 75—171.

Mobley, Ray A., Jr., to Whirlpool Corp. Rotisserie rack having means for disengaging the drive motor. 3,100,435, 8–13–63, Cl. 99—421.

Mobley, William R. Below atmospheric pressure method and means for separating lighter liquids from heavier liquids. 3,080,057, 3–5–63, Cl. 210—83.

Mocanu, Timothy, to Clevite Corp. Selective gold plating of semiconductor contacts. 3,099,576, 7–30–63, Cl. 117—212.

Mocarski, Zenon R. Surgical instrument positioning device. 3,073,310, 1–15–63, Cl. 128—303.

Mocas, Verlin A.: *See*—
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Mock, Richard A., and W. N. Vanderkool, to The Dow Chemical Co. Thorium recovery from barren uranium leach liquors. 3,091,512, 5–28–63, Cl. 23—14.5.

Mockrin, Isadore, and A. Kowalski, to Pennsalt Chemicals Corp. Fluoaluminate composition as dielectric material. 3,098,752, 7–23–63, Cl. 106—39.

Mockrin, Isadore, and A. Kowalski, to Pennsalt Chemicals Corp. Fluoaluminate composition as dielectric material. 3,112,207, 11–26–63, Cl. 106—39.

Moca, Bernard W.: *See*—
Berkowitz, Howard, and Moca. 3,086,708.

Mocsny, Steven. Binder composition for use in sand molds. 3,112,206, 11–26–63, Cl. 106—38.5.

Mödder, Otto, to Siemag Siegener Maschinenbau G.m.b.H. Arrangement for turning and clamping of workpieces in rolling mills and the like. 3,112,829, 12–3–63, Cl. 214—1.

Modderno, John P., to Modern-Lab, Inc. Compartmented pressurized container valve assembly and a cutter therefor. 3,080,094, 3–5–63, Cl. 222—82.

Modecraft Co., Inc.: *See*—
Fidel, Hyman. 3,087,757.

Model Engineering and Mfg. Co.: *See*—
Dyksterhouse, Robert M. 3,079,476.

Model, Ernst: *See*—
Bindler, Jakob, and Model. 3,108,903.

Model Plastic Corp.: *See*—
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Cohn, David. 3,101,993.

Modern Aids, Inc.: *See*—
Minto, Wallace L. 3,072,978.

Modern Album and Finishing, Inc.: *See*—
Froehlig, Rudolph A. 3,077,263.

Modern-Lab, Inc.: *See*—
Modderno, John P. 3,080,094.

Modern Shoe Making Machinery Corp.: *See*—
Cialo, Joseph A. 3,082,552.

Modern Sleep Products Co.: *See*—
Rothbauer, Louis J., Jr. 3,098,244.
Simpson, Arthur I. F., and Cawthra. 3,101,453.

Modern Sundials Inc.: *See*—
Sundblad, Folke W. 3,110,108.

Modern Telephones (Great Britain) Ltd.: *See*—
Ivens, Edgar, and Simpson. 3,102,169.

Modern Village Stores, Inc.: *See*—
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Modernair Corp.: *See*—
Brandenberg, Karl A. 3,076,477.
Brandenberg, Karl A. 3,080,887.
Goldring, John E. 3,081,740.
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Goldring, John E., and Kremiller. 3,081,742.

Modersohn, Otto, to Olympia Werke A.G. Number transmitting arrangement. 3,079,075, 2–26–63, Cl. 235—61.

Modes, Edward E., and G. E. Franck, to Imperial-Eastman Corp. Stripping tool. 3,082,523, 3–26–63, Cl. 30—102.

Modica, Charles P. Game apparatus. 3,074,718, 1–22–63, Cl. 273—1.

Modin, John. Multi-purpose instrument. 3,114,977, 12–24–63, Cl. 33—149.

Modine Mfg. Co.: *See*—
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Simpelaar, Clyde S. 3,106,958.

Modlinski, Witold M., to Ampex Corp. Storage-state-indicating device. 3,110,887, 11–12–63, Cl. 340—174.

Modrak, Frank, and A. Berardinelli. Carrier and manipulator for pneumatic tools. 3,090,983, 5–28–63, Cl. 15—104.1.

Modrak, Michael. Handle attachment for mops. 3,081,474, 3–19–63, Cl. 15—229.

Modrey, Henry J. Elastic fastener. 3,093,220, 6–11–63, Cl. 189—36.

Modrey, Henry J. Electric wiring terminal. 3,097,258, 7–9–63, Cl. 174—94.

Modutronics, Inc.: *See*—
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Moe, Lowell A., to F. H. Peavey & Co. Ingredient content determination. 3,081,429, 3–12–63, Cl. 324—61.

Moe, William W., to Time, Inc. Magnetic data recording system. 3,108,265, 10–22–63, Cl. 340—345.

Moe, William W., to Time, Inc. Scanning mechanism for facsimile reproduction system. 3,109,888, 11–5–63, Cl. 178—6.7.

Moebes, Erich, to Sugar Chemical Co. Etablissement. Process for the purification and decolorization of pre-treated technical sugar solution. 3,090,707, 5–21–63, Cl. 127—46.

Moehlmann, Richard H.: *See*—
Herman, Robert F., and Moehlmann. 3,094,661.

Moehlmann, Richard H., to General Dynamics Corp. Radio frequency coupling device for detecting energy in a coaxial transmission line. 3,105,936, 10–1–63, Cl. 324—58.

Moeller, Charles R. Electronic frequency multiplying device. 3,089,977 5–14–63, Cl. 315—21.

Moeller, Delmer H., to The Dow Chemical Co. Tower packing. 3,109,876, 11–5–63, Cl. 261—112.

Moeller, Hans: *See*—
Wisseroth, Karl, Herbeck, Lautenschlager, Moeller, Schmidtthomee, Stalger, Trieschmann, and Weber. 3,110,708.

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Moeller & Neumann G.m.b.H.: *See*—
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Morath, Günther, Waldura, and Neumann. 3,098,404.

Moeller, Warren H.: *See*—
Ehrhardt, Charles H., Moeller, and Grubb. 3,103,277.

Moeller, Wilhelm. Apparatus for intravasal injection of gaseous and liquid media. 3,091,239, 5–28–63, Cl. 128—214.

Moellmann, Heinz F., to Avco Corp., Lycoming Division. Fuel control deceleration scheduling mechanism. 3,083,-531, 4–2–63, Cl. 60—39.28.

Moellmann, Heinz F., to Avco Corp., Lycoming Division. Fuel control temperature unit. 3,093,969, 6–18–63, Cl. 60—39.28.

Moen, Alfred M. Fluid controlling valve structure. 3,083,-725, 4–2–63, Cl. 137—454.2.

Moen, Alfred M. Balanced mixing valve cartridge. 3,103,-231, 9–10–63, Cl. 137—454.2.

Moen, Alfred M. Shower head. 3,109,591, 11–5–63, Cl. 239—107.

Moen, Carl J.: *See*—
Zabel, Lowell W., Eastwood, and Moen. 3,114,791.

Moen, Walter B.: *See*—
Craig, David J., and Moen. 3,086,356.

Moen, Walter B., to Air Reduction Co., Inc. Purification and high-pressure charging of gas into containers. 3,097,918, 7–16–63, Cl. 23—4.

Moergell, Eduard, to Ciba Ltd. Process for the manufacture of new triazine derivatives and of dyestuffs obtained therefrom. 3,111,518, 11–19–63, Cl. 260—248.

Moerkens, Jozef C., to North American Philips Co., Inc. Circuit arrangement for igniting gas discharge device. 3,096,465, 7–2–63, Cl. 315—278.

Moerlein, Herbert. Constant voltage transformer. 3,076,136, 1–29–63, Cl. 323—60.

Moes, Geert, to W. A. Scholten's Chemische Fabrieken N.V. Cold water dispersible starch and method of preparation. 3,097,102, 7–9–63, Cl. 106—210.

Moessen, Gustave W.: *See*—
Lehman, Roland J., and Moessen. 3,075,841.

Moesta, Hasso, and P. Herrwerth, to National Research Corp. Pressure gauges. 3,071,968, 1–8–63, Cl. 73—399.

Moffat, Maurice A., to Unipak Cartons Ltd. Cartons. 3,074,-614, 1–22–63, Cl. 229—52.

Moffatt, Elbert M. Projection apparatus for use in article inspection. 3,087,381, 4–30–63, Cl. 88—24.

Moffatt, Robert S. M., and K. Storer, to Wheeoe Ltd. Ultrasonic test apparatus. 3,111,027, 11–19–63, Cl. 73—67.8.

Moffatt, Vivian A.: *See*—
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Moffett, Fred P. Mouth protector. 3,096,761, 7–9–63, Cl. 128—136.

Moffett, Robert B.: *See*—
Aspergren, Brooke D., Moffett, and Speeter. 3,072,722.

Moffett, Robert B., to The Upjohn Co. Nitro 2-oxo-2H-1,4 benzoxazines. 3,105,071, 9–24–63, Cl. 260—244.

Moffett, Robert B., and B. D. Aspergren, to The Upjohn Co. N,N-disubstituted-alpha-(tertiaryaminoalkyl) alpha-diphenylacetamides. 3,078,275, 2–19–63, Cl. 260—326.3.

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Moffett, Walter K., and A. N. Walus, to E. I. du Pont de Nemours and Co. Heat-curable coating compositions. 3,102,866, 9–3–63, Cl. 260—21.

Moffitt, Merritt L., Jr.: *See*—
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Mogensen, Allan O., and R. J. Stevens, to American Cyanamid Co. Method of producing polyacrylonitrile filamentary material. 3,089,748, 5–14–63, Cl. 8—115.5.

Mogulescu, Jack H., to Consolidated Cigar Corp. Adjustable display rack. 3,110,402, 11–12–63, Cl. 211—49.

Mohan, Arthur G. and W. R. Christian, to Nopco Chemical Co. Preparation of light colored fatty acid esters. 3,071,-604, 1–1–63, Cl. 260—410.6.

Mohan, John M.: *See*—
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Mohan, William L.: *See*—
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Mohan, William L., Jr. Scanning apparatus. 3,084,301, 4–2–63, Cl. 338—18.

Mohasco Industries, Inc.: *See*—
De Sorbo, Louis. 3,077,209.
Hamilton, Kenneth. 3,091,075.
Matthews, Russell R. 3,092,985.
Peebles, Benjamin W., and Shuttleworth. 3,077,947.
Rice, Walter A. 3,100,467.
Rice, Walter A. 3,103,188.

Mohl, Gary: *See*—
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Möhl, Karl: *See*—
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Mohn, Henry L., to York-Shipley, Inc. Fuel feeding system. 3,077,343, 2–12–63, Cl. 263—19.

Mohn, Howard S. Heavy-duty internal combustion fan assembly. 3,077,228, 2–12–63, Cl. 170—160.6.

Mohr, Albert, Jr. to John Mohr & Sons. Tilting body railway car. 3,082,702, 3–26–63, Cl. 105—271.

Mohr, Johannes: *See*—
Möhring, Gustav, and Mohr. 3,106,761.

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Mohr, Albert, Jr. 3,082,702.
Philbrick, Herbert S., Jr. 3,077,010.

Mohr, Karl, to Ultra-Prasisionswerk G.m.b.H. Rotary electric cable coupling. 3,089,113, 5–7–63, Cl. 339—8.

Mohr, Milton E., to Bell Telephone Laboratories, Inc. Cathode beam tube circuit having means for converting current variations to stepped waveform. 3,076,146, 1–29–63, Cl. 328—186.

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Gross, Richard, Hertel, Kirst, and Mohr. 3,099,651.
Gross, Richard, Hertel, Kirst, Mohr, and Staab. 3,084,-151.
Gross, Richard, Hertel, Kirst, Mohr, and Staab. 3,116,-277.
Gross, Richard, Hertel, and Mohr. 3,116,278.
Gross, Richard, Hertel, Mohr, and Schilling. 3,073,818.
Gross, Richard, Hertel, Mohr, and Staab. 3,071,571.
Gross, Richard, Hertel, Mohr, and Staab. 3,086,004.
Gross, Richard, Hertel, Mohr, and Staab. 3,116,276.
Gross, Richard, Kirst, and Mohr. 3,071,428.

Mohr, Reinhard, and H. Hertel, to Farbwerke Hoechst Aktiengesellshaft vormals Meister Lucius & Brüning. Agents absorbing ultraviolet rays. 3,076,782, 2–5–63, Cl. 260—45.8.

Mohr, Rolf: *See*—
Leupold, Curt W., Mohr, and Sponsel. 3,085,911.

Mohr, Rudolf, and H. H. Quandt. Gas lighter. 3,085,412, 4–16–63, Cl. 67—7.1.

Mohring, Donald H., to U.S. Industries, Inc. Heated pitot tube. 3,097,528, 7–16–63, Cl. 73—212.

Mohring, Gerhard, to August oHG Stemmann. Current collector. 3,106,272, 10–8–63, Cl. 191—55.

Möhring, Gustav, to Famatex G.m.b.H. Arrangement for heating machines for the drying and heat treatment of textiles and the like. 3,100,632, 8–13–63, Cl. 263—19.

Möhring, Gustav, and J. Mohr, to Famatex G.m.b.H. Mounting means for tenter pin plates. 3,106,761, 10–15–63, Cl. 26—62.

Mohring, Rolf, to VEB Yakutronik. Pulse density measuring device. 3,078,371, 2–19–63, Cl. 250—83.6.

Mohring, Rolf. Amplifying arrangement. 3,082,328, 3–19–63, Cl. 250—231.

Moirs, Ltd.: *See*—
Booth, John M. 3,104,018.

Moist O Matic, Inc.: *See*—
Hunter, Edwin J. 3,107,056.

Mojonnier Bros. Co.: *See*—
Mojonnier, Julius J. 3,083,148.

Mojonnier, Julius J., to Mojonnier Bros. Co. Fractionation column. 3,083,148, 3–26–63, Cl. 202—158.

Moklebust, Olav, to R-N Corp. Methods for ore reduction and processing of other chemically reactive aggregates. 3,113,-859, 12–10–63, Cl. 75—6.

Moksu, Walter H., and H. D. Epstein, to Texas Instruments Inc. Thermostatic switches. 3,104,296, 9–17–63, Cl. 200—113.

Mol, Evert A.: *See*—
Wheatley, Robert L., and Mol. 3,105,287.

Mol, Gerrit, and M. J. Schmitz, to North American Philips Co., Inc. Circuit arrangement for processing an input information in a conditionally prescribed order of succession. 3,079,589, 2–26–63, Cl. 340—172.5

Molander, William A., Jr., and O. Edelman, to General Precision Inc. Biased synchro control all attitude pitch indicator. 3,078,461, 2–19–63, Cl. 318—30.

Molden, James W.: *See*—
Ballentine, William I., Jr., and Molden. 3,082,519.

Moldenhauer, Hugh F. Mobile sprayer apparatus. 3,086,713, 4–23–63, Cl. 239—136.

Moldofsky, Matthew: *See*—
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Moldovan, Andrew, to Toronto Brick Co. Ltd. Pallet for brick cubes and means for handling same. 3,085,698, 4–16–63, Cl. 214—10.5.

Molenaar, Jan: *See*—
Van Zijp, Frederik G., and Molenaar. 3,104,622.

Moles, Warren H., to Radio Corp. of America. Color television receiver with penetration color tube. 3,114,795, 12–17–63, Cl. 178—5.4.

Molina, Claude, to Sarasin & Cie, Societe Anonyme. Method and device for cooling welding apparatus. 3,076,088, 1–29–63, Cl. 219—130.

Moline, Dougas F., to Acme Juicer Mfg. Co. Vegetable juicing machine having a friction cutter drive. 3,085,606, 4–16–63, Cl. 146—76.

Molins, Desmond W., T. Rowlands, and N. W. Jackson, to Molins Machine Co. Ltd. Cigarette-making machinery. 3,077,264, 2–12–63, Cl. 209—82.

Molins, Desmond W., C. Best, and T. Rowlands, to Molins Machine Co. Ltd. Manufacture of composite cigarettes. 3,080,871, 3–12–63, Cl. 131—94.

Molins, Desmond W., and J. A. Mason, to Molins Machine Co. Ltd. Knife-feeding arrangements for sickle-shaped knives in cut-offs. 3,088,510, 5–7–63, Cl. 146—95.

Molins, Desmond W., G. F. W. Powell, and F. Pocock, to Molins Machine Co. Ltd. Tobacco manipulating machines. 3,089,497, 5–14–63, Cl. 131—21.

Molins, Desmond W., and F. A. M. Labbe, to Moline Machine Co., Ltd. Tobacco-manipulating apparatus. 3,091,244, 5–28–63, Cl. 131—84.

Molins Machine Co. Ltd.: *See*—
Best, Cyril. 3,104,754.
Best, Cyril. 3,105,498.
Chalmers, John W. 3,082,924.
Gagg, James. 3,111,564.
Harris, Richard W., and Youngman. 3,113,903.
Hillman, James G. E. 3,091,064.
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Perrin, Bernard. 3,081,779.
Powell, Gordon F. W. 3,111,026.
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Molitor, Robert P., E. L. Mobley, Jr., and M. J. Zoker, to The Sun Rubber Co. Method of making decorated plastic articles. 3,079,644, 3–5–63, Cl. 18—59.

Moll, Charles J., Jr.: *See*—
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Moll, Jan J. A., to Fabriek van Chemische Producten Vondelingenplaat N.V. Process of reserving wool with bistriazine diphenylsulfide compounds. 3,097,911, 7–16–63, Cl. 8—65.

Moll, Robert. Machine-tool for reducing to a predetermined length and centering a workpiece. 3,110,082, 11–12–63, Cl. 29—27.

Mollard, Jean: *See*—
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Cousteau, Jacques Y., Gagnan, Laban, and Mollard. 3,103,195.

Mollard, Paul, and G. Turpin, to Societe d'Electro-Chimie d'Electro-Metalurgie et des Acieries Electriques d'Ugine. Process of recovering fluorine from solid residues by pyrohydrolysis. 3,073,676, 1–15–63, Cl. 23—153.

Moller, Bynum W., to Skytop Rig Co. Folding derrick. 3,109,523, 11–5–63, Cl. 189—11.

Möller, Heinz, to Robert Bosch, G.m.b.H. Distributor for internal combustion engines. 3,104,291, 9–17–63, Cl. 200—30.

Moller, Hermann, to Klockner-Humboldt-Deutz A.G. Extensible multi-section supporting structures. 3,088,543, 5–7–63, Cl. 182—211.

Moller, Rolf, to Fernseh G.m.b.H. Optical multiplexer. 3,104,283, 9–17–63, Cl. 178—7.92.

Moller, Rolf, and W. Tretner, to Fernseh-G.m.b.H. Method and apparatus for recording and reproducing electrical signals. 3,099,710, 7–30–63, Cl. 178—6.6.

Möller, Waldemar, to Bodenseewerk Perkin-Elmer & Co., G.m.b.H. Fettered gyroscope for flight control of airborne objects. 3,079,803, 3–5–63, Cl. 74—5.5.

Moller, Waldemar, to Bodenseewerk Perkin-Elmer u. Co., G.m.b.H. Stabilization gyroscope for flying craft. 3,082,-628, 3–26–63, Cl. 74—5.4.

Moller, Waldemar. Device for the electric measurement of rotary moments. 3,092,994, 6–11–63, Cl. 73—134.

Möllering, Wilhelm: *See*—
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Molnar, Nicholas M., to Fine Organics, Inc. Germicidal compositions. 3,108,036, 10–22–63, Cl. 167—22.

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Molnar, Steven I. Steam engine with rotary piston and direct reheating. 3,080,722, 3–12–63, Cl. 60—106.

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Moloney Electric Co.: *See*—
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Mols, Adolphe, to Les Glaceries de la Sambre, Societe Anonyme. Process for the continuous manufacture of reinforced cast glass. 3,088,298, 5–7–63, Cl. 65—44.

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Tisdale, Norman F. and R. A. 3,109,733.

Molyneaux, Robert J., and D. E. Goldich, to The Permalux Co. Liquid-dispensing apparatus. 3,094,250, 6–18–63, Cl. 222—207.

Molzahn, Hans W., to Zenith Radio Corp. High voltage regulation by voltage control of video amplifier. 3,109,891, 11–5–63, Cl. 178—7.5.

Molzen, Charles F.: *See*—
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Mommsen, Gordon V., to Great West Super Markets, Inc. Eradicator attachment for marking stamps. 3,115,825, 12–31–63, Cl. 101—1.

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Momose, Haruo: *See*—
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Monaghan, Patrick H.: *See*—
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Graham, John W., Osoba, and Monaghan. 3,102,589.

Monaghan, Ralph, to Well Surveys, Inc. Method for gamma ray spectral analysis. 3,078,370, 2–19–63, Cl. 250—83.3.

Monaghan, Ralph, and R. A. Bergan, to Well Surveys, Inc. Variable thermal-conductance vacuum-walled container for scintillation detectors. 3,105,148, 9–24–63, Cl. 250—71.5.

Monagle, John J., to Sinclair Research, Inc. Polymerization of α-methylstyrene in the presence of an aluminum trialkyl catalyst. 3,081,285, 3–12–63, Cl. 260—93.5.

Monahan, Brian J. Rotatable plug lock. 3,084,533, 4–9–63, Cl. 70—363.

Monahan, Jack J.: *See*—
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Monahan, Jack J., to Western Electric Co., Inc. Apparatus for testing and sorting polarized articles. 3,104,760, 9–24–63, Cl. 209—74.

Monahan, John H. Light for clothes drier. 3,088,021, 4–30–63, Cl. 240—2.

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Bey, Ahmet K. 3,112,638.
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Moncrieff-Yeates, Alexander J., to Giannini Controls Corp. Solid state solar generator. 3,104,188, 9–17–63, Cl. 136—89.

Moncrieff-Yeates, Alexander J., to Giannini Controls Corp. Production of neutral molecular beams. 3,116,433, 12–31–63, Cl. 313—63.

Monday, Zephyr, to U-Stretch Corp. Knitted stocking top. 3,094,856, 6–25–63, Cl. 66—172.

Monelli, Riccardo, and B. Bortoletto, to Pirelli Societa per Azioni. Multi-conductor telecommunication cables for audio and carrier frequencies. 3,082,387, 3–19–63, Cl. 333—96.

Monet, Edwin T.: *See*—
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Monette, Gerald K., 50% to W. J. Monette. Curtain rod bracket. 3,090,588, 5–21–63, Cl. 248—216.

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Mong, Bernard A., to The Babcock & Wilcox Co. Nuclear reactor. 3,103,477, 9–10–63, Cl. 204—193.2.

Mongan, Charles E. Method and apparatus for evaluating impedance characteristics of porous materials. 3,073,149, 1–15–63, Cl. 73—38.

Mongitore, Pietro. Reciprocating piston driving or operating machines. 3,106,404, 10–8–63, Cl. 277—148.

Monigle, Charles W.: *See*—
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Monin, Claude, to Compagnie Industrielle des Telephones. Magnetostatic relay. 3,085,234, 4–9–63, Cl. 340—174.

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Wells, William W., and Bunnell. 3,110,976.

Monitor, Dean S., to Martin-Marietta Corp. Faired cable drive system. 3,091,434, 5–28–63, Cl. 254—175.5.

Monk, John C., to Foremost Dairies, Inc. Filling device. 3,072,303, 1–8–63, Cl. 222—485.

Monk, John C., to Foremost Dairies, Inc. Container sterilizing apparatus. 3,087,209, 4–30–63, Cl. 21—80.

Monkcom, Frank E., to Chiswick Products Ltd. Foil cutting machines. 3,114,993, 12–24–63, Cl. 53—129.
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Monlux, Claude R., to General Refractories Co. Furnace roof suspended by interconnected brick hanger extensions. 3,073,264, 1–15–63, Cl. 110—99.
Monnier, Eugene, to Fabrique de Machines Mikron S.A. Hydraulical feeder device for workpieces of machine tools. 3,114,464, 12–17–63, Cl. 214—1.
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Monnikendam, Philip, and C. R. Dawson, to Minnesota Mining and Mfg. Co. Polyunsaturated phenyl ethers and their preparation. 3,078,314, 2–19–63, Cl. 260—612.
Monnikendam, Philip, J. V. Clarke, Jr., and J. P. Black to Esso Research and Engineering Co. Stabilized distillate fuels. 3,080,223, 3–5–63, Cl. 44—73.
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Jones, Sterling B. 3,096,679.
Tuttle, Orvil S. 3,102,615.
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Williams, Joseph H. 3,094,067.
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La Manna, Richard J., Wilson, Pogorzelski, and Pivovonsky. 3,116,410.
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Wales, Nathaniel B., Jr. 3,116,000.
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Monroe, Roger F., C. H. Kucera, B. D. Oakes, and N. G. Johnston, to The Dow Chemical Co. Compositions for inhibiting corrosion. 3,077,454, 2–12–63, Cl. 252—148.
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McKay, Arthur F., and Garmaise. 3,109,859.
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Abramo, John G., and Chapin. 3,074,995.
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Arganbright, Robert P. 3,079,445.
Aykanian, Ardashus A. 3,079,636.
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Barkhuff, Mary S. 3,073,791.
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Beaver, David J., and Stoffel. 3,072,719.
Beaver, David J., and Stoffel. 3,074,907.
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Black, William B., and Clark. 3,076,774.
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Brown, Gordon E. 3,074,448.
Callahan, Thomas P., and Kuslak. 3,112,715.
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Carter, Don E. 3,074,921.
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Chapin, Earl C., Wilson, and Yates. 3,084,136.
Chupp, John P. 3,080,276.
Chupp, John P., Baker, and Newallis. 3,077,432.
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Delacretaz, Richard E. 3,110,702.
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Fisher, Don E. 3,076,304.
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Frans, John E. 3,080,414.
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Gamrath, Harry R., and Raether. 3,096,364.
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Godfrey, Kenneth L., and Morrill. 3,095,351.
Gottlly, Arthur L. 3,093,278.
Grisley, Daniel W., Jr. 3,076,017.
Groenweghe, Leo C.D. 3,071,616.
Grove, Herbert D., Jr., and Satterley. 3,073,685.
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Hatfield, Carrol G., and Lovett. 3,100,807.
Hathaway, Charles T. 3,090,991.
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Hedrick, Ross M., and Mottus. 3,094,444.
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Heimsch, Robert A., and Weesner. 3,085,114.
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Heiss, Herbert L. 3,102,875.
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Hill, Dale E. 3,071,715.
Hill, Dale E. 3,113,210.
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Makin, Earle C., Jr. 3,072,566.
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Moore, Francis C., and M. W. Nicely, ½ to American Hospital Supply Corp. Nebulizer. 3,077,307, 2–12–63, Cl. 239—338.

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Moore, James G., and E. B. Pinkel, to Blaw-Knox Co. Apparatus for making paste flakes. 3,082,541, 3–26–63, Cl. 34—62.

Moore, James K.: *See*—
Kronenberg, Marvin, and Moore. 3,109,166.

Moore, James M., and G. C. Ladman. Portable melting kettle. 3,092,098, 6–4–63, Cl. 126—343.5.

Moore, James R. Extensible measuring rule. 3,094,787, 6–25–63, Cl. 33—161.

Moore, James R. Infant's shoe tree. 3,100,901, 8–20–63, Cl. 12—114.2.

Moore, James W.: *See*—
Gaubatz, Arthur W., and Moore. 3,095,695.

Moore, Jesse C. Valve structure. 3,100,002, 8–6–63, Cl. 137—609.

Moore, Jesse C. Apparatus for vacuum die casting. 3,106,755. 10–15–63, Cl. 22—68.

Moore, Joe K.: *See*—
Neslon, Norman A., and Moore. 3,083,577.

Moore, John, to The Dow Chemical Co. Method for dyeing acrylonitrile polymer fibers. 3,113,827, 12–10–63, Cl. 18—48.

Moore, John A.: *See*—
Allen, Edward L., and Moore. 3,103,837.
Johnson, Alpha J., and Moore. 3,098,597.

Moore, John F. Method of forming flexible sheets of cured formed rubber. 3,081,496, 3–19–63, Cl. 18—53.

Moore, John F. Tobacco curing system. 3,100,145, 8–6–63, Cl. 34—48.

Moore, John H., to Leeds and Northrup Co. Transducer with improved signal winding. 3,076,137, 1–29–63, Cl. 323—89.

Moore, Joseph E.: *See*—
Kohn, Gustave K., Moore, and Ospenson. 3,076,741.

Moore, Joseph E., J. N. Ospenson, and G. K. Kohn. M-(1-cyclopropylethyl)phenyl N-methylcarbamate. 3,110,726, 11–12–63, Cl. 260—479.

Moore, Kenneth F.: *See*—
Behun, Eugene, Cronkwright, Griffith, Moore, and Stalcup. 3,090,583.

Moore, Kenneth L.: *See*—
Kellett, John S., and Moore. 3,077,620.

Moore, Kenneth M., to Union Insulating Co. Electric lighting fixture and globe support. 3,101,908, 8–27–63, Cl. 240—73.

Moore, Laurence, to Moore Associates, Inc. Digital telemetering system. 3,088,098, 4–30–63, Cl. 340—150.

Moore, Lawrence A.: *See*—
Corbin, Wesley S., Moore, and Pearson. 3,074,476.

Moore, Lawrence A., to Beloit Iron Works. Roll deflection. 3,082,685, 3–26–63, Cl. 100—155.

Moore, Lawrence A., to The Black-Clawson Co. Paper machinery. 3,085,503, 4–16–63, Cl. 100—90.

Moore, Lawrence A., to Beloit Iron Works. Roll deflection. 3,103,875, 9–17–63, Cl. 100—155.

Moore, Lawrence A., E. E. Crist, and L. H. Hess, to Beloit Iron Works. Horizontal reel. 3,116,031, 12–31–63, Cl. 242—65.

Moore, Lee C., Corp.: *See*—
Woolslayer, Homer J., Jenkins, and Woolslayer. 3,083,987.

Moore, Leonard O., and J. W. Clark, to Union Carbide Corp. 2,3-bis(trifluoromethyl) quinoxaline. 3,086,019, 4–16–63, Cl. 260—250.

Moore, Lewis F. Deep fat fryer. 3,097,589, 7–16–63, Cl. 99—408.

Moore-Milford Corp.: *See*—
Rabb, Lester R. 3,074,270.

Moore, Monte N. Alternating current induction motor. 3,079,518, 2–26–63. Cl. 310—115.

Moore, Morrison B.: *See*—
Kauffman, Samuel H., Detwiler, and Moore. 3,088,136.

Moore, Omar K., and R. Kobler, to McGraw-Edison Co. Educational apparatus for children. 3,112,569, 12–3–63, Cl. 35—5.

Moore Products Co.: *See*—
Clements, Thomas W. 3,095,891.

Moore, Ralph G. D., and R. J. Cox, to General Aniline & Film Corp. Aminopyridinediazonium salts. 3,082,200, 3–19–63, Cl. 260—141.

Moore, Ralph W., to Pangborn Corp. Abrasive blasting apparatus. 3,089,285, 5–14–63, Cl. 51—8.

Moore, Ralph W., to The Pangborn Corp. Method and apparatus for deflashing molded resilient pieces. 3,110,983, 11–19–63, Cl. 51—9.

Moore, Raymond W.: *See*—
Wallace, John W., Hull, and Moore. 3,089,363.

Moore, Richard K., to General Electronic Laboratories, Inc. Frequency modulation interfering signal selecting system. 3,091,735, 5–28–63, Cl. 325—47.

Moore, Richard L., to Sperry Rand Corp. Magnetic memory element. 3,095,555, 6–25–63, Cl. 340—174.

Moore, Richard P. Diaphragm valves. 3,078,066, 2–19–63, Cl. 251—61.

Moore, Richard P. Separating apparatus. 3,113,100, 12–3–63, Cl. 210—91.

Moore, Richard V., to United Kingdom Atomic Energy Authority. Fuel elements for nuclear reactors. 3,089,837, 5–14–63, Cl. 204—193.2.

Moore, Robert C., to Philco Corp. Stereophonic detector and matrixing circuit. 3,089,096, 5–7–63, Cl. 329—135.

Moore, Robert C., to Philco Corp. Color television receiver and method of adjusting same. 3,116,364, 12–31–63, Cl. 178—5.4.

Moore, Robert D., to The Moore Co. Motor for contra rotating fans. 3,083,312, 3–26–63, Cl. 310—157.

Moore, Robert E., to Bell & Gossett Co. Mechanical sealing structure for rotating shafts. 3,108,818, 10–29–63, Cl. 277—93.

Moore, Robert I., to Aerol Co., Inc. Wheel suspension with polygonal spring support. 3,082,017, 3–19–63, Cl. 280—96.2.

Moore, Robert L.: *See*—
Briskin, Theodore S., Moore, and Rom. 3,076,397.
Briskin, Theodore S., Moore, and Rom. 3,081,669.
Briskin, Theodore S., Moore, and Rom. 3,084,607.
Briskin, Theodore S., Moore, and Rom. 3,094,038.
Sunday, Richard K., Van Dolsen, Moore, and Jennings. 3,078,528.

Moore, Robert L., and R. A. Rom, to Revere Camera Co. Automatic flash gun. 3,107,862, 10–22–63, Cl. 240—1.3.

Moore, Robert S.: *See*—
Shepard, William W., Baude, and Moore. 3,103,468.

Moore, Ronald D., to Saginaw Products Corp. Steerable trailer vehicle. 3,097,863, 7–16–63, Cl. 280—445.

Moore, Roy E., to Mansfield Industries, Inc. Reversible shutter drive and accessibly mounted mechanisms in a motion picture projector. 3,096,682, 7–9–63, Cl. 88—17.

Moore, Sewell T.: *See*—
Segro, Nicholas R., Moore, and Daniel. 3,081,143.

Moore, Sewell T., to American Cyanamid Co. Paper containing acrylamide copolymer. 3,077,430, 2–12–63, Cl. 162—168.

Moore, Walter L., to Boving and Co. Ltd. Butterfly valve having a sealing surface mounted for axial movement. 3,100,104, 8–6–63, Cl. 251—175.

Moore, White & Burd: *See*—
Smith, Hilton D. 3,103,678.

Moore, William A. Apparatus for propulsion of submersible objects. 3,071,375, 1–1–63, Cl. 272—8.

Moore, William C., by Welch Allyn, Inc., assignee. Rechargeable battery handle. Re. 25,388, 5–14–63, Cl. 240—10.6.

Moore, William C., to Welch Allyn, Inc. Battery handle construction. 3,071,747, 1–1–63, Cl. 338—179.

Moore, William G., to The Dow Chemical Co. Rapid curing resin-filler systems. 3,107,403, 10–22–63, Cl. 22—194.

Moore, William H., and W. E. Gruver, Jr., to Mechanite Metal Corp. Air hardening cast iron. 3,093,300, 6–25–63, Cl. 75—123.

Moore, William J.: *See*—
Mosher, Hugh M., and Moore. 3,081,184.

Moore, William P. Automotive suspension seat. 3,090,647, 5–21–63, Cl. 297—307.

Moore, William P., and R. R. MacGregor, to Allied Chemical Corp. Synthesis of propargyl alcohol from formaldehyde and acetylene. 3,087,970, 4–30–63, Cl. 260—638.

Moore, William P., Jr., and G. A. Elliott, to Allied Chemical Corp. Recovery and purification of hydroxylamine. 3,105,741, 10–1–63, Cl. 23—190.

Moore, William S. Method of and apparatus for embalming. 3,090,095, 5–21–63, Cl. 27—22.

Moorefield, Herbert H.: *See*—
Kilsheimer, John R., and Moorefield. 3,081,340.
Kilsheimer, John R., and Moorefield. 3,099,681.

Moores, Urban A. Dairy barn traveling stanchion. 3,077,860, 2–19–63, Cl. 119—14.03.

Moorhead, John O., to Texas Instruments Inc. Thermostatic controls. 3,091,121, 5–28–63, Cl. 73—378.3.

Moorhead, John P., and J. A. Lowing, to Evans Products Co. Freight-loading apparatus. 3,081,715, 3–19–63, Cl. 105—368.

Moorman, Cletus L.: *See*—
Beck, George W., Harris, Millhouse, and Moorman. 3,110,938.

Moorman Mfg. Co.: *See*—
Brody, Gerald. 3,098,007.

Moormann, Helmuth, to Ideal Toy Corp. Method and apparatus for molding a doll's head. 3,109,203, 11–5–63, Cl. 18—39.

Moormann, Helmuth, to Ideal Toy Corp. Mechanical heartbeat mechanism. 3,110,980, 11–19–63, Cl. 46—192.

Moors, Donald E., and H. L. Sandberg, to Hycon Mfg. Co. Camera stabilized mount. 3,094,054, 6–18–63, Cl. 95—12.5.

Moors, Hubert J.: *See*—
Pries, Rinehard, and Moors. 3,071,266.

Moos, Anthony M., to Leesona Corp. Fuel cell electrolytes. 3,083,251, 3–26–63, Cl. 136—86.

Moos, Anthony M., to Leesona Corp. Catalysts and electrodes for fuel cells. 3,097,115, 7–9–63, Cl. 136—120.

Moos, Anthony M., to Leesona Corp. Fuel cell electrodes. 3,097,116, 7–9–63, Cl. 136—120.

Moos, Walter S. Radioactivity smear sampler. 3,074,276, 1–22–63, Cl. 73—425.

Moosbrunner Glasfabrik A.G.: *See*—
Jamnik, Fridolin, and Pelzl. 3,077,755.

Moosmann, Alois. Pneumatic control mechanism for machine tools. 3,082,781, 3–26–63, Cl. 137—83.

Moote, Truman P.: *See*—
Gordon, Leon B., Moote, and Eckstrom. 3,112,297.

Mora, Antonio. Goggles for protection against glare in driving at night. 3,111,675, 11–26–63, Cl. 2—14.

Morabito, Bruno P.: *See*—
Lyons, William T., and Morabito. 3,101,382.

Morabito, John J.: *See*—
Amorosi, Alfred, and Morabito. 3,090,433.

Morales, Juan A. Container for transportation of liquids. 3,109,563, 11–5–63, Cl. 222—192.

Moran, Charles P. Auxiliary safety step for rung ladders and locking means therefor. 3,112,811, 12–3–63, Cl. 182—120.

Moran, Clifford M.: *See*—
Vail, Sidney L., Moran, and Moore. 3,111,522.
Vail, Sidney L., Moran, and Moore. 3,112,155.

Moran, Edward F.: *See*—
Guentner, Robert L., and Moran. 3,073,960.

Moran, Glennon T.: *See*—
De Lay, Manford S. 3,087,741.

Moran, H. David, to Shampaine Industries, Inc. Game boards. 3,106,401, 10–8–63, Cl. 273—108.

Moran, Harold J., to Switlik Parachute Co., Inc. Inflatable life preserver. Re. 25,398, 6–18–63, Cl. 9—340.

Moran, James H., to Schlumberger Well Surveying Corp. System for measuring by induction the conductivity of a medium. 3,090,910, 5–21–63, Cl. 324—6.

Moran, James M.: *See*—
Devonshire, William H., Moran, Lundberg, and Hoag. 3,074,353.

Moran, Jesse N., to North American Aviation, Inc. Flush mounted plug valve. 3,103,341, 9–10–63, Cl. 251—115.

Moran, John J., and H. Wood. Laboratory distillation apparatus. 3,098,800, 7–23–63, Cl. 202—170.

Moran, John J., and H. Wood. Laboratory distillation apparatus. 3,107,205, 10–15–63, Cl. 202—170.

Moran, Lawrence F. Life-preserver pillow. 3,090,054, 5–21–63, Cl. 9—313.

Moran, Lawrence F., and W. F. Bennett. Door closer. 3,083,399, 4–2–63, Cl. 16—66.

Moran Shoe Co.: *See*—
Rountree, Fred H. 3,092,257.

Moran, Stephen F.: *See*—
Rosenberg, Edgar N., and Moran. 3,084,654.

Morana, Simon J., G. F. Simons, and C. J. Wummer, to The Beryllium Corp. Production of beryllium hydroxide. 3,116,110, 12–31–63, Cl. 23—183.

Morana, Simon J., G. F. Simons, and C. J. Wummer, to The Beryllium Corp. Production of beryllium hydroxide. 3,116,111, 12–31–63, Cl. 23—183.

Morand, Mildred W.: *See*—
Morand, Richard A., R. J. Morand, Jr., and M. W. Morand. 3,082,566.

Morand, Richard A., R. J. Morand, Jr., and M. W. Morand. Utensil screen. 3,082,566, 3–26–63, Cl. 45—68.

Morand, Robert J., Jr.: *See*—
Morand, Richard A., R. J. Morand, Jr., and M. W. Morand. 3,082,566.

Morando, Emilio D. Needleless prefilled disposable hypodermic injector. 3,115,133, 12–24–63, Cl. 128—173.

Moran's, Thomas J., Sons, Inc.: *See*—
Peterson, Willard D., and Fabian. 3,093,478.

Moras, Nello A., and R. E. Groff; said Groff assor. to said Moras. Blade for earth-working tractor. 3,112,573, 12–3–63, Cl. 37—145.

Morat Franz, G.m.b.H.: *See*—
Schmidt, Richard. 3,076,325.
Schmidt, Richard. 3,093,330.
Schmidt, Richard. 3,115,761.

Morath, Günther, W. Waldura, and K. Neumann, to Moeller & Neumann G.m.b.H. Universal rolling mill. 3,098,404, 7–23–63, Cl. 80—55.

Morawetz, Frederick, to Sunbeam Corp. Convertible shaver or massage device. 3,104,662, 9–24–63, Cl. 128—52.

Morawetz, Herbert: *See*—
Hainer, Raymond M., Berdick, and Morawetz. 3,104,205.

Morchand, Charles A. Animal training device. 3,072,097, 1–8–63, Cl. 119—29.

Morcheles, Bernard, to Stacor Corp. Drawing boards with counter-balancing mechaniam. 3,078,613, 2–26–63, Cl. 45—131.

Morcher, Bernhard, G. Kolb, and I. Dennstedt, to Agfa Aktiengesellschaft. Photographic materials containing acrylonitrile copolymers as matting agents. 3,079,257, 2–26–63, Cl. 96—67.

Mordach, Walter: *See*—
Innes, William B., and Mordach. 3,094,394.

More, Arthur R., ½ to H. W. Wallace & Co., Ltd. Temperature control system. 3,097,500, 7–16–63, Cl. 62—55.

Moreau, André, to Inventions Finance Corp. Wire rope sockets or sleeves. 3,082,500, 3–26–63, Cl. 24—123.

Moreau, Jean R., and R. S. Alfandari, to Thomson-Houston, Compagnie Francaise. New aerial system radiating several beams. 3,102,265, 8–27–63, Cl. 343—100.

Moreau, Rene. Internal combustion engine silencers. 3,092,206, 6–4–63, Cl. 181—68.

Morehead, Angus: *See*—
Jacobs, Haynie, and Morehead. 3,113,413.

Morehead, Owen G. Health belt. 3,075,517, 1–29–63, Cl. 128—24.1.

Morehouse, Edward L., to Union Carbide Corp. Process for producing cyclopentadienyl-type metallic compounds. 3,071,605, 1–1–63, Cl. 260—429.

Morehouse, Edward L., and A. N. Pines, to Union Carbide Corp. Aminosilicon treated metals and methods of treatment and production. 3,085,908, 4–16–63, Cl. 117—127.

Morehouse, Edward L., and R. J. Lisanke, to Union Carbide Corp. Aminosilicon-alkylsilicate copolymers. 3,087,909, 4–30–63, Cl. 260—46.5.

Moreira, Renan. Multi-stage radial sliding vane pump. 3,090,547, 5–21–63, Cl. 230—158.

Morel, Jacques: *See*—
Moser, Robert, and Morel. 3,113,251.

Morel, Roger C.: *See*—
Point, Marcel A., R., and Morel. 3,072,341.

Moreland, Ethelbert H. Compressor for valve springs of engine with overhead valves. 3,080,645, 3–12–63, Cl. 29—218.

Moreland, Stephen T., to Continental Can Co. Filler assembly for pulverulent materials. 3,095,018, 6–25–63, Cl. 141—67.

Moreland, Stephen T., and R. E. Tyner, to Continental Can Co., Inc. Glass jar unloader. 3,072,252, 1–8–63, Cl. 209—80.

Moreland, Stephen T., and R. E. Tyner, to Continental Can Co., Inc. Photoelectric inspection of glassware. 3,074,550, 1–22–63, Cl. 209—75.

Moreland, Walter T.: *See*—
Hess, Hans-Jurgen E., Figdor, Hughes, and Moreland. 3,081,319.

Morelle, Jules L. E., to Optique et Precision de Levallois. Control devices for photographic apparatus. 3,077,822, 2–19–63, Cl. 95—10.

Morelle, Jules L. E., to Optique et Precision de Levallois. Reflex photographic apparatus with single object-lens, with improved synchronized control and coupling mechanism. 3,094,913, 6–25–63, Cl. 95—42.

Morelle, Jules L. E., to Optique & Precision de Levallois. Photographic device. 3,100,430, 8–13–63, Cl. 95—42.

Morelli, Joseph L., F. A. Brignole, Jr., and L. E. Hare, to Royal McBee Corp. Typewriter print control. 3,095,079, 6–25–63, Cl. 197—183.

Moressée, Georges, and R. Déchet, to Normacem. Rotary machines for converting electrical energy. 3,072,814, 1–8–63, Cl. 310—268.

Moressee, Georges, and R. Déchet, to Normacem S.A. Magnetic circuit structure for rotary electric machines. 3,077,548, 2–12–63, Cl. 310—154.

Moressee, Georges, and R. Dechet, to Normacem S.A. Armature coil for axial air gap machines. 3,095,516, 6–25–63, Cl. 310—268.

Moressée, Georges, and R. Déchet, to Normacem S.A. Winding for axial air gap machines. 3,101,425, 8–20–63, Cl. 310—268.

Moret, Michel, to Etablissement AESUP. Toothbrush attachment. 3,088,148, 5–7–63, Cl. 15—22.

Moret, Michel, to Etablissement AESUP. Hand motor with totally enclosed starting contacts. 3,112,416, 11–26–63, Cl. 310—68.

Moret, Michel, to Etablissement AESUP. Oscillating drive hand motor. 3,113,226, 12–3–63, Cl. 310—38.

Moretta, Marcella S.: *See*—
Tenconi, Riccardo. 3,101,601.
Tenconi, Riccardo. 3,108,462.

Moretti, Francesco, to Officine Meccaniche e Fonderie A. Bosco Societa per Azioni. Emptying system for rotary containers. 3,092,579, 6–4–63, Cl. 210—370.

Moretz, Bynum C., to The Bendix Corp. Apparatus for making silicone impregnated shielded lead. 3,102,299, 9–3–63, Cl. 18—5.

Morey, Everett D., and L. Loeb, to General Electric Co. Automatic washing machine having means to measure the rate of change of turbidity. 3,114,253, 12–17–63, Cl. 68—12.

Morey, Glen H., to Templeton Coal Co. Apparatus for distilling liquids. 3,116,392, 12–31–63, Cl. 219—10.49.

Morey, Robert E.: *See*—
Houghton, William D., and Morey. 3,091,660.

Morey, Robert E., to Radio Corp. of America. Magnetic recording and reproducing. 3,079,468, 2–26–63, Cl. 179—100.2.

Mor-Flo Industries, Inc.: *See*—
Buehl, Arnold L. 3,110,302.

Morgan Adhesives Co.: *See*—
Morgan, Burton D. 3,106,032.
Morgan, Burton D. 3,109,218.

Morgan, Arthur I., Jr.: *See*—
Graham, Robert P., Ginnette, and Morgan. 3,093,488.

Morgan, Benjamin E. Flat specimen wear tester. 3,113,449, 12–10–63, Cl. 73—10.

Morgan, Burton D., to Morgan Adhesives Co. Laminated dual surfaced sign and sign making material. 3,106,032, 10–8–63, Cl. 40—135.

Morgan, Burton D., to Morgan Adhesives Co. Expander roll combination for smoothing web materials. 3,109,218, 11–5–63, Cl. 26—63.

Morgan, Claude A., to The Majestic Co., Inc. Incinerator. 3,089,440, 5–14–63, Cl. 110—18.

Morgan, Clifford V. Inside indicator bar. 3,083,467, 4–2–63, Cl. 33—172.

Morgan Construction Co.: *See*—
Hill, William J., and Fay. 3,073,426.
Hill, William J., and Neely. 3,113,477.
Kinnicutt, Roger, Jr., and Sieurin. 3,109,340.
McMillen, George H. 3,109,811.
Morgan, Myles. 3,073,425.
Morgan, Myles. 3,080,044.
Rich, Charles A., Jr. 3,093,425.
Rickley, Samuel S. 3,080,199.
Smith, Sheridan. 3,100,070.

Morgan, Dave J. Incinerator. 3,092,050, 6–4–63, Cl. 110—18.

Morgan, David I.: *See*—
Dixon, Olaf G., and Morgan. 3,099,952.

Morgan, David L., to Robertshaw-Fulton Controls Co. Convertible air volume control. 3,097,604, 7–16–63, Cl. 103—6.

Morgan, David W., to Kaiser Aluminum & Chemical Corp. Electrolytic cell structure. 3,081,254, 3–12–63, Cl. 204—244.

Morgan Development Laboratories, Inc.: *See*—
Linsley, Douglas F., and Miller. 3,090,253.
Linsley, Douglas F., and Miller. 3,101,627.

Morgan, Donald P., and D. D. Dalrymple. Apparatus for remote reading of utility meters. 3,104,382, 9–17–63, Cl. 340—204.

Morgan, Edgar A., and K. W. Bacon, to Arrow Development Co. Boat ride apparatus. 3,113,528, 12–10–63, Cl. 104—73.

Morgan, Edgar O.: *See*—
Bacon Karl W., and Morgan. 3,114,332.

Morgan, Edward H. Concrete curb final grade machine. 3,088,231, 5–7–63, Cl. 37—108.

Morgan, Erving B., to American Seating Co. Furniture glide and method of making same. 3,078,498, 2–26–63, Cl. 16—42.

Morgan, Erving B., and W. E. Nordmark, to American Seating Co. Box seat partition. 3,079,198, 2–26–63, Cl. 297—217.

Morgan, Evelyn E.: *See*—
Morgan, Harold W. and E. E. 3,094,792.

Morgan, Gerard E., to John T. Riddell, Inc. Headgear. 3,103,014, 9–10–63, Cl. 2—3.

Morgan, Gerard E., Jr.: *See*—
Rappleyea, Frederick A., and Morgan. 3,076,262.
Rappleyea, Frederick A., and Morgan. 3,082,515.

Morgan, Harold W. and E. E. Educational toy. 3,094,792, 6–25–63, Cl. 351—31.

Morgan, Harry C., to North American Aviation, Inc. Analog-to-digital converter. 3,071,762, 1–1–63, Cl. 340—347.

Morgan, Hillen J. Meat scoring and trimming knife. 3,099,307, 7–30–63, Cl. 146—203.

Morgan, Homer C.: *See*—
Beach, Horace J., and Morgan. 3,071,481.

Morgan, James A., to Solarota Ltd. Body support for personal wear. 3,097,640, 7–16–63, Cl. 128—78.

Morgan, James I., to The Prime Mfg. Co. Pressure gage mounting apparatus. 3,077,761, 2–19–63, Cl. 73—4.

Morgan, John D. Color balance and exposure indicator. 3,080,790, 3–12–63, Cl. 88—23.

Morgan, John W.: *See*—
Loewen, Bruno F., and Morgan. 3,076,694.

Morgan, Leonard P., J. A. Weaver, and D. B. Jarvis, to North American Philips Co., Inc. Fast-operating adder circuits. 3,074,639, 1–22–63, Cl. 235—175.

Morgan, Lyman W.: *See*—
Dye, Robert F., and Morgan. 3,074,922.
Thomas, John C., and Morgan. 3,083,569.

Morgan, Lyman W., to Phillips Petroleum Co. Control system for separation processes. 3,085,153, 4–9–63, Cl. 250—43.5.

Morgan, Lyman W., to Phillips Petroleum Co. Olefin polymerization. 3,108,094, 10–22–63, Cl. 260—94.9.

Morgan Machine Co., Inc.: *See*—
Good, Romer F., and Mauser. 3,086,210.

Morgan, Mark, to International Business Machines Corp. Control and gauging system for milling machines. 3,099,780, 7–30–63, Cl. 318—162.

Morgan, Merle L., to Electro-Measurements, Inc. Voltage divider of the inductive type. 3,113,261, 12–3–63, Cl. 323—43.5.

Morgan, Myles, to Morgan Construction Co. Rolling mill switch. 3,073,425, 1–15–63, Cl. 193—39.

Morgan, Myles, to Morgan Construction Co. Retractable stop adjacent run-off rollers. 3,080,044, 3–5–63, Cl. 198—107.

Morgan, Norman D., to Burroughs Corp. High speed brake. 3,075,716, 1–29–63, Cl. 242—55.12.

Morgan Packing Co., Inc.: *See*—
Garriott, Donald H. 3,106,731.

Morgan, Paul A., to King Bee Mfg. Co. Vehicle lighting system. 3,107,061, 10–15–63, Cl. 240—8.2.

Morgan, Paul A., to King Bee Mfg. Co. Lamp for vehicle. 3,109,598, 11–5–63, Cl. 240—8.2.

Morgan, Paul E., and W. L. Baker, to United Shoe Machinery Corp. Heel attaching machines. 3,072,913, 1–15–63, Cl. 1—102.

Morgan, Paul W., to E. I. du Pont de Nemours and Co. Composition comprising a solution of an organic compound containing two reactive groups and a polymer in the form of particles below about 15 microns. 3,078,242, 2–19–63, Cl. 260—29.6.

Morgan, R. M., Co.: *See*—
Morgan, Robert M. 3,092,115.

Morgan, Raymond E., to General Electric Co. Saturable current transformer-transistor circuit. 3,102,206, 8–27–63, Cl. 307—88.

Morgan, Robert E.: *See*—
Reiners, Robert A., and Morgan. 3,081,171.

Morgan, Robert G.: *See*—
Clarkson, Jack B., and Morgan. 3,082,397.

Morgan, Robert M., to R. M. Morgan Co. Rasp type threshing cylinder and elastic concave elements. 3,092,115, 6–4–63, Cl. 130—27.

Morgan, Tom S. Baseball training device. 3,110,494, 11–12–63, Cl. 273—26.

Morgan, Walter A., to Esso Research and Engineering Co. Automatic computer for use with mass spectrometers. 3,103,582, 9–10–63, Cl. 235—194.

Morgan, Walter L., II, to United States of America, Navy. Dual string magnetic shift register. 3,114,137, 12–10–63, Cl. 340—174.

Morgan, Willard L.: *See*—
Slayter, Games, Russell, and Morgan. 3,109,511.

Morgan, Willard L., to Owens-Corning Fiberglas Corp. Production of coated fibers. 3,076,324, 2–5–63, Cl. 65—3.

Morgan, Willard L., J. K. Coen, and J. D. Fleming, to Owens-Corning Fiberglas Corp. Fibrous glass reinforcement. 3,084,089, 4–2–63, Cl. 156—181.

Morgan, William B., Jr.: *See*—
Keessen, Harold E., and Morgan. 3,072,095.

Morgan, William F., to The National Acme Co. Chucking cylinder valve. 3,097,857, 7–16–63, Cl. 279—4.

Morgan, William G. Aircraft. 3,114,526, 12–17–63, Cl. 244—120.

Morgan, William G., A. J. Broadhurst, and J. D. McLean, to Bristol Aircraft Ltd. Aircraft. 3,114,525, 12–17–63, Cl. 244—120.

Morgan, William H., to The Bendix Corp. Electromagnetic indicator. 3,086,306, 4–23–63, Cl. 40—52.

Morgan, William H., to The Bendix Corp. Electromagnetic indicator. 3,089,131, 5–7–63, Cl. 340—319.

Morgan, William W., W. G. Mathers, and R. G. Hart, to Atomic Energy of Canada Ltd. Separation of plutonium from uranium. 3,092,446, 6–4–63, Cl. 23—14.5.

Morganstern, Kennard H., to Nuclear Corp. of America, Inc. Methods and apparatus for measuring and testing. 3,100,840, 8–13–63, Cl. 250—43.5.

Morgardshammars Mekaniska Verkstads Aktiebolag: *See*—
Forsberg, Karl S. O. 3,112,021.

Morgenthaler, John H., and T. D. Parks, to The Procter & Gamble Co. Process for making a bleach composition 3,112,274, 11–26–63, Cl. 252—99.

Morgillo, Pellegrino J., to Lafayette Radio Electronics Corp. Loudspeaker baffle assembly. 3,089,562, 5–14–63, Cl. 181—31.

Morgret, Gordon L.: *See*—
Cummings, Harry B., Drenning, McKewen, and Morgret. 3,109,720.

Mori, Ernest A., to Gulf Research & Development Co. Hammer drill. 3,095,046, 6–25–63, Cl. 173—136.

Mori, Hajime: *See*—
Inaba, Seiuemon, Shimizu, and Mori. 3,082,363.
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Mori, Keikoku: *See*—
Kodama, Shinjiro, Komiyama, Mori, and Ando. 3,077,441.

Mori, Takeshi, R. I. Peters, and B. L. Austin, to Christensen Diamond Products Co. Rubber sleeve core barrel apparatus. 3,092,191, 6–4–63, Cl. 175—226.

Moriarty, Joseph A.: *See*—
Wilson, Carl L., and Moriarty. 3,103,470.

Moriarty, Maurice J. Internal combustion rotary piston engine and the like. 3,073,288, 1–15–63, Cl. 123—13.

Morici, Alfred A., to Hershel California Fruit Products Co., Inc. Machine for treating tomatoes with lye solution, washing and trimming same. 3,093,175, 6–11–63, Cl. 146—52.

Morikawa, Takashi. Mechanism for twisting and winding roving. 3,114,224, 12–17–63, Cl. 57—71.

Morimoto, Akira: *See*—
Ishimoto, Kunio, and Morimoto. 3,116,423.

Morimoto, Hiroshi. Method of filtration by floating filter media. 3,077,987, 2–19–63, Cl. 210—77.

Morimoto, Saichi. Process for producing regenerated cellulose filaments. 3,084,021, 4–2–63, Cl. 18—54.

Morimoto, Saichi, M. Ishihara, A. Yamamoto, K. Hamada, K. Imai, and M. Otsuka, to Toyo Spinning Co., Ltd. Graft copolymer containing spinnable solution and method for preparing and spinning thereof. 3,104,154, 9–17–63, Cl. 18—54.

Morin, Dolore B.: *See*—
Hershberger, Olin C., and Morin. 3,115,365.

Morin, Gilles. Drawing instrument for coding and decoding drawings. 3,101,548, 8–27–63, Cl. 33—23.

Morin, Louis H., to Coats & Clark Inc. Apparatus for synchronizing stitchings with longitudinally spaced workpieces and with the formation of workpieces. 3,077,167, 2–12–63, Cl. 112—2.

Morin, Louis H. Top stop for one-sided separable fasteners. 3,077,651, 2–19–63, Cl. 24—205.11.

Morin, Louis H., to Coats & Clark Inc. Plastic traveler having a wear-resistant section. 3,077,727, 2–19–63, Cl. 57—125.

Morin, Louis H. Method of machine stitching concealed-type separable fastener stringers to supports therefor. 3,077,847, 2–19–63, Cl. 112—265.

Morin, Louis H. Invisible scoop stringers employing abrasive preventing means. 3,078,537, 2–26–63, Cl. 24—205.1.

Morin, Louis H. Variable compound speed reducer. 3,085,451, 4–16–63, Cl. 74—800.

Morin, Louis H. Method of producing invisible scoop separable fastener stringers. 3,087,200, 4–30–63, Cl. 18—59.

Morin, Louis H. Bottom stop for one-sided fastener stringers. 3,087,217, 4–30–63, Cl. 24—205.11.

Morin, Louis H. Lock slider for one-sided separable fastener stringers. 3,093,875, 6–18–63, Cl. 24—205.14.

Morin, Louis H. Slider for one-sided separable fasteners. 3,093,876, 6–18–63, Cl. 24—205.14.

Morin, Louis H. Speed reducer employing a timing chain control. 3,094,884, 6–25–63, Cl. 74—804.

Morin, Louis H. One-sided separable fastener. 3,098,277, 7–23–63, Cl. 24—205.1.

Morin, Louis H. One-sided separable fastener. 3,100,325, 8–13–63, Cl. 24—205.1.

Morin, Louis H. One-sided separable fastener having means resisting forcible mismeshing. 3,104,437, 9–24–63, Cl. 24—205.1.

Morin, Louis H. Thin walled lock slider for one-sided separable fasteners. 3,108,347, 10–29–63, Cl. 24—205.14.

Morin, Louis H. Dual concealed separable fastener. 3,110,947, 11–19–63, Cl. 24—205.12.

Morin, Louis H. One-sided thin wall separable fastener stringer. 3,114,952, 12–24–63, Cl. 24—205.1.

Morin, Louis H. Dual concealed separable fastener. 3,114,954, 12–24–63, Cl. 24—205.12.

Morin, Louis H. One-sided separable fastener stringer. 3,115,690, 12–31–63, Cl. 24—205.1.

Morin, Louis H. V-belt speed reducer. 3,115,794, 12–31–63, Cl. 74—797.

Morin, Louis H. Belt speed reducer employing multiple groove pulleys. 3,115,795, 12–31–63, Cl. 74—797.

Morin, Lucille T.: *See*—
Haldeman, Robert G., Morin, and Matsuda. 3,075,013.

Moring, Walter G., Jr.: *See*—
Adler, Clarence E., and Moring. 3,099,214.

Morlondo, Roberto: *See*—
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Morisawa, Nobuo. Ratchet wheel stopping apparatus in photographic composing machines. 3,109,314, 11–5–63, Cl. 74—152.

Morita, Junko: *See*—
Sasaki, Kanzo, and Morita. 3,071,511.

Morita, Katsura, to Takeda Chemical Industries, Ltd. Pyrazole derivatives in the pregnane series. 3,088,944, 5–7–63, Cl. 260—239.5.

Moritz, Harold M. Scroll and case. 3,073,048, 1–15–63, Cl. 40—85.

Moritz, Johannes H.: *See*—
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Moriya, Ikuro, to Victor Co. of Japan, Ltd. Severing device for recorded magnetic recording sheets in a magnetic recorder/reproducer. 3,085,728, 4–16–63, Cl. 225—89.

Moriya, Ikuro, to Victor Co. of Japan, Ltd. Magnetic transducer with sequentially scanning heads. 3,103,880, 10–1–63, Cl. 179—100.2.

Moriya, Ikuro, to Victor Co. of Japan, Ltd. Rewinding device for magnetic sheets. 3,110,451, 11–12–63, Cl. 242—55.

Morkoski, James, to International Harvester Co. Cylludrical plow. 3,080,932, 3–12–63, Cl. 172—557.

Morkoski, James, C. Boetto, J. L. Bauman, and L. D. Westerfield, to International Harvester Co. Front mounted cultivator. 3,080,930, 3–12–63, Cl. 172—298.

Morkoski, James, and J. R. Timberlake, to International Harvester Co. Cotton picker drum structure with integral fan. 3,114,227, 12–17–63, Cl. 56—12.

Morlen, Jon R., to Calco Mfg. Co. Rotary drive actuating mechanism. 3,113,473, 12–10–63, Cl. 74—785.

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May, Gordon C., and Morley. 3,091,925.

Morley, Frederick W. W., W. H. Wilkinson, and C. S. Broad, to Rolls-Royce Ltd., and Delaney Gallay Ltd. Labyrinth seals. 3,082,010, 3–19–63, Cl. 277—16.

Morley, Frederick W. W., and W. H. Wilkinson, to Rolls-Royce Ltd. Labyrinth seals. 3,092,393, 6–4–63, Cl. 277—16.

Morley, Frederick W. W., D. M. Anley, and G. P. Torrance, to Rolls-Royce Ltd. Gas turbine engines. 3,108,434, 10–29–63, Cl. 60—39.07.

Morley, James P., and R. W. Blair, to Chicago Rawhide Mfg. Co. Polytetrafluoroethylene bushing-type bearing and method of forming same. 3,072,449, 1–8–63, Cl. 308—238.

Morley, Richard E., and C. J. Mazzola, to Laboratory for electronics, Inc. Magnetic disc storage device. 3,110,889, 11–12–63, Cl. 340—174.1.

Morley, Thomas J. Steam quality indicator. 3,100,395, 8–13–63, Cl. 73—192.

Morlik, Andrew L., to Saginaw Products Corp. Adjustable wheeled assembly. 3,085,285, 4–16–63, Cl. 16—35.

Morlock, Harry A., to General Refractories Co. Comolded magnesite-chromite tuyere. 3,084,924, 4–9–63, Cl. 266—41.

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Burgess, Frank H., Mathus, and Morningstar. 3,074,546.

Morningstar, Otto: *See*—
Burgess, Frank H., Mathus, and Morningstar. 3,074,546.

Moro, Antonio: *See*—
Gustin, Giuliano, and Moro. 3,074,366.

Moro, Dominik J.: *See*—
Kaplan, Louis G., and Moro. 3,070,673.

Moroney, John J., to The Torrington Co. Two-way thrust bearing. 3,103,394, 9–10–63, Cl. 308—219.

Morosini, Achille. Revolving beating up tool and shuttle for ribbon looms. 3,115,903, 12–31–63, Cl. 139—191.

Morpul, Inc.: *See*—
Minton, Clarence W. 3,078,960.
Minton, Clarence W. 3,103,302.

Morr, Ralph V., V. C. Fuhrwerk, W. D. Fent, and R. E. Crown, to Avco Corp. Rake bar bearing mount. 3,103,778, 9–17–63, Cl. 56—377.

Morrell, Clarence S., to Advance Mfg. Co., Inc. Spring hinge and method of assembling same. 3,106,010, 10–8–63, Cl. 29—11.

Morrell, Clyde E., to The Standard Oil Co. Folding toothbrush. 3,105,259, 10–1–63, Cl. 15—144.

Morrell, Gerald. Process for removing nicotine from tobacco. 3,115,883, 12–31–63, Cl. 131—140.

Morrill, Charles D., and R. C. Weyrick, to Goodyear Aircraft Corp. Automatic gain control circuit. 3,082,881, 3–19–63, Cl. 330—59.

Morrill, Frank B., to Crompton & Knowles Corp. Apparatus for breaking fibrous masses. 3,099,047, 7–30–63, Cl. 19—81.

Morrill, Henry L.: *See*—
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Morrill, Louis R. Automatic rotation balancer. Re. 25,383, 5–14–63, Cl. 301—5.

Morrill, Richard W.: *See*—
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Morrill, Vaughan. Apparatus for shrinking tubular glass blank. 3,091,105, 5–28–63, Cl. 65—271.

Morrill, Vaughan, Jr. Method for shaping a glass tube preform. 3,091,104, 5–28–63, Cl. 65—23.

Morrill, Wayne J. Winding machine. 3,081,043, 3–12–63, Cl. 242—1.1.

Morris, Alberto J., to R. A. Lister & Co. Ltd. Pistons for internal combustion engines. 3,112,738, 12–3–63, Cl. 123—32.

Morris, Arthur L.: *See*—
Agius, Peter J. V. J., Morris, and Winward. 3,083,160.

Morris, Bert M., Co.: *See*—
Glassco, Robert B., and Craig. 3,101,282.

Morris, Bertram H. Magnetic paint brush holder. 3,088,703, 5–7–63, Cl. 248—226.

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Morris, Evelyn C. and B. B. 3,107,092.

Morris, Blanchard T. Article holder. 3,108,695, 10–29–63, Cl. 211—65.

Morris, Charles H. F., to Radio Corp. of America. Storage electrode having on the order of 10^8 metal conductors per square inch. 3,109,954, 11–5–63, Cl. 313—329.

Morris, Charles W. Device for modifying exhaust gases from internal combustion engines. 3,083,525, 4–2–63, Cl. 60—30.

Morris, Chester L.: *See*—
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Morris, Cyril: *See*—
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Gamlen, George A., Morris, Scott, and Twitchett. 3,116,275.

Morris, Dorsey J.: *See*—
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Morris, Drew, to General Electric Co. Rotor assembly air baffle. 3,112,915, 12–3–63, Cl. 253—77.

Morris, Edward C.: *See*—
Abernathy, Quincy W., English, and Morris. 3,081,934.

Morris, Edward H.: *See*—
Goden, Thomas E., Daners, and Morris. 3,080,928.

Morris, Evelyn C. and B. B. Motor driven jumping ropes rotatable in opposite directions. 3,107,092, 10–15–63, Cl. 272—75.

Morris, Frances C. Beautician's accessory holder. 3,097,656, 7–16–63, Cl. 132—1.

Morris, Frank A., to General Dynamics Corp. Data transmitting and recording system. 3,083,356, 3–26–63, Cl. 340—174.1.

Morris, George A., to Universal Oil Seal Co. Fluid dispensing system. 3,104,826, 9–24–63, Cl. 239—424.

Morris, George A., and C. W. Saunders. Pin-type fastener. 3,085,307, 4–16–63, Cl. 24—161.

Morris, George E. Dentifrice. 3,081,235, 3–12–63, Cl. 167—93.

Morris, George F., and C. H. Reynolds, to General Dynamics Corp. R.M.S. voltage regulator. 3,084,325, 4–2–63, Cl. 323—38.

Morris, George H., Jr.: *See*—
Leaycraft, Edgar C., and Morris. 3,083,164.

Morris, George R., and J. W. Rackle, to Ford Motor Co. Transmission shift controlling mechanism. 3,106,996, 10–15–63, Cl. 192—3.5.

Morris, George V., to Zenith Radio Corp. Remote control apparatus. 3,116,368, 12–31–63, Cl. 179—1.

Morris, George V., to Zenith Radio Corp. Remote control system with audio and volume control from a single transducer. 3,116,454, 12–31–63, Cl. 325—391.

Morris, Harold D., to Systron-Donner Corp. Position detecting transducer. 3,074,279, 1–22–63, Cl. 73—517.

Morris, Harold D., and J. T. Buckingham, to Systron-Donnes Corp. Stable zero electronic circuitry. 3,109,145, 10–29–63, Cl. 328—1.

Morris, Herbert, Ltd., Express Works: *See*—
Divers, Reginald A. F. 3,102,304.

Morris, Jack P., and C. J. Meeske, to Reichhold Chemicals, Inc. Triameric synthetic resin compositions and method of making the same. 3,088,926, 5–7–63, Cl. 260—21.

Morris, Jack P., and W. Morris. Metering mixing spray equipment. 3,093,311 6–11–63, Cl. 239—142.

Morris, James A.: *See*—
Landes, Benjamin D., and Morris. 3,110,448.

Morris, James E., to Mollns Machine Co. Ltd. Continuous rod cigarette-making machines. 3,095,883, 7–2–63, Cl. 131—84.

Morris, Joel C. Electronic fume and odor incinerator. 3,085,001, 4–9–63, Cl. 23—277.

Morris, John E.: *See*—
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Morris, John M., to Chain Belt Co. Amplitude control of resonant vibration exciter. 3,095,747, 7–2–63, Cl. 74—26.

Morris, John M., to Chain Belt Co. Fluidized coating machine. 3,097,958, 7–16–63, Cl. 117—20.

Morris, John M., to Chain Belt Co. Amplitude control of constant speed vibratory equipment. 3,112,653, 12–3–63, Cl. 74—61.

Morris, John M., and R. M. Carrier, Jr., to Chain Belt Co. Apparatus for continuously weighing aggregate. 3,112,000, 11–26–63, Cl. 177—54.

Morris, Joseph: *See*—
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Calkins, Russel C., Mock, and Morris. 3,083,079.
Howe, Joseph H., and Morris. 3,078,294.
Howe, Joseph H., and Morris. 3,082,081.

Morris, Lewis D., and R. S. Brookman, to Dustex Corp. Dust collector. 3,083,515, 4–2–63, Cl. 55—290.

Morris, Neil E.: *See*—
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Morris, Philip, Inc.: *See*—
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Bavley, Abraham, Resnik, and Robb. 3,111,951.
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La Cas, George A. 3,080,998.
O'Keeffe, Andrew E., Smith, and Lichtenstein. 3,115,772.
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Morris, Raymond A. Anal irrigator. 3,075,526, 1–29–63, Cl. 128—227.

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Morris, Roger E., and R. D. Taylor, to The B. F. Goodrich Co. Novel organo phosphorous antioxidant-stabilizers and stabilized compositions containing same. 3,112,286, 11–26–63, Cl. 260—29.7.

Morris, Rupert C., to Shell Oil Co. Stabilized with 3,5-dialkyl-4 hydroxybenzyl alcohol compositions. 3,085,003, 4–9–63, Cl. 44—78.

Morris, Rupert C., and W. J. Sullivan, to Shell Oil Co. Hydroxybenzyl carbamates and thiocarbamates. 3,081,335, 3–12–63 Cl. 260—471.

Morris, Rupert C., and K. J. Sax, to Shell Oil Co. Polynuclear polyamines. 3,098,841, 7–23–63, Cl. 260—45.9.

Morris, Rupert C., A. L. Rocklin, and K. J. Sax, to Shell Oil Co. Hydroxybenzyl esters. 3,116,305, 12–31–63, Cl. 260—410.5

Morris, Thomas J.: *See*—
Osborne, Richard W., and Morris. 3,087,082.

Morris, Walter: *See*—
Morris, Jack P. and W. 3,093,311.

Morris, Walter C. Portable index travel file and vehicle arm rest. 3,083,998, 4–2–63, Cl. 297—194.

Morris, William A., to Rockwell Mfg. Co. Method and apparatus for use in valve tests and assembly. 3,088,312, 5–7–63, Cl. 73—46.

Morris, William C., to General Electric Co. Polyphase electromagnetic protective relay. 3,092,758, 6–4–63, Cl. 317—27.

Morris, William E.: *See*—
Gewecke, Theodore H., Broman, and Morris. 3,087,491.
Kruger, James B., and Bordeau. 3,111,756.

Morrison, Albert R., and J. A. Apellaniz, to Owens-Corning Fiberglass Corp. Heat setting of binder of fibrous masses. 3,096,161, 7–2–63, Cl. 34—1.

Morrison, Charles S., F. D. Jones, and J. D. Wilkins, to Deere & Co. Corn harvester having replaceable treating units. 3,112,752, 12–3–63, Cl. 130—5.

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Morrison, Donald A. R., to General Electric Co. Drive mechanism for washing machine. 3,090,472, 5–21–63, Cl. 192—12.

Morrison, Donald R.: *See*—
Koda, Arthur J., and Morrison. 3,114,018.

Morrison, Douglas L., and E. J. Le Brun, Jr., to Sperry Rand Corp. Card receivers. 3,083,013, 3–26–63, Cl. 271—86.

Morrison, Edwin A.: *See*—
Lyall, Charles E., and Morrison. 3,105,512.
Schulze, Robert E., and Morrison. 3,083,728.

Morrison, George F., and H. C. Frentzel, to The Morrison Co. Well system. 3,095,928, 7–2–63, Cl. 166—75.

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Williams, Charles R., Morrison, Leach, and Reely. 3,106,635.

Morrison, Ian: *See*—
Brunton, Phillip E., and Morrison. 3,092,275.

Morrison, Ian H., to United Kingdom Atomic Energy Authority. Fuel elements for nuclear reactors. 3,086,934, 4–23–63, Cl. 204—193.2.

Morrison, James: *See*—
Lander, James J., and Morrison. 3,093,507.

Morrison, Jay W. Lowered multi-skirt train high voltage suspension insulator. 3,115,543, 12–24–63, Cl. 174—179.

Morrison, Joseph J.: *See*—
Holl, Walter V., and Morrison. 3,091,147.

Morrison, Joseph T., to Cogsdill Tool Products, Inc. Metal-working tool. 3,099,070, 7–30–63, Cl. 29—90.

Morrison, Mary B.: *See*—
Morrison, William A. 3,085,555.

Morrison, Price W., to The Springs Cotton Mills. Means for controlling loom harnesses. 3,080,891, 3–12–63, Cl. 139—80.

Morrison, Ralph A., to United Shoe Machinery Corp. Automatic rivet setting tools. 3,095,106, 6–25–63, Cl. 218—42.

Morrison, Thomas G.: *See*—
Kamp, Ewald A., Morrison, and Solarski. 3,081,703.

Morrison, Wilbert H., and D. W. Williams, to Clevite Corp. Method for making a bimetallic strip for bearings. 3,093,885, 6–18–63, Cl. 29—149.5.

Morrison, Wilbert H., and R. L. Slater, to Clevite Corp. Bimetallic bearing structure and method for producing same. 3,104,135, 9–17–63, Cl. 308—237.

Morrison, Willard L., to Liquefreeze Co., Inc. Freight car. 3,071,084, 1–1–63, Cl. 105—366.

Morrison, Willard L., to Liquefreeze Co., Inc. Shipper container. 3,074,586, 1—2–63, Cl. 220—9.

Morrison, Willard L., to Liquefreeze Co., Inc. Method of cooling frozen food to sub-zero temperatures. 3,079,762, 3–5–63, Cl. 62—64.

Morrison, Willard L., to Liquefreeze Co., Inc. Method of freezing and shipping foodstuffs. 3,085,884, 4–16–63, Cl. 99—192.

Morrison, Willard L., to Liquefreeze Co., Inc. Gas locks. 3,090,134, 5–21–63, Cl. 34—242.

Morrison, Willard L., to Liquefreeze Co., Inc. Insulated container. 3,090,517, 5–21–63, Cl. 220—9.

Morrison, Willard L., to Liquefreeze Co., Inc. Insulating container. 3,093,259, 6–11–63, Cl. 220—9.

Morrison, Willard L., to Liquefreeze Co., Inc. Means for moving shipper containers off of and onto a road vehicle. 3,095,989, 7–2–63, Cl. 214—85.

Morrison, Willard L., to Liquefreeze Co., Inc. Method of chilling, storing and shipping perishable materials. 3,096,626, 7–9–63, Cl. 62—60.

Morrison, Willard L., to Liquefreeze Co., Inc. Apparatus for quick freezing of bakery goods. 3,096,627, 7–9–63, Cl. 62—178.

Morrison, Willard L., to Refluefler Corp. Method and apparatus for storing and shipping perishable material. 3,100,971, 8–20–63, Cl. 62—64.

Morrison, Willard L., to The Union Stock Yard and Transit Co. of Chicago. Method of tenderizing meat. 3,102,819, 9–3–63, Cl. 99—194.

Morrison, Willard L., to Liquefreeze Co., Inc. Method for freezing food. 3,104,977, 9–24–63, Cl. 99—192.

Morrison, Willard L., to Liquefreeze Co., Inc. Insulated container. 3,106,307, 10–8–63, Cl. 220—9.

Morrison, Willard L. Method and apparatus for freezing hot cooked food. 3,114,248, 12–17–63, Cl. 62—64.

Morrison, Willard L., to Liquefreeze Co., Inc. Insulated freight car. 3,115,982, 12–31–63, Cl. 220—1.5.

Morrison, William A., deceased, by M. R. Morrison, executrix, to Ingersoll-Rand Co. Pneumatic hammer rock drill. 3,085,535, 4–16–63, Cl. 121—10.

Morrison, William A., to Reeves Soundcraft Corp. Container and reel for tapes. 3,095,969, 7–2–63, Cl. 206—53.

Morrison, William E.: *See*—
Jenn, Louis J., and Morrison. 3,085,647.
Jenn, Louis J., and Morrison. 3,110,357.

Morrison, William L. Automobile car washer. 3,114,924, 12–24–63, Cl. 15—97.

Morrone, Francis: *See*—
Kilburn, John E., and Morrone. 3,109,916.

Morrone, John J.: *See*—
Blowney, David P., Brannin, Morrone, Wilcox, and Zupanick. 3,097,351.
Lenefsky, Selig, Morrone, and Treffelsen. 3,105,660.

Morrow, David, to United States of America, Navy. Inflight refueling system. 3,100,614, 8–13–63, Cl. 244—135.

Morrow, Franklin C., and L. F. Bramble, to Gulf States Asphalt Co., Inc. Bituminous sealing composition. 3,073,710, 1–15–63, Cl. 106—281.

Morrow, John B., to Brunswick Corp. Fishing reel with reciprocated spool. 3,074,665, 1–22–63, Cl. 242—84.21.

Morrow, Joseph H., to Fuller Co. Apparatus for treating gaseous and nongaseous matter. 3,087,255, 4–30–63, Cl. 34—167.

Morrow, Merritt M., and W. C. Knox, Jr.; said Knox assor. to said Morrow. Mortician's body cavity injector. 3,104,448, 9–24–63, Cl. 27—24.

Morrow, Robert C. Positioning and maintaining device for roughed-in service pipes. 3,097,843, 7–16–63, Cl. 269—40.

Morrow, Robert D., to Product Development Associates, Ltd. Furnace system. 3,097,686, 7–16–63, Cl. 158—1.

Morschel, Franz. Time switch with mechanical clutch actuating arrangement. 3,114,013, 12–10–63, Cl. 200—38.

Morse Chain Co.: *See*—
Eastep, Calvin W. 3,074,290.

Morse, Edward A., to Johnson & Johnson. Absorbent product. 3,078,849, 2–26–63, Cl. 128—290.

Morse, George C., to Eitel-McCullough, Inc. Electron gun. 3,090,884, 5–21–63, Cl. 313—256.

Morse, Hugh B., to Avery Industries, Inc. Continuous packaging device. 3,071,905, 1–8–63, Cl. 53—22.

Morse, Hugh B., to Avery Industries, Inc. Heater assembly. 3,109,081, 10–29–63, Cl. 219—19.

Morse Instrument Co., The: *See*—
Payerle, Frank S., and Gressard. 3,091,130.

Morse, Joe V., and W. E. Haberer, to Jersey Production Research Co. Prevention of erosion of pipe strings in multiply tubingless completed oil and gas wells. 3,075,582, 1–29–63, Cl. 166—46.

Morse, John E.: *See*—
Eagle, John H., and Morse. 3,091,034.

Morse, Leighton L., to United States of America, Navy. Rectilinear recording stylus. 3,115,382, 12–24–63, Cl. 346—114.

Morse, Meroe M.: *See*—
Green, Milton, Morse, and Simon. 3,091,530.

Morse, Milton. Transparent switch boot. 3,090,855, 5–21–63, Cl. 200—168.

Morse, Park L.: *See*—
Dorius, Carl B., Jones, and Morse. 3,074,807.

Morse, Philip, to Nutrilite Products, Inc. Non deliquescent vitamin C concentrate. 3,086,915, 4–23–63, Cl. 195—2.

Morse, Raymond L.: *See*—
Carter, Paul H., Marion, and Morse. 3,070,933.

Morse, Richard A.: *See*—
Campion, Frank E., Glass, and Morse. 3,115,928.

Morse, Richard A., to Gulf Research & Development Co. Method of heating underground formations around the borehole of a well. 3,072,188, 1–8–63, Cl. 166—25.

Morse, Richard W.: *See*—
Green, Julius, Morse, and Westfall. 3,095,326.

Morse, Rollin D.: *See*—
Bigliano, Robert P., Meyer, and Morse. 3,102,534.

Morse Signal Devices, Inc.: *See*—
Ward, Leslie A. 3,085,235.

Morse, Stanley H., to Prumore Sales, Inc. Refrigeration systems. 3,091,945, 6–4–63, Cl. 62—299.

Morse, Stewart W., Jr.: *See*—
Soehngen, John W., Morse, and Cipriani. 3,084,414.

Mortensen, Peter E., and R. V. Pomeroy, to Omark Industries, Inc. Welding stud holder and loading apparatus. 3,073,947, 1–15–63, Cl. 219—98.

Mortensen, Rudolf W., to Dorr Woolen Co. Spindle brake releasing attachment. 3,108,428, 10–29–63, Cl. 57—78.

Morter, Robert L., Jr.: *See*—
Papero, Patrick V., Jr., and Morter. 3,113,120.

Mortier, Lucien A. Carriage for handling and displacing cable reels. 3,098,623, 7–23–63, Cl. 242—86.5.

Mortimer, Frank R., to Dunlop Rubber Co. Ltd. Vehicle arrester gear with braking device for aircraft. 3,114,522, 12–17–63, Cl. 244—110.

Mortimer, Frank R., to Dunlop Rubber Co. Ltd. Fluid pressure surge dampers particularly for braking systems. 3,115,156, 12–24–63, Cl. 137—513.3.

Mortimer, Frank R., and E. A. Cardoe, to Dunlop Rubber Co. Ltd. Pneumatic operating device. 3,078,679, 2–26–63, Cl. 60—62.6.

Mortimer, George A., to Monsanto Chemical Co. Syntheals of nitrate esters. 3,079,425, 2–26–63, Cl. 260—467.

Mortimer, Harry T. Nondestructive sensing of magnetic storage elements. 3,075,180, 1–22–63, Cl. 340—174.

Mortimer, Noel R. F., to Vokes Ltd. Apparatus for feeding tobacco to cigarette-making machines. 3,099,492, 7–30–63, Cl. 302—28.

Mortimer, Noel R. F., to Vokes Ltd. Apparatus for distributing tobacco. 3,106,427, 10–8–63, Cl. 302—28.

Mortin, Arthur K., and W. D. Boyd; said Mortin assor. to Massey-Ferguson Inc., and said Boyd assor. to The Bendix Corp. Vaporizing device for LPG engines. 3,114,357, 12–17–63, Cl. 123—120.

Mortley, Wilfrid S., and A. D. Slocombe, to Marconi's Wireless Telegraph Co. Ltd. Radar systems to reduce clutter. 3,091,763, 5–28–63, Cl. 343—17.1.

Mortlock, Joseph R., K. J. R. Wilkinson, and P. Richardson, to Associated Electrical Industries (Ruby) Ltd. Impedance protective systems. 3,099,775, 7–30–63, Cl. 317—36.

Morton, David C., and P. J. Packman, to Baker Perkins Ltd. Handling of flat articles. 3,084,783, 4–9–63, Cl. 198—35.

Morton Foods, Inc.: *See*—
Anderson, Edward E., and Brown. 3,083,103.

Morton, Geoffrey W., to Canada, Her Majesty the Queen in right of, as represented by the Minister of National Defense. Memory jig. 3,073,588, 1–15–63, Cl. 269—40.

Morton, Glen R. Die casting machine plunger tip. 3,092,880, 6–11–63, Cl. 22—68.

Morton, James S.: *See*—
Littlewood, Geoffrey, and Morton. 3,088,181.

Morton, Leonard W.: *See*—
Keen, William R., Harris, Morton, and Satterfield. 3,086,347.

Morton, Lester C., to National Distillers and Chemical Corp. Adapter washer for tire valves. 3,087,529, 4–30–63, Cl. 152—427.

Morton, Lloyd, Jr.: *See*—
Clayton, John, Jr., and Morton. 3,105,216.

Morton Machine Co. Ltd.: *See*—
Steele, Thomas. 3,114,389.

Morton, Peter H.: *See*—
Fentiman, William P., Morton, Ames, and Marsden. 3,105,759.

Morton Salt Co.: *See*—
Esthus, Norman L. 3,093,272.
Grady, James M. 3,115,994.
O'Connor, Donal J. 3,081,005.
Patton, Richard A., and Baugh. 3,111,376.
Patton, Richard A., Baugh, and Suriano. 3,111,385.
Wood, Richard A. 3,113,250.

Morton, Thomas R., to Denver Equipment Co. Centrifugal separation method and means. 3,091,334, 5–28–63, Cl. 209—211.

Morton, William D., Jr.: *See*—
Bloom, Aaron, and Morton. 3,073,302.

Morton, William D., Jr., to United States of America, Air Force. Mask harness. 3,077,880, 2–19–63, Cl. 128—141.

Mortonson, Robert J.: *See*—
Crosby, Ralph M., Kander, and Mortonson. 3,088,451.

Morway, Arnold J.: *See*—
Munday, John C., Rogers, and Morway. 3,095,314.
Rudel, Harry W., and Morway. 3,080,330.

Morway, Arnold J., to Esso Research and Engineering Co. Mixed-salt lubricants. 3,071,547, 1–1–63, Cl. 252—39.

Morway, Arnold J., to Esso Research and Engineering Co. Oil compositions containing soap-salt mixtures. 3,077,450, 2–12–63, Cl. 252—39.

Morway, Arnold J., to Esso Research and Engineering Co. Oil compositions containing sodium nitrite. 3,089,848, 5–14–63, Cl. 252—18.

Morway, Arnold J., to Esso Research and Engineering Co. Lubricants prepared from iso-oleic acid. 3,098,822, 7–23–63, Cl. 252—39.

Morway, Arnold J., to Esso Research and Engineering Co. Lubricants containing thickeners prepared from tall oil. 3,098,823, 7–23–63, Cl. 252—39.

Morway, Arnold J., to Esso Research and Engineering Co. Lubricant containing a hindered phenol. 3,107,220, 10–15–63, Cl. 252—18.

Morway, Arnold J., and C. L. Knapp, Jr., to Esso Research and Engineering Co. Method for dispersing sodium nitrite in grease compositions. 3,078,226, 2–19–63, Cl. 252—18.

Morway, Arnold J., and A. H. Matuszak, to Esso Research and Engineering Co. Lubricating composition. 3,088,912, 5–7–63, Cl. 252—40.7.

Morway, Arnold J., J. M. Kelley, Jr., C. W. Seelbach, and D. L. Cottle, to Esso Research and Engineering Co. Lubricants containing polybutene-1. 3,098,042, 7–16–63, Cl. 252—39.

Morway, Arnold J., and G. M. Coats, to Esso Research and Engineering Co. Dry polyolefin/oil blends. 3,114,708, 12–17–63, Cl. 252—12.

Mosaic Tile Co., The: *See*—
Albertson, William C., Jr. 3,106,293.
Jordan, Roy E., Jr., Mays, and Claus. 3,084,402.

Mosbacher, Bruce H., to Roper Hydraulics, Inc. Pumps, motors and like devices. 3,106,103, 10–8–63, Cl. 103—2.

Moscovsky Experimentalny Zavod Iskoostvennoi Kozhi e mekha: *See*—
Sapllevsky, Piotr F., Filimoshina, Klimkova, Zilpert, and Garkavi. 3,087,224.
Sapllevsky, Piotr F., Garkavi, Mikhailov, Filimoshina, Vlasova, and Czerbin. 3,087,225.

Mosebach Mfg. Co.: *See*—
Mittelstadt, Clarence F. 3,102,247.

Moseley, F. L., Co.: *See*—
Boots, David A. 3,103,232.
Moseley, Francis L. 3,075,132.

Moseley, Francis L., to F. L. Moseley Co. Servosystem with non-contacting electrical transducers. 3,075,132, 1–22–63, Cl. 318—28.

Moseley, Kemper N. Walking beam conveyor. 3,084,787, 4–9–63, Cl. 198—219.

Mosely, Donald E.: *See*—
Lunden, Sidney L., and Mosely. 3,104,005.

Mosely, Robert B., to Shell Oil Co. Naphtha reforming with noble metal catalyst. 3,089,845, 5–14–63, Cl. 208—139.

Moseman, Samuel B.: *See*—
Watson, Herbert M., and Moseman. 3,101,318.

Moser, Charles E.: *See*—
Cook, Clayton M., and Moser. 3,076,218.

Moser, Eduard, and J. Koch, to Ciba Ltd. New dyestuffs. 3,088,949, 5–7–63, Cl. 260—281.

Moser, Hans. Pump with lightweight rotor running in liquid. 3,114,323, 12–17–63, Cl. 103—87.

Moser, Henry W.: *See*—
Goettsch, Walter J., and Moser. 3,107,589.

Moser, Henry W., to S. M. Langston Co. Web slitting and winding machines. 3,072,353, 1–8–63, Cl. 242—56.4.

Moser, Henry W., to Samuel M. Langston Co. Machines for performing operations on sheet materials. 3,096,708, 7–9–63, Cl. 100—50.

Moser, Henry W., and H. Weber, to Samuel M. Langston Co. Edge piercing means and blank conveying means. 3,102,632, 9–3–63, Cl. 198—178.

Moser, Joseph R., and O. J. Struger, to Allen-Bradley Co. Backlash take-up system. 3,114,870, 12–17–63, Cl. 318—28.

Moser, Robert, and J. Morel. Highly sensitive relay with permanent magnet and shunt. 3,113,251, 12–3–63, Cl. 317—171.

Moser, Robert L.: *See*—
McAfee, Robert E., Eddy, and Moser. 3,083,790.

Moses, Amaziah J., and G. B. Scanland, to United States Pipe and Foundry Co. Weighing systems of load-cell electronic type with vibration dampening means. 3,091,303, 5–28–63, Cl. 177—208.

Moses, Edmund Q.: *See*—
Laughlin, Myron P., and Moses. 3,081,004.

Moses, Ralph W.: *See*—
Green, Larry Q., and Moses. 3,102,862.
Green, Larry Q., and Moses. 3,105,824.

Mosettig, Erich: *See*—
Sato, Yoshio, Mosettig, and Ikekawa. 3,105,068.

Moshay, Joseph S. Instrument for playing guitars, banjos and the like. 3,112,668, 12–3–63, Cl. 84—322.

Moshelm, Albert. Sponge type applicator. 3,081,476, 3–19–63, Cl. 15—244.

Mosher, Donald L.: *See*—
Wilson, Willie C., and Mosher. 3,076,344.

Mosher, George E.: *See*—
Grant, Frederic F., and Mosher. 3,084,880.

Mosher, George W. Spinner toy. 3,081,578, 3–19–63, Cl. 46—72.

Mosher, Hugh M., and W. J. Moore, to Minerals & Chemicals Philipp Corp. Method for stabilizing viscosity of composite starch adhesives pastes. 3,081,184, 3–12–63, Cl. 106—213.

Mosher, James K., to Schultz Tool and Mfg. Co. Servicing nozzle. 3,086,565, 4–23–63, Cl. 141—347.

Mosher, James K., to Schulz Tool and Mfg. Co. Aircraft in-flight refueling system. 3,091,419, 5–28–63, Cl. 244—135.

Mosher, James R., to Bean Rubber Mfg. Co. Shipping pad. 3,082,896, 3–26–63, Cl. 217—53.

Mosher, James W.: *See*—
Schenk, Bernard H., and Mosher. 3,104,682.

Mosher, Melville C.: *See*—
Gustavson, Roger W., and Mosher. 3,102,557.

Mosher, Robert A., to Standard Oil Co. Nonyl pyridine catalyst for polyurethane reaction. 3,075,951, 1–29–63, Cl. 260—75.

Mosher, Robert R.: *See*—
Schouw, Arthur C., and Mosher. 3,094,999.

Mosher, Russell Y.: *See*—
Stark, John F., and Mosher. 3,075,876.

Mosier, Benjamin: *See*—
Burkhardt, Joseph A., Mosier, Robinson, and Caldwell. 3,104,716.
Robinson, Leon H., Jr., Mosier, and Burkhardt. 3,104,715.

Mosier, Jeanette E. J. Self-supporting sanitary napkin. 3,073,309, 1–15–63, Cl. 128—290.

Mosier, Jeanette E. J. Catamenial appliance. 3,092,109, 6–4–63, Cl. 128—289.

Mosier, Kenneth C. Air valve. 3,086,542, 4–23–63, Cl. 137—102.

Mosier, Loren C., to Cities Service Research and Development Co. Continuous gas chromatography. 3,078,647, 2–26–63, Cl. 55—197.

Mosig, Willy, O. Meiszahl, H. Schilling, and W. Kohler, to VEB Werkmaschinenbau Apolda. Process for the production of warp knitted plush fabrics. 3,115,023, 12–24–63, Cl. 66—84.

Mosing, Lionel W.: *See*—
Mattke, Charles F., and Mosing. 3,073,911.

Mosites, George A. Valves. 3,072,139, 1–8–63, Cl. 137—375.

Moskalov, Alexey G.: *See*—
Arshinov, Serguei I., Zolotariov, Ivanov, Lifshits, Moskalov, and Radovitski. 3,107,478.

Moskovitz, Irving, ½ to E. J. White. Safety device for food waste disposer. 3,081,042, 3–12–63, Cl. 241—36.

Moskovitz, Milton A. Axial and radial thrust absorbing connector unit. 3,107,949, 10–22–63, Cl. 308—35.

Moskow, Eugene D., to Benbow Mfg. Corp. Pressure regulator with positive shutoff and relief means. 3,072,135, 1–8–63, Cl. 137—116.5.

Moskowitz, Lester R., to Zeta-Northern Co. Staff support or the like. 3,082,982, 3–26–63, Cl. 248—44.

Mosler Lock Co., The: *See*—
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Maynard, Robert W. 3,076,329.
Maynard, Robert W. 3,106,083.
Maynard, Robert W. 3,111,022.

Mosler Harbor Metal Products Corp.: *See*—
Bartlett, Allen R. 3,115,763.

Mosley Electronics, Inc.: *See*—
St. Vrain, Wallace E., and Locke. 3,098,231.

Mosman, Donald F. Battery bulb connection for flashlights. 3,097,799. 7–16–63, Cl. 240—10.66.

Mospan, Nicholas R. Golf club head and shaft. 3,088,736, 5–7–63, Cl. 273—80.

Moss, Ashley R., to National Research Development Corp. High temperature torches. 3,104,310, 9–17–63, Cl. 219—75.

Moss, Charles E.: *See*—
Cheeseman, Ian C., and Moss. 3,096,041.
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Moss, Coy L.: *See*—
Eddy, William R., and Moss. 3,087,645.

Moss, Harold J., to Magic Chef, Inc. Oven door hinge. 3,092,097, 6–4–63, Cl. 126—194.

Moss, Henry V., to Monsanto Chemical Co. Dentifrice comprising insoluble sodium metaphosphate and a cadmium, tin, zinc, manganese or iron compound to inhibit calcium ion sequestering. 3,095,356, 6–25–63, Cl. 167—93.

Moss, Hoyle G., and R. C. Schwartz, to Botany Industries, Inc. Automatic control system for producing a bat of uniform thickness, in lint cleaners. 3,108,332, 10–29–63, Cl. 19—202.

Moss, Hoyle G., R. C. Schwartz, and T. R. Allen, to Botany Industries, Inc. Cotton sampling apparatus. 3,110,182, 11–12–63, Cl. 73—421.

Moss, James R., to Holley Carburetor Co. Indexing mechanism. 3,076,351, 2–5–63, Cl. 74—394.

Moss, John L., and W. J. Browner, to Relaxacizor, Inc. Generator for electronic muscle stimulator. 3,108,597, 10–29–63, Cl. 128—422.

Moss, L. W.: *See*—
Dwyer, Maurice J. 3,095,172.

Moss, Norman, and M. J. Broad, to The Plessey Co. Ltd. Servo operated hydraulic valves. 3,106,224, 10–8–63, Cl. 137—625.63.

Moss, Norman S., to Wilmot Breeden Ltd. Vehicle door latches. 3,095,671, 7–23–63, Cl. 292—221.

Moss, Philip H.: *See*—
Currier, Vernon A., and Moss. 3,087,966.

Moss, Philip H., to Jefferson Chemical Co., Inc. Method for preparing butadiene dichlorohydrins. 3,093,690, 6–11–63, Cl. 260—634.

Moss, Robert H.: *See*—
Charland, Telesphore I., and Moss. 3,086,068.

Moss, Theron V. Mop construction. 3,115,658, 12–31–63, Cl. 15—229.

Moss, Walter E.: *See*—
Garapolo, Orlando, and Moss. 3,107,709.

Mossberg, Carl W. Method of preforming a coolant type drill. 3,085,453, 4–16–63, Cl. 76—108.

Mosse, Richard W. E., to The Metal Box Co. Ltd. Containers. 3,088,644. 5–7–63, Cl. 229—2.5.

Mosse, Richard W. E., H. Cookson, and P. C. Virgo, to The Metal Box Co. Ltd. Packing machines. 3,083,511, 4–2–63, Cl. 53—64.

Mosse, Richard W. E., and R. D. Partridge, to The Metal Box Co. Ltd. Carton closing apparatus. 3,107,469, 10–22–63, Cl. 53—376.

Mosse, Richard W. E., and R. D. Partridge, to The Metal Box Co. Ltd. Interfitting carton blanks. 3,110,433, 11–12–63, Cl. 229—37.

Mossey, Joseph L., and R. T. Burnett, to the Bendix Corp. Automatic adjuster. 3,074,514, 1–22–63, Cl. 188—79.5.

Mossin, Kaj B., to Novo Terapeutisk Laboratorium A/S. Rotary pump or expansion engine. 3,072,316, 1–8–63, Cl. 230—150.

Mostrong, Casey M. Plant bed shaper. Re. 25,439, 9–3–63, Cl. 172—252.

Moszczynski, Anna E. Apron table. 3,115,639, 12–31–63, Cl. 2—48.

Motan G.m.b.H.: *See*—
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Mote, Morris W.: *See*—
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Mote, Roy F., to H. H. Robertson Co. Wall construction. 3,080,022, 3–5–63, Cl. 189—34.

Mote, Roy F., to H. H. Robertson Co. Cellular floor construction. 3,102,611, 9–3–63, Cl. 189—34.

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Vlahos, Petro. 3,095,304.

Motock, George T., to Olin Mathieson Chemical Corp. Fused bath electrolytic cell. 3,085,967, 4–16–63, Cl. 204—247.

Motock, George T., to Olin Mathieson Chemical Corp. Cathode sealing means for electrolytic cell. 3,085,968, 4–16–63, Cl. 204—247.

Motock, George T., to Olin Mathieson Chemical Corp. Collection device for products of fused salt electrolysis cell. 3,085,969, 4–16–63, Cl. 204—247.

Motor Coils Mfg. Co.: *See*—
Fromm, Marvin M., and Lauro. 3,071,496.

Motor Wheel Corp.: *See*—
Tuttle, Elvin E. 3,113,647.

Motoren-Werke Manheim A.G. Vorm. Benz Abt. Stat. Motorenbau: *See*—
Espenschied, Friedrich. 3,089,471.
Hockel, Hans L., and Strickle. 3,105,470.
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Motorola, Inc.: *See*—
Auld, Samuel H., Jr., and Lear. 3,079,107.
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Birkenes, Bernhard. 3,104,357.
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Cado, Erwin E. 3,090,706.
Cooper, Martin. 3,080,547.
Curry, Arnet A. 3,101,411.
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Da Costa, Harry. 3,102,331.
Da Costa, Harry, and Knowles. 3,075,903.
Dereng, Roman. 3,109,687.
Dosey, Alfred E. 3,101,609.
Firestone, William L. 3,072,849.
Germain, Jack. 3,091,736.
Grace, Billy J., and O'Toole. 3,071,728.
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Hepner, Charles. 3,082,520.
Horn, Karl H., and Shlachter. 3,104,282.
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Huff, Robert S., and Horzick. 3,090,462.
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Knowles, Carl H., and Da Costa. 3,092,522.
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Lear, William P., Sr. 3,075,389.
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Massman, Albert W. 3,091,659.
Mattingly, Lawrence J. 3,115,606.
Mitchell, John F. 3,087,117.
Owen, George E., Jr., and Parker. 3,076,873.
Race, William J. 3,106,098.
Richardson, Roy A., and Eness. 3,100,871.
Robillard, Jean J. A. 3,088,883.
Schlesinger, Kurt. 3,102,212.
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Stastny, Edwin O., Reinertson, and Kroiopp. 3,087,013.
Stewart, James R., and Willyard. 3,087,998.
Stewart, James R., and Willyard. 3,087,999.
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Tesch, Ernest A., Jr. 3,092,059.
Torrence, James A. 3,090,932.
Torrence, James A. 3,092,761.
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Motoronics, Inc.: *See*—
Feins, Joseph. 3,090,842.

Motozaki, Shinichi, T. Tsunoda, S. Okumura, R. Tsugawa, T. Matsui, A. Kitai, and N. Miyachi, to Ajinomoto Kabushiki Kaisha and Sanraku Shuzo Kabushiki Kaisha. Process for producing L-glutamic acid. 3,096,252, 7–2–63, Cl. 195—47.

Motozaki, Shinichi, T. Tsunoda, R. Aoki, S. Okumura, Y. Kondo, N. Muramatsu, H. Momose, and Y. Tamagawa, to Ajinomoto Kabushiki Kaisha. Method for preparation of inosine. 3,111,459, 11–19–63, Cl. 195—28.

Motsan Services Inc.: *See*—
Berlinghof, William L. 3,072,500.

Mott, Garret, Jr., to Electrolux Corp. Vacuum cleaners. 3,082,938, 3–26–63, Cl. 230—233.

Mott, George R.: *See*—
Gundlach, Robert W., Mott, Sabel, and Albrecht. 3,093,068.

Mott, George R., to Xerox Corp. Xerographic charging apparatus. 3,076,092, 1–29–63, Cl. 250—49.5.

Mott, George R., to Xerox Corp. Transferred image apparatus. 3,083,623, 4–2–63, Cl. 95—1.7.

Mott, James D.: *See*—
Cochran, Chudleigh B., and Mott. 3,115,188.

Mott, Willard S.: *See*—
Beusman, Curtis C., Malin, and Mott. 3,110,273.

Motter, Roger A.: *See*—
Todoran, Ambro, Poling, and Motter. 3,083,751.

Mottin, Glenn F., ¼ to J. H. Bruning. Apparatus for collecting materials. 3,083,849, 4–2–63, Cl. 214—302.

Mottin, Ralph E., to Parke, Davis & Co. Mechanical loader and conveyor mechanism for handling relatively small and breakable articles. 3,087,595, 4–30–63, Cl. 198—20.

Mottin, Ralph E., to Parke, Davis & Co. Automatic feeder mechanism for orienting relatively small articles. 3,106,281, 10–8–63, Cl. 198—33.

Mottu, Andre, and R. Viret, to Societe Genevoise d'Instruments de Physique. Automatic programming system. 3,072,834, 1–8–63, Cl. 318—162.

Mottus, Edward H.: *See*—
Hedrick, Ross M., and Mottus. 3,094,444.
Hedrick, Ross M., and Mottus. 3,107,185.

Mottus, Edward H., and R. M. Hedrick, to Monsanto Chemical Co. Process for polymerizing higher lactams. 3,086,962, 4–23–63, Cl. 260—78.

Mots, C. A.: *See*—
Young, George V. 3,094,662.

Mots, Carl H., to National Broach & Machine Co. Automatic gear checker for internal gears. 3,086,294, 4–23–63, Cl. 33—179.5.

Mots, Jerome C., to Nordberg Mfg. Co. Mantle structure for gyratory crusher. 3,076,612, 2–5–63, Cl. 241—295.

Moudry, Marie K.: *See*—
Dunklin, Edward W., and Moudry. 3,071,504.

Mougey, Herald W., 50% to C. A. Jennings. Retractable safety belt for vehicles. 3,107,121, 10–15–63, Cl. 297—388.

Mouk, George W., to Bancroft Paper Co., Inc. Method for packaging perishable comestibles and product. 3,111,412, 11–19–63, Cl. 99—192.

Moul, George E., Jr., to United States of America, Navy. Retractable launching shoes. 3,115,059, 12–24–63, Cl. 89—1.7.

Moulded Products (Australasia) Ltd.: *See*—
Gush, William K. 3,083,877.

Moulds, William J., Jr., to United States of America, Air Force. Multiple store cradle lift for special weapons. 3,071,269, 1–1–63, Cl. 214—621.

Moule, Rex E. Method of producing articles such as skinless frankfurters. 3,092,872, 6–11–63, Cl. 17—45.

Moulic, William E., Jr., to Automatic Tape Control, Inc. Amplifying and oscillating circuit. 3,084,226, 4–2–63, Cl. 179—100.2.

Moulic, William E., Jr. Magnetic tape drive mechanism and control therefor. 3,113,708, 12–10–63, Cl. 226—181.

Moulin, Jean, G. Hego, and M. Mautempa, to Materiel Industriel, S.A. Devices for the measurement of transitory values. 3,113,631, 12–10–63, Cl. 177—3.

Moulin, Maurice P. A., to Commissariat a l'Energie Atomique. Nuclear reactors. 3,073,771, 1–15–63, Cl. 204—193.2.

Moulin, Pierre, to Compagnie des Freins et Signaux Westinghouse. Hydraulic differential force transmission means. 3,071,930, 1–8–63, Cl. 60—54.5.

Moulinage et Retorderie de Chavanoz: *See*—
Servage, Henri. 3,074,223.

Moulthrop, Le Roy E., 25% to R. J. Patch. Cleaning method. 3,110,544, 11–12–63, Cl. 8—137.

Moulton, Alexander E., to Moulton Consultants Ltd. Telescopic spring suspension systems for the front wheels of bicycles, mopeds, motor scooters and motorcycles. 3,083,038, 3–26–63, Cl. 280—276.

Moulton, Alexander E., to Moulton Consultants Ltd. Pedal cycles. 3,083,039, 3–26–63, Cl. 280—277.

Moulton, Arthur K. Vibrating crushers. 3,087,683, 4–30–63, Cl. 241—210.

Moulton, Clifford H.: *See*—
McCutcheon, Samuel R., Winningstad, and Moulton. 3,105,945.

Moulton Consultants Ltd.: *See*—
Moulton, Alexander E. 3,083,038.
Moulton, Alexander E. 3,083,039.

Moulton, Eric W., to General Dynamics Corp. Wave band UHF output network. 3,098,206, 7–16–63, Cl. 333—73.

Moulton, Karl J., T. W. Findley, and V. I. Komarewsky, deceased, by J. B. Komarewsky, executrix, to Swift & Co. Method of producing short chain methyl esters. 3,079,413, 2–26–63, Cl. 260—410.9.

Mouly, Raymond J., to Corning Glass Works. Electrical measuring and control apparatus and a glass press embodying the same. 3,071,967, 1–8–63, Cl. 73—362.

Mouly, Raymond J., and J. A. Pabalan, Jr., to Corning Glass Works. Method and apparatus for measuring viscosity. 3,107,520, 10–22–63, Cl. 73—60.

Mounce, George R.: *See*—
Hutter, James F., Kelly, Mounce, and Leaver. 3,075,641.
Hutter, James F., Kelly, Mounce, and Leaver. 3,097,744.

Mounce, Whitman D.: *See*—
Ball, John D., Charske, and Mounce. 3,100,444.
Barry, Adelbert, and Mounce. 3,107,729.

Mount, Thomas L., to United States of America, Army. Cathodes for liquid ammonia batteries. 3,082,284, 3–19–63, Cl. 136—120.

Mount, Wadsworth W., 9⅓% each to J. L. Buckley, A. B. Heath, J. W. Buckley, P. L. Buckley, J. B. Smith, W. F. Buckley, Jr., P. B. Bozwell, F. R. Buckley, M. Buckley, and Connecticut Bank & Trust Co., guardian of the estate of C. Buckley, and a 2% interest to D. C. Reasoner. Solar stills. 3,104,210, 9–17–63, Cl. 202—234.

Mountcastle, Albert E. Boat fender device. 3,113,546, 12–10–63, Cl. 114—219.

Mounteer, Carlyle A., to Giannini Controls Corp. Pressure responsive element. 3,079,958, 3–5–63, Cl. 137—793.

Mount Hope Machinery Co.: *See*—
Robertson, John D. 3,094,769.
Robertson, John D. 3,094,771.
Robertson, John D., and Foster. 3,071,157.
Robertson, John D., and Foster. 3,095,131.
Robertson, John D., and Knapp. 3,099,072.

Mountjoy, Garrard, and J. D. Reid, to A R & T Electronics, Inc. Remote control system for television program distribution. 3,071,642, 1–1–63, Cl. 178—5.1.

Mountjoy, Garrard, and J. D. Reid, to United States of America, Navy. Angle sensitive switch. 3,086,468, 4–23–63, Cl. 102—70.2.

Mounts, Frank W., to Bell Telephone Laboratories, Inc. Predictive quantization and coding of vision signals. 3,090,008, 5–14–63, Cl. 325—44.

Mounts, Lewis S., to The Dow Chemical Co. Dispensing container for sheet material. 3,114,488, 12–17–63, Cl. 225—39.

Mounts, Paul A., to Latham Mfg. Co. Article washer. 3,099,848, 8–6–63, Cl. 15—3.14.

Mousset, Andre, to Union Siderurgique et Industrielle. Centrifuging machine for the manufacture of cement pipes and other applications. 3,087,222, 4–30–63, Cl. 25—30.

Moussong, Monika. Clamping plates for small containers, particularly ampoules. 3,113,689, 12–10–63, Cl. 217—27.

Moussou, Jean, to Compagnie Generale d'Electro-Ceramique. Suspension insulators provided with a core and an envelope. 3,076,053, 1–29–63, Cl. 174—179.

Moussou, Jean, to Compagnie Generale d'Electro-Ceramique. Insulators with envelopes. 3,081,375, 3–12–63, Cl. 174—179.

Moussou, Jean, to Compagnie Generale d'Electro-Ceramique. Long rod type suspension insulators with spiral flange and at least one pin-type terminal. 3,110,759, 11–12–63, Cl. 174—182.

Moussou, Jean M., to Compagnie Generale d'Electro Ceramique. Insulators with helical fin and tapered body. 3,110,760, 11–12–63, Cl. 174—211.

Moussoulos, Lucas S. Method of FeNi alloy production from nickel bearing iron ores. 3,077,396, 2–12–63, Cl. 75—31.

Moustakidis, Theofani, and A. G. Mantzouranis. Removable shoe heel. 3,077,680, 2–19–63, Cl. 36—36.

Moutaud, Gilberte, nee Renault, to Commissariat a l'Energie Atomique. Porous metallic membranes and methods of manufacturing them. 3,086,860, 4–23–63, Cl. 75—222.

Moutaud, Gilberte (nee Renault), and J. Parisot, to Commissariat a l'Energie Atomique. Porous membranes and methods of manufacturing these membranes. 3,102,826, 9–3–63, Cl. 117—132.

Movilla, Elpidio M., and G. T. Bocobo. Sugar cane planting machines. 3,073,265, 1–15–63, Cl. 111—3.

Mowell, Roger W., and J. R. Peet, to Esso Research and Engineering Co. Cargo loading apparatus. 3,073,343, 1–15–63, Cl. 137—615.

Mower, Robert L. Eye patch. 3,092,103, 6–4–63, Cl. 128—132.

Mowry, Lorenz J., and H. H. Jenkins, to Gregory Industries, Inc. Welding apparatus and process. 3,096,429, 7–2–63, Cl. 219—98.

Moxey Ltd.: *See*—
Swindells, Harry, and Forrester. 3,108,700.

Moy, Tsoy K., to United States of America, Navy. Post-launch flooding control apparatus. 3,100,421, 8–13–63, Cl. 89—1.7.

Moyat, Peter, to Hartmann & Braun Aktiengesellschaft. Gas analyzing instrument. 3,072,787, 1–8–63, Cl. 250—43.5.

Moyer, Donald W.: *See*—
Virtue, Eugene P., and Moyer. 3,090,639.

Moyer, Elmo E., to The Electric Auto-Lite Co. Ferroresonant voltage stabilizer. 3,112,440, 11–26–63, Cl. 323—56.

Moyer, Frederick D., to Chicago Bridge & Iron Co. Floating cover for sloped wall reservoir. 3,079,030, 2–26–63, Cl. 220—26.

Moyer, Frederick D., to Chicago Bridge & Iron Co. Water drawoff system for oil tanks. 3,115,888, 12–31–63, Cl. 137—172.

Moyer, Frederick D., and I. L. Wissmiller, to Chicago Bridge & Iron Co. Resilient weather seal for a floating roof. 3,079,029, 2–26–63, Cl. 220—26.

Moyer, James D., to Textile Machine Works. Clamp and cutter mechanism for knitting machines. 3,092,986, 6–11–63, Cl. 66—140.

Moyer, James D., to The Gordon Co. Yarn clamping and severing mechanism for knitting machines. 3,097,512, 7–16–63, Cl. 66—140.

Moyle, Clarence L., and D. M. Chern, to The Dow Chemical Co. Benzimidazolylalkylbenzenesulfonamide compounds. 3,075,991, 1–29–63, Cl. 260—309.2.

Moyle, Clarence L., and R. L. Johnson, to The Dow Chemical Co. Phenolic antimicrobiol compositions containing a polyamine-salicylaldehyde condensation product. 3,081,221, 3–12–63, Cl. 167—31.

Moynihan, Edward F.: *See*—
Post, Paul J., and Moynihan. 3,104,840.

Moyroud, Louis M.: *See*—
Higonnet, Rene A., and Moyroud. 3,094,050.
Higonnet, Rene A., and Moyroud. 3,105,624.

Moyse, James A., to Imperial Chemical Industries Ltd. Process for modifying textiles. 3,104,935, 9–24–63, Cl. 8—116.2.

Mozic, Joseph D., to Thompson Ramo Wooldridge Inc. Programmed output energy solid fuel gas generator. 3,070,958, 1–1–63, Cl. 60—39.47.

Mozlek, John, to Monsanto Chemical Co. Apparatus for extruding thermoplastic material. 3,112,525, 12–3–63, Cl. 18—12.

Mozlek, John, and L. B. Bullock, to Monsanto Chemical Co. Continuous blender for thermoplastic materials. 3,076,637, 2–5–63, Cl. 259—8.

Mozley, Robert F., to Sperry Rand Corp. Radar system ranging unit. 3,077,592, 2–12–63, Cl. 343—7.3

Mpakarakes, Thomas J. Indoor pole vaulting box. 3,075,765, 1–29–63, Cl. 272—59.

Muccino, Louis F.: *See*—
Ward, Wallace W. 3,112,521.

Muchmore, Richard W.: *See*—
Cook, Paul M., and Muchmore. 3,086,242.

Muchnick, Paul, to Raytheon Co. Over-voltage protective circuit. 3,109,981, 11–5–63, Cl. 323—22.

Muckelrath, Ernest R., to Air Heaters, Inc. Fuel burning air heater. 3,106,200, 10–8–63, Cl. 126—116.

Mucon Corp.: *See*—
Zlotnick, Herbert. 3,080,239.
Zlotnick, Herbert. 3,103,442.

Mudd-Kat Corp.: *See*—
Tritle, Paul E. 3,101,805.

Mudge, Elizabeth B.: *See*—
Seyfried, Arthur W., and Mudge. 3,075,309.

Mudge, Lyle K: *See*—
Scott, Frederick A., and Mudge. 3,114,682.

Mueckter, Heinrich. *See*—
Proske, Gerhard, Mueckter, Osterloh, and von Schrader-Beielstein. 3,080,423.

Muehlhausen, Charles H., to The Oliver Corp. Lift mechanism for mowers. 3,086,345, 4–23–63, Cl. 56—25.

Muehlhausen, Charles H., to Oliver Corp. Wagon guide arm for bale thrower and adjusting means therefor. 3,090,509, 5–21–63, Cl. 214—42.

Muehlmann, Frank L.: *See*—
Bruce, William F., Muehlmann, and Glassman. 3,081,229.

Muehlner, Egon E., to General Dynamics Corp. Leak meter for detecting fluid pressure leaks. 3,092,821, 6–4–63, Cl. 340—238.

Mueller A.G.: *See*—
Felix, Emil. 3,108,509.

Mueller, Albert C., and R. W. H. Tess, to Shell Oil Co. Natural and synthetic alcohol soluble resin with other synthetic copolymers for coatings. 3,095,389, 6–25–63, Cl. 260—8.

Mueller, Albert J. Liquid shaving composition. 3,072,535, 1–8–63, Cl. 167—85.

Mueller, Arthur, H. Schwarz, and T. Bersin, to Hausmann Laboratories Ltd. Process for preparing a ferric hydroxide polymaltose complex. 3,076,798, 2–5–63, Cl. 260—209.

Mueller, Arthur C., to Bell & Howell Co. Automatic exposure control for photographic cameras. 3,099,198, 7–30–63, Cl. 95—64.

Mueller, Arthur C., to Bell & Howell Co. Camera shutter. 3,111,073, 11–19–63, Cl. 95—11.5.

Mueller Brass Co.: *See*—
Gray, Robert A., Jr. 3,104,681.
Fearnside, Thomas E. 3,109,224.
Rader, Robert R. 3,108,778.

Mueller, Carl H., to The McNeil Machine & Engineering Co. Drain attachment. 3,103,947, 9–17–63, Cl. 137—351.

Mueller, Charles A.: *See*—
Van Tubergen, Richard F., and Mueller. 3,085,413.

Mueller Co.: *See*—
Bowan, Walter J., Smith, Leopold, and Mueller. 3,115,354.
Edwards, Lynn D. 3,105,521.
Mueller, Frank H., and Smith. 3,080,089.
Mueller, Frank H., and Smith. 3,104,554.
Skomp, James H. 3,076,474.
Smith, John J. 3,076,632.
Smith, John J. 3,087,358.

Mueller, Frank H.: *See*—
Bowan, Walter J., Smith, Leopold, and Mueller. 3,115,354.

Mueller, Frank H., and J. J. Smith, to Mueller Co. Fire hydrant. 3,080,089, 3–5–63, Cl. 220—55.

Mueller, Frank H., and J. J. Smith, to Mueller Co. Fire hydrant. 3,104,554, 9–24–63, Cl. 74—18.2.

Mueller, Fritz K., W. E. and H. C. Rothe, R. C. Martin, and A. G. Loughead. Spherical flywheel attitude-control system. 3,105,657, 10–1–63, Cl. 244—1.

Mueller, Fritz W. H.: *See*—
Evans, Helene D., and Mueller. 3,101,270.
Roth, Curt B., and Mueller. 3,080,233.

Mueller, George F., to FMC Corp. Method of producing all skin rayon. 3,106,444, 10–8–63, Cl. 18—54.

Mueller, George P.: *See*—
Jiu, James, and Mueller. 3,079,390.

Mueller, George P., to G. D. Searle & Co. 3,16-bisoxygenated 17-haloestra-1,3,5 (10)-trienes. 3,079,408, 2–26–63, Cl. 260—397.4.

Mueller, Hans F.: *See*—
Conn, Charles E., Jr., and Mueller. 3,114,524.

Mueller, Helena: *See*—
Müller, Victor. 3,076,247.

Mueller, John C., Jr., to The Lord Baltimore Press, Inc. Folding box. 3,111,222, 11–19–63, Cl. 206—65.

Mueller, Josef: *See*—
Uhlenhaut, Rudolf E., Mueller, and Rothweller. 3,102,736.

Mueller, Klaus P., to Robertshaw-Fulton Controls Co. Pneumatic hesitation relay. 3,115,147, 12–24–63, Cl. 137—116.5.

Mueller, Louis E. Mat drying apparatus. 3,077,674, 2–19–63, Cl. 34—53.

Mueller, Martin, to S. Graham. Mechanism for feeding ice cream cones or the like. 3,083,868, 4–2–63, Cl. 221—213.

Mueller, Otto. Transmission. 3,083,590, 4–2–63, Cl. 74—781.

Mueller, Paul A. Filter plugs for cigarettes. 3,079,929, 3–5–63, Cl. 131—208.

Mueller, Paul E., to Bassani S.p.A. Electrical switches. 3,088,004, 4–30–63, Cl. 200—50.

Mueller, Richard H., to Lear Siegler Inc. Heater. 3,078,837, 2–26–63, Cl. 126—110.

Mueller, Richard J., and C. Weber, to Automatic Canteen Co. of America. Brewing apparatus. 3,094,918, 6–25–63, Cl. 99—289.

Mueller, Rolf K., to General Mills, Inc. Memory system and method utilizing a semiconductor containing a grain boundary. 3,109,163, 10–29–63, Cl. 340—173.

Mueller, Theodore G., to Consolidated Packaging Machinery Corp. Automatic scale for portioning powdered material. 3,103,252, 9–10–63, Cl. 177—107.

Mueller Trybus Associates, Inc.: *See*—
Trybus, Stanley L. 3,104,571.

Mueller, V., & Co.: *See*—
Glassman, Jacob A. 3,101,715.

Mueller, Walter: *See*—
De Woody, Charles M., Pearce, Mueller, and Egizi. 3,092,704.

Mueller, Wolfgang F.: *See*—
Withers, Burleigh, Jr., and Mueller. 3,084,635.

Mueller, William F. Cheese cutter. 3,096,582, 7–9–63, Cl. 31—23.

Mueller-Tamm, Heinz, K. Buchholz, and F. Stastny, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Flameproofed synthetic thermoplastic polymer containing an organic polybromine compound and method of making same. 3,093,599, 6–11–63, Cl. 260—2.5

Muench, Werner, V. Ruoti, and L. Notarbartolo, to Snia Viscosa Societa Nazionale Industria Applicazioni Viscosa S.p.A. Process for nitrosating cyclohexylic compounds to produce caprolactam. 3,108,096, 10–22–63, Cl. 260—239.3.

Muench, Werner, G. Silvestri, and L. Notarbartolo, deceased (by E. P. Notarbartolo, executrix), to Snia Viscosa Societa Nazionale Industria Applicazioni Viscosa S.p.A. Process for the nitrosation of cyclohexyl compounds. 3,111,515, 11–19–63, Cl. 260—239.3.

Muenchinger, Herman G., to Noma Lites, Inc. Method of making punch-forming dies. 3,080,776, 3–12–63, Cl. 76—107.

Muenchinger, Herman G., to Phillips Screw Co. Tools for recessed head fasteners. 3,108,623, 10–29–63, Cl. 145—50.

Muessig, Karl: *See*—
Deinhardt, Hans, Muessig, and Prestel. 3,115,011.

Muetz, Otto J. Vehicle ice grips. 3,112,783, 12–3–63, Cl. 152—208.

Muff, Peter: *See*—
McGee, James D., Muff, and Saunders. 3,109,957.

Muffler Corp. of America: *See*—
Phelan, Milton V. 3,109,510.

Muffly, Glenn. Refrigerator-freezer. 3,106,072, 10–8–63, Cl. 62—126.

Mufich, Frank J.: *See*—
Kallel, Allen, and Mufich. 3,113,502.

Mugg, Jarrell B., to Crown Zellerbach Corp. Treatment of sulfite spent liquor. 3,111,377, 11–19–63, Cl. 23—48.

Mugg, Jarrell B., to Crown Zellerbach Corp. Process of treating sulfite spent liquor. 3,111,378, 11–19–63, Cl. 23—48.

Mugler, Charles M. Folding table and bench combination. 3,079,197, 2–26–63, Cl. 297—159.

Mühlbach, Anton, to United Shoe Machinery Corp. Machines for applying simultaneous pressures to the bottom and heel breast of a shoe. 3,081,469, 3–19–63, Cl. 12—16.4.

Mühlbach, Anton, and J. Schildt, to A. Kimball Co. Apparatus for severing and printing records. 3,115,827, 12–31–63, Cl. 101—90.

Mühlemann, Hans R.: *See*—
Schmid, Hans, and Mühlemann. 3,083,143.

Muhler, George: *See*—
Godshalk, James B., and Muhler. 3,090,609.

Muhlfelder, Ludwig: *See*—
Caspar, Jonn, Hoffman, and Muhlfelder. 3,102,387.

Muhlmann, Rudolf, and G. Schrader, to Farbenfabriken Bayer Aktiengesellschaft. Thiophosphoric acid esters and process for their production. 3,082,239, 3–19–63, Cl. 260—461.

Muhm, Robert E.: *See*—
Cunningham, Paul M., and Muhm. 3,080,518.

Muhr, John. Camping device. 3,088,475, 5–7–63, Cl. 135—1.

Muir, Alan M. to R. D. Werner Co. (Canada) Ltd. Floor structure. 3,080,021, 3–5–63, Cl. 189—34.

Muir, David, III, to Bell Telephone Laboratories, Inc. Automatic gain control circuit using plural time constant means. 3,109,989, 11–5–63, Cl. 325—410.

Muirhead & Co. Ltd.: *See*—
Bell, John. 3,097,622.
Couzens, Sydney N. 3,115,377.

Mukai, Roy A.: *See*—
Charbonneau, Allan P., and Mukai. 3,100,824.

Mukai, Roy A., to Cutler-Hammer, Inc. Foot or palm actuator switch. 3,083,278, 3–26–63, Cl. 200—86.5.

Mukaiyama, Teruaki: *See*—
Hoshino, Toshio, Ashida and Mukaiyama. 3,078,240.

Mularz, Walter L.: *See*—
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Mulch, Hans, to Ernst Leitz Gesellschaft mit beschrankter Haftung. Switching means in a slide projector. 3,115,811, 12–31–63, Cl. 88—28.

Muldawer, Leonard, to United States of America, Army. Temperature responsive resistance control elements. 3,087,810, 4–30–63, Cl. 75—165

Mulder, Harry, to The Firestone Tire & Rubber Co. Wheel cover. 3,078,124, 2–19–63, Cl. 301—37.

Mulder, Harry, to The Firestone Tire & Rubber Co. Chime structures for barrels. 3,095,111, 6–25–63, Cl. 220—66.

Mulfab Corp.: *See*—
Mead, Edwin L. 3,094,015.
Mead, Edwin L. 3,094,224.

Mulford, Charles T., to FMC Corp. Citrus fruit sectionising head. 3,088,507, 5–7–63, Cl. 146—3.

Mullhauser, George C., Jr. Padding shell chairs. 3,111,689, 11–26–63, Cl. 5—345

Mulhern, William A., to Gar Wood Industries, Inc. Decorative wheel trim. 3,083,060, 3–26–63, Cl. 301—37.

Mulinos, Michael G., to Commercial Solventa Corp. Process for the protection of textiles. 3,116,207, 12–31–63, Cl. 167—84.

Mulkey, Virgil L., J. D. Neish, and E. T. Williams; said Williams assor. to said Mulkey and said Neish. Electrical outlet box expandable protector. 3,115,265, 12–24–63, Cl. 220—3.5

Mull, Robert P., to Ciba Corp. (N,N-aza-bicyclo-alkylene-imino)-lower alkyl-guanidines. 3,078,272, 2–19–63, Cl. 260—293.

Mull, Robert P., to Ciba Corp. Dibenzpolymethylenimino-alkylene-guanidines. 3,093,632, 6–11–63, Cl. 260—239.

Mull, Robert P., to Ciba Corp. Diaza-heterocyclic guanidine compounds. 3,098,066, 7–16–63, Cl. 260—239.

Mullaney, George J., and P. H. Kydd, to General Electric Co. Supersonic combustion. 3,075,353, 1–29–63, Cl. 60—39.74.

Mullen, Eugene D., to The Dow Chemical Co. Chemical heating of a well or cavity and formation adjacent thereto. 3,103,973, 9–17–63, Cl. 166—25.

Mullen, James A.: *See*—
Haus, Hermann A., and Mullen. 3,092,750.

Mullen, John H.: *See*—
Matiyak, Andrew J., Mullen, and Cametti. 3,099,771.

Mullen, Thomas Y.: *See*—
Roe, Ralph C., Lichtenstein, and Mullen. 3,108,577.

Mullen, Wilbur L. Spring tension device. 3,114,361, 12–17–63, Cl. 123—188.

Muller, Alois, to Opal Mfg. Co. Ltd. Axially movable rotor assembly for electrical motors. 3,109,950, 11–5–63, Cl. 310—83.

Muller, Arthur, and T. Bersin. Process for preparing an iron hydroxide polyisomaltose complex and the resulting product. 3,100,202, 8–6–63, Cl. 260—209.

Müller, Carl: *See*—
Miller, Archey V., and Muller. 3,103,360.

Muller & Co. K.G.: *See*—
Grunvogel, Vinzenz A. 3,108,606.

Müller, Curt, to Metallgesellschaft Aktiengesellschaft. Cleaning apparatus for atomizing driers. 3,107,385, 10–22–63, Cl. 15—316.

Muller, Egon M.: *See*—
Smythe, William J., and Muller. 3,113,116.
Smythe, William J., Muller, and Weeden. 3,072,960.

Muller, Emil O.: *See*—
Boulsover, Geoffrey, and Muller. 3,094,779.

Muller, Erhard: *See*—
Flach, Rolf, and Muller. 3,087,446.

Müller, Erhard, to Xaver Fendt & Co., Maschinen- und Schlepperfabrik. Apparatus for severing the roving courses in linking machines. 3,076,082, 1–29–63, Cl. 219—19.

Müller, Erich, and D. Jerchel, to Dr. Karl Thomae, G.m.b.H. Reaction products of uracil derivatives and formaldehyde. 3,105,077, 9–24–63, Cl. 260—256.4.

Müller, Ernst, to Hydraulik G.m.b.H. Means for elongating workpieces. 3,073,611, 1–15–63, Cl. 279—4.

Müller, Ernst, to Demag Aktiengesellschaft, Firma. Extrusion apparatus. 3,080,051, 3–5–63, Cl. 207—17.

Müller, Ernst. Winding and reeling machine. 3,080,133, 3–5–63, Cl. 242—155.

Muller, Ernst, to Meypro AG. Method of separating the endosperms from the embryo and husko of seeds. 3,080,355, 3–5–63, Cl. 260—209.

Müller, Ernst, and G. Seulen, to Hydraulik G.m.b.H. System for thermally separating the stump from the extrusion and for straightening the latter in a metal rod or pipe press. 3,073,442, 1–15–63, Cl. 207—10.

Müller, Ernst W.: *See*—
Wilke, Günther, Müller, and Stedefeder. 3,076,038.

Müller, Erwin: *See*—
Holtschmidt, Hans, Von Spulak, Muller, and Otto. 3,098,840.
Peter, Julius, Schmidt, and Müller. 3,085 993.

Muller, Erwin, O. Bayer, H. Wilms, F. Van Spulak, and M. Theis, ½ to Farbenfabriken Bayer Aktiengesellschaft, and ½ to Mobay Chemical Co. Polyesters containing isocyanate groups. 3,095,399, 6–25–63, Cl. 260—33.6.

Muller, Frank G. Valve assembly and seal forming means for the same. 3,095,177, 6–25–63, Cl. 251—173.

Muller, Franz, Fulminawerk K.G.: *See*—
Mazur, Erwin, and Reiter. 3,075,500.

Müller, Fritz: *See*—
Giesen, Johann, and Müller. 3,095,329.

Muller, Georges, to Roussel-UCLAF, S.A. Process for the preparation of 11-substituted 17α,21-dihydroxy-16α-methyl-9α-fluoro-$\Delta^{1,4}$-pregnadiene-3,20-diones. 3,115,491, 12–24–63, Cl. 260—239.55.

Muller, Georges, and J. Martel, to Roussel-UCLAF, S.A. 11β,18-oxido-18ξ-methyl-progesterone. 3,084,158, 4–2–63, Cl. 260—239.55.

Muller, Georges, and J. Martel, to Roussel-UCLAF S.A. Process for preparing 16α-methyl-5β-androstane-3,11,17-trione and novel intermediate therein. 3,101,359, 8–20–63, Cl. 260—397.45.

Müller, Hans: *See*—
Schlichting, Kurt, and Müller. 3,110,509.

Muller, Hans. Arrangement for the continuous separation of solids and liquids by filtration. 3,107,217, 10–15–63, Cl. 210—331.

Müller, Heinrich: *See*—
Enenkel, Haus J., Muller, and Schulte. 3,104,241.
Schulte, Karl, Müller, and Kraft. 3,100,205.

Muller, Helmut: *See*—
Kugel, Fritz, and Muller. 3,072,222.

Muller, Herbert: *See*—
Weinrich, Hellmut, Peltner, Muller, and Trager. 3,075,410.

Müller, Hermann: *See*—
Herrmann, Otto, Müller, and Seibel. 3,100,722.

Müller, Hermann, to Agfa Aktiengesellschaft. Portable projection screen. 3,087,535, 4–30–63, Cl. 160—24.

Müller, Jacques. Flexible buoyant element. 3,113,328, 12–10–63, Cl. 9—400.

Muller, Jan J. Stereoscopic camera. 3,115,816, 12–31–63, Cl. 95—18.

Muller, John E.: *See*—
Schmid, Paul F., and Muller. 3,078,864.
Schmid, Paul F., and Muller. 3,083,882.

Muller, John F., to Bell Telephone Laboratories, Inc Electromagnetic drive mechanism. 3,080,492, 3–5–63, Cl. 310—21.

Muller, John T.: *See*—
Galiger Michael O., and Muller. 3,086,548.

Muller, John T. Method and apparatus for controlled motion shock testing. 3,073,148, 1–15–63, Cl. 73—12.

Muller, John T. Metering device. 3,083,617, 4–2–63, Cl. 103—148.

Muller, John T. Metering device. 3,109,383, 11–5–63, Cl. 103—149.

Muller, Josef, to Daimler-Benz Aktiengesellschaft. Suspension of a driving unit in a motor vehicle by means of an auxiliary frame. 3,075,601, 1–29–63, Cl. 180—64.

Müller, Josef, to Daimler-Benz Aktiengesellschaft. Auxiliary frame for motor vehicles. 3,093,390, 6–11–63, Cl. 280—106.5.

Muller, Josef, to Daimler-Benz Aktiengeseilschaft. Steering gear. 3,113,469, 12–10–63, Cl. 74—499.

Müller, Josef, K. Wilfert, and E. J. H. Fiala, to Daimler-Benz Aktiengesellschaft. Support means for an independent wheel suspension. 3,087,742, 4–30–63, Cl. 280—106.5.

Muller, Karl, to Mang Gear Wheel & Machine Co. Ltd. Gear checking instrument. 3,089,249, 5–14–63, Cl. 33—179.5.

Müller, Karl E.: *See*—
Hoftschmidt, Hans, and Müller. 3,099,642.

Müller, Ludwig. Pile shaft. 3,091,090, 5–28–63, Cl. 61—53.

Muller, Ludwig. Coupler for coupling a pile member to a pile driver. 3,100,382, 8–13–63, Cl. 61—53.5.

Müller, Ludwig. Clamping device for clamping a pile body to a vibratory device. 3,101,956, 8–27–63, Cl. 279—4.

Müller, Ludwig. Driving device for pile members. 3,106,258, 10–8–63, Cl. 175—55.

Muller, Marcel: *See*—
Goldberg, Moses W., Lehr, and Muller. 3,112,307.

Muller, Martin, and A. Lauer, to Telefunken Gesellschaft fuer drahtlose Telegraphie G.m.b.H. High frequency coupling arrangements for traveling wave tubes. 3,076,156, 1–29–63, Cl. 333—31.

Muller, Nathan W., and C. S. Long, to Acetylene Cylinder Corp. Acetylene container filler and methods. 3,077,708, 2–19–63, Cl. 53—37.

Müller, Paul, J. Schmitt, and H. Wittner, to Aluminium-Industrie-Aktien-Gesellschaft. Electrolytic furnace for producing aluminum having a crust breaking apparatus. 3,090,744, 5–21–63, Cl. 204—243.

Müller, Paul, and R. Tamm, to Hoffmann-La Roche, Inc. Process of making a carotenoid preparation. 3,110,598, 11–12–63, Cl. 99—148.

Muller, Pierre: *See*—
Joullie, Maurice, Laurre, Maillard, and Muller. 3,094,464.

Muller, Reinhard, to Klockner-Humboldt-Deutz Aktiengesellschaft. Governor. 3,094,975, 6–25–63, Cl. 123—41.12.

Muller, Rudolf: *See*—
Raspe, Gerhard, Kiesslich, Olivar, Muller, and Wagner. 3,102,380.

Muller, Rudolf, to Siemens and Halske Aktiengesellschaft. Method of and device for amplifying highest frequencies. 3,078,384, 2–19–63 Cl. 315—3.5.

Muller, Rudolf, to Siemens & Halske Aktiengesellschaft. Electronic high frequency dual electron beam return wave tube with cycloid beam. 3,090,885, 5–21–63, Cl. 315—3.6.

Muller, Rudolf, W. Simm, and F. Linsert, to Agfa Aktiengesellschaft. Automatic weighing scale. 3,092,198, 6–4–63, Cl. 177—212.

Muller, Rudolf, G. Heyl, and G. Luttgens, to Farbenfabriken Bayer Aktiengesellschaft. Gaseous-ion generator for rooms in which there is a danger of explosion. 3,111,605, 11–19–63, Cl. 317—4.

Müller, Victor, deceased; H. Mueller, heir. Casings for reinforced ribbed concrete ceilings. 3,076,247, 2–5–63, Cl. 25—131.5.

Muller, Werner C.: *See*—
Carlson, Eugene C., and Muller. 3,098,722.

Müller, Werner, W. Möllering, and W. Schommer, to Farbenfabriken Bayer Aktiengesellschaft. Manufacture of aromatic hydroxyaldehydes. 3,071,620, 1–1–63, Cl. 260—600.

Muller, Wilhelm Herm. & Co. Kommanditgesellschaft: *See*—
Szonn, Reinhold. 3,083,583.
Müller, Wolfgang: *See*—
Siebel, Gustav, Müller, and Trägner. 3,093,459.
Mullers, Karl A. Apparatus for napping textile fabrics. 3,114,189, 12–17–63, Cl. 26—33.
Mullett, Howard G.: *See*—
Booker, Robert J., and Mullett. 3,098,241.
Mullick, Louis F. Regulating and mixing device. 3,071,081, 1–1–63, Cl. 103—272.
Mulligan, Robert J.: *See*—
Connelly, John F., and Mulligan. 3,079,556.
Mulligan, Robert J., to International Instruments, Inc. Controller whose output is proportional to a meter pointer position. 3,114,089, 12–10–63, Cl. 318—31.
Mulligram, Inc.: *See*—
Mullinix, Lloyd M., and Graham. 3,073,727.
Mullinix, Lloyd M., and Graham. 3,080,590.
Mullin, Clayton D.: *See*—
Behymer, Donald J., and Mullin. 3,116,376.
Mullin, Clayton D., and J. F. Rose, to Marco Electronics, Inc. Hearing checking device. 3,105,876, 10–1–63, Cl. 179—1.
Mullin, John B.: *See*—
Hulme, Kenneth F., and Mullin. 3,116,113.
Mullin, John T., to Minnesota Mining and Mfg. Co. Differential capstan assembly. 3,093,284, 6–11–63, Cl. 226—176.
Mullin, John T., to Minnesota Mining and Mfg. Co. Speed control and regulating circuits. 3,097,332, 7–9–63, Cl. 318—314.
Mullineaux, Richard D., to Shell Oil Co. Homogeneous hydrogenation catalysis. 3,110,747, 11–12–63, Cl. 260—683.9.
Mullinix, Charles D. Bridle for rotatable airfoil kite. 3,087,698, 4–30–63, Cl. 244—153.
Mullinix, Charles D. Bridle construction for rotatable kite. 3,108,770, 10–29–63, Cl. 244—153.
Mullinix, Lloyd M., and R. L. Graham, to Mulligram, Inc. Swimming pool cleaning device and method. 3,073,727, 1–15–63, Cl. 134—21.
Mullinix, Lloyd M., and R. L. Graham, to Mulligram, Inc. Swimming pool cleaning device. 3,080,590, 3–12–63, Cl. 15—1.7.
Mullins, Glenn L. Boiler room fuel tank. 3,100,082, 8–6–63, Cl. 239—278.
Mullins, Godfrey Z., to The Telegraph Construction & Maintenance Co. Ltd. Helical membrane cutter. 3,106,009, 10–8–63, Cl. 29—2.15.
Mullins, Joan M.: *See*—
Sandberg, Carl L., and Mullins. 3,080,347.
Mullins, Lawrence J., Jr., J. A. Leary, C. W. Bjorklund, and W. J. Muraman, to United States of America, Atomic Energy Commission. Plutonium electrorefining cells. 3,098,028, 7–16–63, Cl. 204—245.
Mullins, Lawrence L.: *See*—
Voorhees, Edward M. 3,088,354.
Mullins Mfg. Co.: *See*—
Mullins, Orvel E., and Cole. 3,109,694.
Mullins, Orvel E., and O. W. Cole, to Mullins Mfg. Co. Chart changers. 3,109,694, 11–5–63, Cl. 346—137.
Mullins, William: *See*—
Williams, Thomas F. 3,101,949.
Mullins, William D., Jr., and W. M. Scarborough, to North American Aviation, Inc. Gyroscopic apparatus. 3,106,847, 10–15–63, Cl. 73—505.
Mullins, William E., to Bixby-Zimmer Engineering Co. Screen. 3,074,554, 1–22–63, Cl. 209—393.
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Darrieus, Georges, and Müllner. 3,100,271.
Mullner, Stefan: *See*—
Rust, Karl G. K., Mullner, and Gumboldt. 3,111,505.
Mulno, Lester P.: *See*—
Bell, Lewis W., and Mulno. 3,103,013.
Mulqueen, Joseph F., to Northrop Corp. Landing gear switch. 3,114,012, 12–10–63, Cl. 200—6.
Mulready, Richard C., B. H. Brown, and A. Kurtl, to United Aircraft Corp. Leading edge fuel manifold. 3,087,301, 4–30–63, Cl. 60—35.6.
Mulroy, Thomas J.: *See*—
Gudiksen, Ingvard. 3,096,917.
Multari, Alfred M.: *See*—
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Multi-Clean Products Inc.: *See*—
Wood, Delos R. 3,082,465.
Multifastener Corp.: *See*—
Double, Plummer E., and Steward. 3,091,843.
Steward, Jerry H. 3,089,360.
Steward, Jerry H. 3,098,576.
Steward, Jerry H. 3,108,368.
Multifastener Spring Division, Inc.: *See*—
Patten, Alexander S. 3,091,272.
Multiplex Faucet Co., The: *See*—
Seener, George E. 3,108,718.
Mulvany, Harry A., deceased (by R. F. Mulvany, executor), R. B. Mulvany, and D. W. Dalan; said Dalan assor. to said R. F. Mulvany. Vacuum egg lifter. 3,077,993, 2–19–63, Cl. 214—1.
Mulvany, Richard B.: *See*—
Mulvany, Harry A. and R. B., and Dalan. 3,077,993.
Mulvany, Robert F.: *See*—
Mulvany, Harry A. and R. B., and Dalan. 3,077,993.
Mumby, Herald W., to General Motors Corp. Filter pleating machine. 3,077,148, 2–12–63, Cl. 93—84.
Mumford, Albert R., to Combustion Engineering, Inc. Apparatus for maintaining liquid level within a steam and water drum constant. 3,089,469, 5–14–63, Cl. 122—491.
Mumford, George V., and J. M. Wheaton, to Owens-Illinois Glass Co. Closure caps. 3,088,615, 5–7–63, Cl. 215—37.
Mumford, William W.: *See*—
Engelbrecht, Rudolf S., and Mumford. 3,090,009.
Mumm, John F., to The Babcock & Wilcox Co. Fuel element with burnable poison within the cladding. 3,103,476, 9–10–63, Cl. 204—193.2.
Mumma, Harold J., to FMC Corp. Machine for handling eggs. 3,075,672, 1–29–63, Cl. 221—312.
Mumma, Harold J., to FMC Corp. Scale discharge device. 3,088,576, 5–7–63, Cl. 198—25.
Mumma, Harold J., to FMC Corp. Carton handling apparatus. 3,112,023, 11–26–63, Cl. 198—106.
Mummert, John R., to Merz Engineering, Inc. Filtering mechanism. 3,074,561, 1–22–63, Cl. 210—333.
Mummery, Lester R., to E. I. du Pont de Nemours and Co. Filament drawing. 3,077,004, 2–12–63, Cl. 18—48.
Munakata, Ken-Iti. Cooling method by means of negative pressure given on the vortex tube. 3,090,208, 5–21–63, Cl. 62—5.
Munch, Dietrich: *See*—
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Munch, James C.: *See*—
Shepard, Mark, Munch, and Kantor. 3,109,775.
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Munchel, Carl J.: *See*—
Gotwald, David E. S., Jr., and Munchel. 3,077,333.
Muncie, Fred W., to Sunl Citrus Products Co. Process for purification of citrus oil. 3,093,630, 6–11–63, Cl. 260—236.6.
Mund, Heinrich: *See*—
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Munday, John C., D. T. Rogers, and A. J. Morway, to Esso Research and Engineering Co. Asphalt containing mixed metal salts. 3,095,314, 6–25–63, Cl. 106—269.
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Lind, Erwin, and Munder. 3,089,953.
Mundil, Rudolf, to Farbenfabriken Bayer Aktiengesellschaft. Process for the production of hydrazine hydrate. 3,077,383, 2–12–63, Cl. 23—190.
Mundis, Edgar R. Crib safety shield. 3,103,669, 9–17–63, Cl. 5—98.
Mundlos, Eberhard: *See*—
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Mundo, Charles J., Jr., to American Bosch Arma Corp. Doubly integrating accelerometer. 3,114,267, 12–17–63, Cl. 73—490.
Mundt, Edward, to Hycon Mfg. Co. Servo system and comparator. 3,095,995, 7–23–63, Cl. 340—146.2.
Mundy, Lloyd W.: *See*—
Heer, Ralph W., and Mundy. 3,088,384.
Muniz, Mario N., and A. C. C. Cavalcanti. Process of envelopment. 3,077,649, 2–19–63, Cl. 22—202.
Munk, Werner R. Device for the remote recording of cryogenic temperatures. 3,100,398, 8–13–63, Cl. 73—368.4.
Munley, William J. Jr., L. W. Zenger, and W. E. Catterall, to Esso Research and Engineering Co. Preparation of metadioxanes. 3,080,378, 3–5–63, Cl. 260—340.7.
Munn, George E., to E. I. du Pont de Nemours and Co. Process for acrylic polymerizations. 3,084,068, 4–2–63, Cl. 117—76.
Munn, Paul S., to Simplex Wire and Cable Co. Cable splice. 3,114,793, 12–17–63, Cl. 174—71.
Munn, Peter N.: *See*—
Hackney, Stanley, and Munn. 3,115,448.
Knights, Herbert C., and Munn. 3,085,958.
Munns, Michael G.: *See*—
Gasper, Emeric, Munns, and Butler. 3,099,861.
Munro, Donald H. and W. H. Game piece controller and player stabilizer. 3,105,687, 10–1–63, Cl. 273—85.
Munro, John D.: *See*—
Pauson, Peter L., and Munro. 3,103,527.
Munro, Robert. Hermetically sealed shaft coupling. 3,077,117, 2–12–63, Cl. 74—18.1.
Munro, William D., J. R. Barker, D. E. Ellis, and J. Gibola, to Texas Instruments Inc. Plasma jet converter for arc welders. 3,083,289, 3–26–63, Cl. 219—75.
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Munro, Donald H. and W. H. 3,105,687.
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Munschauer, Frederick E., Jr., G. E. Munschauer, and Platou. 3,099,180.
Munschauer, Frederick E., Jr., G. E. Munschauer, and L. S. Platou, to Niagara Machine & Tool Works. Feed roll release means for power presses. 3,099,180, 7–30–63, Cl. 83—230.
Munse, Robert A., to Prestole Corp. Adjusting device for thermostats and the like. 3,074,287, 1–22–63, Cl. 74—89.
Munse, Robert A., to The Bishop and Babcock Corp. Molding clip. 3,104,739, 9–24–63, Cl. 189—88.
Munse, Robert A., to The Bishop and Babcock Corp. Method of making sheet metal fastener. 3,108,371, 10–29–63, Cl. 29—532.
Munsell, David D., to Cabot Corp. Process and apparatus for extruding and curing polymeric compositions. 3,095,608, 7–2–63, Cl. 18—14.

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Holliday, William C., Jr., and Munsell. 3,076,792.
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Hopper, Lois H. 3,090,387.
Rutledge, George E. 3,093,988.
Munson, Donald J.: *See*—
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Munson, Donald J., and L. G. Ridge, to The J. R. Clark Co. Collapsible serving cart. 3,074,734, 1–22–63, Cl. 280—41.
Munson, Lyle G., to McCulloch Corp. Scott Division. Means for absorbing torsional vibrations in an outboard motor. 3,107,644, 10–22–63, Cl. 115—18.
Munson, Phillip D. Magnetically supported interchangeable price tag holder. 3,074,193, 1–22–63, Cl. 40—5.
Munson, Whitney K. Hand stamp and type therefor. 3,099,213, 7–30–63, Cl. 101—380.
Munt, Plummer C., to E. B. & A. C. Whiting. Non-distorting polypropylene fibers. 3,073,002, 1–15–63, Cl. 28—72.
Munt, Plummer C., to E. B. & A. C. Whiting Co. Isotactic polypropylene brush bristle and brush containing such bristles. 3,112,508, 12–3–63, Cl. 15—159.
Munton, John P., and M. Dentch, to Rice Barton Corp. Blade holder for paper coating machines. 3,078,825, 2–26–63, Cl. 118—413.
Munushian, Jack, and J. Kliger, to Hughes Aircraft Co. Microwave amplifier. 3,084,293, 4–2–63, Cl. 330—43.
Munz, Max M., and A. W. Kelson; said Kelson assor. to Proper Mfg. Co., Inc. Constrictors. 3,086,529, 4–23–63, Cl. 128—327.
Munz, Robert E., and L. R. Collins, to General Electric Co. Portable heating and cooling appliance. 3,111,166, 11–19–63, Cl. 165—30.
Munz, Otto J.: *See*—
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Murakami, Yasuhiro: *See*—
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Muramatsu, Nobutoshi: *See*—
Motosaki, Shinichi, Tsunoda, Aoki, Okumura, Kondo, Muramatsu, Momose, and Tamagawa. 3,111,459.
Murano, Joseph S. Instrument mouthpiece. 3,091,989, 6–4–63, Cl. 84—383.
Muraoka, Ikuo: *See*—
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Murata, Hiroshi, M. Matsushita, and M. Ito, to The Furukawa Electric Co. Ltd. Slot antenna having short radiating slots and long nonradiating distributed capacitance tuning slot. 3,106,713, 10–8–63, Cl. 343—770.
Murata, Hisato: *See*—
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Murata, Hisato, and F. Higo, to Asahi Electrochemical Industrial Co., Ltd. Process for manufacture of epoxidized fatty acids, alcohols and esters thereof. 3,112,325, 11–26–63, Cl. 260—348.5.
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Murawski, Edmund R., to Phonex Instrument Co., Inc. Electric grass trimmer. 3,077,664, 2–19–63, Cl. 30—276.
Murawski, Stephen A. Hydraulic elevating and prying apparatus. 3,081,066, 3–12–63, Cl. 254—93.
Murawski, Stephen A. Molded shoe. 3,114,981, 12–24–63, Cl. 36—2.5.
Muray, Jan, to Imperial Chemical Industries Ltd. Vapor phase fluorination with ClF and ClF$_3$. 3,099,695, 7–30–63, Cl. 260—653.8.
Muray, Julius J., to High Voltage Engineering Corp. Means for pulsing an ion beam. 3,096,437, 7–2–63, Cl. 250—41.9.
Murcott, Charles E. Adjustable guard frame for beds and the like. 3,089,152, 5–14–63, Cl. 5—331.
Murcott, Charles E. Four-way adjustable bed rail unit. 3,097,370, 7–16–63, Cl. 5—331.
Murcott, Charles E. Swingable walkers. 3,098,651, 7–23–63, Cl. 272—70.3.
Murdoch, Colin D.: *See*—
Crudgington, Cleveland B., and Murdoch. 3,095,558.
Murdoch, Guy C.: *See*—
Fang, Fabian T., and Murdoch. 3,111,862.
Murdoch, Richard O., and F. A. Record; said Murdoch assor. to United States of America, Atomic Energy Commission, and said Record assor. to Bomac Laboratories Inc. Thermal relay device. 3,076,078, 1–29–63, Cl. 200—117.
Murdock, Fred M.: *See*—
Davis, William T., Jr., and Murdock. 3,099,601.
Murdock, John B., and H. A. Stein. Furnace for expanding perlite and similar substances. 3,097,832, 7–16–63, Cl. 263—21.
Murdock, Stanley A.: *See*—
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Armen, Ardy, and Murdock. 3,083,178.
Armen, Ardy, and Murdock. 3,086,956.
Van Dijk, Christiaan P., and Murdock. 3,106,482.
Wirth, Allan R., Murdock, and Berry. 3,111,857.
Murdock, Stanley A., to The Dow Chemical Co. Graft copolymers of vinyl benzyl polyglycol ethers and N-vinyl-2-oxazolidinone polymers, improved acrylonitrile polymer compositions obtainable therewith, and method of preparation. 3,075,947, 1–29–63. Cl. 260—45.5.
Murdock, Stanley A., to The Dow Chemical Co. Graft copolymers comprised of certain monomeric vinyl benzyl polyglycol ethers on N-vinyl-3-morpholinone polymer substrates and improved acrylonitrile polymer compositions obtainable therewith. 3,094,505, 6–18–63, Cl. 260—45.5.
Murdock, Stanley A., C. W. Davis, and F. A. Ehlers, to The Dow Chemical Co. Graft copolymers of mixtures of acrylates and sulfonic acids on N-vinyl-3-morpholinone polymers, improved acrylonitrile compositions, and method of preparation. 3,072,599, 1–8–63, Cl. 260—45.5.
Murdock, Stanley A., C. W. Davis, and F. A. Ehlers, to The Dow Chemical Co. Graft copolymers of mixtures of acrylates and sulfonic acids on N-vinyl 2-oxa-zolidinone polymers, improved acrylonitrile polymer compositions, and method of preparation. 3,072,600, 1–8–63, Cl. 260—45.5.
Murdock, Stanley A., C. W. Davis, and F. A. Ehlers, to The Dow Chemical Co. Graft copolymers of aminoethyl-acrylates and methacrylates on N-vinyl-3-morpholinone polymer substrates improved acrylonitrile polymer compositions obtainable therewith, and method of preparation. 3,082,186, 3–19–63, Cl. 260—45.5.
Murdock, Stanley A., C. W. Davis, and F. A. Ehlers, to The Dow Chemical Co. Graft copolymers of mixtures of acrylamides and sulfonic acid compounds on N-vinyl-3-morpholinone polymers improved acrylonitrile polymer compositions obtainable therewith, and method of preparation. 3,083,176, 3–26–63, Cl. 260—45.5.
Murdock, Stanley A., C. W. Davis, and F. A. Ehlers, to The Dow Chemical Co. Graft copolymers of mixtures of acrylamides and sulfonic acid compounds on N-vinyl-2-oxazolidinone polymer substrates, improved acrylonitrile polymer compositions obtainable therewith, and method of preparation. 3,083,179, 3–26–63, Cl. 260—45.5.
Murdock, Stanley A., C. W. Davis, and F. A. Ehlers, to The Dow Chemical Co. Graft copolymers of certain monomeric aminoethylacrylates and methacrylates and certain N-vinyl-2-oxazolidinone copolymer substrates and improved acrylonitrile polymer compositions obtainable therewith. 3,084,138, 4–2–63, Cl. 260—45.5.
Murdock, Stanley A., and T. G. Traylor, to The Dow Chemical Co. Graft copolymers of certain monomeric sulfonic acid compounds on certain N-vinyl-2-oxazolidinone copolymer substrates and improved acrylonitrile polymer compositions obtainable therewith. 3,086,959, 4–23–63, Cl. 260—45.5.
Murdock, Stanley A., and T. C. Spence, to The Dow Chemical Co. Method of preventing ring-dyeing in aquagel acrylonitrile polymer fibers by streaming the fibers. 3,091,507, 5–28–63, Cl. 8—130.1.
Murdock, Stanley A., and T. G. Traylor, to The Dow Chemical Co. Graft copolymers of certain monomeric sulfonic acid compounds on N-vinyl-3-morpholinone polymer substrates and improved acrylonitrile polymer compositions obtainable therewith. 3,094,504, 6–18–63, Cl. 260—45.5.
Murek, Josef K., to General Dynamics Corp. Dynamic forming machine. 3,105,398, 10–1–63, Cl. 78—42.
Murek, Josef K., to General Dynamics Corp. High energy rate forming machine. 3,108,503, 10–29–63, Cl. 78—42.
Murek, Josef K., to General Dynamics Corp. Impacter bounce shock eliminator. 3,113,476, 12–10–63, Cl. 78—42.
Murglo, Joseph: *See*—
Vosburgh, Malcolm C., and Murgio. 3,101,470.
Murglo, Joseph, to International Telephone and Telegraph Corp. Digital-to-analog converter. 3,110,894, 11–12–63, Cl. 340—347.
Murib, Jawad H.: *See*—
Horvitz, David, and Murib. 3,111,386.
Murib, Jawad H., to National Distillers and Chemical Corp. Separation and recovery process. 3,111,373, 11–19–63, Cl. 23—14.
Murib, Jawad H., to National Distillers and Chemical Corp. Process for separation of boron-containing compounds from mixtures containing same and a hydrogen halide. 3,088,797, 5–7–63, Cl. 23—14.
Murib, Jawad H., to National Distillers and Chemical Corp. Process for recovery of boron-containing compounds. 3,114,604, 12–17–63, Cl. 23—204.
Murley, Ellsworth M., Jr.: *See*—
Mathias, Benny B., and Murley. 3,107,011.
Muro, Louis V.: *See*—
Ernst, Runyon G., and Muro. 3,102,786.
Murol, Tadashi: *See*—
Okamura, Seizo, Murol, Asakura, and Chimura. 3,111,370.
Muros, Joseph, to The Gillette Co. Adjustable razor. 3,088,206, 5–7–63, Cl. 30—60.5.
Murphey, Robert L.: *See*—
Gross, Howard H., Murphey, and McClure. 3,074,882.
Murphy, Arthur J.: *See*—
Fitzgerald, Charles F., and Murphy. 3,087,448.
Murphy, Augustine C. and T. J. Plastic conductor composition. 3,111,495, 11–19–63, Cl. 252—511.
Murphy, Clarence R., to Gulf Research & Development Co. Process for the recovery of methanol. 3,092,667, 6–4–63, Cl. 260—632.
Murphy, Clayton L.: *See*—
Hippen, Ralph W., and Murphy. 3,107,527.
Murphy, Demery A., to Armco Steel Corp. Dual passage rotary swivel. 3,096,103, 7–2–63, Cl. 285—134.
Murphy, Desmond F., to Globe Industries, Inc. Transistor oscillator. 3,111,632, 11–19–63, Cl. 331—113.
Murphy Diesel Co.: *See*—
Cramer, Robert, Jr. 3,102,434.

Murphy, Edward H. Record cleaner. 3,077,622, 2–19–63, Cl. 15—4.

Murphy, Francis T., to Rock-Ola Mfg. Corp. Credit accumulater. 3,100,035, 8–6–63, Cl. 194—48.

Murphy, Francis X.: *See*—
McQuillen, Edward J., and Murphy. 3,100,093.

Murphy, Frank H.: *See*—
Hobson, Charles F., Jr., and Murphy. 3,110,848.

Murphy, Frank P., and H. Kline. Method of shrinking, dyeing and finishing. 3,083,074, 3–26–63, Cl. 8—159.

Murphy, Frank W., Jr.: *See*—
Murphy, Frank W. 3,089,929.
Murphy, Frank W. and F. W. Murphy, Jr. 3,114,903.

Murphy, Frank W., ½ to F. W. Murphy, Jr. Vibration responsive switch. 3,089,929, 5–14–63, Cl. 200—61.45.

Murphy, Frank W. and F. W. Murphy, Jr. Safety switch-gauge. 3,114,903, 12–17–63, Cl. 340—266.

Murphy, Garrison E.: *See*—
Garrison, Harry A., Murphy and J. E. 3,074,687.

Murphy, George T., to J. W. Hill. Wood grain door backer. 3,087,536, 4–30–63, Cl. 160—89.

Murphy, Howard E.: *See*—
Dolby, Ray M., Kabell, Murphy, and Walsh. 3,095,472.

Murphy, Howard J. Tube shield. 3,073,886, 1–15–63, Cl. 174—35.

Murphy, Hubert W., G. W. Probst, and V. C. Stephens, to Eli Lilly and Co. Corticotropin reaction complexes. 3,108,042, 10–22–63, Cl. 167—58.

Murphy, James F.: *See*—
Fetzer, Maurice C., Sperry, and Murphy. 3,107,159.

Murphy, James L., to Barnes Engineering Co. Extended radiation micrometer gage. 3,093,742, 6–11–63, Cl. 250—220.

Murphy, John E.: *See*—
Garrison, Harry A., Murphy and J. E. 3,074,687.

Murphy, John M. Seat adjusting mechanism. 3,115,327, 12–24–63, Cl. 248—397.

Murphy, John P., to Yuba Consolidated Industries, Inc. Apparatus for bridge construction. 3,081,533, 3–19–63, Cl. 29—252.

Murphy, John R. to Coil-Weld Corp. Method of opening a wound coil. 3,110,099, 11–12–63, Cl. 29—426.

Murphy, L. R., Scale Co.: *See*—
Murphy, Lesli R. 3,097,713.

Murphy, Laurence W., and C. D. Macy, to Geo. A. Hormel & Co. Method of facilitating immobilization and/or slaughter of cattle and other large domestic animals. 3,101,508, 8–27–63, Cl. 17—45.

Murphy, Lesli R., to L. R. Murphy Scale Co. Transportable scale with extensible deck. 3,097,713, 7–16–63, Cl. 177—126.

Murphy, Matthew L., to Hawker Aircraft Ltd. Stabilizing control nozzle systems for use on aircraft. 3,111,289, 11–19–63, Cl. 244—52.

Murphy, Maurice F., and B. F. Larrick, to United States of America, Navy Controlled sensitivity igniter composition and method of producing same. 3,110,638, 11–12–63, Cl. 149—6.

Murphy, Maxwell K. Heating element. 3,108,170, 10–22–63, Cl. 219—19.

Murphy, Melvin H.: *See*—
Campbell, Richard E., and Murphy. 3,103,635.

Murphy, Norman B., to The Bendix Corp. Mechanical phase compensator for cascade servo system. 3,093,121, 6–11–63, Cl. 121—41.

Murphy, Patrick N. Emergency brake. 3,098,545, 7–23–63, Cl. 188—76.

Murphy, Paul J., Jr.: *See*—
Vail, Sidney L., and Murphy. 3,112,156.

Murphy, Raymond E. Burner baffle. 3,085,563, 4–16–63, Cl. 126—96.

Murphy, Raymond J., to Medart Lockers, Inc. Multiple-unit power actuated movers for telescoping gymnasium seat-structures. 3,107,398, 10–22–63, Cl. 20—1.126.

Murphy, Raymond J., to Medart Lockers, Inc. Portable telescoping gymnasium seat units. 3,107,399, 10–22–63, Cl. 20—1.126.

Murphy, Roy D.: *See*—
Beilsten, Harry L., Cupp, and Murphy. 3,088,240.

Murphy, Roy E., Jr., to United States of America, Navy. Device for simulating the kinesthesia of submarine control. 3,092,683, 6–4–63, Cl. 35—10.2.

Murphy, Thomas J.: *See*—
Murphy, Augustine C. and T. J. 3,111,495.

Murphy, Walter T., to The B. F. Goodrich Co. Golf ball having a polyetherurethane core. 3,098,658, 7–23–63, Cl. 273—230.

Murphy, William M., Jr., to Raytheon Co. Automatic tracking circuit. 3,091,740, 5–28–63, Cl. 331—4.

Murphy, William P., Jr., to Cordis Corp. Alternating tourniquet system. 3,101,085, 8–20–63, Cl. 128—325.

Murphy, William P., Jr., to Cordis Corp. Infusion safety valve. 3,105,511, 10–1–63, Cl. 137—399.

Murr, Eugene W. Line tension release device. 3,077,114, 2–12–63, Cl. 74—2.

Murray Co. of Texas, Inc., The: *See*—
Neltzel, Joseph C., Laney, and Nelson. 3,114,613.

Murray Corp. of America, The: *See*—
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Stilwell, William E., Jr. 3,088,593.
Stilwell, William E., Jr. 3,089,327.

Murray Corp., The: *See*—
Ivins, Herbert L. 3,111,239

Murray Curnex Printing Ltd.: *See*—
James, David R. 3,094,921.

Murray, Cyril T.: *See*—
White, Robert B., and Murray. 3,105,201.

Murray, Donald A. and C. F. Crumb, to International Harvester Co. Land leveler. 3,080,666, 3–12–63, Cl. 37—180.

Murray, Edward J.: *See*—
Duggan, Raymond J., Murray, and Winstrom. 3,076,810.

Murray, Frederick R.: *See*—
Wilde, Geoffrey L., and Murray. 3,099,423.

Murray, George W., Jr., and E. L. Armstrong, to Socony Mobil Oil Co., Inc. Mllori blue grease. 3,108,957, 10–29–63, Cl. 252—25.

Murray, Gilbert D., III: *See*—
Klein, Peter M., and Murray. 3,078,853.

Murray, Hilton B. Rotary racks for kitchen cabinets and the like. 3,094,362, 6–18–63, Cl. 312—247.

Murray, Jackson L., to West Virginia Pulp and Paper Co. Calender vibration eliminator. 3,111,894, 11–26–63, Cl. 100—162.

Murray, James G.: *See*—
Le Blanc, John R., and Murray. 3,113,148.

Murray, James H.: *See*—
Blaikie, William R., and Murray. 3,095,088.

Murray, James J. Torque alarm. 3,103,004, 9–3–63, Cl. 340—271.

Murray, James V., Jr., and D. J. Foster, to Union Carbide Corp. Separation of aromatic amines using alkylene carbonates. 3,072,662, 1–8–63, Cl. 260—290.

Murray, James V., Jr., and D. W. Peck, to Union Carbide Corp. Recovery of piperazine. 3,105,019, 9–24–63, Cl. 202—42.

Murray, James W.: *See*—
Hierta, Lars J., and Murray. 3,103,867.

Murray, James W., Jr., to Shaffer Tool Works. Kick sub. 3,074,486, 1–22–63, Cl. 166—222.

Murray, Jerome L. Method and means for measuring a jet engine thrust by sensing the output noise. 3,107,525, 10–22–63, Cl. 73—116.

Murray, John A., and L. L. Sifford, to American Cyanamid Co. Automatic volumetric sampler and automatic material transfer. 3,076,341, 2–5–63, Cl. 73—423.

Murray, John L.: *See*—
Beerbower, Alan, and Murray. 3,094,488.

Murray, John S. Self-biased transistor amplifiers having an emitter-follower stage and a subsequent voltage amplifying stage. 3,075,151, 1–22–63, Cl. 330—20.

Murray, Joseph J., to United States of America, Atomic Energy Commission. High voltage electrodes. 3,087,056, 4–23–63, Cl. 250—41.9.

Murray, Lester: *See*—
Tranbarger, Glen E., Murray, Young, and Mehagan. 3,110,355.

Murray, Lynne, and M. J. Henley, to Murray Rubber Co., Inc., and Tyler Pipe and Foundry Co. Gasket for telescoping joint. 3,081,102, 3–12–63, Cl. 277—168.

Murray Mfg. Corp.: *See*—
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Kobryner, Herman H. 3,075,039.
Laverty, Martin J., and Aronson. 3,090,263.

Murray, Maynard R. Process of applying sea solids and fertilizer. 3,071,457, 1–1–63, Cl. 71—1.

Murray, Michael. Illuminable fish lure. 3,077,046, 2–12–63, Cl. 43—17.6.

Murray, Michael F. Buoy. 3,090,977, 5–28–63, Cl. 9—8.3.

Murray Ohio Mfg. Co., The: *See*—
Douglas, Alvin P. Re. 25,382.
Hahn, Gilbert B. 3,088,747.

Murray, Richard F., to International Business Machines Corp. Scan element for computer. 3,099,818, 7–30–63, Cl. 340—172.5.

Murray, Robert J., to United States of America, Army. Metal cutting method and apparatus. 3,088,202, 5–7–63, Cl. 29—567.

Murray Rubber Co., Inc.: *See*—
Murray, Lynne, and Henley. 3,081,102.

Murray, Stephen J.: *See*—
Kleiss, Louis D., and Murray. 3,115,445.

Murray, Sylvester F.: *See*—
Lewis Paul, and Murray. 3,071,207.

Murray, Thomas W. Closure mounting means for underfloor wiring ducts. 3,101,097, 8–20–63, Cl. 138—92.

Murray, Victor E., ½ to J. L. Baarlear. Egg opener and holder. 3,092,409, 6–4–63, Cl. 294—1.

Murray, William J., to United States of America, Navy. Method of forming a brazed lock joint. 3,112,564, 12–3–63, Cl. 29—470.5.

Murschel, Erwin, to C. F. Scheer & Cie. Sanding machine. 3,094,819, 6–25–63, Cl. 51—170.

Murtha, Bruce E., to Combustion Engineering, Inc. Method of fabricating a tube cluster. 3,116,407, 12–31–63, Cl. 219—117.

Murton, Crawford B., to Vesuvius Crucible Co. Stopper for a ladle or similar receptacle. 3,091,823, 6–4–63, Cl. 22—85.

Murty, Anthony F. and B. P. Safety brake apparatus for vehicle. 3,095,067, 6–25–63, Cl. 188—170.

Murty, Benedict P.: *See*—
Murty, Anthony F. and B. P. 3,095,067.

Murvall, Ake E., to Urfabriken, Aktiebolaget. Spinning reels. 3,108,762, 10–29–63, Cl. 242—84.2.

Musat, George: *See*—
Huge, Ernest C., and Musat. 3,074,361.

Musch, John H., to The Firestone Tire & Rubber Co. Freeze stable synthetic latex and method of making same. 3,078,246, 2–19–63, Cl. 260—29.7.

Musch, John H., to The Firestone Tire & Rubber Co. Stable polybutadiene latex paint containing zinc oxide and having enhanced freeze stability and wash resistance. 3,095,397, 6–25–63, Cl. 260—29.7.

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Winfield, William S., and Muschamp. 3,098,208.

Muschett, William G. Pop-up sprinkler. 3,104,822, 9–24–63, Cl. 239—206.

Muschong Metal & Mfg. Co.: *See*—
Tuhro, Albert F. 3,093,011.

Musgrave, Daniel D. Electric exploder. 3,086,469, 4–23–63, Cl. 102—70.2.

Musgrave, Daniel D. Electromechanical actuators with permanent magnets. 3,105,925, 10–1–63, Cl. 317—171.

Musgrave, Daniel D. Firearm magazine with two oppositely disposed feed ends. 3,110,122, 11–12–63, Cl. 42—50.

Musgrave, Daniel D. Variable spring. 3,115,337, 12–24–63, Cl. 267—1.

Musgrave, Louise E. Splash shield. 3,112,571, 12–3–63, Cl. 296—702.

Mushrush, Wilson G., to Syntron Co. Circular lapping machine. 3,088,247, 5–7–63, Cl. 51—3.

Musical Reeds Ltd.: *See*—
Craft, Sydney. 3,075,317.

Muskat, Irving E., to Sinclair Research, Inc. Composition comprising a low viscosity styrene-malein anhydride copolymer and a polyhydric alcohol. 3,085,986, 4–16–63, Cl. 260—31.8.

Muskat, Irving E., to Sinclair Research, Inc. Chain terminated copolymer of styrene and maleic anhydride of low solution viscosity. 3,085,994, 4–16–63, Cl. 260—78.5.

Muskat, Josef: *See*—
Schramm, Paul, Fechter, Baars, and Muskat. 3,109,875.

Muskegon Piston Ring Co.: *See*—
Nisper, Kenneth. 3,081,100.
Nisper, Kenneth J. 3,100,929.

Mussard, Marcel E., to Raytheon Co. Diode bridge sampler and capacitor storage device with feed-back means preventing drift caused by diode leakage. 3,075,086, 1–22–63, Cl. 307—88.5.

Mussard, Marcel E., to Raytheon Co. Decoders. 3,100,257, 8–6–63, Cl. 235—154.

Musschoot, Albert: *See*—
Carrier, Robert M., Jr., Morris, and Musschoot. 3,093,941.

Musschoot, Albert, to Chain Belt Co. Vibratory bin feeder. 3,083,811, 4–2–63, Cl. 198—53.

Musschoot, Albert, to Chain Belt Co. Air spring pressure controls. 3,112,823, 12–3–63, Cl. 198—220.

Musschoot, Albert, to Chain Belt Co. Stabilized air spring. 3,112,922, 12–3–63, Cl. 267—1.

Musschoot, Albert, and L. B. Wilson, to Chain Belt Co. Device for separating fine from coarse materials. 3,087,618, 4–30–63, Cl. 209—329.

Musschoot, Albert, and M. G. Thomson, to General Kinematics Corp. Vibratory device. 3,089,582, 5–14–63, Cl. 198—220.

Musselman, Elvin M.: *See*—
Miller, Louis D., and Musselman. 3,073,981.

Musser, C Walton, to United States of America, Army. Micrometric rifle aligner. 3,070,892, 1–1–63, Cl. 33—180.

Musser, C Walton, to United Shoe Machinery Corp. Fluid device. 3,073,250, 1–15–63, Cl. 103—117.

Musser, C Walton, to United Shoe Machinery Corp. Fluid wave generator for harmonic drive. 3,088,333, 5–7–63, Cl. 74—640.

Musser, C Walton, to United Shoe Machinery Corp. Differential control. 3,101,009, 8–20–63, Cl. 74—640.

Musser, C Walton, to United States of America, Army. Muzzle velocity compensating device. 3,111,882, 11–26–63, Cl. 89—14.

Musser, C Walton, to Harvey Aluminum (Inc.). Wave energy method and apparatus for time-determination. 3,113,415, 12–10–63, Cl. 58—2.

Musser, C Walton, and M. Moldofsky, to United States of America, Army. Piezoelectric gage mount. 3,100,394, 8–13–63, Cl. 73—167.

Musser, David M., and G. J. Nucci, to Johnson & Johnson. Method of controlling fungi with esters of o-phenyl phenol. 3,102,840, 9–3–63, Cl. 167—30.

Musser, Rufus H. Chamois wringer. 3,111,019, 11–19–63, Cl. 68—242.

Musser, Rufus H. Supply and exhaust valve for a pressure chamber. 3,111,134, 11–19–63, Cl. 137—102.

Musser, William H.: *See*—
Eble, Joseph H., Musser, and Ward. 3,102,379.

Mussler, Walter J. Collapsible portable cabin structure for automotive vehicles. 3,097,013, 7–9–63, Cl. 296—23.

Mustad, A B O & Son: *See*—
Bergman, Sune H. 3,099,700.

Mustakas, Gus C., to United States of America, Agriculture. Method of preparing an air-drying conjugated soybean vinyl ether and isobutyl vinyl ether copolymer. 3,085,079, 4–9–63, Cl. 260—33.6.

Mustakas, Gus C., and L. D. Kirk, to United States of America, Agriculture. Method of obtaining detoxified mustard seed products. 3,106,469, 10–8–63, Cl. 99—2.

Mustard, Eldie W. Portable dock. 3,074,239, 1–22–63, Cl. 61—48.

Mustee, Bernard E., to E. L. Mustee & Sons, Inc. Laundry tube hose system. 3,092,845, 6–11–63, Cl. 4—192.

Mustee, E. L., & Sons, Inc.: *See*—
Mustee, Bernard E. 3,092,845.

Musto, Joseph. Linoleum knife. 3,076,263, 2–5–63, Cl. 30—317.

Mustonen, Reino H., R. E. Heintz, and D. W. Jones, to General Motors Corp. Workpiece support. 3,103,145, 9–10–63, Cl. 90—13.

Musy, Andre P., to Edouard Dubied et Cie (Societe Anonyme). Fluid connection for a rotating cylinder hydraulic motor. 3,100,424, 8–13–63, Cl. 92—106.

Musy, Jean, and D. Zannoni, to Lamure & Cie. Apparatus for cutting tubes along rounded grooves. 3,070,885, 1–1–63, Cl. 30—102.

Muszynski, Francis Duck decoy. 3,079,719, 3–5–63, Cl. 43—3

Mutch, Robert D., to Dominion Bridge Co., Ltd. Operator's cab for travelling cranes. 3,090,495, 5–21–63, Cl. 212—18.

Mutchler, David E., and L. W. Binger. Adhesive coated cleaning article. 3,082,453, 3–26–63, Cl. 15—104.

Muter Co., (Jensen Mfg. Co. Division), The: *See*—
Williams, Philip E., Allen, and Hohmann. 3,073,916.

Muterel, Roland: *See*—
Chevreux, Gerard, and Muterel. 3,107,127.

Muth, Franz, to H. F. & Ph. F. Reemtsma. Method of producing a fibrous tobacco material for cigarettes. 3,085,580, 4–16–63, Cl. 131—140.

Muth, William M., Jr., and J. H. Hollyday, to Sperry Rand Corp. Conveyor. 3,090,508, 5–21–63, Cl. 214—42.

Muto, Masako. Panty with hygienic band. 3,088,462, 5–7–63, Cl. 128—290.

Mutschler, Edward C., to Engelhard Hanovia, Inc. Light communication system. 3,087,065, 4–23–63, Cl. 250—199.

Mutschler, Erich: *See*—
Rock, Willy, Mutschler, and Schreiber. 3,100,906.

Muttart, Vincent, to Independent Lock Co. Lock assembly. 3,101,965, 8–27–63, Cl. 292—357.

Mutti, Daniel S. Fishing lure. 3,081,573, 3–19–63, Cl. 43—42.24.

Mutto, Theodore R., to Mid-West Metallic Products, Inc. Tierable and nestable receptacle with hinged gate member. 3,091,355, 5–28–63, Cl. 220—19.

Mutual Liquid Gas & Equipment Co., Inc.: *See*—
Fagan, Joseph S. 3,088,515.

Mutual Mfg. Co., Inc.: *See*—
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Muys, Gerard T., B. van der Ven, and A. P. de Jonge, to Lever Brothers Co. Microbiologically reducing keto acids. 3,076,750, 2–5–63, Cl. 195—30.

Muzzi, Carmelo L. Electrical indicating apparatus. 3,111,033, 11–19–63, Cl. 73—362.

Mycalex Corp. of America: *See*—
Haller, Wolfgang K. 3,087,482.
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Hessinger, Philip S., and Weber. 3,090,669.

Mycalex Electronics Corp.: *See*—
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Mycock, John R., and D. H. Palmer, to Clay-Adams, Inc. Test tube holder and support. 3,085,776, 4–16–63, Cl. 248—153.

Mydels, John W., and C. N. Hurt, to Allis-Chalmers Mfg. Co. Rear gauge wheel for two-way plows. 3,106,252, 10–8–63, Cl. 172—224.

My Double Co., Inc.: *See*—
Ronnell, Eva E. 3,096,916.

Myer, Edwin A.: *See*—
Skwierinski, Albion. 3,094,430.

Myerberg, Michael. Make-up mirror. Re. 25,402, 6–18–63, Cl. 240—4.1.

Myerly, Richard C.: *See*—
Lemon, Russell C., and Myerly. 3,112,318.
Poppelsdorf, Fedor, and Myerly. 3,095,417.
Poppelsdorf, Fedor, and Myerly. 3,106,557.
Poppelsdorf, Fedor, and Myerly. 3,106,558.

Myers, Arnold D.: *See*—
Nyquist, Arthur S., and Myers. 3,096,208.

Myers, Aurle S., Jr., to International Business Machines Corp. Self propagating core logic circuits. 3,104,326, 9–17–63, Cl. 307—88.

Myers, Carl O. Boiler top mounting arrangement for pressure relief valves. 3,094,281, 6–18–63, Cl. 237—63.

Myers, Charles R., and F. K. Hedler, to Koppers Co., Inc. Acoustically sealed track system for movable partitions. 3,098,519, 7–23–63, Cl. 160—40.

Myers, Charles S., to Encyclopaedia Britannica Films Inc. Film strip package. 3,101,844, 8–27–63, Cl. 206—52.

Myers, Dean W., to Aeon Industries, Inc., d.b.a. Pride Products Co. Stroller with base frame track folding action. 3,110,504, 11–12–63, Cl. 280—36.

Myers, Earl D., to Ohaus Scale Corp. Take-down weighing scale with part storage facilities. 3,082,833, 3–26–63, Cl. 177—127.

Myers, Edward C. Sickle guard construction. 3,098,338, 7–23–63, Cl. 56—296.

Myers, Edward F., and E. W. Young, to Burroughs Corp. Pulse driver with magnetic amplitude and width control. 3,072,802, 1–8–63, Cl. 307—88.5.

Myers, Elizabeth R.: *See*—
Vail, Ande R. 3,093,023.

Myers, Elman B., to Scarborough Associates, Inc. Selective color filter. 3,075,432, 1–29–63, Cl. 88—111.

Myers, Elman B., to Fuller-Myers. Hydraulic shaving implement. 3,093,900, 6–18–63, Cl. 30—45.

Myers, Errol L., to H. O. Trerice. Steam traps. 3,114,383, 12–17–63, Cl. 137—185.

Myers, F. E., & Bro. Co., The: *See*—
Ekey, William J. 3,112,706.
Ekey, William J. 3,116,432.
Maitlen, John J. 3,115,844.

Myers, Gilford, and R. K. Youtle. Article of houseware. 3,086,657, 4–23–63, Cl. 211—1.3.

Myers, Harvey: *See*—
Kluge, Robert H., and Myers. 3,103,759.

Myers, Herbert G. J.: *See*—
Ginsburgh, Irwin, and Myers. 3,085,157.

Myers, Herman L., to Raytheon Co. Composite article with tungsten and copper parts. 3,079,676, 3–5–63, Cl. 29—194.

Myers, John C., and J. C. Cates, Jr., to The Dow Chemical Co. Composite anode. 3,072,558, 1–8–63, Cl. 204—280.

Myers, John H.: *See*—
Hennessey, Russell J., Guyer, and Myers. 3,112,855.

Myers, John H., to Waldorf Paper Products Co. Sift proof cartons. 3,084,845, 4–9–63, Cl. 229—38.

Myers, John W., deceased; June L. Myers, administratrix, by to B. Ahlport, and 9/10 to J. L. Myers. Coupling for conduits. 3,104,120, 9–17–63, Cl. 285—161.

Myers, John W., to Phillips Petroleum Co. Catalytic alkylation of aromatics with paraffins. 3,109,038, 10–29–63, Cl. 260—671.

Myers, June L.: *See*—
Myers, John W. 3,104,120.

Myers, Latimer D., C. G. Goebel, and F. O. Barrett, to Emery Industries, Inc. Process for polymerizing unsaturated fatty acids. 3,076,003, 1–29–63, Cl. 260—407.

Myers, Lewis W.: *See*—
Melill, Joseph, Happe, Smithhart, Hall, and Myers. 3,110,961.

Myers, Malcolm C., to Dover Corp. Safety cut-off for automatic dispensing valves. 3,072,294, 1–8–63, Cl. 222—74.

Myers, Paul D., to Aerpat Aktien Gesellschaft. Double acting release pin. 3,085,462, 4–16–63, Cl. 85—5.

Myers, Robert A.: *See*—
Browne, Horace L., and Myers. 3,095,216.

Myers, Robert L.: *See*—
Safford, Moyer M., and Myers. 3,083,175.

Myers, Robert R., to Aluminum Co. of America. Compressibly deformable connectors. 3,088,761, 5–7–63, Cl. 287—108.

Myers, Robert R., to Aluminum Co. of America. Cable accessories. 3,100,672, 8–13–63, Cl. 339—265.

Myers, Thomas E. Method of dissolving iodine in water. 3,080,217, 3–5–63, Cl. 23—309.

Myers, Truman A. Tire chain assembly. 3,088,511, 5–7–63, Cl. 152—217.

Myers, William D., to Baker Oil Tools, Inc. Retrievable parallel string well packer. 3,094,168, 6–18–63, Cl. 166—118.

Myers, William D., to Baker Oil Tools, Inc. Hydraulically actuated well packers. 3,112,796, 12–3–63, Cl. 166—120.

Myers, William H.: *See*—
Vail, Ande R. 3,093,023.

Myers, William H., and F. O. Schob, to Harbison-Walker Refractories Co. Method of co-molding a metal insert in a brick. 3,082,503, 3–26–63, Cl. 25—154.

Myers, William R.: *See*—
Parts, Leo, Pruett, and Myers. 3,101,360.

Myerson, Richard L.: *See*—
Myerson, Simon, and R. L. 3,074,542.

Myerson, Richard L., to Myerson Tooth Corp. Denture cleaner containing a rinse indicator. 3,113,111, 12–3–63, Cl. 252—99.

Myerson, Simon and R. L., to Myerson Tooth Corp. Package for hypodermic needles. 3,074,542, 1–22–63, Cl. 206—63.

Myerson Tooth Corp.: *See*—
Myerson, Richard L. 3,113,111.
Myerson, Simon, and R. L. 3,074,542.

Myles, George A. Rotary engines, pumps, and compressors. 3,087,671, 4–30–63, Cl. 230—144.

Myhre, Curth, to United States of America, Atomic Energy Commission. Ball lock coupling. 3,096,111, 7–2–63, Cl. 287—58.

Myklebust, Paal, to Hankscraft Co. Humidifier. 3,110,748, 11–12–63, Cl. 261—29.

Myklebust, Roger: *See*—
Lomar, Bertil, and Myklebust. 3,108,243.

Myklebust, Roger, to Allmanna Svenska Elektriska Aktiebolaget. Reactor for direct current with alternating current superimposed on the direct current. 3,108,241, 10–22–63, Cl. 336—211.

Myles, John S., to Northern Electric Co. Ltd. Television apparatus for locking the phase of vertical synchronizing pulses. 3,112,364, 11–26–63, Cl. 178—69.5.

Mylius, Elmer W., to Standard Bag Co. Sewing machine for draw-string bag making. 3,085,524, 4–16–63, Cl. 112—2.

Mylting, Lauritz E., to The Allen Sherman Hoff Co. Fine solids transferring device and method. 3,085,831, 4–16–63, Cl. 302—27.

Mylting, Lauritz E., to A-S-H Industries, Inc. Fine solids handling device. 3,115,278, 12–24–63, Cl. 222—56.

Mynall, Dennis J., to Associated Electrical Industries Ltd. Electric conversion circuits. 3,090,908, 5–21–63, Cl. 323—79.

Mynall, Dennis J., to Associated Electrical Industries Ltd. Programmed machine tool control systems. 3,103,614, 9–10–63, Cl. 318—162.

Mynatt, Willis L.: *See*—
Brown, Robinson W., and Mynatt. 3,097,531.

Myotte, Robert J., to National Copper and Smelting Co. Vertical feed cut-off saw. 3,100,412, 8–13–63, Cl. 83—163.

Myotte, Robert J. Drawbench. 3,107,006, 10–15–63, Cl. 205—3.

Myron, Thomas L.: *See*—
Falgen, Mark R., and Myron. 3,102,055.
Guseman, James R., and Myron. 3,094,408.

Myrum, Andor G., to United States Steel Corp. Flow controller for stream of solids. 3,104,037, 9–17–63, Cl. 222—406.

Myslinski, Stephen A., to Western Electric Co., Inc. Gas tube life tester. 3,100,867, 8–13–63, Cl. 324—24.

Mytron Products Inc.: *See*—
Gerstenfeld, Arthur, and Pall. 3,110,826.

N.G.N. Ltd.: *See*—
Brymner, Robert. 3,111,260.

NJE Corp.: *See*—
Love, Roger R. 3,114,873.

N & N, Inc.: *See*—
Petri, Nello J. 3,105,421.

NSU Motorenwerk Aktiengesellschaft: *See*—
Froede, Walter. 3,102,519.
Froede, Walter, and Hoppner. 3,075,505.
Paschke, Hanns-Dieter. 3,091,386.
Paschke, Hanns-Dieter. 3,102,682.
Paschke, Hanns-Dieter. 3,113,526.
Paschke, Hanns-Dieter, and Froede. 3,102,683.
Schlor, Karl. 3,102,520.

NSU Motorenwerke Aktiengesellschaft and Wenkel G.m.b H. *See*—
Froede, Walter G. 3,077,867.
Froede, Walter, and Paschke. 3,097,632.

Naab, George A., and E. M. McKeon. Carrying case. 3,110,-376, 11–12–63, Cl. 190—51.

Naab, Julius, to Ingersoll-Rand Co. Threaded members locked by expanded tubular locking pin. 3,100,516, 8–13–63, Cl. 151—8.

Nabreski, Benjamin P., and A. L. Staudte, to United States of America, Army. Setback actuated timing device. 3,095,-816, 7–2–63, Cl. 102—84.

Nacgubes Ekectristatuques, Societe Anonyme de: *See*—
Polnt, Marcel A. R. 3,082,956.

Nachbar, Henry D., B. B. Biggs, P. J. Tarlello, and K. O. George, to United States of America, Atomic Energy Commission. Shipping container for radioactive material. 3,073,961, 1–15–63, Cl. 250—108.

Nachman Corp.: *See*—
Nachman, Fred A., Jr. 3,079,615.
Nachman, Fred A., Jr. 3,082,438.

Nachman, Fred A., Jr., to Nachman Corp. Multiple coil spring assembly. 3,079,615, 3–5–63, Cl. 5—246.

Nachman, Fred A., Jr., to Nachman Corp. Bed spring assembly. 3,082,438, 3–26–63, Cl. 5—353.

Nachman, Fred A., Jr. Bed spring assembly. 3,107,367, 10–22–63, Cl. 5—248.

Nachmias, Germaine: *See*—
Rumpf, Paul, and Thuillier. 3,084,101.

Nachtman, Elliot S., to La Salle Steel Co. Metallurgical process and steels manufactured by same (martempering). 3,088,855, 5–7–63, Cl. 148—12.

Nachtman, Elliot S., to La Salle Steel Co. Steels having zinc additives for improved machinability. 3,094,440, 6–18–63, Cl. 148—4.

Nachtman, John S., and H. G. Poole. Recovery of metal by use of lead. 3,090,686, 5–21–63, Cl. 75—84.

Nachtscheim, Henry G., E. J. Meyer, and P. Grande, to Minnesota Mining and Mfg. Co. Pressure-sensitive adhesive tape. 3,089,786, 5–14–63, Cl. 117—122.

Nack, Arthur, to Associated Match Companies, Inc. Display kit for greeting cards, or the like. 3,107,781, 10–22–63, Cl. 206—47.

Nadeau, Donald P., to American Motors Corp. Vehicle door lock. 3,111,339, 11–19–63, Cl. 292—216.

Nadeau, Gale F., C. F. Smith, and C. B. Starck, to Eastman Kodak Co. Stripping film for improved emulsion. 3,091,-534, 5–28–63, Cl. 96—83.

Nadel, Isadore G.: *See*—
Trask, Russell L., Sage, and Nadel. 3,086,896.

Nader, Hugo O. M. Prosthetic foot. 3,098,239, 7–23–63, Cl. 3—7.

Nadhenry, Russell J.: *See*—
Hahn, James H., and Nadhenry. 3,071,236.
Hahn, James H., and Nadhenry. 3,093,281.

Nadler, Harry, to United States of America, Atomic Energy Commission. Fuel element handling mechanism. 3,095,-102, 6–25–63, Cl. 214—658.

Nadler, Morton, to Compagnie des Machines Bull (Societe Anonyme). Apparatus for storing and processing numerical information. 3,104,376, 9–17–63, Cl. 340—172.5.

Naecker, Uwe, to Ortmann & Herbst, Firma. Apparatus for filling containers. 3,090,408, 5–21–63, Cl. 141—57.

Naegell, Werner, to Rieter A.G. Maschinenfabrik. Silver coller. 3,105,996, 10–8–63, Cl. 19—159.

Naegell, Werner, to Joh. Jacob Rieter & Co., Ltd. Fly suction device for drafting arrangements. 3,113,351, 12–10–63, Cl. 19—263.

Naegell, Werner, to Joh. Jacob Rieter & Cie, Actiengesellschaft. Pneumatic cleaning system for ring spinning frames. 3,115,000, 12–24–63, Cl. 57—56.

Naeser, Gerhard, to Mannesmann Aktiengesellschaft. Metallurgical process 3,078,158, 2–19–63, Cl. 75—.5.

Naeser, Gerhard, and O. Wessel, to Mannesmann Aktiengesellschaft. Metallurgical product and procesa. 3,078,157, 2–19–63, Cl. 75—.5.

Naeseth, Manley H. Electric circuit for firing detonators consecutively. 3,102,476, 9–3–63, Cl. 102—22.

Naess, Einar, to United States of America, Army. Blocking oscillator having a controlled rise time. 3,110,871, 11–12–63, Cl. 331—148.

Nagai, Nobuya: *See*—
Fujise, Seiichi, Otanka, Nagai, and Numata. 3,112,177.

Nagamatsu, Takeo: *See*—
Tomonoh, Haruki, Nagamatsu, and Teshirogi. 3,087,110.

Nagano, Koichi: *See*—
Tanimura, Katsuo, Kawamura, Suzmura, Sakakibara, and Nagano. 3,080,249.

Nagasawa, Masao, to Ihara Noyaku Kabushiki Kaisha. Fungicides comprising organic ferric ammonium arsonates. 3,106,509, 10–8–63, Cl. 167—22.

Nagata, Aikichi: *See*—
Kawamura, Yurio, Tamuki, Nagata, Terishima, Matsumoto, Onishi, Konishi, Yoshimura, Yamamoto, and Ikawa. 3,099,649.

Nagata, Aikichi, H. Yamamoto, S. Terashima, T. Matsumoto, S. Onishi, and S. Konishi, to Ajinomoto Kabushiki Kaisha. Process for producing refreshing beverage from oil-free soybean flake. 3,082,063, 3–19–63, Cl. 99—98.

Nagata, Hirofumi, M. Takikawa, S. Kurioka, and K. Sukai, to Toho Rayon Kabushiki Kaisha. Method for the manufacture of acrylic fibers. 3,112,161, 11–26–63, Cl. 18—54.

Nagata, Kunlichi, and K. Obara, to Nippon Electric Co., Ltd. Vowel synthesizer. 3,087,989, 4–30–63, Cl. 179—1.

Nagawa, Masatoshi: *See*—
Sunagawa, Genshun, Ito, Nagawa, and Kataoka. 3,090,785.

Nagel, Arthur N., to General Motors Corp. Vehicle body. 3,097,015, 7–9–63, Cl. 296—137.

Nagel-Chase Mfg. Co.: *See*—
Schultz, Edward H., Jr. 3,094,881.

Nagel, Ernst P.: *See*—
Barr, Harry S., Jr., Nagel, and Furstenberg. 3,074,121.
Fowler, Max J., Smith, Stuart, and Nagel. 3,086,348.

Nagel, Ernst P., to Pneumafil Corp. Trumpet cleaner. 3,075,251, 1–29–63, Cl. 19—159.

Nagel, Ferenc: *See*—
Gal, Imre, Nagel, and Oldal. 3,076,915.

Nagel, George W.: *See*—
Schultz, Mortimer A., and Nagel. 3,103,653.

Nagel, Lester L., to Buell Engineering Co., Inc. High voltage switch contact surface. 3,086,099, 4–16–63, Cl. 200—164.

Nagel, Richard R., and N. O. Campise, to Houston Oil Field Material Co., Inc. Paraffin scraper. 3,083,773, 4–2–63, Cl. 166—176.

Nagel, William S.: *See*—
Brown, Robert G., and Nagel. 3,073,294.

Nägele, Bernhard, Jr. Multi-color pressure adjustable writing instrument. 3,098,467, 7–23–63, Cl. 120—14.5.

Nagelmann, Clemens B. Power plant having aligned reciprocating compressor and engine. 3,090,366, 5–21–63, Cl. 123—42.

Nager, Maxwell, to Shell Oil Co. Dehydrogenation process. 3,080,435, 3–5–63, Cl. 260—673.5.

Nager, Maxwell, J. W. Jenkins, and L. W. Maas, to Shell Oil Co. Process for upgrading cracked gasoline fractions. 3,116,232, 12–31–63, Cl. 208—64.

Nagey, Tibor F., J. A. Hunter, and W. A. Maxwell, to Martin-Marietta Corp. Transportable nuclear reactor power plant. 3,086,933, 4–23–63, Cl. 204—193.2.

Nagey, Tibor F., S. W. Burriss, R. B. Spooner, and W. A. Maxwell, to Martin-Marietta Corp. Shield for intercepting radiant energy from an atomic reactor. 3,113,089, 12–3–63, Cl. 204—193.2.

Nagin, Harold, to Reliance Steel Products Co. Bridge floor. 3,110,049, 11–12–63, Cl. 14—73.

Nagin, Harry S.: *See*—
Nagin, Leon and H. S., and Pincus. 3,106,878.

Nagin, Leon and H. S., and M. Pincus, to Reliance Steel Products Co. Highway markers. 3,106,878, 10–15–63, Cl. 94—1.5.

Nagle, Floyd B.: *See*—
Longstreth, Murrey O., McMaster, and Nagle. 3,108,016.

Nagle, Maurice F.: *See*—
Chapman, James R., and Nagle. 3,086,650.

Nagle, William J.: *See*—
Daley, John S., Foecking, and Nagle. 3,094,428.

Nagy, Laszlo: *See*—
Isbell, Donald K., and Nagy. 3,102,608.

Nagy, Louis. All purpose platform ladder. 3,093,209, 6–11–63, Cl. 182—118.

Nahigyan, Bruce S.: *See*—
Kelter, Robert W., and Nahigyan. 3,112,026.

Nahin, Paul G.: *See*—
Atkins, Earle R., Jr., Fischer, and Nahin. 3,111,491.

Nahin, Paul G., to Union Oil Co. of California. Bonding metal and polyethylene. 3,111,419, 11–19–63, Cl. 117—21.

Nahin, Paul G., and P. S. Backlund, to Union Oil Co. of California. Organoclay-polyolefin compositions. 3,084,117, 4–2–63, Cl. 204—158.

Nahrgang, James R. Centrifugal pump. 3,091,183, 5–28–63, Cl. 103—113.

Naideth, Leon. Basketball goal set. 3,108,803, 10–29–63, Cl. 273—1.5.

Naiditch, Leon: *See*—
Cohen, Elle, and Roth. 3,076,109.

Naifeh, Sam C., to Phillips Petroleum Co. Smoke control. 3,095,272, 6–25–63, Cl. 23—209.4.

Nail, Billie G., and E. R. Sabin, to The Vendo Co. Cream dispensing apparatus for coffee vending machine. 3,100,-585, 8–13–63, Cl. 222—63.

Nail, Nelson R., to Eastman Kodak Co. Two-step electrophotography. 3,096,260, 7–2–63, Cl. 204—18.

Nail, Walter P. Inflatable articles. 3,110,532, 11–12–63, Cl. 312—204.

Naimer, Hubert L.: *See*—
Völker, Karl. 3,077,963.

Naimer, Hubert. Threaded plastic rod with mold burr for locking function. 3,099,704, 7–30–63, Cl. 174—138.

Naimer, Hubert L., and F. Bauer. Assembly of axially aligned components. 3,071,674, 1–1–63, Cl. 200—168.

Naismith, Thomas D.: *See*—
Kellogg, George E., and Naismith. 3,104,590.

Najarian, Heraud K. Gas scrubber. 3,075,751, 1–29–63, Cl. 261—112.

Najimian, Harry, Jr., and A. E. Buchholz, deceased (by R. K. Gerling, special administrator), to Outboard Marine Corp. Vent fan and bilge pump. 3,102,483, 9–3–63, Cl. 103—6.

Nakagawa, Geo. Ash tray with disposable receiver. 3,082,-901, 3–26–63, Cl. 220—17.

Nakahira, George T. Automatic transmission spring compressing tool. 3,115,699, 12–31–63, Cl. 29—226.

Nakaji, Edward M.: *See*—
French, Barry T., Nakaji, and Schneider. 3,082,124.

Nakamatsu, Yoshio: *See*—
Sasaki, Junichi, Soda, Nakamatsu, Kobayashi, and Tochikura. 3,077,672.

Nakamatsu, Yoshiro. Electronic transducer employing radioactive substances. 3,106,657, 10–8–63, Cl. 313—54.

Nakamura, Kiyoshi, to Nippon Electric Co. Ltd. Expansion circuit utilizing transistor biased near cut-off. 3,104,328, 9–17–63, Cl 307—88.5.

Nakamura, Takezo: *See*—
Arata, Yoshiaki, Uno, and Nakamura. 3,082,314.

Nakane, Takashi, T. Kubota, and Y. Umezawa, to The Yokohama Rubber Co., Ltd. Method of treating rubber-reinforcing fibrous material for improving heat resistance thereof. 3,108,010, 10–22–63, Cl. 117—47.

Nakanishi, Tetsuichiro: *See*—
Nettel, Frederick, and Nakanishi. 3,108,938.

Nakano, Koichi: *See*—
Takao, Zenichiro, Inomata, and Nakano. 3,111,434.

Nakatani, Atsutada: *See*—
Sato, Takayoshi, and Nakatani. 3,096,697.

Nakaten, Herbert, and J. Ribka, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning. Disazo-dyestuffs insoluble in water. 3,113,937, 12–10–63, Cl. 260—178.

Nakaten, Herbert, and J. Ribka, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning. Water-insoluble monoazo-dyestuffs and process for their manufacture. 3,113,938, 12–10–63, Cl. 260—204.

Nakatsuchi, Akira: *See*—
Yamaguchi, Hachiro, and Nakatsuchi. 3,090,806.

Nakayama, Kiyoshi: *See*—
Kinoshita, Shukuo, Nakayama, Suzuki, and Sato. 3,102,-079.

Nakayama, Mitsuru. Landing net with weighing and measuring combination. 3,077,237, 2–12–63, Cl. 177—245.

Nakazawa, Koiti: *See*—
Tatsuoka, Sueo, Kanazawa, Araki, Nakazawa, Miyake, Hitomi, Ueyanagi, Shibata, Hiraiwa, Tsuchiya, Iwasaki, and Yamaguchi. 3,112,341.

Nakazawa, Koiti, M. Shibata, E. Higashide, T. Kanzaki, H. Yamamoto, A. Miyake, H. Hitomi, S. Horii, T. Yamaguchi, T. Araki, K. Tsuchiya, Y. Oka, and A. Imai, to Takeda Pharmaceutical Industries, Ltd. Process for preparing zygomycins. 3,089,827, 5–14–63, Cl. 195—80.

Nalco Chemical Co.: *See*—
Berner, Roland A. 3,095,862.
Boles, David B., Crowther, and Ryzner. 3,079,220.
Boles, David B., Crowther, and Ryzner. 3,081,146.
Feldt, Charles A., and Kekish. 3,092,617.
Hettinger, William P., Jr. 3,079,311.
Johnson, Carl E. 3,081,190.
Kirkpatrick, Willard H. 3,112,276.
Kirkpatrick, Willard H., and Seale. 3,084,124.
Kirkpatrick, Willard H., and Seale. 3,108,087.
Kirkpatrick, Willard H., Seale, Walker, and Law. 3,098,-827.
Lee, Fred G. H., and Svarz. 3,072,690.
Lee, Fred G. H., and Svarz. 3,074,815.
Luvisi, George W. 3,108,970.
Miller, Richard M., and Patzelt. 3,105,810.
Needleman, Saul B. 3,102,773.
Ryznar, John W., and Premo. 3,100,181.
Starry, James E. 3,101,317.

Nalen, Joseph L., to Raymond International Inc. Bulb pile. 3,113,436, 12–10–63, Cl. 61—53.6.

Nalette, Thomas A.: *See*—
Stearns, Thomas H., and Nalette. 3,074,043.

Nalle, Charles R. Furniture support element. 3,104,493, 9–24–63, Cl. 45—139.

Nalle, George S., Jr. Molded tampon applicator. 3,115,-876, 12–31–63, Cl. 128—263.

Nallinger, Friedrich K. H., to Daimler-Benz Aktiengesellschaft. Internal combustion engine with exhaust gas turbine. 3,080,704, 3–12–63, Cl. 60—13.

Nallinger, Friedrich K. H., to Daimler-Benz Aktiengesellschaft. Vehicle brake. 3,080,948, 3–12–63, Cl. 188—78.

Nallinger, Friedrich K. H., to Daimler-Benz Aktiengesellschaft. Measuring device, especially speed indicator for motor vehicles. 3,088,432, 5–7–63, Cl. 116—116.

Nallinger, Friedrich K. H., to Daimler-Benz Aktiengesellschaft. Knob arrangement, particularly for motor vehicles. 3,101,007, 8–20–63, Cl. 74—553.

Nallinger, Friedrich K. H., to Daimler-Benz Aktiengesellschaft. Control arrangement for internal combustion engines. 3,102,522, 9–3–63, Cl. 123—140.

Nallinger, Friedrich K. H., to Daimler-Benz Aktiengesellschaft. Noise-deadening motor vehicle construction. 3,112,810, 12–3–63, Cl. 181—33.

Nallinger, Friedrich K. H., and K. Wilfert, to Daimler-Benz Aktiengesellschaft. Headlight assembly for automobiles. 3,110,883, 11–12–63, Cl. 340—100.

Nalso Chemical Co.: *See*—
Glover, Everett D. 3,098,044.

Namenyi-Katz, Laszlo, to Vectron Electro-Physics Ltd. Tape recorder construction. 3,078,057, 2–19–63, Cl. 242—55.12.

Namenyi-Katz, Laszlo, to Epsylon Research and Development Co. Ltd. Magnetic recording heads. 3,080,455, 3–5–63, Cl. 179—100.2.

Namenyi-Katz, Laszlo. Yarn break detector. 3,099,829, 7–30–63, Cl. 340—259.

Namenyi-Katz, Laszlo, to Epsylon Research and Development Co. Ltd. Tape recorder automatic block selector. 3,115,289, 12–24–63, Cl. 226—42.

Namikawa, Manorn: *See*—
Hoshino, Yasushi, Namikawa, and Tochihara. 3,093,709.

Namlsniak, Joseph, and J. W. Endress, to Carrier Corp. Control mechanism for fluid compression means. 3,081,604, 3–19–63, Cl. 62—84.

Namm & Singer, Inc.: *See*—
Asnes, Floyd. 3,089,443.

Namon, Richard. Speaker design. 3,107,746, 10–22–63, Cl. 181—32.

Namsick, Raymond J., to The Goodyear Tire & Rubber Co. Flotation device. 3,102,705, 9–3–63, Cl. 244—102.

Nance, Granval J., and E. G. McDonald, to Cable Co. Apparatus and method for forming stranded cables. 3,106,815, 10–15–63, Cl. 57—13.

Nannigan, William D.: *See*—
Fundinger, Paul F., and Nannigan. 3,109,264.

Nanovic, Nicholas S.: *See*—
Cyr, Howard M., and Nanovic. 3,089,856.

Nanson, Arthur. Contact or similar wheels for abrasive belts or the like. 3,083,584, 4–2–63, Cl. 74—230.7.

Napier, D., & Son Ltd.: *See*—
Buckingham, David E. J. 3,073,567.
Elford, Lionel H. 3,099,385.

Napier, David E. Gauge movements. 3,110,284, 11–12–63, Cl. 116—129.

Napier, Donald R., to Continental Oil Co. Two step preparation of aluminum alkoxides. 3,097,226, 7–9–63, Cl. 260—448.

Napolin, Seymour, to Granco Products, Inc. Adjustable capacitors. 3,085,182, 4–9–63, Cl. 317—249.

Napolitano, John P.: *See*—
Orloff, Harold D., and Napolitano. 3,089,762.

Napolitano, Liberato R., 50% to H. C. Weisman. Matrix for line-casting machine. 3,071,242, 1–1–63, Cl. 199—63.

Nappi, John J. Shoe sole cleaner. 3,083,393, 4–2–63, Cl. 15—215.

Nara, Jiyuichi. Process for manufacturing wheat flour. 3,080,125, 3–5–63, Cl. 241—11.

Nara, Takashi: *See*—
Kinoshita, Shukuo, Samejima, Fujita, and Nara. 3,099,604.

Naraghi, Hashem. Automatic loading means for a traveling feeder. 3,077,862, 2–19–63, Cl. 119—52.

Narda Microwave Corp., The: *See*—
Casper, Stuart D., and McFarland. 3,113,277.
McFarland, James E. 3,080,540.

Nardi, Guy. Combination wrench. 3,086,414, 4–23–63, Cl. 81—90.

Nardin, Marc: *See*—
Cachin, Andre, and Nardin. 3,111,806.

Nardone, Romeo M. Two-way flush valve mechanism. 3,093,833, 6–18–63, Cl. 4—67.

Narel, Joseph W., and J. W. Johnson, to Norton Co. Machine tool loading and transfer mechanism. 3,113,404, 12–10–63, Cl. 51—105.

Narel, Leonard M.: *See*—
Pine, Robert M., and Narel. 3,079,142.

Narma, Rein: *See*—
Skov, Erling P., and Narma. 3,111,635.

Narmco Industries, Inc.: *See*—
Levine, Harold H. 3,092,604.

Narragansett Gymnasium Equipment Co.: *See*—
Delf, George A., and Kortum. 3,088,176.
Delf, George A., and Stevenson. 3,087,206.

Narrow Fabric Co., The: *See*—
Dudley, George, Jr. 3,076,199.
Seelig, Oliver N. 3,110,951.

Narsakian, Zavan, to United States of America, Navy. Computing apparatus. 3,101,008, 8–20–63, Cl. 74—600.

Nasco American Inc.: *See*—
Kfoury, Georgette S. 3,107,094

Nash, Darrell J.: *See*—
Henry, William P. 3,091,197.

Nash, Edward L., to General Motors Corp. Master cylinder. 3,070,961, 1–1–63, Cl. 60—54.6.

Nash, Edward L., to General Motors Corp. Anchor means for brake shoes. 3,091,308, 5–28–63, Cl. 188—78.

Nash Engineering Co.: *See*—
Adams, Harold E. 3,080,823.
Adams, Harold E. 3,102,083.
Adams, Harold E. 3,102,491.

Nash, Harold W.: *See*—
Jeffries, Dan W. 3,112,014.

Nash, John C. Tenter clip gate. 3,104,444, 9–24–63, Cl. 26—62.

Nash, Lawrence H. Bimetallic salts of ethylene bis ditblocarbamic acid. 3,082,229, 3–19–63, Cl. 260—429.

Nash, Lawrence M., to Johnson & Johnson. Cleaning implement. 3,099,855, 8–6–63, Cl. 15—231.

Nash, Leonard J., to Godins "The Rollers of Steel Sections" Ltd. Machine for forming metal sections or tubes. 3,080,838, 3–12–63, Cl. 113—1.

Nash, Monroe, and E. G. Freudenstein: said Freudenstein assor. to said Nash. Method of preparing an edible fish product. 3,108,882, 10–29–63, Cl. 99—188.

Nash, Paul. Photoelectric inspection and sorting machines. 3,105,151, 9–24–63, Cl. 250—219.

Nash, Paul. Inspection of sheet materials by photoelectric means. 3,105,152, 9–24–63, Cl. 250—219.

Nash Plastics Ltd.: *See*—
Fagan, Brian E., and Cuthbert. 3,100,116.

Nash, Ralph C. Packaging of band saw blades. 3,115,243, 12–24–63, Cl. 206—52.

Nash, Ralph C. Wrapper providing separable envelopes. 3,115,295, 12–24–63, Cl. 229—87.

Nash, Richard L.: *See*—
Cox, Clarence E., and Nash. 3,072,319.
Cox, Clarence E. and Nash. 3,072,320.

Nash, Robert A.: *See*—
Giles, John K., and Michener. 3,099,248.

Nash, Vernon V.: *See*—
Walstrom, Stanley R., and Nash. 3,083,058.

Nash, William H., to McGraw-Edison Co. Lightning arrester. 3,087,094, 4–23–63, Cl. 317—70.

Nashman, Alvin E., and D. Metsky, to International Telephone and Telegraph Corp. Electronic accelerometer. 3,090,240, 5–21–63, Cl. 73—517.

Nashoba Engineering Corp: *See*—
Cotter, Donald P. 3,083,593.

Nashold, Robert W., H. J. Baldwin, and V. L. Mitchell, to The Cincinnati Milling Machine Co. Spiral milling machine. 3,101,649, 8–27–63, Cl. 90—11.5.

Nashua Corp.: *See*—
Conway, William E., Dionne, and Thompson. 3,076,588.
Doyle, Britton H., Eisenberg, and McDermott. 3,076,586.
Eisenberg, Arnold J. 3,112,224.
Lawton, William R., and Lopez. 3,076,707.
Lawton, William R., and Lopez. 3,104,979.
Lawton, William R., Smith, and Copley. 3,090,697.
Prior, Walter L. 3,104,179.

Nashville Bridge Co.: *See*—
Dyer, Harry B. 3,084,827.

Nashville Electronics, Inc.: *See*—
Pugh, James O., and Kirkpatrick. 3,099,069.

Naslund, Lennart V., to Skil Corp. Rotary-hammer device. 3,114,423, 12–17–63, Cl. 173—97.

Naslund, Ruth S. Hinged louver assemblies. 3,110,937, 11–19–63, Cl. 20—62.

Nass, Leonard I., and W. A. Stamm, to Carlisle Chemical Works, Inc. Preparation of polyurethane foam. 3,092,593, 6–4–63, Cl. 260—2.5.

Nasa, Walter R., to General Dynamics Corp. Dynamic testing apparatus. 3,074,385, 1–22–63, Cl. 121—147.

Nassar, Antoine M. Complementary musical instrument for ordinary piano making possible the interpretation of all the pieces written originally for organ. 3,103,848, 9–17–63, Cl. 84—448.

Nassau, Kurt: *See*—
Wallace, William E., Nassau, and Cherry. 3,102,002.

Nasser, Mitchell, to General Electric Co. Front opening dishwasher with improved dish rack arrangement. 3,084,702, 4–9–63, Cl. 134—144.

Nassikas, Euripides R., and A. M. Calover. Automatic vehicle warning system. 3,089,129, 5–7–63, Cl. 340—262.

Nassour, Edward. Method of and means for making plastic figures having different postures of animation. 3,073,053, 1–15–63, Cl. 41—25.

Nasuno, Akihumi, ¾ to Kurashiki Rayon Co., Ltd., and ¼ to Air Reduction Co., Inc. Method of treating fibers. 3,111,363, 11–19–63, Cl. 8—115.5.

Nasvytis, Algirdas L.: *See*—
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Natanson, Edward A. Loader. 3,089,733, 5–14–63, Cl. 302—56.

Natelli, Mario, to Kleer-Pak Machinery & Packaging, Inc. Sealing mechanism for packaging machines. 3,109,764, 11–5–63, Cl. 156—582.

Naterop, Johan A.: *See*—
Barbier, Gilbert, and Naterop. 3,072,183.

Nathan, Amos. Input converter and sign discriminator for multipliers. 3,084,862, 4–9–63, Cl. 235—194.

Nathan, Amos. Electronic interpolating time sharing function generators. 3,102,951, 9–3–63, Cl. 235—197.

Nathan, Amos. Electronic function generator with interpolating resistors. 3,106,639, 10–8–63, Cl. 235—197.

Nathan, Amos, and J. Katzenelson, to Technion Research and Development Foundation Ltd. General purpose compensated diode function generator. 3,100,839, 8–13–63, Cl. 235—197.

Nathan, Amos, and J. Katzenelson, to Technion Research and Development Foundation Ltd. Translatorized adjustable function generator. 3,103,583, 9–10–63, Cl. 235—197.

Nathan, Irwin E. Separable compartmented container. 3,099,380, 7–30–63, Cl. 229—27.

Nathan, Marvin F.: *See*—
Kardash, Walter A., and Nathan. 3,077,448.

Nathan, Tracy D., to Hamilton Kent Mfg. Co. Bridge pad and its use. 3,107,377, 10–22–63, Cl. 14—16.

Nathan, Tracy D., to Hamilton Kent Mfg. Co. Slit-surfaced o-ring and its use. 3,107,922, 10–22–63, Cl. 277—168.

Nathan, Wilfred S., to The British Petroleum Co. Ltd. Vapor compression distillation process. 3,109,782, 11–5–63, Cl. 202—75.

Nathansohn, Giangiacomo, and E. Testa, to Lepetit S.p.A. Process for preparing 16β-methylprednisone. 3,076,001, 1–29–63, Cl. 260—397.45.

Natho, Paul J., to ACF Industries Inc. Hydraulic operator for reciprocating gate valves. 3,089,745, 4–23–63, Cl. 251—62.

Nation, Harry J.: *See*—
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National Acme Co., The: *See*—
Beacom, Robert, and Schubert. 3,103,838.
Beacom, Robert, and Schubert. 3,103,840.
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National Automatic Tool Co., Inc.: *See*—
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Penland, Lowell B. 3,115,348.
Swanson, Floyd A. 3,097,453.

National Bank of Commerce of Charleston, The: *See*—
Douglas, Stuart D. 3,074,905.

National Bank of Indianapolis: *See*—
Newland, Arthur E., and Schultz. 3,086,513.

National Biscuit Co.: *See*—
Harris, William C., and Childers. 3,106,173.
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National Blank Book Co.: *See*—
Schade, Frank S. 3,073,315.
Schade, Frank S. 3,111,774.
Schade, Frank S. 3,111,775.
Schade, Frank S. 3,111,776.

National Broach & Machine Co.: *See*—
Bassoff, Arthur B. 3,072,118.
Bassoff, Arthur B. 3,110,132.
Daniel, David W. 3,092,934.
Daniel, David W. 3,092,935.
Daniel, David W., and Kokorzycki. 3,071,862.
Daniel, David W., and Kokorzycki. 3,097,567.
Daniel, David W., and Sigman. 3,077,877.
Davis, Kenneth J. 3,088,251.
Davis, Kenneth J. 3,095,980.
Davis, Kenneth J. 3,110,224.
Gates, Thomas S. 3,099,882.
Miller, Stewart F., and Zimmerman. 3,106,805.
Motz, Carl H. 3,086,294.
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National Bundle Tyer Co.: *See*—
Saxton, James B., and Bachmayer. 3,114,308.

National Can Corp.: *See*—
Renard, Roland E., and Davidson. 3,085,532.

National Carta, Inc.: *See*—
Thompson, Norris J. 3,093,385.

National Cash Register Co., The: *See*—
Abbott, Tirey C., Jr., and Bernstein. 3,102,995.
Anderson, John R. 3,079,591.
Archer, Robert F. 3,094,887.
Arnold, William C., and Jorgensen. 3,102,930.
Bennett, John W., and Perry. 3,100,113.
Berman, Elliot. 3,090,687.
Berman, Elliot. 3,100,778.
Berman, Elliot, and Schwab. 3,072,481.
Brown, Jerome U. 3,077,950.
Brynko, Carl, and Bakan. 3,116,206.
Carlson, Carl O. 3,085,469.
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Cornell, James R. 3,102,240.
Cornell, James R., and Congleton. 3,109,122.
Eberhardt, George J., and Werner. 3,092,313.
Fisher, Robert D., Williams, and Harsacky. 3,116,159.
Fogle, Mark V. 3,087,832.
Foris, Peter L. 3,105,761.
Goldstick, Gerson H. 3,116,476.
Green, Albert J., Randall, Williams, and Werner. 3,100,037.
Grosnickle, Henry, Jr., and Arnold. 3,079,145.

National Cash Register Co., The: *See*—Continued
Harbor, William H., and Burge. 3,115,963.
Hunter, Robert B., and Archer. 3,087,107.
Maierson, Theodore. 3,104,980.
Maierson, Theodore, Schiller, and Vosmer. 3,099,571.
Malcolm, Jack W. 3,087,149.
Marcey, Stephen D. 3,079,293.
Miller, Paul M. 3,109,817.
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Seehof, Jerrold M., Armstrong, and Smithberg. 3,089,122.
Smith, Frederick L. 3,101,894.
Tribby, Loren L. 3,073,968.
Trimble, Cebern B. 3,100,591.
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Wachowiak, David A. 3,109,125.

National Castings Co.: *See*—
De Penti, Kenneth L., and Willison. 3,100,050.
Metzger, William J. 3,079,010.
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Rekart, Harold L. 3,076,238.
Russell, Richard E., De Penti, and Wyrough. 3,086,807.
Willison, Donald. 3,088,768.
Wyrough, David J. 3,101,967.
Wyrough, David J. 3,106,421.
Yearley, Bernard C., Norton, and Gavin. 3,094,749.
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National Cleveland Corp.: *See*—
Hannum, Charles M. 3,098,333.

National Co., Inc.: *See*—
Grant, Eugene F., and Fenton. 3,088,078.
Holloway, Joseph H., and McCoubrey. 3,076,942.
Knapp, Guenther. 3,107,285.
Knight, George A. 3,112,976.
McCoubrey, Arthur O., and Gaussen. 3,080,519.
Potts, Thomas J., Jr., and Grant. 3,115,611.
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National Connector Corp.: *See*—
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National Cooperatives, Inc.: *See*—
Fjermestad, Arnold R. 3,111,112.
Fjermestad, Arnold R. 3,111,140.

National Copper and Smelting Co.: *See*—
Myotte, Robert J. 3,100,412.

National Dairy Farm Equipment, Inc.: *See*—
Hagg, Don R., and Grove. 3,077,180.

National Dairy Products Corp.: *See*—
Friesen, Aron E. 3,111,096.
Hayhurst, Lewis J. 3,081,927.
Hurlburt, John C., and Kraft. 3,072,489.
Kraft, George H. 3,090,174.
Kraft, George H., and Podlesak. 3,080,238.
Krett, Orest J., and Gennuso. 3,093,486.
Partyka, Anthony. 3,093,485.
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National Distillers and Chemical Corp.: *See*—
Blythe, James E., and Prince. 3,115,731.
Braus, Harry, and Cohen. 3,111,380.
Braus, Harry, and Homberg. 3,088,973.
Braus, Harry, and Homberg. 3,098,848.
Carlson, Eugene C., and Muller. 3,098,722.
Clark, Jesse K. 3,097,289.
Cochrane, Richard H. 3,083,513.
Cohen, Howard J. 3,086,983.
Commisso, Nicholas D. 3,088,244.
Corbett, Herbert O. 3,086,648.
Corbett, Herbert O. 3,088,167.
Corbett, Herbert O. 3,090,076.
Dean, Ralph K., Slatkovski, and Wegner. 3,098,267.
Dickinson, Clayton D., Abkowitz, and Nylen. 3,114,632.
Feldman, Julian, Saffer, and Allgeier. 3,088,982.
Foos, Raymond A., and Stambaugh. 3,098,708.
Giovannucci, Julius L. 3,092,524.
Groce, Irwin J., Ritchey, and Peters. 3,098,711.
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Horvitz, David, and Murib. 3,111,386
Hungerford, Gordon P., Cooper, and Kaufman. 3,088,844.
James, Albert L. 3,113,883.
Lerman, Frank, and Bohnlofink. 3,099,697.
Mador, Irving L., and Blackham. 3,114,762.
Mador, Irving L., and Robinson. 3,111,543.
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Nobis, John F., and Frank. 3,089,858.
Nobis, John F., Mador, and Robinson. 3,111,545.
Palmer, William H., and Hannon. 3,114,169.
Porter, Glenn M. 3,090,269.
Ross, David K. 3,114,611.
Saffer, Bernard A., and Feldman. 3,098,880.
Schott, Stuart, and Hansley. 3,086,847.
Solvik, Ragnar S., Kirch, and Lessells. 3,114,742.
Stambaugh, Edgel P., and Foos. 3,090,670.
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National Drying Machinery Co., The: *See*—
Schlecht, Charles H. 3,111,251.
Schlecht, Charles H., and Drobil. 3,099,291.
National Franchise Marketing and Leasing Corp.: *See*—
Malachuk, Daniel. 3,083,493.
National Frost Protection Co., Inc.: *See*—
Packham, Lester M. 3,101,510.
National Furniture Mfg. Co., Inc.: *See*—
Caldemeyer, Daniel F., and Quakenbush. 3,083,996.
Caldemeyer, Daniel F., and Quakenbush. 3,107,365.
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National Geographic Society: *See*—
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Gorman, William S., Jr. 3,098,784.
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Schneller, Joseph W. 3,090,471.
Slowinski, Robert H. 3,073,068.
Slowinski, Robert H. 3,102,366.
Slowinski, Robert H. 3,112,532.
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National Industrial Products Co.: *See*—
Roscelli, Gertrude A. 3,097,969.
Roscelli, Gertrude A., and High. 3,081,183.
National Instrument Laboratories, Inc.: *See*—
Goldsmith, Herbert. 3,071,001.
Steele, Dale I. 3,103,119.
Welchbrod, Joseph. 3,071,160.
National Iron Co.: *See*—
Erickson, Lewis C. 3,080,986.
Erickson, Lewis C. 3,097,734.
Erickson, Lewis C. 3,097,738.
National Laboratories and Mfg. Corp.: *See*—
Bogert, John J. 3,089,381.
National Lead Co.: *See*—
Alpert, Marshall B. 3,114,685.
Bauer, Alfred F. 3,083,424.
Bauer, Alfred F. 3,098,270.
Bauer, Alfred F. 3,106,002.
Bunk, Hugo. 3,098,292.
Clearfield, Abraham. 3,104,248.
Cobb, Vincent J. 3,105,743.
Dantro, Horace F., Kalinowski, and Sinta. 3,091,515.
Doll, Donald P., and Volkening. 3,073,711.
Dunn, Edward J., Jr., and Kushner. 3,100,718.
Dunn, Edward J., Jr., and Kushner. 3,100,719.
Hathaway, Augustus J., III. 3,076,716.
Hendricks, John G., and Scarbrough. 3,106,539.
Herman, Daniel F., and Kollman. 3,078,262.
Herman, Daniel F., Simone, and Weil. 3,114,737.
Horrigan, Robert V. 3,096,143.
Kaufman, Daniel, and McMullen. 3,109,822.
Knudsen, Lawrence B. 3,071,435.
Konig, Otto. 3,086,893.
Larsen, Delmar H. 3,084,172.
Luethge, John A. 3,105,744.
Pitrot, Adrian R. 3,072,495.
Pitrot, Adrian R., and Hendricks. 3,072,586.
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Eisenmann, Albrecht. 3,110,377.
National Lock Co.: *See*—
North, Edwin W., and Spon. 3,101,603.
North, Edwin W., and Spon. 3,101,604.
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National Malleable and Steel Castings Co.: *See*—
Metzger, William J. 3,071,256.
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Brown, James W. 3,101,148.
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National Mine Service Co.: *See*—
Jackson, Alton B., and Michael. 3,104,751
National Rejectors, Inc.: *See*—
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Lotspeich, Joseph F. 3,075,669.
McCally William J. 3,101,981.
Melvin, Fred J., and Haverstick. 3,082,852.
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National Research Associates, Inc.: *See*—
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Baer, Charles A., Clough, and Steeves. 3,084,060.
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Bleackley, William J. 3,110,002.
Dauphinee, Thomas M., and Preston-Thomas. 3,087,337.
Humphries, John, Brown, and McIntosh. 3,094,617.
Le Caine, Hugh. 3,095,466.
Moore, Ernest S. 3,077,811.
Redhead, Paul A. Re. 25,369.
Shaw, Edgar A. G., and Thiessen. 3,112,005.
Smith, Donald S. 3,094,655.
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National Research and Development Corp.: *See*—
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National Research Development Corp.: *See*—
Bacon, Francis T., and Frost. 3,112,229.
Baker, Alan R. 3,092,799.
Bergel, Franz, and Wade. 3,079,302.
Bishop, Donald, and Ripper. 3,098,622.
Bowden, Bertram V., Koenigsberger, and Royle. 3,090,896.
Brooks, Harold, Forsyth, and Lewis. 3,070,881.
Caplan, Samuel R. 3,085,956.
Chambers, Hubert H., and Tantram. 3,099,587.
Exley, Donald. 3,074,309.
Firth, Donald, and Hamilton. 3,092,969.
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Gabor, Dennis. 3,110,823.
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Hamblin, Henry J., and Nation. 3,085,403.
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Hulme, Kenneth F., and Mullin. 3,116,113.
Kelly, Brendan K., Miller, and Codner. 3,082,155.
Lonz, Leonard H. 3,092,666.
Lovelock, James E. 3,110,809.
Moss, Ashley R. 3,104,310.
Nicol, Donald L. 3,090,236.
Perry, Gerald H., and Shallow. 3,087,070.
Planer, George V., and Glaister. 3,074,804.
Ross, Walter C. J., and Davis. 3,105,847.
Royle, Joseph K. 3,093,159.
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Stott, Frank D. 3,088,716.
Tantram, Anthony D. S., and Harris. 3,101,285.
Tibbs, David J., and Leslie. 3,073,311.
Tucker, David G. 3,092,802.
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National Resistance Corp.: *See*—
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National Rubber Machinery Co.: *See*—
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Davey, Thomas R. A., and Linton. 3,098,110.
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Natta, Giulio, P. Pino, and G. Mazzanti, to Montecatini-Societa Generale per l'Industria Mineraria e Chimica. Prevallingly isotactic polypropylene. 3,112,301, 11-26-63, Cl. 260—93.7.
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Nelson, Alfred J. Water ski line hanger. 3,082,990, 3-26-63, Cl. 248—308.
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Nelson, Brooks E., to The Osborn Mfg. Co. Conveyor roll. 3,087,599, 4-30-63, Cl. 198—127.
Nelson, Brooks E., to The Osborn Mfg. Co. Non-streaking brush. 3,090,062, 5-21-63, Cl. 15—181.
Nelson, Brooks E., to The Osborn Mfg Co. Rotary brush with fluid channels. 3,109,190, 11-5-63, Cl. 15—181.
Nelson, Bruce E., to Varian Associates. Frequency modulation measurement method and apparatus. 3,071,726, 1-1-63, Cl. 324—79.
Nelson, Bruce K., to Avco Mfg. Corp. Phase and frequency control systems for discriminators and the like. 3,083,340, 3-26-63, Cl. 329—137.
Nelson, Christian K., C. W. Melton, and T. L. Jernigan, to Eskimo Pie Corp. Distributor valve. 3,080,884, 3-12-63, Cl. 137—315.
Nelson, Christian K., C. W. Melton, and T. L. Jernigan, to Eskimo Pie Corp. Baffle tube and extruder. 3,088,638, 5-7-63, Cl. 222—478.
Nelson, Daniel E. Positive power jet engine. 3,112,613, 12-3-63, Cl. 60—35.6.
Nelson, David G., to Aluminum Co. of America. Method of making two-piece closure caps. 3,085,324, 4-16-63, Cl. 29—416.
Nelson, David L. Snow vehicle. 3,077,238, 2-12-63, Cl. 180—5.
Nelson, Donald E., to Radio Corp. of America. High frequency negative resistance circuits. 3,099,804, 7-30-63, Cl. 331—107.
Nelson, Donald M., to North American Aviation, Inc. Self-tensioning link assembly. 3,077,328, 2-12-63, Cl. 248—317.
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Nelson, Donald S. Railway. 3,083,649, 4-2-63, Cl. 104—121.
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Nelson, Fredrych P. Swimming paddles. 3,111,694, 11-26-63, Cl. 9—307.
Nelson, George, and J. F. Pile, to Herman Miller, Inc. Drawer stack. 3,110,534, 11-12-63, Cl. 312—330.
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Nelson, Gloria R., and F. F. Eiseman, to Florence Eiseman, Inc. Garment construction. 3,111,681, 11-26-63, Cl. 2—243.
Nelson, Gordon A., M. C. Sanders, and T. M. Casey, to United States of America, Air Force. Mono rail slipper stabilizer. 3,080,826, 3-12-63, Cl. 104—248.
Nelson, Gunner E., to Ethyl Corp. Preparation of lead cyanate. 3,116,107, 12-31-63, Cl. 23—75.
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Nelson, Harold B., and F. R. Scripture, to United States of America, Air Force. AFC monitoring. 3,103,634, 9-10-63, Cl. 328—140.
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Nelson, Herbert, to Radio Corp. of America. Semiconductor devices. 3,096,219, 7-2-63, Cl. 148—1.5.
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Logan, Hugh H., Doty, and Nelson. 3,093,002.
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Nelson, Russell B.: *See*—
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Nelson, Sydney. Plastic buoys. 3,094,719, 6–25–63, Cl. 9—8.
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Bunting, William W., Jr., and Nelson. 3,115,691.
Nelson, Vernon L. Rock cutting apparatus. 3,103,922, 9–17–63, Cl. 125—13.
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Laufer, Robert J., and Neuworth. 3,071,622.
Neuworth, Martin B., to Consolidation Coal Co. Process for preparing ortho-sec-alkyl thiophenols using BF_3-H_3PO_4 complex as catalyst. 3,076,850, 2–5–63, Cl. 260—609.
Neuworth, Martin B., to Consolidation Coal Co. Process for preparing para-t-alkyl thiophenols using BF_3-H_3PO_4 couplex as catalyst. 3,076,851, 2–5–63, Cl. 260—609.
Neuworth, Martin B., to Consolidation Coal Co. Double solvent refining of tar. 3,079,326, 2–26–63, Cl. 208—45.
Neuworth, Martin B., and E. B. Hotelling, to Consolidation Coal Co. Process for preparing ortho-sec-alkyl thiophenols using BF_3 as catalyst. 3,076,849, 2–5–63, Cl. 260—609.
Neuworth, Martin B., E. B. Hotelling, and E. A. Bartkus, to Consolidation Coal Co. Process for preparing para-t-alkyl thiophenols using BF_3 as catalyst. 3,084,198, 4–2–63, Cl. 260—609.
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Neville, Hugh, Jr., and F. W. Longson, to Anawan Plastics & Machine Corp. Bowling ball lift. 3,094,328, 6–18–63, Cl. 273—49.
Neville, James R. Oxygen sensor. 3,071,530, 1–1–63, Cl. 204—195.
Nevin, Ira, and A. I. Fader, to Bakers Pride Oven Co., Inc. Smoke hood. 3,082,680, 3–26–63, Cl. 98—115.
Nevin, Robert B. Means and method for improving combustion in internal combustion engines. 3,091,229, 5–28–63, Cl. 123—119.
Nevin, Robert L., to Helm Machine Products, Inc. Food product slicing machine. 3,096,583, 7–9–63, Cl. 31—25.
Nevitt, Thomas D., and H. S. Seelig, to Standard Oil Co. Process of dehydrogenation of o-amino biphenyls and diphenyl amines to produce carbazoles. 3,085,095, 4–9–63, Cl. 260—315.
Nevo-Hacohen, Jacob I., ⅛ to R. H. Rines. Process for the manufacture of fertilizers and the like. 3,092,487, 6–4–63, Cl. 71—37.
Nevo-Hacohen, Jacob I., ⅛ to R. H. Rines. Method for producing phosphate fertilizers. 3,092,488, 6–4–63, Cl. 71—39.
New, Russel W., to Meter-All Mfg. Co., Inc. Coin-operated time cycle device. 3,114,443, 12–17–63, Cl. 194—1.
New, Thorndike C. T., Westinghouse Electric Corp. Method and apparatus for the fabrication of alloyed transistors. 3,073,006, 1–15–63, Cl. 29—25.3.
New, Thorndike C. T., and J. Pappas, to Westinghouse Electric Corp. Formation of semiconductor transition regions by alloy vaporization and deposition. 3,099,588, 7–30–63, Cl. 148—1.5.
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Newallis, Peter E., to Monsanto Chemical Co. Organophosphorus esters. 3,106,565, 10–8–63, Cl. 260—332.1.
Newallis, Peter E., and J. P. Chupp, to Monsanto Chemical Co. O-(cyanoaryl) phosphonothioates. 3,078,212, 2–19–63, Cl. 167—30.
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Newberg, Gerald, to Potter Instrument Co., Inc. Tape reel torque control system for tape handlers. 3,104,071, 9–17–63, Cl. 242—55.12.
Newberry, James R., and J. B. O'Hara, to Olin Mathieson Chemical Corp. Separation of diborane from an admixture of diborane and hydrogen. 3,108,856, 10–29–63, Cl. 23—204.
Newberry, Sterling P., to General Electric Co. Photographic storage system. 3,106,700, 10–8–63, Cl. 340—173.
Newbery, Edward V., to The General Electric Co. Ltd. Telephone dialling indicator. 3,107,278, 10–15–63, Cl. 179—90.
Newbold, Albert G., to Trainer Associates Inc. Ground digging auger. 3,094,178, 6–18–63, Cl. 175—388.
Newbold, William F., to Minneapolis-Honeywell Regulator Co. Electronic controller. 3,081,425, 3–12–63, Cl. 323—22.

Newbold, William F., and H. L. Latham, Jr., to Minneapolis-Honeywell Regulator Co. Spurious signal eliminator utilizing a three winding transformer having two secondaries bifilarly wound. 3,088,073, 4–30–63, Cl. 328—3.

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Newby, Arthur W.: *See*—
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Klein, George L., Newby, and Post. 3,100,693.

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Newcomb, Francis B., and J. W. Fitzsimmons, to American Can Co. Container. 3,082,904, 3–26–63, Cl. 220—44.

Newcomb, John F. Adjustably positioned control means for power presses and other machine tools. 3,080,490, 3–5–63, Cl. 307—112.

Newcomb, John F., to Allied Products Corp. Retainer removal means. 3,106,122, 10–8–63, Cl. 83—698.

Newcomb, Philip P., to United Aircraft Corp. Nozzle construction. 3,099,909, 8–6–63, Cl. 60—35.6.

Newcomb, Philip P., and A. Hasbrouck, to United Aircraft Corp. Combination turbojet and ramjet engine. 3,091,082, 5–28–63, Cl. 60—35.6.

Newcomer, Everett J., to City Vending Equipment Corp. Article dispensing mechanism comprising a plurality of endless conveyors. 3,089,612, 5–14–63, Cl. 221—11.

Newcomer, Harold F., to Landis Tool Co. Lubricating means for machine tool spindles. 3,104,921, 9–24–63, Cl. 308—122.

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Newcomer, Jack S., J. Linder, and K. J. Smith, to Hooker Chemical Corp. Preparation of a mixture of 1 part 2,3,6- and 3 parts 2,3,5-trichlorobenzoic acids. 3,096,367, 7–2–63, Cl. 260—515.

Newell, Allen F., and W. L. Stephenson, to North American Philips Co, Inc. Push-pull transistor inverter. 3,098,202, 7–16–63, Cl. 331—114.

Newell, Chester W., to Ampex Corp. Magnetic tape recording and/or reproducing system. 3,103,553, 9–10–63, Cl. 178—5.4.

Newell, Chester W., to Ampex Corp. Apparatus for recording and reproducing images on magnetic tape. 3,106,607, 10–8–63, Cl. 178—6.6.

Newell, Chester W., to Ampex Corp. Magnetic tape recording and/or reproducing system and method. 3,114,001, 12–10–63, Cl. 178—5.4.

Newell, Frederick T.: *See*—
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Newell, George K., to Westinghouse Air Brake Co. Apparatus for controlling pressurization of inflatable dunnage members on freight cars. 3,076,472, 2–5–63, Cl. 137—225.

Newell, George K., to Westinghouse Air Brake Co. Slack adjusting mechanism for railway car brake apparatus. 3,101,814, 8–27–63, Cl. 188—203.

Newell, Isaac L., and E. A. Walen. Method of coating zinc surfaces. 3,097,978, 7–16–63, Cl. 148—6.14.

Newell, Isaac L., and W. F. Houlihan. Zinc plating brightener. 3,112,251, 11–26–63, Cl. 204—55.

Newell, James K., Jr., to General Electric Co. Gasketing arrangement for oven door. 3,099,259, 7–30–63, Cl. 126—190.

Newell, James K., Jr., and D. D. Akers, to General Electric Co. Cooling system for heating appliance. 3,081,763, 3–19–63, Cl. 126—21.

Newell, Robert E. Hand washing machine. 3,081,471, 3–19–63, Cl. 15—21.

Newell, William H., to Sperry Rand Corp., Ford Instrument Co. Division. Converter of heat into electrical energy. 3,075,096, 1–22–63, Cl. 310—4.

Newell, William H., to Sperry Rand Corp., Ford Instrument Co. Division. Converter of heat into electrical energy. 3,084,267, 4–2–63, Cl. 310—4.

Newell, William H., to Sperry Rand Corp., Ford Instrument Co. Division. Inertial navigation system. 3,087,333, 4–30–63, Cl. 73—178.

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New England Materials Laboratory, Inc.: *See*—
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Newey, Herbert A., to Shell Oil Co. Polyepoxides from epoxy-substituted monocarboxylic acids, their preparation and polymers. 3,112,294, 11–26–63, Cl. 260—78.3.

Newey, Herbert A., and R. T. Holm, to Shell Oil Co. Epoxy esters of polyhalo-polycyclic acids. 3,106,536, 10–8–63, Cl. 260—2.

Newgard, Henry J. Pool cover. 3,110,908, 11–19–63, Cl. 4—172.

Newhall, Donald H., to Harwood Engineering Co. Poppet valve. 3,095,900, 7–2–63, Cl. 137—516.25.

Newhall, Edmunde E., to Bell Telephone Laboratories, Inc. Magnetic control circuits. 3,116,421, 12–31–63, Cl. 307—88.

New Haven Wire & Cable, Inc.: *See*—
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Newhouse, David L., to General Electric Co. High temperature turbine rotor shafts and method of heat treating. 3,110,636, 11–12–63, Cl. 148—148.

Newhouse, Elmer M. Solar space games. 3,099,451, 7–30–63, Cl. 273—134.

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Newhouse, Paul D., to Westinghouse Electric Corp. Signal selector circuit for passive detection apparatus. 3,077,601, 2–12–63, Cl. 325—303.

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Newhouse, Vernon L., and J. W. Bremer, to General Electric Co. Cryogenic electronic gating circuit. 3,076,102, 1–29–63, Cl. 307—88.5.

Newhouse, Vernon L., and A. S. Rettig, to Radio Corp. of America. Shifting apparatus. 3,076,181, 1–29–63, Cl. 340—174.

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Newland, Arthur E., and A. J. Schultz, 40% to said Newland, 5% to M. Pratt, 2% to I. E. Huckleberry, 20% S. Sohacki, 5% to R. H. Woolery, 3% to A. M. Clark, 5% to J. K. Spears, and 10% each to L. E. Cornwell, and The National Bank of Indianapolis, executors of P. H. Cornwell, deceased. Sphygmometer apparatus. 3,086,513, 4–23–63, Cl. 128—2.05.

Newland, Gordon C., and J. A. Van Allan, to Eastman Kodak Co. Cross-linked olefinic polymers. 3,075,950, 1–29–63, Cl. 260—66.

Newland, Gordon C., and J. H. Chaudet, to Eastman Kodak Co. Heat and light stable polypropylene compositions. 3,096,302, 7–2–63, Cl. 260—45.95.

Newland, Paul W., Sr., to Ansul Chemical Co. Hydro-flame arrestor. 3,109,593, 11–5–63, Cl. 239—275.

Newmaker, Frederick C., Jr., to The Dow Chemical Co. Packaging method. 3,096,602, 7–9–63, Cl. 53—22.

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Newman, Douglas A., to Columbia Ribbon and Carbon Mfg. Co., Inc. Duplicating. 3,088,402, 5–7–63, Cl. 101—149.4.

Newman, Douglas A., to Columbia Ribbon and Carbon Mfg. Co., Inc. Pressure sensitive transfer elements and method for preparing same. 3,102,824, 9–3–63, Cl. 117—36.1.

Newman, Douglas A., to Columbia Ribbon and Carbon Mfg. Co., Inc. Thermographic reproduction composite wherein a calcium carbonate layer is affected by a transferred heat-sensitive material. 3,109,748, 11–5–63, Cl. 117—36.7.

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Newman, Douglas A., and A. T. Scholtzhauer, to Columbia Ribbon and Carbon Mfg. Co. Inc. Supercoated transfer elements. 3,080,954, 3–12–63, Cl. 197—172.

Newman, Douglas A., and T. L. Tully, to Columbia Ribbon and Carbon Mfg. Co., Inc. Method for preparing pressure-sensitive duplicating elements. 3,111,421, 11–19–63, Cl. 117—36.1.

Newman, Douglas A., and T. L. Tully, to Columbia Ribbon and Carbon Mfg. Co., Inc. Methods for preparing pressure-sensitive transfer elements. 3,111,422, 11–19–63, Cl. 117—36.1.

Newman, Earl C. Electrical circuit controllers. 3,096,414, 7–2–63, Cl. 200—113.

Newman, Ernest G., R. J. Sippel, and R. A. Skov, to International Business Machines Corp. Skew correction system. 3,103,000, 9–3–63, Cl. 340—174.1.

Newman, Fred: *See*—
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Newman, Hugo, to Swingline Inc. Method of sharpening toothed articles of sharpenable material. 3,087,356, 4–30–63, Cl. 76—101.

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Newman, Kenneth W. Method of removing epoxy, silicone and melamine coatings. 3,072,579, 1–8–63, Cl. 252—143.

Newman, Kenneth W., to Purex Corp., Ltd. Process for removal of radioactive contaminants from surfaces. 3,080,262, 3–5–63, Cl. 134—3.

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Newman, Richard. Slip-ring construction for power cable reel. 3,102,765, 9–3–63, Cl. 339—5.

Newman, Ronald, C. J. Wakefield, and R. L. Rouse, to Associated Electrical Industries Ltd. Production of unipolar transistors. 3,074,146, 1–22–63, Cl. 29—25.3.

Newman, Stanley H. Gas valve and burner. 3,096,636, 7–9–63, Cl. 67—7.1.

Newman, Victor. Shirred fabric and apparatus for producing same. 3,104,633, 9–24–63, Cl. 112—2.

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Newsom, Herbert C., W. G. Woods, and A. L. McCloskey, to United States Borax & Chemical Corp. Method for preparing unsymmetrical borazoles. 3,082,252, 3–19–63, Cl. 260—551.

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Newton, Alwin B., to Borg-Warner Corp. Vehicle refrigeration systems. 3,094,850, 6–25–63, Cl. 62—132.

Newton, Charles G., Jr., to United Shoe Machinery Corp. Adhesive composition comprising a polyisocyanate and a partially dissolved-partly suspended copolymer of vinyl chloride and vinyl acetate in organic solvent. 3,086,952, 4–23–63, Cl. 260—32.8.

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Nischk, Gunther, H. Holtschmidt, W. Bongard, and O. Bayer, ½ to Farbenfabriken Bayer Aktiengesellschaft and ½ to Mobay Chemical Co. 3,096,296, 7–2–63, Cl. 260—2.

Nisenbaum, Daniel B. and L. N. Safety chain locking means for a door. 3,087,751, 4–30–63, Cl. 292—264.

Nisenbaum, Lucile N.: *See*—
Nisenbaum, Daniel B. and L. N. 3,087,751.

Nisenson, Jules, to Cutting Room Appliances Corp. Adjustable spindle for supporting cloth rolls. 3,113,744, 12–10–63, Cl. 242—72.

Nisenson, Jules, and S. D. Barnett. Elevating means for window shades or blinds. 3,113,612, 12–10–63, Cl. 160—133.

Nishida, Teruya: *See*—
Matsui, Masanao, Saijo, Ohizumi, Nishida, and Okano. 3,086,981.

Nishigami, Teiichi, to Sears, Roebuck and Co. Cam oscillating arrangement for automatic ornamental stitch sewing machine. 3,111,099, 11–19–63, Cl. 112—158.

Nishikawa, Masamoto, and S. Noguchi, to Takeda Pharmaceutical Industries, Ltd. Method for hydrolyzing steroid-esters. 3,094,465, 6–18–63, Cl. 195—51.

Nishimatsu, Yukio: *See*—
Lockheed, Robert, Yamane, Harada, and Nishimatsu. 3,109,837.

Nishimura, Haruo, to Shionogi & Co., Ltd. Antibiotic siomycin and a method of producing same. 3,082,153, 3–19–63, Cl. 167—65.

Nishimura, Shinzo: *See*—
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Nishimura, Yasuhiko: *See*—
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Nishioka, Jim Z. Fishing bait activator. 3,078,611, 2–26–63, Cl. 43—42.5.

Nishiyama, Shizuo, H. Takagi, T., Anzai, and S. Haga, to Hitachi Ltd. Electrostatic coating apparatus employing supersonic vibrations. 3,114,654, 12–17–63, Cl. 118—627.

Nishizawa, Yoshihiko: *See*—
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Niskin, Shale J., to S. P. Clark. Turnbuckle. 3,102,743, 9–3–63, Cl. 287—59.

Nisper, Kenneth, to Muskegon Piston Ring Co. Piston rings. 3,081,100, 3–12–63, Cl. 277—140.

Nisper, Kenneth J., to Muskegon Piston Ring Co. Lock joint sealing ring. 3,100,929, 8–20–63, Cl. 29—156.6.

Nissan Chemical Industries, Ltd.: *See*—
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Nissen Corp.: *See*—
Nissen, George P., and Conover. 3,115,260.
Nissen, George P., and Harris. 3,085,357.

Nissen, George P., and R. V. Harris, to Nissen Corp. Teaching aid for tumbling. 3,085,357, 4–16–63, Cl. 35—29.

Nissen, George P., and L. H. Conover, to Nissen Corp. Transporting device. 3,115,260, 12–24–63, Cl. 214—378.

Nissen, Hans G., and A. I. Martin, to Y. De Sousa. Heating and roasting device. 3,084,616, 4–9–63, Cl. 99—423.

Nistri, Raffaello, to Societa Internazionale Fonovisione-S.I.F. Apparatus containing a plurality of sound moving picture films with a device for the projection of the film chosen. 3,081,668, 3–19–63, Cl. 88—16.2.

Nitka, Heinz F.: *See*—
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Nitsche, Joseph E., and R. E. Smith, to Corning Glass Works. Forming holes in glass objects. 3,114,619, 12–17–63, Cl. 65—113.

Nitsche, Rudolf, and E. Fatuzzo, to Radio Corp. of America. Ferroelectric devices. 3,085,184, 4–9–63, Cl. 317—262.

Nitsche, Joachim: *See*—
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Nitschke, Norman C., and H. A. McMaster, to Permaglass, Inc. Automatic glass bending and tempering furnace. 3,087,316, 4–30–63, Cl. 65—268.

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Ohashi, Saichiro, Aoki, and Nitta. 3,111,888.

Nitto Boseki Co., Ltd.: *See*—
Haneda, Seisaku, and Ariga. 3,102,305

Nitto Chemical Industry Co., Ltd.: *See*—
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Nitz, Albert H., Jr., to T. S. Ulstad. Adjustable toolholder. 3,115,799, 12–31–63, Cl. 82—36.

Nitzan, David, to AMP Inc. Magnetic core decoding circuit. 3,081,453, 3–12–63, Cl. 340—347.

Nitzsche, Siegfried, and M. Wick, to Wacker-Chemie G.m.b.H. Method and materials for filling dental roots. 3,082,526, 3–26–63, Cl. 32—15.

Nitzsche, Siegfried, and M. Wick, to Wacker-Chemie G.m.b.H. Process for making dental impression masses. 3,082,527, 3–26–63, Cl. 32—17.

Nitzsche, Siegfried, and E. Pirson, to Wacker-Chemie G.m.b.H. Silicone treatment of masonry. 3,086,953, 4–23–63, Cl. 260—37.

Nitzsche, Siegfried, and E. Pirson, to Wacker-Chemie G.m.b.H. Method of hydrolyzing chlorosilanes. 3,090,765, 5–21–63, Cl. 260—37.

Nitzsche, Siegfried, and M. Wick, to Wacker-Chemie G.m.b.H. Adhesion of silicone rubber to surfaces. 3,105,898, 10–29–63, Cl. 117—75.

Nitzsche, Siegfried, and E. Pirson, to Wacker-Chemie G.m.b.H. Method of copolymerization. 3,111,535, 11–19–63, Cl. 260—448.8.

Niven, Charles D. Thermal conductivity apparatus. 3,114,255, 12–17–63, Cl. 73—15.

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Houff, William H., and Nixon. 3,079,296.

Nixon, Carl C. Bumper jack pusher extension. 3,099,435, 7–30–63, Cl. 254—35.

Nixon, John E., to The Colorado Fuel and Iron Corp. Method of and apparatus for spinning cables for suspension bridges. 3,086,232, 4–23–63, Cl. 14—23.

Nixon, Myron W.: *See*—
Shattuck, Owen M. 3,114,906.

Nixon, Phillip. Magnetic switch valve. 3,071,340, 1–1–63, Cl. 251—65.

Nixon, Phillip. Solenoid-operated gate valve. 3,113,757, 12–10–63, Cl. 251—141.

Nixon, Virgil H., to Rogers Iron Works Co. Drilling machine. 3,078,932, 2–26–63, Cl. 175—51.

Nixon, William G., to Universal Oil Products Co. Stabilizing noble metal catalyst. 3,094,493, 6–18–63, Cl. 252—466.

Nixon, William G., to Universal Oil Products Co. Manufacture of spherical alumina. 3,114,720, 12–17–63, Cl. 252—448.

Nizetich, Andrew A. Hair coloring apparatus. 3,101,724, 8–27–63, Cl. 132—9.

Niznik, Emil J.: *See*—
Boles, La Clare B., Dinerstein, and Niznik. 3,112,605.

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Dillman, Earnest J., and Noakes. 3,073,930.

Noakes, Thomas E., to American Radiator & Standard Sanitary Corp. Solenoid valve. 3,080,889, 3–12–63, Cl. 137—623.

Noall, John, to The Firestone Tire & Rubber Co. Tire building drum. 3,077,918, 2–19–63, Cl. 156—420.

Nobbe, Bernard, to Kimberly-Clark Corp. Papermaking machine. 3,074,324, 1–22–63, Cl. 93—1.1.

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Millard, George R., Bidelman, and Nobbs. 3,079,629.

Nobes, William D., to The Caldwell Mfg. Co. Device for closing sliding panels. 3,091,003, 5–28–63, Cl. 20—19.

Nobes, William D., to The Caldwell Mfg. Co. Platform takeout hardware. 3,105,273, 10–1–63, Cl. 20—52.2.

Nobile, Arthur, to Schering Corp. 9α-fluro-15β-hydroxy-1,4-pregnadienes and pharmaceutical preparations containing same. 3,105,795, 10–1–63, Cl. 167—65.

Nobis, John F., and C. E. Frank, to National Distillers and Chemical Corp. Vinyl resin compositions plasticized with dialkyl esters of 2.5 diphenyl adipic acid. 3,089,858, 5–14–63, Cl. 260—31.8.

Nobis, John F., I. L. Mador, and R. E. Robinson, to National Distillers and Chemical Corp. Dihalides from glycols. 3,111,545, 11–19–63, Cl. 260—652.

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Noble, Jack D., G. W. Bentley, and E. C. Rice. Contact-type lifting device. 3,102,751, 9–3–63, Cl. 294—65.

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McKnight, Harry F., and Noble. 3,095,723.

Noble, Lowell A.: *See*—
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Noble Mfg. Co., Inc.: *See*—
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Sosalla, Harry L., Madison, and Coats. 3,074,727.

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Noble, Robert L.: *See*—
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Noble, Samuel Roberts, Foundation Inc., The: *See*—
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Noble, Stuart D., 10% to V. D. Beebler. Scale. 3,091,304, 5–28–63, Cl. 177—229.

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Nobles, Wilbur D., and P. E. Cardillo, to Worthington Corp. Flow control means for a pumping station. 3,095,618, 7–2–63, Cl. 103—11.

Nobuoka, Soichiro, T. Ando, and F. Hayama, to M. Kurokawa. Method of preparing a magnetic recorder powder. 3,081,264, 3–12–63, Cl. 252—62.5.

Nock, Harry. Sofa bed. 3,072,926, 1–15–63, Cl. 5—13.

Nock, William: *See*—
McAuslan, James H. L., and Nock. 3,075,125.

Noddin, George A.: *See*—
Brockway, William R., Loving and Noddin. 3,095,815.
De Maris, Elbert E., Forrest, and Noddin. 3,089,796.
Miller, Ross J., and Noddin. 3,102,474.

Noddin, George A., to E. I. du Pont de Nemours and Co. Sonic pulse generator. 3,112,699, 12–3–63, Cl. 102—1.

Nodes, David A. Heat engine. 3,080,717, 3–12–63, Cl. 60—51.

Nodge, Joseph A., and J. H. Hopkins, to General Motors Corp. Hinge pin with electrical connector. 3,076,163, 1–29–63, Cl. 339—4.

Nodwell, William B., to Robin-Nodwell Mfg., Ltd. Log loading machine. 3,090,510, 5–21–63, Cl. 214—85.1.

Nodwell, William B., to Robin-Nodwell Mfg. Ltd. Vehicle track mountings. 3,113,805, 12–10–63, Cl. 305—15.

Noe, John B., to United States of America, Atomic Energy Commission. Stabilized transistor amplifier. 3,089,098, 5–7–63, Cl. 330—19.

Noebels, Henry J., and S. B. Spracklen, to Beckman Instruments, Inc. Gas chromatograph with improved zero shift. 3,104,541, 9–24–63, Cl. 73—23.

Noecker, Marshall V., to Kaufman Awning Corp. Metal rafter construction for awning. 3,103,715, 9–17–63, Cl. 20—57.5.

Noeggerath, Wolfgang C. Turbo-air-rocket engine. 3,100,962, 8–20–63, Cl. 60—35.6.

Noel, Darwin R., and R. E. Casely, to Armour and Co. Antiseptic detergent compositions. 3,081,266, 3–12–63, Cl. 252—107.

Noel, Edward B., and V. A. Levand, to General Electric Co. Bent end incandescent lamp. 3,080,497, 3–5–63, Cl. 313—43.

Noel, George R. Bowling equipment carrier. 3,079,967, 3–5–63, Cl. 150—52.

Noell, Newton G.: *See*—
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Noethlich, Richard M., Jr., J. G. Dunleavy, J. G. Kura, and J. L. Gissy, to Copperweld Steel Co. Cladding with powdered metal to form bimetallic products. 3,088,195, 5–7–63, Cl. 29—182.3.

Nofziger, J. C. Mounting for vertically slidable closures. 3,075,256, 1–29–63, Cl. 20—52.

Nogradi, Josef, to Farbenfabriken Bayer Aktiengesellschaft. Processes for purifying conjugated diolefins. 3,091,653, 5–28–63, Cl. 260—681.5.

Noguchi Institute, The: *See*—
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Noguchi, Shunsaku: *See*—
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Nohl, Egon and G., to F. and L. Hobiger. Floor cleaning and polishing device. 3,081,481, 3–19–63, Cl. 15—543.

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Nolles, Douglas G.: *See*—
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Weber, Walter C., and Nolles. 3,114,071.

Nojima, Gensuke. Fluidtight device for a bearing. 3,097,023, 7–9–63, Cl. 308—36.2.

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Blixt, Clarence H. 3,113,364.
Tunsen, Elmer L. 3,106,760.

Nokes, Clarence, 25% to W. K. Van Hook. Lawn mower. 3,077,066, 2–12–63, Cl. 56—26.

Nolan, Claude E., to Owens-Illinois Glass Co. Slurry-blasting apparatus. 3,103,765, 9–17–63, Cl. 51—8.

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Nolan Scenery Studios, Inc.: *See*—
Nolan, William P. 3,105,543.

Nolan, William J.: *See*—
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Nolan, William P., to Nolan Scenery Studios, Inc. Positive action rear fold traveler curtain rig. 3,105,543, 10–1–63, Cl. 160—346.

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Noland, Robert A., D. E. Walker, and B. I. Spinrad, to United States of America, Atomic Energy Commission. Foil element for nuclear reactor. 3,098,025, 7–16–63, Cl. 204—193.2.

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Nolen, Robert K., H. Schwartzbart, and J. F. Rudy, to Armour Research Foundation of Illinois Institute of Technology. Resistance welding method. 3,113,202, 12–3–63, Cl. 219—117.

Nolin, Harmon E. Electric toothpaste dispenser. 3,087,653, 4–30–63, Cl. 222—93.

Noll, Frank P. Ventilating device. 3,103,158, 9–10–63, Cl. 98—106.

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Noll, George C., and P. E. Weselaum, to The Thew Shovel Co. Back-hitch gantry. 3,092,260, 6–4–63, Cl. 212—59.

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Noll Mfg. Co.: *See*—
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Noll, Robert E. 3,075,450.

Noll, Robert E., to Noll Mfg. Co. Cap assembly. 3,075,450, 1–29–63, Cl. 98—46.

Noll, Walter: *See*—
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Noll, Walter, K. Damm, and H. Weissbach, to Farbenfabriken Bayer Aktiengesellschaft. Building material compositions for the manufacture of water repellent masonry. 3,098,050, 7–16–63, Cl. 260—18.

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Nolt, Edwin B., to Sperry Rand Corp. Hay baler. 3,095,802, 7–2–63, Cl. 100—19.

Nolt, Edwin B., and J. W. McDuffie, to Sperry Rand Corp. Hay baler. 3,100,437, 8–13–63, Cl. 100—179.

Nolt, Edwin B., and J. W. McDuffie, to Sperry Rand Corp. Hay baler. 3,115,823, 12–31–63, Cl. 100—142.

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Nolte, Robert K., to Metalwash Machinery Co. Article washing machine. Re. 25,421, 7–23–63, Cl. 134—60.

Nolte, Robert K., to Metalwash Machinery Corp. Method of and apparatus for rinsing and drying metal pans. Re. 25,486, 11–26–63, Cl. 134—25.

Nolte, Robert K., to Metalwash Machinery Corp. Method of and apparatus for rinsing and drying metal pans. 3,076,730, 2–5–63, Cl. 134—25.

Nolte, Robert K., to Metalwash Machinery Co. Gas wash solution heater for conveyorized washing machines. 3,103,936, 9–17–63, Cl. 134—72.

Nolte, Robert K., and E. D. Cowles, to Metalwash Machinery Co. Utensil washer. 3,094,997, 6–25–63, Cl. 134—46.

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Noma Lites, Inc.: *See*—
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Nomine, Gerard, and R. Bucourt, to Roussel-UCLAF. Process for the preparation of 13β-N-propyyl-Δ⁴gonene-17β-ol-3-one and the intermediates in the preparation thereof. 3,074,978, 1–22–63, Cl. 260—397.4.

Nominé, Gerard, R. Bucourt, and C. Snozzi, to Roussel-UCLAF. Novel ethynylated analogs of estradiol and process. 3,075,970, 1–29–63, Cl. 260—239.55.

Nomine, Gerard, R. Bucourt, and M. Vignau, to Roussel-UCLAF, S.A. Process for the preparation of 17β-oxygenated-Δ4,9(10)-estradiene-3-one. 3,085,098, 4–9–63, Cl. 260—397.4.

Nomine, Gerard R., Bucourt, and M. Vignau, to Roussel-UCLAF, S.A. Process for the preparation of 17β-oxygenated-Δ5(10),9(11)-estradiene-3-one. 3,085,099, 4–9–63, Cl. 260—397.45.

Nomine, Gerard, D. Bertin, J. Tessier, A. Pierdet, and R. Bucourt, to Roussel-UCLAF, S.A. Process for the preparation of 19-nor-testosterone and compounds used in this process. 3,101,354, 8–20–63, Cl. 260—397.4.

Nomine, Gerard, R. Bucourt, and J. Tessier, to Roussel-UCLAF, S.A. Intermediate in the preparation of 19-norprogesterone. 3,102,145, 8–27–63, Cl. 260—586.

Nominé, Gerard, R. Bucourt, and J. Tessier, to Roussel-UCLAF, S.A. Method for preparation of 2α-alkyl-19-nor-testosterone and the intermediates obtained therefrom. 3,109,009, 10–29–63, Cl. 260—397.4.

Nomine, Gerard, M. Vignau, and L. Penasse, to Societe Anonyme Roussel UCLAF. Non-toxic salts of 3,5-disulfaminobenzoic acid and a process for their preparation. 3,109,857, 11–5–63, Cl. 260—501.

Nomine, Gerard, R. Bucourt, and A. Pierdet, to Roussel-UCLAF, S.A. Analogs of 19-nor-testosterone, their esters and process of preparation. 3,115,507, 12–24–63, Cl. 260—397.4.

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Markert, Ferdinand, Nonnenmacher, Funk, and Bieber. 3,090,746.

Nonnenmacher, Helmut, and E. Bartholome, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Conversion of oils with amounts of oxygen insufficient for complete combustion for the formation of carbon monoxide and hydrogen. 3,090,684, 5–21–63, Cl. 48—212.

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Noone, Frank, Shoe Co., Inc.: *See*—
Sherbrook, Victor A. 3,075,212.
Sherbrook, Victor A. 3,075,308.

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Noordhoek, Leon H. Chipping hammer hanger. 3,104,434, 9–24–63, Cl. 24—3.

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Noorlander, Daniel O. Teat cup liner construction. 3,096,740, 7–9–63, Cl. 119—14.52.

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Dombrow, Bernard A. 3,100,752.
Fetscher, Charles A. 3,088,798.
Fetscher, Charles A. 3,088,799.
Fetscher, Charles A., and Lipowski. 3,071,560.
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Erickson, Bruce G., and Henriksen. 3,091,077.
Leichtfuss, Milton R. 3,077,071.
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Lowe, Keith P., and Bristow. 3,071,248.
Motz, Jerome C. 3,076,612.
Smalley, Richard D., and Krogstad. 3,088,523.
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Nordby, Roger M., to Zenith Radio Corp. Remote control systems. 3,080,449, 3–5–63, Cl. 178—5.8.

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Nordegren, Sven-Åke, to Separator, Aktiebolaget. Operating cover for the milk pail of a milking machine. 3,111,933, 11–26–63, Cl. 119—14.46.

Nordell, Carl H., 15% each to L. N. Millspaugh, and A. N. Kaspar. Comminuting device. 3,091,337, 5–28–63, Cl. 210—173.

Nordell, Carl H., 15% each to L. N. Millspaugh, and A. N. Kaspar. Alternating comminutor. 3,091,338, 5–28–63, Cl. 210—174.

Norden, Alexander R.: *See*—
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Norden, Alexander R., to Federal Pacific Electric Co. Non-interchangeable circuit breaker. 3,098,178, 7–16–63, Cl. 317—119.

Norden, Alexander R., to Federal Pacific Electric Co. Thermal overload relay. 3,101,397, 8–20–63, Cl. 200—122.

Norden, Alexander R., to Federal Pacific Electric Co. Insulated bus bar assembly. 3,113,820, 12–10–63, Cl. 339—22.

Norden, Alexander R., and F. Tomczak, to Federal Pacific Electric Co. Tool for removing knockouts from panelboards. 3,112,852, 12–3–63, Cl. 225—104.

Nordeng, Adolph. Separable section post of culvert marker. 3,081,848, 3–19–63, Cl. 189—28.

Nordgren, Olof N. Massage device. 3,107,665, 10–22–63, Cl. 128—60.

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Nordmann, Joseph, to Compagnie Francaise des Matieres Colorantes. Process for treating fatigue with phosphocreatininate. 3,114,674, 12–17–63, Cl. 167—55.

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Noren, Don W., to Pacific Vegetable Oil Corp. Method for decorticating safflower seed. 3,080,905, 3–12–63, Cl. 146—221.5.

Norgaard, Johannes B. Wheel balancing apparatus. 3,108,479, 10–29–63, Cl. 73—481.

Norgiel, Leo I. Slotted ice skate blade. 3,074,733, 1–22–63, Cl. 280—11.18.

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Norman, Frances P. Lint type particle adhesive removal device. Re. 25,435, 8–13–63, Cl. 15—104.

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Norman, Robert H., to Sperry Rand Corp. Shifting register having improved information transferring means. 3,105,157, 9–24–63, Cl. 307—88.5.

Norman, Telfer E., to American Metal Climax, Inc. Austenitic steel alloy. 3,113,861, 12–10–63, Cl. 75—123.

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Norrholm, Paul H. Winding apparatus and tensioning means therefor. 3,100,089, 8–6–63, Cl. 242—6.

Norris, Alan. Method and apparatus for extracting heat from the hot exhaust gases of internal combustion engines. 3,095,861, 7–2–63, Cl. 122—7.

Norris, Alfred. Brushmaking machine and method. 3,072,440, 1–8–63, Cl. 300—2.

Norris, Bevitt J., B. B. Nichols, R. W. Gilbert, and B. Cohen, to Daystrom, Inc. Digital converter. 3,087,147, 4–23–63 Cl. 340—347.

Norris, Charles B., to United States of America, Atomic Energy Commission. Cellular core for curved surfaces. 3,109,766, 11–5–63, Cl. 161—68.

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Bresenoff, Stanley W. 3,092,305.
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De Jager, Frank, and van Gerwen. 3,112,462.
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De Miranda, Heine A. R., and Tulp. 3,075,084.
De Niet, Edmond. 3,092,779.
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De Ruiter, Jacob W. 3,091,655.
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De Wilde, Pieter C., and Rappoldt. 3,100,783.
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Gorgolo, Edward G. 3,078,387.
Dragt, Jan C. W. 3,105,691.
Dros, Albert A. 3,078,683.
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Heijmans, Wilhelmus A. A., and Venis. 3,091,557.
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Herman, William P. 3,090,111.
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Notarbartolo, Luigi, and L. Ciceri, to SNIA Viscosa Societa Nazionale Industria Applicazioni. Process for preparing polyamide yarns having improved resistance to the light. 3,110,697, 11–12–63, Cl. 260—45.75.

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Novelli, Alberto, and P. Buggiani. Underwater respiration apparatus. 3,085,571, 4–16–63, Cl. 128—142.

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Novick, Sheldon, and L. N. Reed, to United States of America, Air Force. Bistable diode switching circuits. 3,103,597, 9–10–63, Cl. 307—88.5.

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Novotney, Frank A., to Anthony Co. Pintle hook. 3,113,-684, 12–10–63, Cl. 214—77.

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Noznick, Peter P., C. W. Tatter, and C. F. Obenauf. Process of preparing a compressed chocolate chip product and the resulting product. 3,098,746, 7–23–63, Cl. 99—23.

Noznick, Peter P., and C. W. Tatter. Whipping and powdered shortening compositions. 3,098,748, 7–23–63, Cl. 99—118.

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Nunn, Edwin C., to Minco Products, Inc. Miniature precision resistance element. 3,114,890, 12–17–63, Cl. 338—270.

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Smallpeice, Cosby D. P. 3,099,546.

Nurme, Udo. Fish lure. 3,087,273, 4–30–63, Cl. 43—42.06.

Nurmse, Karl, to Aktiebolaget Urfabriken. Line-arresting device in reels for fishing rods. 3,077,319, 2–12–63, Cl. 242—84.21.

Nurmse, Karl, to Aktiebolaget Urfabriken. Fishing reel with reciprocable spool. 3,094,296, 6–18–63, Cl. 242—84.21.

Nurmse, Karl, to Aktiebolaget Urfabriken. Spinning reel. 3,108,760, 10–29–63, Cl. 242—84.2.

Nu Roll Corp.: *See*—
Giles, William H., and Frank. 3,072,354.

Nusbaum, Mortimer. Floor or like tile. 3,082,488, 3–26–63, Cl. 20—8.

Nusbaum, Wellman E. Flow meter. 3,098,384, 7–23–63, Cl. 73—228.

Nusinoff, Willy. Boat bumper. 3,109,405, 11–5–63, Cl. 114—219.

Nuss, Maynard M., to Skee-Bird Mfg. Co., Inc. Ski sled. 3,107,923, 10–22–63, Cl. 280—21

Nussbaum, Eugen. Slideless heddle frame. 3,071,164, 1–1–63, Cl. 139—92.

Nussbaum, Sam: *See*—
Ladd, Glenn W. 3,104,664.

Nute, Jay H., and J. A. Ring, to The Patent and Licensing Corp. Carton with carrier handle. 3,076,591, 2–5–63, Cl. 229—52.

Nutile, Anthony N.: *See*—
Fried, John, Nutile, and Arth. 3,074,935.
Fried, John, Nutile, and Arth. 3,083,196.
Fried, John, Nutile, and Arth. 3,090,781.

Nutone, Inc.: *See*—
Cahill, James W. 3,086,449.
Spear, Walter A., Turner, and Meeker. 3,087,411.

Nutrilite Products, Inc.: *See*—
Mechalas, Byron J. 3,086,922.
Morse, Philip. 3,086,915.

Nutt, Eric V.: *See*—
Clements, Francis S., and Nutt. 3,088,802.

Nuttall, John M., to Baker Perkins Inc. Detinning bakery goods. 3,099,345, 7–30–63, Cl. 198—145.

Nutter, Walter, S. L. Cole, D. T. Denson, and W. Slater, to T.M.M. (Research) Ltd. Apparatus for treating textile materials. 3,111,718, 11–26–63, Cl. 19—105.

Nutting, Arthur, to American Air Filter Co., Inc. Unit filter assembly. 3,075,334, 1–29–63, Cl. 55—357.

Nutting, Donald W. Book holder. 3,091,886, 6–4–63, Cl. 45—55.

Nutzel, Karl, R. Stroh, E. Himmen, and W. Lohmar, to Farbenfabriken Bayer Aktiengesellschaft. Fuels for internal combustion engines. 3,080,221, 3–5–63, Cl. 44—69.

Nuzzo, Charles. Saddle tree construction. 3,088,259, 5–7–63, Cl. 54—44.

Nyberg, Ake L., to Svenska Rotor Maskiner Aktiebolag. Rotary regenerative heat exchanger. 3,114,413, 12–17–63, Cl. 165—7.

Nyberg, Curt E.: *See*—
Bunn, Benjamin H., and Nyberg. 3,107,603.

Nyberg, Gunder W. Saw chain holding and filing apparatus. 3,089,351, 5–14–63, Cl. 76—36.

Nyberg, James J., to Thompson Ramo Wooldridge Inc. Logical circuits employing saturable core inductors. 3,113,216, 12–3–63, Cl. 307—88.

Nyberg, Johan E. Crusher apparatus. 3,107,063, 10–15–63, Cl. 241—212.

Nyberg, Johan E. Gyratory crusher assembly. 3,109,600, 11–5–63, Cl. 241—211.

Nyberg, Sture, to Anstalt Europaische Handelgesellschaft. Permutation switch. 3,093,714, 6–11–63, Cl. 200—43.

Nyborg, Meredith M. Automatic soldering machine. 3,089,-220, 5–14–63, Cl. 29—25.42.

Nydals Gjuteri och Mekanisha Verkstad, Aktiebolaget: *See*—
Skoglhall, Oscar A. W. 3,101,577.

Nydam, John H., to Whitin Machine Works. Sword for combing machine. 3,093,868, 6–18–63, Cl. 19—231.

Nydam, John H., to Whitin Machine Works. Fringe control blade for combing machine. 3,103,041, 9–10–63, Cl. 19—225.

Nye, Maurice A., and J. C. Bittman, to The Vaughn Machinery Co. Wire packaging machine. 3,076,619, 2–5–63, Cl. 242—84.

Nye, Maurice A., and J. C. Bittman, to The Vaughn Machinery Co. Wire packaging machine. 3,097,812, 7–16–63, Cl. 242—82.

Nye, Maurice A., and J. C. Bittman, to The Vaughn Machinery Co. Apparatus for continuously modifying the temperature of wire and the like. 3,098,109, 7–16–63, Cl. 266—3.

Nygaard, Edwin M., and E. A. Oberright, to Socony Mobil Oil Co., Inc. Lubricating oil containing zinc carboxylate-coordinated zinc dithlophosphates. 3,102,096, 8–27–63, Cl. 252—32.7.

Nygren, Arnold C., and W. A. Bjorn, to Shawmut Engineering Co. Yarn spool control mechanism for looms. 3,072,-152, 1–8–63, Cl. 139—7.

Nygren, Otto J. Garbage can cover holder. 3,096,063, 7–2–63, Cl. 248—292.

Nyholm, Ronald S., to Wyandotte Chemicals Corp. Pyrazine-metal salt complexes. 3,086,973, 4–23–63, Cl. 260—242.

Nyitral, Ernest: *See*—
Dicklnson, Clayton D., Abkowitz, and Nylen. 3,114,632.

Nylok Corp., The: *See*—
Buckley, Timothy J. 3,079,968.
Buckley, Timothy J. 3,079,969.

Nylonge Corp.: *See*—
Gross, Milton H. 3,080,687.
Politzer, Alfred. 3,080,688.
Politzer, Alfred, Teng, Kendall, and Wang. 3,112,219.
Politzer, Alfred, Teng, Pekarek, and Shockley. 3,109,-703.
Politzer, Alfred, Teng, and Singh. 3,110,602.
Shockley, Alvin B., and Teng. 3,084,778.

Nyman, Bo C. G., to Alwac International, Inc. Methods and apparatus for mixing fluids. 3,110,294, 11–12–63, Cl. 123—119.

Nyman, Donald A. Concrete form structure. 3,074,142, 1–22–63, Cl. 25—131.

Nyman, Elving A. Folding two-bunk beds and the like. 3,070,813, 1–1–63, Cl. 5—9.

Nyman, Hugo, and P. M. Devendorf, to The Sargent Engineering Corp. Rotary motor or pump. 3,081,708, 3–19–63, Cl. 103—161.

Nyman, Karl B. G., to Skanska Attikfabriken A.B. Toilet seat. 3,072,925, 1–15–63, Cl. 4—237.

Nyman Mfg. Co.: *See*—
Pasciak, Joseph J. 3,090,537.

Nyquist, Arthur S., and A. D. Myers, to American Cyanamid Co. Coating molded aminoplast articles with polyureas. 3,096,208, 7–2–63, Cl. 117—138.8.

Nyquist, Frederick W.: *See*—
Blomstrand, John H. 3,098,283.

Nyquist, Roy A., J. T. Zellers, Jr., and C. A. Mewbourne, to Libbey-Owens-Ford Glass Co. Sheet glass forming apparatus. 3,107,162, 10–15–63, Cl. 65—196.

Nys, Jean M.: *See*—
Cassiers, Paul M., Nys, Willems, and Hart. 3,113,022.

Nyated, Leonard N., and R. Pappo, to G. D. Searle & Co. Ozonolysis process and intermediates in the manufacture of 17-oxygenated 2-oxa-5α-androstan-3-ones. 3,109,016, 10–29–63, Cl. 260—468.

Nystrand, Ernst D., to Paper Converting Machine Co., Inc. Strip bag-producing machine. 3,107,585, 10–22–63, Cl. 93—8.

Nystrand, Ernst D., and R. E. Small, to Paper Converting Machine Co., Inc. Winder loader. 3,071,259, 1–1–63, Cl. 214—1.

Nystrom, Axel C., to Western Electric Co., Inc. Strand control apparatus. 3,099,412, 7–30–63, Cl. 242—47.01.

Nystul, Orville C.: *See*—
Sundblad, Helmer A., and Nystul. 3,084,349.

Nyswaner, Chester R., and W. H. Turner. Lock nut. 3,087,525, 4–30–63, Cl. 151—20.

O.K. Machine and Tool Corp.: *See*—
Ciejka, Rudolph J., and Mayerson. 3,075,277.

O.K. Tool Co., Inc., The: *See*—
Comire, Donald E. 3,087,230.
Payne, Oscar V. 3,079,671.

O-M Co., Ltd.: *See*—
Haneda, Seisaku, and Ariga. 3,102,305.

O-M Ltd.: *See*—
Haneda, Seisaku, and Ariga. 3,074,120.

Oak Mfg. Co.: *See*—
Cappelle, Norman D., Kornacker, and Ma. 3,096,665.
Ma, John Y. 3,111,636.

Oakes, Alfred C. and W. W., and C. Hatfield, to Pittsburgh Plate Glass Co. Glass snapping apparatus. 3,072,308, 1–8–63, Cl. 225—96.5.

Oakes, Billy D.: *See*—
Harrison, Hugh T., and Oakes. 3,107,221.
Monroe, Roger F., Kucera, Oakes, and Johnston. 3,077,454.
Monroe, Roger F., Lowes, Foster, and Oakes. 3,079,345.

Oakes, Billy D., to The Dow Chemical Co. Corrosion inhibition. 3,077,453, 2–12–63, Cl. 252—147.

Oakes, Billy D., to The Dow Chemical Co. Propargyl 2,2,2-trifluoroethyl ether. 3,077,501, 2–12–63, Cl. 260—614.

Oakes, David T., to Monsanto Chemical Co. Low fluid loss compositions. 3,112,266, 11–26–63, Cl. 252—8.55.

Oakes, David T., to Monsanto Chemical Co. Secondary recovery technique. 3,113,617, 12–10–63, Cl. 166—9.

Oakes, David T., to Monsanto Chemical Co. Secondary recovery technique. 3,113,618, 12–10–63, Cl. 166—9.

Oakes, E. T., Corp., The: *See*—
Oakes, Earle T. 3,081,069.
Oakes, Earle T., Doom, McElligott, and Sundhelm. 3,072,486.

Oakes, Earle T., to The E. T. Oakes Corp. Mixing apparatus. 3,081,069, 3–12–63, Cl. 259—8.

Oakes, Earle T., L. G. Doom, P. A. McElligott, and P. E. Sundhelm, to The E. T. Oakes Corp. Preparation for soluble milk powder. 3,072,486, 1–8–63, Cl. 99—56.

Oakes, Edwin I.: *See*—
Erhardt, Edward T., and Oakes. 3,090,967.

Oakes, George W. Ball-and-seat valves. 3,101,484, 8–27–63, Cl. 4—57.

Oakes, George W. Readily detachable electric plug. 3,107,962, 10–22–63, Cl. 339—74.

Oakes, Harry C., Jr. Method of applying a protective closure to a threaded opening. 3,113,377, 12–10–63, Cl. 29—523.

Oakes, Wayne W.: *See*—
Oakes, Alfred C. and W. W., and Hatfield. 3,072,308.

Oakey, William E.: *See*—
Brown, Robinson W., and Oakey. 3,097,532.

Oakland, John B. Support and rest device for a flush toilet. 3,090,051, 5–21–63, Cl. 4—254.

Oakland Metal Fabricators, Inc.: *See*—
Brown, James A., Pennell, and Jacke. 3,101,089.

Oakley, Alan P., to The Raleigh Cycle Co. Ltd. Cycle frames. 3,091,479, 5–28–63, Cl. 280—281.

Oakley, Henry D.: *See*—
Taylor, Clement F., MacIntyre, and Oakley. 3,110,180.

Oakley, John. Pivotal insert for shoe sole. 3,081,562, 3–19–63, Cl. 36—8.3.

Oakley, John R., to The Metal Box Co., Ltd. Apparatus for setting up cartons. 3,087,391, 4–30–63, Cl. 93—51.

Oakman, Albert S., and M. J. Sakatos, to Allied Control Co., Inc. Push button switch. 3,073,934, 1–15–63, Cl. 200—159.

Oak Ridge Atom Industries, Inc.: *See*—
Speas, Clarence J., and Andrews. 3,104,497.

Oanes, Orville: *See*—
Schilling, Lorell J., and Oanes. 3,115,116.

Oarco, Inc.: *See*—
Simpkins, Ralph A. 3,072,399.

Oates, Frank B.: *See*—
Kelley, Gilbert A., Rohm, and Oates. 3,106,747.

Oatley, Arthur F. Mincing machine. 3,081,806, 3–19–63, Cl. 146—189.

Oatman, Thomas D., and G. F. Dixon, to General Electric Co. Coupling removing tool. 3,112,386, 11–26–63, Cl. 219—7.5.

Obara, Kiyoshi: *See*—
Nagata, Kunilchi, and Obara. 3,087,989.

Obellianne, Pierre M. J.: *See*—
Sureau, Robert F. M., Kremer, and Obellianne. 3,084,988.

Obenauf, Carl F.: *See*—
Noznick, Peter P., Tatter, and Obenauf. 3,098,746.

Obenshain, David N., to West Virginia Pulp and Paper Co. Precise web metering device. 3,083,602, 4–2–63, Cl. 83—75.

Oberbach, Josef. Center guide strip for dual roadways. 3,114,303, 12–17–63, Cl. 94—1.5.

Oberg, Fred N.: *See*—
Snow, Robert E., and Oberg. 3,078,996.

Oberg, John L. to Asbrink & Co., Aktiebolaget. Mobile pneumatic cleaning devices. 3,105,991, 10–8–63, Cl. 15—320.

Oberg, Walter J. Vaporizer. 3,090,857, 5–21–63, Cl. 219—38.

Oberholtzer, Robert E.: *See*—
Kafline, Heinrich O., and Oberholtzer. 3,080,837.

Oberholtzer, Robert E., and H. O. Kafline, deceased (M. E. Kafline, administratrix), to James Lees and Sons Co. Method of making pile fabrics with loops of different heights. 3,112,721, 12–3–63, Cl. 112—266.

Oberley, William J., and I. S. Goldstein, to Koppers Co., Inc. Treatment of wood with hot chromated copper arsenate solutions. 3,080,212, 3–5–63, Cl. 21—7.

Oberly, Louis A., to Midland-Ross Corp. Winding apparatus. 3,097,805, 7–16–63, Cl. 242—43.

Obermaier & Cie: *See*—
Scharfenberger, Friedrich. 3,093,991.

Obermaier, Frank E., to The Dole Valve Co. Selective automotive vacuum control valve. 3,082,955, 3–26–63, Cl. 237—2.

Oberrender, Girard F.: *See*—
Kane, Frank A., Jr. 3,080,858.

Oberright, Edward A.: *See*—
Leonardi, Samuel A., and Oberright. 3,105,820.
Nygaard, Edwin M., and Oberright. 3,102,996.

Oberster, Arthur E., and L. H. Sarett, to Merck & Co., Inc. 16-methyl derivatives of progesterone. 3,088,951, 5–7–63, Cl. 260—397.3.

Oberster, Arthur E., R. E. Beyler, and L. H. Sarett, to Merck & Co., Inc. Aldosterone antagonists. 3,092,628, 6–4–63, Cl. 260—239.57.

Oberster, Arthur E., R. E. Beyler, and L. H. Sarett, to Merck & Co., Inc. Halioethisterone compounds. 3,100,204, 8–6–63, Cl. 260—239.55.

Oberto, Edwin L.: *See*—
Bell, George R., Oberto, and Fraser. 3,112,885.

Oblinger, James T.: *See*—
Angnerman, Charles R., Schneider, and Oblinger. 3,111,634.

Oborski, Zygfryd: *See*—
Brynarski, Chester and Oborski. 3,107,462.

O'Boyle, Charles M.: *See*—
Phillips, Clifford F., and Stultz. 3,103,063.

O'Brian, Edward D.: *See*—
Bourns, Marlan E., Roode, and O'Brian. 3,085,217.
Bourns, Marlan E., Roode, and O'Brian. 3,092,801.
O'Brian, Robert E., M. D. and E. D. 3,106,472.

O'Brian, Mabel D.: *See*—
O'Brian, Robert E., M. D. and E. D. 3,106,472.

O'Brian, Paul L.: *See*—
Close, Patrick R., Coulter, Ditmer, Fahrenbruck, Goldammer, Goodrick, Gulden, Holloran, Jenkins, Kitheffer, Kinker, Lyons, Manor, Marvin, Miller, O'Brian, Randall, Garner, Sather, Yost, and Braden. 3,112,394.

O'Brian, Robert E., M. D. and E. D. Method of treating edible oils and greases. 3,106,472, 10–8–63, Cl. 99—118.

O'Brien, Donald L.: *See*—
Johnson, Lemoine L., O'Brein, and Watson. 3,109,715.

O'Brien, Edward D., and W. C. Funk. Centrifugal separator. 3,089,596, 5–14–63, Cl. 210—369.

O'Brien, Edward F., Jr., and J. Gerbasi, to A-O Products Corp. Ventilator. 3,094,058, 6–18–63, Cl. 98—97.

O'Brien, Edward J.: *See*—
Wahlin, Fred W., and O'Brien. 3,072,346.

O'Brien, Evelyn I. Continuous urinal for females. 3,072,125, 1–8–63, Cl. 128—295.

O'Brien, Gene E., to G. E. and V. M. O'Brien. Silver reclaiming apparatus. 3,113,169, 12–3–63, Cl. 266—22.

O'Brien, Hugh A., to International Business Machines Corp. Dual-channel sensing. 3,078,448, 2–19–63, Cl. 340—174.1.

O'Brien, James F., and P. K. O'Connor, to The Brackett Co. Yarn mop. 3,111,700, 11–26–63, Cl. 15—229.

O'Brien, Joseph A., to Bell Telephone Laboratories, Inc. Parity checked shift register counting circuits. 3,113,204, 12–3–63 Cl. 235—153.

O'Brien, Leo J.: *See*—
Bond, Donald C., and O'Brien. 3,072,191.

O'Brien, Leo J., to The Pure Oil Co. Method of heating and producing oil wells. 3,087,545, 4–30–63, Cl. 166—39.

O'Brien, Leo J., to The Pure Oil Co. Method of plugging a formation with beta-lactones. 3,103,248, 9–10–63, Cl. 166—33.

O'Brien, Leo J., to The Pure Oil Co. Well-bore gas burner. 3,109,482, 11–5–63, Cl. 158—115.

O'Brien, Loren J., to Dana Corp. Differential gearing. Re. 25,500 12–24–63, Cl. 74—710.5.

O'Brien Mfg. Corp.: *See*—
Siegal, Burton L. 3,106,734.

O'Brien, Michael, to The Regents of the University of California. Bulk bin filler. 3,097,460, 7–16–63, Cl. 53—64.

O'Brien, Richard C., to Harris-Intertype Corp. Photographic type composition. 3,099,945, 8–6–63, Cl. 95—4.5.

O'Brien, Robert J., to Ekco Containers Inc. Apparatus for separating and depositing nested containers. 3,108,714, 10–29–63, Cl. 221—211.

O'Brien, Robert J., to Ekco Containers Inc. Packaging system and apparatus. 3,112,590, 12–3–63, Cl. 53—282.

O'Brien, Samuel J.: *See*—
Pierce, Elliot S., Siowata, and O'Brien. 3,089,778.
Van Loo, William J., Lineken, and O'Brien. 3,084,071.

O'Brien, Thomas E.: *See*—
Caloyannidi, Elpia. 3,085,722.

O'Brien, Thomas N. Cargo or load holder. 3,110,506, 11–12–63, Cl. 280—179.

O'Brien, Verna M.: *See*—
O'Brien, Gene E. 3,113,169.

O'Brien, William D., and C. E. Pollard, Jr., to Bell Telephone Laboratories, Inc. Method of conditioning an all-position mercury switch. 3,116,384, 12–31–63, Cl. 200—112.

O'Brien, William J. Rescue apparatus. 3,081,839, 3–19–63, Cl. 182—103.

Ochiai, Michihiko: *See*—
Kinugawa, Jiro, Yamamoto, Ochiai, and Sumina. 3,089,809.

Ochsner, Frederick C., and E. A. Miller, to Texas Instruments Inc. Electron discharge devices and materials therefor. 3,112,185, 11–26–63, Cl. 29—183.5.

Ocko, Richard, to General Electric Co. Audio limiter for phase modulation circuits. 3,109,991, 11–5–63, Cl. 328—171.

O'Coine, Marshall J., E. E. Johnson, and B. H. Warren, Jr. Counter apparatus particularly adapted for use by surveyors. 3,072,330, 1–8–63, Cl. 235—91.

O'Connell, John J.: *See*—
Kuhn, Albert J., and O'Connell. 3,110,158.

O'Connell, John J., to General Motors Corp. Refrigerating apparatus. 3,070,973, 1–1–63, Cl. 62—180.

O'Connell, John J., to General Motors Corp. Refrigerating apparatus. 3,104,533, 9–24–63, Cl. 62—149.

O'Connell, John J., to General Motors Corp. Refrigerating apparatus with defrost means. 3,105,364, 10–1–63, Cl. 62—156.

O'Connell, Robert A.: *See*—
Cornell, Dudley E., III, and O'Connell. 3,083,036.

O'Connell, Thomas F. Seat device for a shower-bath stall. 3,096,067, 7–2–63, Cl. 248—436.

O'Connell, William A. Floating swimming pool. 3,099,018, 7–30–63, Cl. 4—171.

O'Connor, Buell: *See*—
Ridgway, John A., and O'Connor. 3,085,123.

O'Connor, Donal J., to Morton Salt Co. Dispensing closure. 3,081,605, 3–12–63, Cl. 222—189.

O'Connor, James, Jr. Curb and gutter formers. 3,108,518, 10–29–63, Cl. 94—46.

O'Connor, James J.: *See*—
Aquino, Salvatore A., and O'Connor. 3,082,929.

O'Connor, John A., and S. J. Matys, to The Carborundum Co. Silicon carbide resistance body and method of making the same. 3,094,679, 6–18–63, Cl. 338—330.

O'Connor, Michael N.: *See*—
Smolin, Edwin M., and O'Connor. 3,074,985.

O'Connor, Philip K.: *See*—
O'Brien, James F., and O'Connor. 3,111,700.

O'Connor, Timothy E., and G. S. Stamatoff, to E. I. du Pont de Nemours and Co. Metal chelates as initiators for the polymerization of formaldehyde. 3,111,503, 11–19–63, Cl. 260—67.

O'Connor, Walter J., to Satec Corp. Temperature control system for specimen testing. 3,100,253, 8–6–63, Cl. 219—20.

O'Connor, Walter J., to Satec Corp. Test specimen holder mechanism and the like. 3,107,524, 10–22–63, Cl. 73—103.

O'Connor, William: *See*—
Austin, Kenneth A., and O'Connor. 3,100,378.

Oda, Atsushi, and S. Ninagawa, to Denki Tosoki Co. Ltd. Automatic hanger hook transfer. 3,113,659, 12–10–63, Cl. 198—23.

Oda, Kenichi, M. Yamawaki, and T. Saito, to Zoidan-Hojin Noguchi Kenkyu-Jo. Process of carrying out electrochemically electrolysis. 3,111,472, 11–19–63, Cl. 204—180.

Oda, Ryohei, S. Tajima, I. Muraoka, and K. Matsumoto, to Sumitomo Chemical Co., Ltd. New pigment resin printing paste and a method of producing the same. 3,079,356, 2–26–63, Cl. 260—29.6.

Odashima, Takeshi: *See*—
Mamiya, Shigeo, and Odashima. 3,097,274.

O'Day, Cortland N. Removable core air diffusers. 3,110,242, 11–12–63, Cl. 98—40.

O'Day, Cortland N., and G. J. **Sweeney. Air diffusers and** methods of making the same. 3,101,690, 8–27–63, Cl. 113—116.

O'Day, George R., to The Mead Corp. Display device. 3,099,354, 7–30–63, Cl. 211—49.

O'Dea, Martin J., to Bausch & Lomb Inc. Combination temple "no-drop" brake and screw guard. 3,102,156, 8–27–63, Cl. 88—53.

Odell, Eugene I., to S. Otto. Automatic nail processor and packager. 3,087,290, 4–30–63, Cl. 53—59.

O'Dell, Jerry L. and J. R. Portable field toilet. 3,099,841, 8–6–63, Cl. 4—116.

O'Dell, Jimmy R.: *See*—
O'Dell, Jerry L. and J. R. 3,099,841.

O'Dell, Leonard J., and K. L. Westlin, to American Air Filter Co., Inc. Gas cleaner. 3,074,218, 1–22–63, Cl. 55—343.

Odell, Norman R.: *See*—
Dadura, James G., Siegart, Odell, and Henry. 3,108,966.

O'Dell, Richard A., to Butler Mfg. Co. Adjustable capacity sweep conveyor for storage containers. 3,076,567, 2–5–63, Cl. 214—17.

O'Dell, Richard A., to Butler Mfg. Co. Storage structure with breathing means. 3,092,010, 6–4–63, Cl. 99—235.

Odell, Robert. Spreader and hitch therefor. 3,095,788, 7–2–63, Cl. 94—44.

Odell, Robert C., to Allis-Chalmers Mfg. Co. Method of applying major insulation for capacitors. 3,108,413, 10–29–63, Cl. 53—24.

Oden, Shalmy C. Smoking pipe. 3,097,655, 7–16–63, Cl. 131—207.

Odendahl, Clifford W.: *See*—
Hansen, Harold V., and Odendahl. 3,075,790.

Odend'Hal, Fortune, to Jamison Cold Storage Door Co. Biparting doors for track port. 3,097,842, 7–16–63, Cl. 268—14.

Odenwald, Alfred. Small-type thermostat for preventing overheating, provided with a bimetal disk and a conductor disk in a lenticular casing. 3,096,417, 7–2–63, Cl. 200—138.

Odenwald, Alfred. Small-type thermostat for preventing overheating provided with a bimetal disk in a lenticular casing and with beam-like profiled bracing means on said casing. 3,096,418, 7–2–63, Cl. 200—138.

Odenwald, Helmut, to Richard Hirschmann, Radiotechnisches Work. Antenna tuned by bending end portions. 3,089,141, 5–7–63, Cl. 343—802.

Odenwald, William, G. Appleman, and W. L. Hardy, to Hartz Mountain Products Corp. Medicated bird seed and method of making same. 3,080,285, 3–5–63, Cl. 167—53.1.

Oderman, Samuel, and D. V. Weber, to Sta-Hi Corp. Turning apparatus for conveyer system. 3,100,039, 8–6–63, Cl. 198—33.

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Oishei, John R., to Trico Products Corp. Remotely actuated trunk lock arrangement for a motor vehicle. 3,113,447, 12–10–63, Cl. 70—262.

Oishei, John R., and M. Bitzer, to Trico Products Corp. Windshield cleaning apparatus. 3,078,492, 2–26–63, Cl. 15—250.2.

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Olah, George A., and S. J. Kuhn, to The Dow Chemical Co. Propellant compositions. 3,103,782, 9–17–63, Cl. 60—35.4.

Olashaw, William F., to General Electric Co. Stab contact assemblies. 3,086,191, 4–16–63, Cl. 339—196.

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Olbrich, Leopold, to Daimler-Benz Aktiengesellschaft. Gas turbine propulsion power plant construction. 3,084,508, 4–9–63, Cl. 60—35.54.

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Oldenburg, Kenneth F., to Clary Corp. Calculating machine. 3,104,808, 9–24–63, Cl. 235—60.31.

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Oldendorf, William H. Radiant energy apparatus for investigating selected areas of the interior of objects obscured by dense material. 3,106,640, 10–8–63, Cl. 250—52.

Oldershaw, Charles F., to The Dow Chemical Co. Method and apparatus for the liquid treating of fiber tow bundles. 3,074,775, 1–22–63, Cl. 8—151.2.

Oldershaw, Charles F., to The Dow Chemical Co. Liquid application to running lengths of fibres in superimposed baths. 3,100,306, 8–13–63, Cl. 8—151.2.

Oldershaw, Charles G., to General Foods Corp. Frozen fish block cutting and aligning machine. 3,079,964, 3–5–63, Cl. 146—98.

Oldfield, Eric: *See*—
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Oldham, Wilbur N., N. A. Granito, and B. Kerfoot, to American Cyanamid Co. Apparatus for densifying and granulating powdered materials. 3,114,930, 12–24–63, Cl. 18—1.

Olds, Geoffrey C. E., to Associated Electrical Industries (Rugby) Ltd. (formerly known as British Thomson-Houston Co., Ltd.). Magnesium alloys. 3,071,462, 1–1–63, Cl. 75—168.

Olds, Geoffrey C. E., and J. E. Harris, to Associated Electrical Industries (Rugby) Ltd. Zirconium alloys. 3,072,478, 1–8–63, Cl. 75—177.

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Olds, Walter F., to Anaconda Wire and Cable Co. High voltage power cable. 3,077,510, 2–12–63, Cl. 174—25.

Olds, William L., and W. J. Baker, to Gardner-Denver Co. Conductor wrapping device. 3,078,052, 2–19–63, Cl. 242—7.

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O'Leary, Thomas P., Jr.: *See*—
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Oleksiak, Robert E., to International Business Machines Corp. Checking system. 3,100,888, 8–13–63, Cl. 340—174.

Olenberg, Harry, to Halcon International, Inc. Decolorizing maleic acid solution. 3,109,025, 10–29–63, Cl. 260—537.

Olender, Francis B., and A. Wilson, to Hewitt-Robins Inc. X-brace screen. 3,100,189, 8–6–63, Cl. 209—409.

Olenik, Nicholas J., to Inland Steel Co. Transfer device. 3,082,913, 3–26–63, Cl. 222—70.

Olér, Ernst B., to Aktiebolaget Bofors. Container. 3,087,668, 4–30–63, Cl. 229—53.

Oles, Joseph F., to The Murray Corp. of America. Washing machine dispenser. 3,085,417, 4–16–63, Cl. 68—17.

Oleskow, Mathew. Control valve for water softeners. 3,079,943, 3–5–63, Cl. 137—391.

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Opila, Robert L., and Oleson. 3,086,008.

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Ager, John W., Jr., Alexander, and Heying. 3,109,858.
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Burns, Arthur H., Jr. 3,090,309.
Butterfield, Neil J. 3,087,369.
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Diassi, Patrick A. 3,093,637.
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Eliot, Sigdon A. 3,099,053.
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Forrester, Joseph J., 3rd. 3,114,614.
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Fried, Josef. 3,072,684.
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Fried, Josef, and Guiducci. 3,077,471.
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Fried, Josef, and Thoma. 3,083,211.
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Goff, Lionel E. 3,094,070.
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Graser, Earl J. 3,086,680.
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Harris, Edward E. 3,105,054.
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Horton, Donald. 3,085,137.
Isbell, Clarence A., Jr., Neel, and Pauls. 3,110,090.
Jacoby, Ben, Jr. 3,104,701.
Johnson, Arthur F. 3,088,193.
Johnson, Wallace C. 3,111,747.
Jones, James R., and Fogle. 3,093,455.
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Marek, Ronald W. 3,094,525.
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Numerof, Paul, and Lindenblad. 3,074,406.
Ottmann, Gerhard F., and Grundmann. 3,088,933.
Pansy, Felix E., and Dutcher. 3,098,243.
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Pauls, Theron F. 3,094,956.
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Thoma, Richard W., and Fried. 3,083,212.
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Thomas, Gordon H., and Fried. 3,080,388.
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Turner, Charles F. 3,080,714.
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Tyson, George N., Jr. 3,093,960.
Tyson, George N., Jr. 3,097,119.
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O'Link, Maurice H., to Stearns Mfg. Co. Water sport belt. 3,077,618, 2–19–63, Cl. 9—337.

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Muehlhausen, Charles H. 3,090,509.

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Oliver, Glenn A., to Burroughs Corp. Arithmetic and logic system. 3,106,637, 10–8–63, Cl. 235—175.

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Olrich, Walter. Fish scaler. 3,072,956, 1–15–63, Cl. 17—5.

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Olson, Harry F., to Radio Corp. of America. Stereophonic sound reproducing loudspeaker system. 3,104,729, 9-24-63, Cl. 181—31.
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Olsson, Bengt G., to Telefonaktiebolaget LM Ericsson. Amplifier having constant sinusoidal output voltage which is relatively independent of input shape. 3,085,164, 4-9-63, Cl. 307—88.5.
Olsson, Billy E., to Malco Mfg. Co. Snap-in terminal for panel. 3,072,880, 1-8-63, Cl. 339—217.
Olsson, Mats J. M.: *See*—
Kallin, Kurt G. L., and Olsson. 3,070,955.
Olsson, Olof A., to Svenska Relafabriken AB. Electrical switching device. 3,073,928, 1-15-63, Cl. 200—105.
Olsson, Otto Y.: *See*—
Bingham, George H., Jr., and Olsson. 3,101,496.
Olsson, Richard H.: *See*—
Bent, John H., and Olsson. 3,073,347.
Olsson, Sverre I.: *See*—
Collin, Lars T., Andersson, and Olsson. 3,080,705.
Olstowski, Franciszek, and J. D. Watson, to The Dow Chemical Co. Preparation of vinylidene fluoride. 3,089,910, 5-14-63, Cl. 260—653.3.
Olstowski, Franciszek, and L. G. Dean, to The Dow Chemical Co. Preparation of halofluorocarbons. 3,114,684, 12-17-63, Cl. 204—62.
Oltay, Ernst, and R. Stroh, to Farbenfabriken Bayer Aktiengesellschaft. Process for the production of 2,4-dinio-1,3-trilsopropylbenzene. 3,086,062, 4-16-63, Cl. 260—645.
Oltean, George: *See*—
Rye, John K., Opperthauser, and Oltean. 3,103,835.
Olton, Dirck J., and R. P. Hook, to Norton Co. Abrading device. 3,098,330, 7-23-63, Cl. 51—197.
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Chvatlinsky, Kurt. 3,071,233.
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Mertn, Theodor. 3,091,320.
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Siebol, George. 3,091,982.
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Wilson, Raymond O. 3,112,562.
Olympus Kogaku Kogyo Kabushiki Kaisha: *See*—
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Maltani, Yoshihisa. 3,106,882.
Maltani, Yoshihisa. 3,108,522.
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O'Malley, Donald R.: *See*—
Brown, Paul M., and O'Malley. 3,096,157.
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O'Malley, John J., to General Motors Corp. Transmission. 3,084,568, 4-9-63, Cl. 74—677.
Oman, Ronald. Water bug boat. 3,093,843, 6-18-63, Cl 9—1.
Oman, Stanley N.: *See*—
Lang, John J., Oman, and Cronin. 3,090,259.
O'Mant, Derrick M., H. J. Twitchett, and J. H. Wild, to Imperial Chemical Industries Ltd. Manufacture of polyurethane materials. 3,109,825, 11-5-63, Cl. 260—2.5.
O'Mara, Edward A.: *See*—
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Omark Industries, Inc.: *See*—
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O'Meara, Thomas R., to Hughes Aircraft Co. High efficiency amplifier. 3,116,455, 12-31-63, Cl. 328—27.
Omer, John E. Water skiing. 3,113,550, 12-10-63, Cl. 115—70.
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Omohundro, Robert J., and D. E. Field. Scintillation counter. 3,087,060, 4-23-63, Cl. 250—71.5.
Omohundro, William A., to General Electric Co. Hair dryer. 3,095,496, 6-25-63, Cl. 219—39.
Onan, Division of Studebaker-Packard Corp.: *See*—
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Levison, Robert, and Voigt. 3,078,513.
Mertens, Johan J. 3,087,299.
Van Gijsen, Andries. 3,089,803.
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Ondrejka, Albert A. Nose cones for missiles or rockets. 3,093,078, 6-11-63, Cl. 102—92.5.
Ondrejka, Albert A. Shock and vibration isolator. 3,098,643, 7-23-63, Cl. 267—1.
Ondrush, John, and P. J. Rubilotta, to United States of America, Navy. Life preserver for assault troops. 3,103,674, 9-17-63, Cl. 9—338.
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O'Neal, Andrew, and W. E. Bush. Products and fines recovery system. 3,077,986, 2-19-63, Cl. 209—144.
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O'Neal, George E., to Pan American Petroleum Corp. Apparatus for repairing well casing. 3,111,991, 11-26-63, Cl. 166—207.
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O'Neil, Brian D. Combined carrying bag and seat. 3,092,224, 6-4-63, Cl. 190—8.
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O'Neil, Harvey L., to Hartmann Luggage Co. Luggage case end wall construction. 3,071,220, 1-1-63, Cl. 190—50.
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O'Neil, Rose M. Umbrella with stand. 3,091,249, 5-28-63, Cl. 135—16.
O'Neil, Timothy H., Jr. Beam and tie support. 3,089,570, 5-14-63, Cl. 189—88.
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Brooks, Charles E., O'Neill, and Stover. 3,086,084.

O'Neill, Jerome, to General Railway Signal Co. Ultrasonic vehicle detection system. 3,087,140, 4-23-63, Cl. 340—38.
O'Neill, John E., to Nathan Schwartz & Sons, Inc. Materials-handling truck. 3,093,387, 6-11-63, Cl. 280—47.12.
O'Neill, John H., and R. J. Parsons, to Sperry Rand Corp. Method for producing high temperature electrical insulation. 3,115,432, 12-24-63, Cl. 156—47.
O'Neill, Joseph V., G. Homanick, and R. C. McCord; said Homanick and said McCord assors. to said O'Neill. Submarine automatic oil well drilling machine. 3,095,048, 6-25-63, Cl. 175—6.
O'Neill, Robert A., to Lockheed Aircraft Corp. Method and apparatus for forming conically shaped articles. 3,091,279, 5-28-63, Cl. 153—60.
O'Neill, Robert C., to Stauffer Chemical Co. N-alkyl-nornicotine: nicotine antagonist. 3,071,509, 1-1-63, Cl. 167—53.
O'Neill, Wilbur J.: *See*—
Hurwitz, Abraham, and O'Neill. 3,090,205.
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Goodings, Eric P., O'Neill, and Taylor. 3,099,515.
Goodings, Eric P., Taylor, and O'Neill. 3,082,053.
O'Neill, William C., to General Electric Co. Afterburner fuel control. 3,085,395, 4-16-63, Cl. 60—35.6.
O'Neilly, William J., to The Universal Flaymaster Equipment Co. Ltd. Tool head. 3,073,027, 1-15-63, Cl. 30—216.
Ongaro, Theodore. Vertical catapult for missiles. 3,088,698, 5-7-63, Cl. 244—63.
Ongaro, Theodore, to Internation Research and Development Corp. Lathe balancing support stands. 3,090,237, 5-21-63, Cl. 73—462.
Ongstad, Harold, and W. P. Scholl. Portable roofing apparatus. 3,099,582, 7-30-63, Cl. 118—305.
Onischak, Roy M.: *See*—
Gvozdjak, John, and Onischak. 3,095,495.
Onishi, Shoichi: *See*—
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Onksen, George W.: *See*—
Brock, Eugene W., and Onksen. 3,082,304.
Todd, Hnrold E., and Onksen. 3,077,139.
On Mark Couplings, Inc.: *See*—
Breuning, Erich E. 3,074,670.
Lamphear, Walter E. 3,077,330.
Torres, Jorge. 3,113,588.
Onnigian, Peter K., and K. Kirstein. Wireless microphone transmitter. 3,105,938, 10-1-63, Cl. 325—105.
Onno, Peter, and J. F. Haberl, to Canadian Marconi Co. Precision time delay generator. 3,105,939, 10-1-63, Cl. 328—34.
Onny, Edward J., and S. Rezin. Butt welding apparatus. 3,098,927, 7-23-63, Cl. 219—57.
Ono, George Y., to Thompson Ramo Wooldridge Inc. Drive coupling. 3,095,712, 7-2-63, Cl. 64—3.
Ono, Hiroshi, to Webcor, Inc. I.R. detonator. 3,091,178, 5-28-63, Cl. 102—70.
Ono, Noboru. Skip rope. 3,075,767, 1-29-63, Cl. 272—75.
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Owashi, Toshiro, Onoe, Ito, and Kawai. 3,108,849.
Onsrud Machine Works, Inc.: *See*—
Pedersen, John. 3,100,622.
Onstad, Ragnar E., to Research Products Corp. Air conditioning system. 3,084,609, 4-9-63, Cl. 98—40.
Ontario Paper Co. Ltd., The: *See*—
Horncastle, David C. 3,102,562.
Horncastle, David C. 3,102,563.
Ontario Research Foundation: *See*—
Westman, Albert E. R., and Schumacher. 3,102,425.
Onulak, Eugene W.: *See*—
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Onyshkevych, Lubomyr S.: *See*—
Kosonocky, Walter F., and Onyshkevych. 3,084,264.
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Onyskin, Alexander. Slip clutch. 3,091,951, 6-4-63, Cl. 64—30.
Onyx Chemical Corp.: *See*—
Steinberger, Samuel. 3,111,492.
Oom, Bengt O. G.: *See*—
Lundgren, Rudolf A. I., Oom, and Järnhäll. 3,075,528.
Oom, Benjamin J., to American Seating Co. Accessory for overbed table. 3,094,949, 6-25-63, Cl. 108—32.
Oostland, Alfred N., to Compagnie de Saint-Gobain. Treating corrugated surfaced sheets. 3,085,368, 4-16-63, Cl. 51—14.
Opal Mfg. Co. Ltd.: *See*—
Muller, Alois. 3,109,950.
Opferkuch, Heins B., to Kearney & Trecker Corp. Adjustable journal bearing with automatic heat compensator. 3,106,432, 10-8-63, Cl. 308—36.
Opfermann, Adolf. Arrangement for converting heat into electric energy. 3,079,527, 2-26-63, Cl. 322—2.
Opie, Kenneth M. Rail mounting. 3,071,350, 1-1-63, Cl. 256—65.
Opila, Robert L., to Corn Products Co. Method of treating finely divided material with a gas. 3,114,656, 12-17-63, Cl. 127—38.
Opila, Robert L., and A. P. Oleson, to Corn Products Co. Method for modifying a carbohydrate material. 3,086,008, 4-16-63, Cl. 260—233.3.
Opitz, Eric J., to General Motors Corp. Vacuum cup with integral locator. 3,084,928, 4-9-63, Cl. 269—21.
Opitz, Wolfgang, and K. Sennewald, to Knapsack-Griesheim Aktiengesellschaft. Process for partially dehalogenating di- and trihaloacetic acid. 3,071,615, 1-1-63, Cl. 260—539.
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Opocensky, Willard J., to General Precision, Inc. Integrator disk bearing improvement. 3,097,539, 7-16-63, Cl. 74—198.
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Oppel, John A.: *See*—
McNeir, George, and Oppel. 3,074,042.
Oppel, John A., to General Electric Co. Condition-responsive indicating means for an electric circuit breaker. 3,076,081, 1-29-63, Cl. 200—167.
Oppenheim, Richard D., and J. E. Borner, to Spraylat Corp. Tire coated with removable coating comprising modified polyvinyl alcohol and method of coating. 3,114,650, 12-17-63, Cl. 117—6.
Oppenheimer, Edgar D., and R. A. Weisberg, to United States of America, Atomic Energy Commission. Sodium deuterium reactor. 3,079,321, 2-26-63, Cl. 204—193.2.
Opperman, Joseph: *See*—
Fischman, Robert W., and Opperman. 3,091,868.
Opperthauser, Orval A.: *See*—
Rye, John K., Opperthauser, and Oltean. 3,103,835.
Opprecht, Paul. Automatic seam welding apparatus. 3,102,645, 9-3-63, Cl. 219—81.
Opromolla, Peter A. Box. 3,071,278, 1-1-63, Cl. 217—69.
Optics Technology, Inc.: *See*—
Kapany, Narinder S. 3,103,546.
Optimation, Inc.: *See*—
Wolcott, Henry O. 3,111,630.
Opti-Natic, Inc.: *See*—
Zaubi, Edward L. 3,071,035.
Optique et Precision de Levallois: *See*—
Morelle, Jules L. E. 3,077,822.
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Morelle, Jules L. E. 3,100,430.
Optische Industrie "de Oude Delft," N.V.: *See*—
Becker, Johannes. 3,110,752.
Nieuwenhoven, Hendricus J. C., and Bouwers. 3,114,306.
Optische Werke Jos. Schneider & Co.: *See*—
Mahn, Herbert. 3,095,750.
OPTOmechanisms, Inc.: *See*—
Brault, Andre R. 3,076,682.
Chitayat, Anwar K. 3,071,323.
Chitayat, Anwar K. 3,079,503.
Saffan, Marvin M. 3,115,079.
O'Quinn, Ruth E.: *See*—
Jepson, Ivar, O'Quinn, and Wickenberg. 3,108,531.
Or, John B., to Sheffield Plastics, Inc. Apparatus and procedure for making expanded resinous containers. 3,079,630, 3-5-63, Cl. 18—5.
Oram, John A. Timing device utilizing a mechanism. 3,107,481, 10-22-63, Cl. 58—23.
Orandi & Massera, Sociedad Anonima Industrial & Commercial: *See*—
Dabul, Ismael. 3,114,770.
Orbach, Harry K., and R. C. Oliver, to The Fluor Corp., Ltd. Separation of deuterium from hydrogen. 3,081,156, 3-12-63, Cl. 23—210.
Orchard, Peter F.: *See*—
Soltau, William E., and Orchard. 3,088,281.
Orciani, Henry A. Base trimmer for bowling pins. 3,084,486, 4-9-63, Cl. 51—125.
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Dry, Claud J., and Orcutt. 3,115,945.
Orcutt, Donald B., 25% to R. D. Lewis. Drilling and pipe setting machine. 3,113,628, 12-10-63, Cl. 173—152.
Ordas, Eugene P., to Velsicol Chemical Corp. Pesticidal compositions. 3,103,539, 9-10-63, Cl. 260—644.
Ordelheide, Manford A.: *See*—
Champion, Clarence M., and Ordelheide. 3,108,539.
Ordinetz, Walter, and W. Shultz. Screw sheath. 3,106,854, 10-15-63, Cl. 74—606.
Ordorica, Miguel A., and L. A. Cadmus, to Willys Motors, Inc. Independent driving steering wheel suspension mechanism. 3,075,600, 1-29-63, Cl. 180—43.
Ore, Ernest G. Scarecrow. 3,085,545, 4-16-63, Cl. 116—22.
Ore, Fred R.: *See*—
Du Hamel, Raymond H., and Ore. 3,079,602.
Oreamuno, Walter R., & Co.: *See*—
Hassett, James P. 3,091,390.
O'Rear, Charles J.: *See*—
Wilson, Wilmer G., and O'Rear. 3,101,798.
O'Rear, J. D. Foldable and portable apparatus for delineating a playing field for games. Re. 25,474, 11-5-63, Cl. 273—1.
O'Reilly, Donald E., and C. P. Poole, Jr., to Gulf Research & Development Co. Resonant microwave cavity structure. 3,080,520, 3-5-63, Cl. 324—58.5.
O'Reilly, Gabriel A. Ornamental illuminating device. 3,101,907, 8-27-63, Cl. 240—10.
Orelup, John W. Fluidized petroleum additives. 3,076,698, 2-5-63, Cl. 44—59.
Orem, Thomas R.: *See*—
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Orenda Engines Ltd.: *See*—
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Orenduff Vernon C. Tire grooving apparatus. 3,075,575, 1-29-63, Cl. 157—13.

Orenick, Emil: *See*—
Orenick, Michael, and E. 3,086,265.

Orenick, Emil H. and M. W. Cable retainer. 3,088,702, 5-7-63, Cl. 248—71.

Orenick, Michael and E. Closure means for bags. 3,086,265, 4-23-63, Cl. 24—30.5.

Orenick, Michael W.: *See*—
Orenick, Emil H. and M. W. 3,088,702.

Oresundsvarret AB: *See*—
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Organico, S.A.: *See*—
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Organon, Inc.: *See*—
Szpilfogel, Stefan A., Hanegraaf, and van Dijck. 3,112,328.
Thompson, Kenneth W., Schapiro, Price, Vincent, and Jensen. 3,073,746.

Orgill, Robert H. Abnormal condition sequence indicating device. 3,074,065, 1-15-63, Cl. 346—45.

Original-Odhner Aktiebolaget: *See*—
Almvide, Sven L. 3,078,038.

Original Toy Corp.: *See*—
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Originals By Claire, Inc.: *See*—
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Originators Engineering and Development Co., The: *See*—
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Orkiszewski, Joseph, to Jersey Production Research Co. In-situ generation of miscible gas bank. 3,111,987, 11-26-63, Cl. 166—11.

Orlacchio, Anthony W., to Gulton Industries, Inc. Accelerometer. 3,093,759, 6-11-63, Cl. 310—8.4.

Orlandi, Primo: *See*—
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Orlando, Eugenio. Process for the manufacture of clothing articles more particularly shoes. 3,076,215, 2-5-63, Cl. 12—146.

Orlando, Eugenio. Means for splitting the edges of soft workpieces. 3,091,112, 5-28-63, Cl. 69—16.

Orlando, Luigi E., and C. Corradi, to Alfa Romeo, S.p.A. Air-cooled internal combustion engine. 3,099,983, 8-6-63, Cl. 123—41.61.

Orlando, Vincent A.: *See*—
Chin, Bock M., and Orlando. 3,109,140
Chin, Bock M., and Orlando. 3,109,939.

Orley, Bud: *See*—
Womack, Archer L., Blaine, and Orley. 3,109,522.

Orlick, Adolph and J. Educational toy device for teaching alphabets or the like by sound. 3,087,259, 4-30-63, Cl. 35—35.

Orlick, John: *See*—
Orlick, Adolph and J. 3,087,259.

Orlin, William J. Supersonic nozzle. 3,104,680, 9-24-63, Cl. 138—45.

Orloff, Daniel L.: *See*—
Abern, William B., and Orloff. 3,077,968.

Orloff, Daniel L., and R. J. Keating, to Oscar Mayer & Co., Inc. Stuffing hopper unit. 3,097,392, 7-16-63, Cl. 17—35.

Orloff, Harold D., to Ethyl Corp. Lubricating oils. 3,092,585, 6-4-63, Cl. 252—48.4.

Orloff, Harold D., to Ethyl Corp. Sulfur bridged cyclohexyl phenols. 3,100,229, 8-6-63, Cl. 260—609.

Orloff, Harold D., to Ethyl Corp. Stabilized jet fuel compositions. 3,102,798, 9-3-63, Cl. 44—76.

Orloff, Harold D., and J. P. Napolitano, to Ethyl Corp. Jet fuel compositions. 3,089,762, 5-14-63, Cl. 44—78.

Orloff, Harold D., and G. G. Knapp, to Ethyl Corp. Stabilized lubricants. 3,115,463, 12-24-63, Cl. 252—49.8.

Orloff, Harold D., and G. G. Knapp, to Ethyl Corp. Stabilized lubricants. 3,115,464, 12-24-63, Cl. 252—49.8.

Orloff, Harold D., and G. G. Knapp, to Ethyl Corp. Stabilized compositions of matter. 3,115,465, 12-24-63, Cl. 252—49.9.

Orloff, Harold D., and G. G. Knapp, to Ethyl Corp. Synergistic antioxidants. 3,115,466, 12-24-63, Cl. 252—49.9.

Orloff, John F., to Huck Mfg. Co. Rivet with a serrated pin and an annular locking member. 3,107,572, 10-22-63, Cl. 85—40.

Orlov, Boris: *See*—
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Orman, Edward C.: *See*—
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Ormanns, Gottfried, and H. Hap, to Rheinmetall, G.m.b.H., Firma. Blank cartridge. 3,103,883, 9-17-63, Cl. 102—39.

Orme, Grant L. Binding machine. 3,083,742, 4-2-63, Cl. 140—93.2.

Ormond, Alfred N. Beam calibrator. 3,096,638, 7-9-63, Cl. 73—1.

Ormond, Alfred N. Apparatus for measuring static loads. 3,105,564, 10-1-63, Cl. 177—211.

Ormonoterapia Richter S.p.A.: *See*—
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De Ruggieri, Pietro, and Gandolfi. 3,114,749.
Toccacelli, Nazzareno. 3,099,600.

Ormsby, Raymond G., and F. J. Trementozzi, to Corning Glass Works. Method and apparatus for forming glass. 3,098,948, 7-23-63, Cl. 317—6.

Ormsby, Thomas F. Flexible hose pump. 3,079,868, 3-5-63, Cl. 103—149.

Ormston, William J.: *See*—
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Orndorff, John R. Aseptic surgical wound protector. 3,111,943, 11-26-63, Cl. 128—1.

Orner, Amos B. Horizontal drilling apparatus. 3,078,938, 2-26-63, Cl. 175—219.

Orner, Harry. Spring mechanism. 3,080,159, 3-5-63, Cl. 267—1.

Orner, Harry. Spring mechanism. 3,080,160, 3-5-63, Cl. 267—1.

Orner, Harry. Lock screw assembly incorporating stress indicator means. 3,087,371, 4-30-63, Cl. 85—62.

Ornlta, Martin S., and H. R. James, deceased (E. T. James, executrix), to Blaw-Knox Co. Furnace rolls. 3,115,335, 12-24-63, Cl. 263—6.

Oronsio de Nora Impianti Elettrochimici: *See*—
Massner, Georg. 3,103,484.

Orost, Joseph: *See*—
Kroning, Robert D., and Orost. 3,090,835.

O'Rourke, Fred C., to Plastic Applicators, Inc. Retainer assembly for securing a covering on a tubular member. 3,087,513, 4-30-63, Cl. 138—109.

Orowan, Egon. Safety windshield for motor vehicles. 3,081,127, 3-12-63, Cl. 296—84.

Orowan, Egon. Enterostomy appliance. 3,100,488, 8-13-63, Cl. 128—283.

Orr Felt & Blanket Co., The: *See*—
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Orr, Harley J., and G. O. Williams, to Hobart Bros. Co. Micro wire gun and cable assembly. 3,112,392, 11-26-63, Cl. 219—130.

Orr, Harold T. Vehicular mounted carrier. 3,105,666, 10-1-63, Cl. 248—201.

Orr, Harold W., to Phillips Petroleum Co. Method of and apparatus for controlling a fluid separation process. 3,111,460, 11-19-63, Cl. 202—40.

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Bowers, Albert, Edwards, and Orr. 3,077,485.
Bowers, Albert, Edwards, and Orr. 3,080,394.
Bowers, Albert, Edwards, and Orr. 3,080,398.
Bowers, Albert, Edwards, and Orr. 3,080,400.
Bowers, Albert, Edwards, and Orr. 3,080,401.
Bowers, Albert, Edwards, and Orr. 3,082,223.
Bowers, Albert, and Orr. 3,086,012.
Bowers, Albert, and Orr. 3,086,013.
Bowers, Albert, and Orr. 3,103,523.
Ringold, Howard, Jr., Alvarez, and Orr. 3,076,823.

Orr, James C., J. Edwards, and A. Bowers, to Syntex Corp. 2-halo methyl derivatives of the androstane series. 3,080,395, 3-5-63, Cl. 260—397.4.

Orr, James C., A. Bowers, and J. Edwards, to Syntex S.A. 2-difluoromethyl-Δ^1 and $\Delta^{1,4}$-3-keto steroids of the pregnane series and process therefor. 3,086,015, 4-16-63, Cl. 260—239.55.

Orr, James D.: *See*—
Culpepper, Arthur C., Orr, and Burk. 3,082,884.

Orr, John B. Dispensing container. 3,100,592, 8-13-63, Cl. 229—2.5.

Orr, William R.: *See*—
Richardson, Jasper E., and Orr. 3,102,954.

Orr, William R., J. E. Richardson, and E. Baskir, to Shell Oil Co. Scintillation detection in well logging using fast and slow phosphors. 3,116,417, 12-31-63, Cl. 250—71.5.

Orr, Willis P., to Jersey Production Research Co. Self-expanding retrievable or permanent bridge plug. 3,097,696, 7-16-63, Cl. 166—135.

Orr, Willis P., to Jersey Production Research Co. Cementing of well pipe in stages. 3,097,699, 7-16-63, Cl. 166—224.

Orr, Willis P., B. G. Agnew, and W. C. Lindsey, to Jersey Production Research Co. Tension tubing anchor. 3,104,708, 9-24-63, Cl. 166—46.

Orrell, Joseph B.: *See*—
Collier, Eugene L. 3,085,883.

Orshansky, Elias, Jr. Hydraulic motor. 3,090,361, 5-21-63, Cl. 121—61.

Orsing, John H. Saliva ejectors. 3,086,289, 4-23-63, Cl. 32—33.

Orsinger, Albert R., and A. P. Williams, to Texas Instruments Inc. Floating roof tank gauge. 3,085,434, 4-16-63, Cl. 73—321.

Orsolato, Giordano: *See*—
Ausenda, Carlo, D'Epinoix, Castellini, and Orsolato. 3,094,028.

Orsoni, Bartolomeo: *See*—
Loertscher, Waldemar, Hess, Orsoni, and Fabris. 3,070,837.

Orsymonde, Societe Anonyme dite: *See*—
Lafon, Louis. 3,079,300.

Orszulak, John J. Portable blinking warning sign and control handle. 3,075,174, 1-22-63, Cl. 340—107.

Ort, Morris R., and W. H. Yanko, to Monsanto Chemical Co. Stabilization of organic coolants and moderators in neutronic reactors. 3,113,090, 12-3-63, Cl. 204—193.2.

Orter, Ralph H. Flush valve for water closets. 3,070,809, 1-1-63, Cl. 4—57.

Orth, Adolf: *See*—
Probst, Otto, Fernholz, Mundlos, Oehme, and Orth. 3,113,149.

Orth, George O., Jr.: *See*—
Hales, Ralph A., Le Maistre, and Orth. 3,071,599.

Orth, George O., Jr., to Buffelen Sales Co. Inc. Method and means for pre-sealing wood surfaces. 3,090,695, 5-21-63, Cl. 117—8.

Ortheil, Hans, to Burlington Industries, Inc. Process for dyeing blends of nylon 6 and nylon 66. 3,105,732, 10-1-63, Cl. 8—21.

Orthner, Ludwig, M. Reuter, and F. Landauer, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning. Surface-active urethanes and a process for preparing them. 3,086,986, 4-23-63, Cl. 260—481.

Orthner, Ludwig, K. Horst, A. Scharf, W. Kirst, J. Oxé, and R. Gross, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning. Process for preparing solutions of coupling components of the ice color series. 3,101,235, 8-20-63, Cl. 8—44.

Orthopaedic Specialties Corp.: *See*—
Cochran, Ulrich D., and Di Cosola. 3,103,926.
Cochran, Ulrich D., and Di Cosola. 3,112,743.

Orthopedic Equipment Co.: *See*—
Gary, James S. 3,103,069.

Ortho Pharmaceutical Corp.: *See*—
Millman, Nathan, and Homm. 3,106,043.

Orthuber, Richard K.: *See*—
Stanley, Charles V., and Orthuber. 3,107,300.

Ortloff, Gerald D.: *See*—
West, Robert C., Ortloff, and Beeson. 3,084,743.

Ortloff, John E., P. S. McReynolds, and B. T. Willman, to Jersey Production Research Co. Stabilizing a formation. 3,104,705, 9-24-63, Cl. 166—39.

Ortman, Charles E., Jr., to Stanray Corp. Cutting tool and milling head insert therefor. 3,103,736, 9-17-63, Cl. 29—96.

Ortmann & Herbst: *See*—
Naecker, Uwe. 3,090,408.

Ortner, Samuel. Tape dispensing machine. 3,088,356, 5-7-63, Cl. 83—233.

Orton, John W.: *See*—
Travis, Ernest M. 3,083,591.

Orton, Raymond E., to The Cleveland Trencher Co. Track adjusting system. 3,082,043, 3-19-63, Cl. 305—10.

Orton, Samuel T., Jr., to Union Associates, Inc. Apparatus for removing strings from liquid solutions. 3,102,858, 9-3-63, Cl. 210—512.

Orwin, Olaf J. B., to Fisher & Ludlow Ltd. Conveyor installations. 3,074,357, 1-22-63, Cl. 104—172.

Orwin, Olaf J. B., to Fisher & Ludlow Ltd. Conveyor systems. 3,076,418, 2-5-63, Cl. 104—172.

Orwin, Olaf J. B., to Fisher & Ludlow Ltd. Conveyor systems. 3,092,038, 6-4-63, Cl. 104—172.

Orwin, Olaf J. B., to Fisher & Ludlow Ltd. Overload clutch or torque limiting device. 3,095,955, 7-2-63, Cl. 192—56.

Orwin, Robert J., to The Hallicrafters Co. Regenerative circuit in an I.F. amplifier stage. 3,107,333, 10-15-63, Cl. 330—112.

Osa, Tetsuro: *See*—
Higuchi, Koso, Tsuyuguchi, Osa, Ando, and Yonemoto. 3,114,625.

Osaki, Iwao, K. Fukui, and S. Nishimura, to Toyo Boseki Kabushiki Kaisha and Howa Kogyo Kabushiki Kaisha. Silver coiling. 3,083,415, 4-2-63, Cl. 19—159.

Osaku Kinsoku Kogyo Co., Ltd.: *See*—
Kageyama, Ikuso, and Miyamura. 3,114,758.

Osawa, Manabu. Alternating current commutator motor which stops quickly by self braking action. 3,107,321, 10-15-63, Cl. 318—244.

Osban, William R.: *See*—
Leins, Richard W., and Osban. 3,083,073.

Osban, William R., to American Cyanamid Co. Squeeze-roll assembly. 3,101,563, 8-27-63, Cl. 68—258.

Osberg, Harald A.: *See*—
Flomen, Edward, Brich, and Osberg. 3,115,240.

Osborn, Elburt F., to Bethlehem Steel Co. Chrome silica brick. 3,082,105, 3-19-63, Cl. 106—59.

Osborn, Ernest T. Card shuffling device. 3,107,096, 10-15-63, Cl. 273—149.

Osborn, Francis W., to The Coleman Co., Inc. Refrigerant metering device. 3,105,367, 10-1-63, Cl. 62—511.

Osborn, John D., to G. M. Turner, and W. M. Horner Hydraulically operable horizontal drilling apparatus. 3,107,738, 10-22-63, Cl. 173—74.

Osborn Mfg. Co., The: *See*—
Abraham, Edward D. 3,089,206.
Charvat, Vernon K. 3,090,061.
Charvat, Vernon K. 3,114,925.
Ellms, Robert W. 3,089,205.
Less, Joseph A. 3,106,739.
Miller, Leon F. 3,089,207.
Nelson, Brooks E. 3,087,599.
Nelson, Brooks E. 3,090,062.
Nelson, Brooks E. 3,109,190.
Peterson, Ruven O. 3,072,945.
Peterson, Ruben O. 3,076,219.
Peterson, Ruben O. 3,078,624.
Peterson, Ruben O. 3,102,056.
Peterson, Ruben O. 3,105,988.
Stingley, Norman H. 3,106,426.

Osborn, Robert O., and A. J. Porck, to E. I. du Pont de Nemours and Co. Cellulose derivatives and shaped structures thereof. 3,102,881, 9-3-63, Cl. 260—231.

Osborn, Scott G. Display rack. 3,101,849, 8-27-63, Cl. 211—166.

Osborn, William G.: *See*—
Matthysse, Irving F., and Osborn. 3,088,993.

Osborne, Duncan W., to Automotive Products Co. Ltd. Internal shoe drum brakes. 3,113,466, 12-10-63, Cl. 74—110.

Osborne, Fred, to S. P. Kinney Engineers, Inc. Method of and apparatus for processing slag. 3,104,164, 9-17-63, Cl. 65—20.

Osborne, Fred H., to The Wurlitzer Co. Automatic phonograph. 3,073,604, 1-15-63, Cl. 274—10.

Osborne, Fred H., and J. H. Riggs, to The Wurlitzer Co. Voltage compensating power supply unit. 3,079,544, 2-26-63, Cl. 323—45.

Osborne, Fred H., C. L. Flateau, and A. C. Ippolito, to The Wurlitzer Co. Coin controlled tape player. 3,080,456, 3-5-63, Cl. 179—100.2.

Osborne, Fred H., and R. S. Tuttle, to The Wurlitzer Co. Background music phonograph. 3,100,644, 8-13-63, Cl. 274—10.

Osborne, Fred H., and R. S. Tuttle, to The Wurlitzer Co. Coin controlled phonograph. 3,116,065, 12-31-63, Cl. 274—10.

Osborne, John B., to The M. W. Kellogg Co. Conversion process and apparatus for use therein. 3,077,447, 2-12-63, Cl. 208—74.

Osborne, Lloyd M., to Inventions Management Corp. Fluid actuated hammer and nailer. 3,106,134, 10-8-63, Cl. 91—189.

Osborne, Michael B., to The Thomas Hill Engineering Co. (Hull) Ltd. Article-handling machines. 3,104,753, 9-24-63, Cl. 198—30.

Osborne, Ralph H., and C. S. Miller. Foldable backrest cabinet for beds. 3,110,911, 11-19-63, Cl. 5—59.

Osborne, Richard W., and T. J. Morris, to Radio Corp. of America. Cathode-ceramic assembly for electron guns and method of making. 3,087,082, 4-23-63, Cl. 313—337.

Osborne, Robert F.: *See*—
Codichini, Joseph J., Eichler, Lewis, Northrup, Osborne, and Schoen. 3,079,483.
Eichorn, Roger H., Morrill, Northrup, and Osborne. 3,099,943.
Eichorn, Roger H., and Osborne. 3,099,944.

Osburn, Carl L., and D. A. Marsh, to Phillips Petroleum Co. Carbon black plant control. 3,116,119, 12-31-63, Cl. 23—259.5.

Osdene, Thomas S., to American Home Products Corp. 2-phenyl-6-α-naphthyl-4,7-diaminopteridine. 3,104,242, 9-17-63, Cl. 260—251.5.

Osder, Stephen S., to Sperry Rand Corp. Flight path control system. 3,094,300, 6-18-63, Cl. 244—77.

Osder, Stephen S., to Sperry Rand Corp. Flight path control system. 3,095,169, 6-25-63, Cl. 244—77.

Osder, Stephen S., to Sperry Rand Corp. Fail-safe control systems for aircraft. 3,100,861, 8-13-63, Cl. 318—489.

Ose, Albert K. and J. Cultivator frame. 3,094,172, 6-18-63, Cl. 172—456.

Ose, John: *See*—
Ose, Albert K. and J. 3,094,172.

Osepchuk, John M., to Raytheon Co. Electron sorting devices. 3,073,991, 1-15-63, Cl. 315—39.3.

Osepchuk, John M., to Raytheon Co. Travelling wave devices. 3,084,279, 4-2-63, Cl. 315—39.3.

Oser, Zalik: *See*—
Joris, George G., and Oser. 3,111,544.

Osgood, Alain A., J. D. McGregor, and O. L. Bertorelli, to J. M. Huber Corp. Carbon black collection systems. 3,106,459, 10-8-63, Cl. 23—259.6.

Osgood, Charles F., to Joy Mfg. Co. Rock drill rotation mechanism. 3,074,381, 1-22-63, Cl. 121—7.

Osgood, Charles F., to Joy Mfg. Co. Low height mine haulage apparatus. 3,081,894, 3-19-63, Cl. 214—517.

Osgood, Charles F., to Joy Mfg. Co. Pivoted feed leg type rock drill. 3,111,177, 11-19-63, Cl. 173—36.

Osgood, Charles F., to Joy Mfg. Co. Cutter bit and support therefor having resilient detent means. 3,116,052, 12-31-63, Cl. 262—33.

O'Shea, William F., to Continental-Wirt Electronics Corp. Rotary potentiometer. 3,072,872, 1-8-63, Cl. 338—174.

O'Shel, William E.: *See*—
Penfold, Vincent H., and Ireland. 3,099,756.

O'Shields, Richard L., to Bass Brothers Enterprises, Inc. Method and apparatus for treatment of drilling mud. 3,085,587, 4-16-63, Cl. 137—4.

Oshima, Motoyoshi, Y. Maeda, and K. Kashima, to The Noguchi Institute. Process of liquefaction of lignin. 3,105,095, 9-24-63, Cl. 260—593.

Oshima, Shintaro: *See*—
Takahashi, Hidetoshi, Goto, and Oshima. 3,101,450.

Oshima, Shintaro, H. Enomoto, S. Watanabe, and K. Amano, to Kokusai Denshin Denwa Kabushiki Kaisha. Logic circuits employing bridge networks compressing transformer secondaries and N-type conductivity curve negative resistance elements. 3,116,426, 12-31-63, Cl. 307—88.5.

Oshima, Shintaro, and H. Enomoto, to Kokusai Denshin Denwa Kabushiki Kaisha. Storage system for electric signals. 3,116,475, 12-31-63, Cl. 340—174.

Oshima, Takeichi, and Y. Uyemura. Coating composition. 3,100,154, 8-6-63, Cl. 106—57.

Oshima, Takeichi, and Y. Uyemura. Rust-preventing coating composition. 3,105,056, 9-24-63, Cl. 260—32.8.

Oshima, Teruo, to Sumitomo Chemical Co., Ltd. Process for manufacturing dimethyloluron-alkylethers and copolymers thereof with methylolmelamine alkyl ethers. 3,089,859, 5-14-63, Cl. 260—45.2.

O'Sickey, Lawrence B.: *See*—
Simmons, Harold C., and O'Sickey. 3,093,317.

O'Siel, Dorothy, and H. A. Cooper. Safety tip cigarette. 3,102,543, 9–3–63, Cl. 131—4.

Osifchin, Nicholas, and A. L. Zitcer, to United States of America, Army. Coaxial transmission line. 3,093,805, 6–11–63, Cl. 333—84.

Osinski, Alfred L.: *See*—
Kay, John G., and Osinski. 3,094,242.

Osipow, Lloyd I.: *See*—
Boe, Carsten F., and Osipow. 3,096,001.

Oslund, Walter W.: *See*—
Spreadbury, Walter G., Oslund, and Harlow. 3,109,261.

Osmaston, Ronald. Propeller for outboard motor. 3,071,195, 1–1–63, Cl. 170—173.

Osmond, Desmond W. J., and H. H. Thompson, to Imperial Chemical Industries Ltd. Dispersion polymerization of an acrylate in the presence of a rubber and a non-polar organic solvent and product obtained. 3,095,388, 6–25–63, Cl. 260—4.

Osmun, Dean W.: *See*—
Lee, William T., Osmun, and Newman. 3,108,637.

Osmun, Dean W. Apparatus for applying chemicals. 3,077,701, 2–19–63, Cl. 47—1.5.

Osoba, Joseph S.: *See*—
Graham, John W., Osoba, and Monaghan. 3,083,766.
Graham, John W., Osoba, and Monaghan. 3,102,589.

Osofsky, Irving B., to Cornell Aeronautical Laboratory, Inc. Method and apparatus for augmenting the drive of a gas turbine. 3,093,968, 6–18–63, Cl. 60—39.21.

Ospenson, Joseph N.: *See*—
Kohn, Gustave K., Moore, and Ospenson. 3,076,741.
Moore, Joseph E., Ospenson, and Kohn. 3,110,726.

Osswald, Dieter: *See*—
Heiss, Hans, and Osswald. 3,110,596.

Ostberg, Bertil E., to Polaroid Corp. Methods of hydrolizing and polishing cellulose ester sub-surface of photographic product produced therefrom. 3,078,178, 2–19–63, Cl. 117—34.

Östberg, Elsie: *See*—
Karlström, Karl A. S., and Östberg. 3,104,868.

Ostberg, Elsie A. M.: *See*—
Karlstrom, Karl A. S., and Ostberg. 3,081,980.

Östberg, Karl G.: *See*—
Karlstrom, Karl A. S., and Ostberg. 3,081,980.
Karlström, Karl A. S., and Östberg. 3,104,868.

Ostberg, Werner, to Dundee Cement Co. Hot clinker conveying and cooling apparatus. 3,089,653, 5–14–63, Cl. 241—81.

Ostberg, Werner, to Dundee Cement Co. Cement manufacture. 3,089,688, 5–14–63, Cl. 263—32.

Osteen, Emmett H. Shoe cleaner. 3,094,727, 6–25–63, Cl 15—4.

Osten, Fred C., Sr. Removable sash window construction. 3,108,335, 10–29–63, Cl. 20—42.

Oster, Gerald: *See*—
Oster, Gisela K. and G. 3,074,794.
Oster, Gisela K. and G. 3,097,097.

Oster, Gerald. Photopolymerization with the formation of relief images. 3,097,096, 7–9–63, Cl. 96—30.

Oster, Gisela K. and G. Visible light bichromate process and material. 3,074,794, 1–22–63, Cl. 96—35.

Oster, Gisela K. and G. Photo degrading of gel systems and photographic production of reliefs therewith. 3,097,097, 7–9–63, Cl. 96—35.

Oster, John, Mfg. Co.: *See*—
Annis, Richard R. 3,074,489.
Arek, Robert W., and Madl. 3,081,394.
Neff, Gene M. 3,075,101.

Oster, Jonathan. Concrete screeding machines. 3,110,234, 11–12–63, Cl. 94—45.

Oster, Thomas H., to Ford Motor Co. Core box. 3,103,716, 9–17–63, Cl. 22—13.

Osterberg, Jorj O., to Northwestern University. Pole-surrounding soil-reinforcing structure. 3,077,704, 2–19–63, Cl. 50—532.

Osterer, David G., and F. Kohler, to American Machine & Foundry Co. Method for manufacturing helically welded tubing. 3,073,945, 1–15–63, 219—67.

Ostergren, Ralph H., to Northrop Corp. Rotating wheel scanner. 3,072,794, 1–8–63, Cl. 250—203.

Osterhoudt, Harry, to Perfection Automotive Products Corp. Interlock for speedometer head and cable. 3,074,253, 1–22–63, Cl. 64—4.

Osterhoudt, Harry, to Perfection Automotive Products Corp. Helper spring assembly for shock absorbers. 3,096,084, 7–2–63, Cl. 267—8.

Osterhoudt, Harry, to Perfection Automotive Products Corp. Speedometer cable. 3,105,368, 10–1–63, Cl. 64—4.

Osterloh, Gerhard: *See*—
Proske, Gerhard, Mueckter, Osterloh, and Von Schrader-Beielstein. 3,080,423.

Osterman, Henry R., to Whittinsville Spinning Ring Co. Spinning ring. 3,081,592, 3–19–63, Cl. 57—120.

Osterman, Milton: *See*—
Rousaan, Wilford J., Jr., and Osterman. 3,092,705.

Osterman, Sven-Olof. Method of extracting non-neutral constituents from organic materials. 3,075,985, 1–29–63, Cl. 260—292.

Ostermann, Max, to W. & M. Ostermann. Spool support for textile machines. 3,109,605, 11–5–63, Cl. 242—129.8.

Ostermann, W. & M.: *See*—
Ostermann, Max. 3,109,605.

Österreichische Sticktoffwerke Aktiengesellschaft: *See*—
Allgeuer, Kurt, and Weinrotter. 3,112,343.

Osterstrom, Gordon E., to GPE Controls, Inc. Differential pressure transducer. 3,085,437, 4–16–63, Cl. 73—407.

Ostler, Josef, to Dr. Ing. H. Deckel and Dipl. Ing. F. W. Deckel. Copying machine. 3,103,746, 9–17–63, Cl. 33—25.

Ostlie, Dean A., to Minnesota Mining and Mfg. Co. Heat-sensitive copy-sheet. 3,111,423, 11–19–63, Cl. 117—36.8.

Ostmann, Bernard G., Jr., to E. I. du Pont de Nemours and Co. Process for mechanical working of non-woven web. 3,097,127, 7–9–63, Cl. 162—146.

Ostmark, Karl T.: *See*—
Larsson, Bernt G., and Ostmark. 3,082,984.

Ostolaza, Frank, to International Hat Co. Buckle. 3,104,436, 9–24–63, Cl. 24—198.

Ostrander, John A., Jr. Ladder hoist. 3,115,211, 12–24–63, Cl. 182—103.

Ostrander, Robert K. Dolls. 3,092,929, 6–11–63, Cl. 46—141.

Ostrander, Robert K. Multivoice unit. 3,093,928, 6–18–63, Cl. 46—117.

Ostrander, Robert K. Tearing doll. 3,106,040, 10–8–63, Cl. 46—133.

Ostrem, Fred, to The Dole Valve Co. Vent valve. 3,088,482, 5–7–63, Cl. 137—200.

Ostroff, Edward D.: *See*—
Greene, Benjamin F., Jr., Knight, Ernst, Slack, Ostroff, Cawley, and McManus. 3,109,170.

Ostroff, Edward D., to Laboratory for Electronics, Inc. Frequency responsive apparatus. 3,112,478, 11–26–63, Cl. 340—347.

Ostroff, Edward D., A. G. Marcotte, and H. E. Miller, to Laboratory for Electronics, Inc. Pulse rate to amplitude converter. 3,094,629, 6–18–63, Cl. 307—88.5.

Ostrofsky, Bernard, and F. L. Eberle, to Standard Oil Co. Controlled atmosphere X-ray diffraction spectrometer. 3,105,902, 10–1–63, Cl. 250—51.5.

Ostrom, Cyrus W. Electric discharge impulse submarine drivers. 3,098,533, 7–23–63, Cl. 175—6.

Ostrom, Martin E., to National Lock Co. Counter-balancing lid support and hinge. 3,112,514, 12–3–63, Cl. 16—190.

Ostrow, Stanley, to Sensonics, Inc. Piezoelectric mounting and device. 3,086,132, 4–16–63, Cl. 310—9.1.

Ostwald, Adolph. Cap with unitary cover support. 3,085,251, 4–16–63, Cl. 2—195.

Osugi, Tetsuro, M. Matsumoto, K. Tanabe, Y. Hirano, Y. Ohno, and K. Matsubayashi, ¾ to Kurashiki Rayon Co., Ltd., and ¼ to Air Reduction Co., Inc. Shaped articles of polyvinyl alcohol-polymer blends. 3,105,058, 9–24–63, Cl. 260—45.5.

O'Sullivan, Diarmid J. M., and B. B. Pearce, to Imperial Chemical Industries Ltd. Manufacture of ammonium sulphate. 3,085,857, 4–16–63, Cl. 23—119.

O'Sullivan, Eugene. Vehicle storage apparatus. 3,085,700, 4–16–63, Cl. 214—16.1.

O'Sullivan, Eugene. Apparatus for conveying or handling vehicles and the like. 3,110,466, 11–12–63, Cl. 248—119.

O'Sullivan, George A.: *See*—
Kretsch, Hans W., and O'Sullivan. 3,079,545.

O'Sullivan, James. Disposable syringe. 3,098,482, 7–23–63, Cl. 128—220.

O'Sullivan, Kevin P. Automatic tension release device. 3,109,213, 11–15–63, Cl. 24—126.

Oswald, Karl, to Messen-Jaschin, G.A. Pick up for torque-measuring apparatus. 3,079,791, 3–5–63, Cl. 73—136.

Oswald, Robert M. Extensible and tiltable pedestal for use in swimming instruction and water therapy. 3,112,928, 12–3–63, Cl. 272—71.

Oswald, Thomas, to Submarine Cables, Ltd. Repeaters for multi-channel telephone systems. 3,089,004, 5–7–63, Cl. 179—170.

Oswin, Harry G., to Leesona Corp. Fuel cell electrodes. 3,077,508, 2–12–63, Cl. 136—121.

Oswin, Harry G., to Leesona Corp. Non-porous hydrogen diffusion fuel cell electrodes. 3,092,517, 6–4–63, Cl. 136—86.

Oswin, Harry G., to Leesona Corp. Process of making a microporous matrix. 3,116,355, 12–31–63, Cl. 264—317.

Oswold, Oluf G., to Bausch & Lomb Inc. Demountable coupling. 3,079,188, 2–26–63, Cl. 287—119.

Oswold, Oluf G., to Bausch & Lomb Inc. Multiflash device. 3,087,318, 4–30–63, Cl. 67—31.

Otarion, Inc.: *See*—
Rosemond, Leland E., Greenbaum, and Hellekjaer. 3,104,290.

Othmer, Donald F.: *See*—
Hase, Leopold, and Othmer. 3,087,404.

Othon, Ralph S., to Pacific Semiconductors, Inc. Diode orienting apparatus. 3,115,235, 12–24–63, Cl. 198—33.

Otis Elevator Co.: *See*—
Baldwin, Ronald J. 3,108,200.
Bruns, William H. 3,087,583.
Lustl, John. 3,073,417.
Powers, Chester H. 3,092,268.
Prince, Arthur E. 3,080,460.
Rosellus, Charles F. 3,089,203.
Sahlin, Eric A. 3,077,953.
Tucker, Benjamin W., Jr. 3,099,334.
Tucker, Benjamin W., Jr., 3,105,272.

Otis Engineering Corp.: *See*—
Rostock, James H. 3,090,443.
Cummings, Leslie L. 3,077,894.
Dickens, George C. 3,101,119.
Dollison, William W. 3,102,592.

Otis Engineering Corp.: *See*—Continued
Dollison, William W. 3,115,330.
Fredd, John V. Re. 25,471.
Fredd, John V. 3,100,533.
Graves, Shelby J. 3,088,521.
Green, William G. 3,079,999.
Grimmer, George G., and Schramm. 3,100,452.
Otis, Herbert C. 3,075,475.
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Raulins, George M. 3,089,543.
Raulins, George M. 3,090,438.
Raulins, George M. 3,102,591.
Raulins, George M. 3,105,556.
Raulins, George M., and Koona. 3,087,547.
Schwab, Carl M., Grimmer, and Garwood. 3,075,586.
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Otten, Gerhard, O. Scherer, and H. Schild, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Process for the manufacture of 1-3-benzenedisulfonic acid. 3,097,235, 7–9–63, Cl. 260—505.

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Oxford, Richard V., to Jered Industries, Inc. Rotary seal. 3,073,657, 1-15-63, Cl. 308—187.1.

Oxley, Leroy V., and C. M. Blythe. Vacuum actuated blocking valve for vacuum controlled mechanism. 3,094,144, 6-18-63, Cl. 137—609.

Oxley, Robert F.: *See*—
Knight, Sidney G. 3,089,232.

Oxner, Edwin S.: *See*—
Heninger, Grant O., and Oxner. 3,109,144.

Oxy-Catalyst, Inc.: *See*—
Adey, Wilfred M., and Epes. 3,085,348.

Oxy-Dry Sprayer Corp.: *See*—
Doran, Leo L., and Olson. 3,078,496.

Oy, Airam A. B.: *See*—
Tamminen, Penttl J. 3,076,052.

Oy. Kaaukas Ab.: *See*—
Heikinheimo, Olil L. 3,111,214.

Oyanagi, Yasuji: *See*—
Fujii, Kozo, and Oyanagi. 3,096,298.

Ozaki, Kazuyoshi. Apparatus for automatically varying the traverse of a spinning machine. 3,112,602, 12-3-63, Cl. 57—99.

Ozark-Mahoning Co.: *See*—
Gilliland, Joe E., Ray, and White. 3,097,063.

Ozawa, Toshio, T. Yamashita, and S. Hayashi, to Kanegafuchi Spinning Co., Ltd. Modified polyvinyl acetate powders and compositions. 3,092,600, 6-4-63, Cl. 260—29.6.

Ozgur, Cahit, to Dominion Engineering Works Ltd. Self-adjusting contra rotating axial flow pumps and turbines. 3,088,414, 5-7-63, Cl. 103—94.

Ozkardes, Haldun: *See*—
McMahon, Joseph F., Jamieson, and Ozkardes. 3,071,540.

Ozone, Koho, to General Dynamics Corp. Resonant reed relay. 3,102,214, 8-27-63, Cl. 317—147.

Oztekin, Muammer A. Adjustable shelf support. 3,093,094, 6-11-63, Cl. 108—6.

P.A.B.B. Inc.: *See*—
Prater, Charles E. 3,081,564.
Prater, Charles E. 3,111,777.

P & D Corp.: *See*—
Dismuke, William O. 3,113,902.

PGAC Development Co.: *See*—
Castel, Jacques H., and Le Bus. 3,071,072.
Le Bus, Jake H., Castel, and Mahaffey. 3,079,793.
Summers, Gerald C. 3,082,837.
Waters, Henry C. 3,076,928.
Waters, Henry C. 3,077,670.

P & K Inc.: *See*—
Pachner, Leo C. 3,111,734.
Sharps, George J. 3,078,597.

PRD Electronics, Inc.: *See*—
Hopfer, Samuel. 3,081,430.

P.S.P. Engineering Co.: *See*—
Phinizy, Robert B., and Menkin. 3,073,995.

Paal, Hans, to Fr. Hesser Maschinenfabrik-Aktiengesellschaft, Firma. Machine for producing filled packages, particularly liquid-filled packages. 3,092,943, 6-11-63, Cl. 53—183.

Paananen, Eugene E., to Burroughs Corp. Photo-electric card reading system. 3,114,841, 12-17-63, Cl. 250—219.

Paananen, Roy A., and D. H. White, to Raytheon Co. Traveling wave electrical discharge device. 3,071,709, 1-1-63, Cl. 315—3.5.

Paasche, Fritz, to Land- und Seekabelwerke AG. Separable connectors for electric conduits and cables. 3,079,580, 2-26-63, Cl. 339—94.

Pabalan, Javier A., Jr.: *See*—
Mouly, Raymond J., and Pabalan. 3,107,520.

Pabst Brewing Co.: *See*—
Ziffer, Jack. 3,075,878.

Pabst, Carl F., and H. R. Hudson, to The Lodge & Shipley Co. Lathes. 3,104,572, 9-24-63, Cl. 82—23.

Pacak, Mathew, to Eaton Mfg. Co. Apparatus for making grooved wheels. 3,087,531, 4-30-63, Cl. 153—2.

Pacciarini, Antonio: *See*—
Giletta, Dario, and Pacciarini. 3,101,289.
Vanzo, Marcello, Giletta, and Pacciarini. 3,111,443.

Pace, Arthur. Chance device for encouraging public supervision of a cash register. 3,091,388, 5-28-63, Cl. 235—7.

Pace, Inc.: *See*—
Huffman, John W. 3,098,913.

Pace, John S., Jr. Fluid lock. 3,102,315, 9-3-63, Cl. 24—

Pachner, Leo C., to P & K Inc. Fish stringer. 3,111,734, 11-26-63, Cl. 24—161.

Pachter, Frank C. Quick adjusting means for relatively positionable members. 3,110,111, 11-12-63, Cl. 33—154. 221.

Pachter, Irwin J.: *See*—
De Pree, David O., and Pachter. 3,108,134.

Pachter, Irwin J., and J. Weinstock, to Smith Kline & French Laboratories. Hydrazinopteridine derivatives. 3,080,369, 3-5-63, Cl. 260—251.5.

Pachter, Irwin J., and J. Weinstock, to Smith Kline & French Laboratories. Pyrrolylpteridine derivatives. 3,105,076, 9-24-63, Cl. 260—251.5.

Pacific & Atlantic Shippers, Inc.: *See*—
Bergen, Walter F. 3,096,973.

Pacific Car and Foundry Co.: *See*—
Brown, Wallace M. 3,113,768.
Henneman, Richard C. 3,107,899.

Pacific Flush Tank Co.: *See*—
Buswell, Arthur M., and Beddoes. 3,089,757.
Langdon, Lawrence E., and Stiles. 3,083,953.

Pacific Industrial Mfg. Co.: *See*—
Pearson, Eugene W., Richardson, and Clark. 3,115,801.

Pacific Industries, Inc.: *See*—
Hurtig, Carl R. 3,108,230.

Pacific Natural Gas Exploration Co.: *See*—
Peterson, Victor E. 3,108,636.
Pacific Pumping Co.: *See*—
Culleton, John T. 3,088,415.
Pacific Resins & Chemicals, Inc.: *See*—
Booty, Raymond G. 3,083,170.
Cone, Charles N. 3,095,313.
Cone, Charles N. 3,095,571.
Pacific Scientific Co.: *See*—
Wrighton, Robert J. 3,100,609.
Wrighton, Robert J. 3,105,662.
Pacific Seating Corp.: *See*—
Bethoon, Dene, and Nowlin. 3,116,091.
Pacific Semiconductors, Inc.: *See*—
Cohen, Jerrold. 3,091,849.
Frazier, Henry D., and Richey. 3,080,738.
Hancock, Robert D. 3,107,188.
Harrington, Alan L. 3,084,079.
Martin, Stephen. 3,078,233.
Othon, Ralph S. 3,115,235.
Pighini, Gerald P. 3,071,854.
Shaver, Oliver R., and Gedgaudas. 3,115,697.
Pacific Valves, Inc.: *See*—
Dumm, Robert P. 3,077,201.
Dumm, Robert P. 3,081,062.
Dumm, Robert P. 3,085,784.
Dumm, Robert P. 3,110,470.
Dumm, Robert P. 3,114,386.
Rowland, Milton E. 3,107,546.
Pacific Vegetable Oil Corp.: *See*—
Noren, Don W. 3,080,905.
Pacific Coast Engineering Co.: *See*—
De Stasi, Anthony J. 3,086,661.
De Stasi, Anthony J. 3,110,404.
Montgomery, Murray M. 3,074,563.
Zweifel, Charles H. 3,102,642.
Zweifel, Charles H., Rundel, and Van Schaack. 3,078,406.
Pacitti, Peter. Combination detachable blade razor and hair shaper. 3,084,430, 4-9-63, Cl. 30—55.
Pack, Albert H.: *See*—
Leatham, Earl, and Pack. 3,091,514.
Pack Mfg. Co.: *See*—
Shelly, Robert S. 3,071,283.
Package Containers Inc.: *See*—
Hilton, Frank E. 3,083,512.
Package Machinery Co.: *See*—
Barkman, David R. 3,105,336.
Cross, Cedric B. 3,106,279.
Dion, John F. 3,081,675.
Roberts, Franklin B. 3,116,032.
Schoppee, Lawrence W., and Crescenzo. 3,099,375.
Schoppee, Lawrence W., and Crescenzo. 3,106,118.
Package Products Co., Inc.: *See*—
Kester, Melvin E. 3,087,605.
Packaging and Converting Co., Inc.: *See*—
Wharton, Thomas P. 3,101,063.
Packaging Corp. of America: *See*—
Gish, Lyman C. 3,115,273.
Hickin, Robert J. 3,104,793.
Lambert, Harry E. 3,108,689.
Laver, Donald G. 3,112,059.
Packaging Developments, Inc.: *See*—
Bolding, Hubert V. 3,106,288.
Packaging Frontiers Inc.: *See*—
Lane, George W., and Sawicki. 3,092,248.
Schneider, William S. 3,074,612.
Schneider, William S. 3,094,269.
Schneider, William S., and Carpenter. 3,083,876.
Schneider, William S., and Corella. 3,082,586.
Packard-Bell Computer Corp.: *See*—
Palevsky, Max, Beck, and Giel. 3,077,303.
Packard-Bell Electronics Corp.: *See*—
Campbell, Richard E., and Murphy. 3,103,635.
Gray, John B. 3,109,898.
Hooper, Brian E. 3,082,382.
Hooper, Brian E. 3,103,611.
Hooper, Brian E. 3,103,664.
Lederman, Albert. 3,114,148.
McDonald, Russell H. 3,086,079.
Rieth, Harold F. 3,077,856.
Rieth, Harold F. 3,082,393.
Schlicht, Le Roy G. 3,077,517.
Whisenhunt, J. L. 3,114,107.
Packard, George B., and C. W. Monigle, to Barco Mfg. Co., Inc. Valve controlled spraying device for a chemical intermixed with water. 3,113,725, 12-10-63, Cl. 239—318.
Packard, Henry, to Northrop Corp. Self-testing gyroscope. 3,077,760, 2-19-63, Cl. 73—1.
Packard Instrument Co., Inc.: *See*—
Packard, Lyle E. 3,114,835.
Packard, Joseph W. Prismatic reflecting device. 3,073,210, 1-15-63, Cl. 88—1.
Packard, Lyle E., to Packard Instrument Co., Inc. Radioactivity spectrometery in sample analysis. 3,114,835, 12-17-63, Cl. 250—71.5.
Packed Column Corp.: *See*—
Bragg, Leslie B. 3,081,072.
Packer, Charles S., N. W. Keller, and W. B. Rosinski, to Justrite Mfg. Co. Pivoted reflector holder for a hand lantern. 3,084,248, 4-2-63, Cl. 240—10.65.
Packer, Marvin. Toy figure. 3,097,446, 7-16-63, Cl. 46—123.
Packer, Mervyn B., A. F. Prestidge, J. Rodway, and F. G. Parnell, to Automotive Products Co. Ltd. Vehicle brake system. 3,093,422, 6-11-63, Cl. 303—21.
Packers' Development Corp.: *See*—
Gebhardt, Willard A. 3,111,012.
Packham, Lester M., to National Frost Protection Co., Inc. Machine for forming pellets and the like. 3,101,510, 8-27-63, Cl. 18—12.
Packman, Alice M.: *See*—
Jones, Bernard E. 3,109,466.
Packman Machinery Ltd.: *See*—
Packman, Percival J. 3,090,523.
Packman, Percival J.: *See*—
Morton, David C., and Packman. 3,084,783.
Packman, Percival J., to Packman Machinery Ltd. Cup separators. 3,090,523, 5-21-63, Cl. 221—36.
Paco Corp.: *See*—
Gagnon, Pierre, and Laforest. 3,105,596.
Pactor Corp.: *See*—
Barnum, Orville G. 3,107,907.
Pacuk, Peter P. Wheel-mounted rider-propelled rocking hobby horse. 3,086,785, 4-23-63, Cl. 280—1.196.
Padberg, Louis R., Jr. Pneumatic sound source. 3,077,944, 2-19-63, Cl. 181—.5.
Paddock Pool Equipment Co.: *See*—
Blumenkranz, James J., and Lightfoot. 3,080,060.
Padek, Ted. Automatic cleaning system. 3,079,935, 3-5-63, Cl. 134—45.
Padelt, Johannes G., to Graflex, Inc. Knob for setting diaphragm aperture on camera equipped with exposure meter. 3,100,428, 8-13-63, Cl. 95—10.
Paden, Loyd B.: *See*—
McGray, Harold E., and Paden. 3,094,978.
Padgett, Allen V., to J.P. Co., Inc. Apparatus for supporting a vehicle frame for straightening. 3,091,278, 5-28-63, Cl. 153—32.
Padgett, Cooper J.: *See*—
Woolley, Samuel J., and Padgett. 3,082,678.
Padilla, Leonardo C.: *See*—
Birosel, Dionisio M. 3,106,571.
Padykula, Frank J.: *See*—
Kavanagh, Arthur J., and Padykula. 3,084,694.
Padzieski, Nancee L. Device for dispensing predetermined quantities of liquid. 3,089,623, 5-14-63, Cl. 222—205.
Paffrath, Hans-Willi: *See*—
Nischk, Günther, Hoppe, Braun, and Paffrath. 3,092,592.
Pagador, Pete P.: *See*—
Dixon, Jackie N., and Pagador. 3,107,887.
Paganini, Frank T., to General Electric Co. Clothes washing machine. 3,102,409, 9-3-63, Cl. 68—18.
Pagano, Carmine N., to International Telephone and Telegraph Corp. Synchronized gate. 3,115,607, 12-24-63, Cl. 328—91.
Pagano, Elmer C., to Surelock Mfg. Co. Inc. Packing for hydraulic power units. 3,110,502, 11-12-63, Cl. 277—189.
Pagano, Joseph F.: *See*—
Actor, Phillip P., Semar, and Pagano. 3,087,856.
Page, Ancel S., to Dura Corp. Walking beam assembly for tandem axle suspension. 3,083,980, 4-2-63, Cl. 280—104.5.
Page Belting Co.: *See*—
Messer, Chester R. 3,114,397.
Page, Donald F.: *See*—
Clinton, Raymond O., and Page. 3,076,845.
Page, Esther: *See*—
Page, Irving. 3,097,285.
Page, George A., Jr.: *See*—
Snowdon, Arthur E., Johnson, Madsen, and Page. 3,087,132.
Page, Graham D., to The Austin Motor Co. Ltd. Hydrostatic power transmissions. 3,086,364, 4-23-63, Cl. 60—52.
Page, Graham D., to The Austin Motor Co. Ltd. Pressure control valves of the centrifugal type. 3,090,394, 5-21-63, Cl. 137—56.
Page, Irving, deceased; E. Page, administratrix, ¼ to W., ¼ to E., ¼ to Roberta, and ¼ to Rhoda Page. Thermostat-timer device. 3,097,285, 7-9-63, Cl. 219—20.
Page, Irving H. Fixed pulse rejection system for radar moving target indicator. 3,114,110, 12-10-63, Cl. 328—167.
Page, John, and R. E. McCleary, to United States Gypsum Co. Board-forming machine. 3,083,756, 4-2-63, Cl. 156—346.
Page, John S. Casing pump. 3,102,495, 9-3-63, Cl. 103—181.
Page, Rhoda: *See*—
Page, Irving. 3,097,285.
Page, Richard W. Chuck. 3,094,338, 6-18-63, Cl. 279—23.
Page, Richard W. Drilling instrument. 3,098,299, 7-23-63, Cl. 32—27.
Page, Richard W. Dental engine arm. 3,106,777, 10-15-63, Cl. 32—25.
Page, Roberta: *See*—
Page, Irving. 3,097,285.
Page, Warren: *See*—
Page, Irving. 3,097,285.
Page, William H., II, to Universal Oil Products Co. Method of catalytically purifying exhaust gases of internal combustion engines and cyclically regenerating the lead-contaminated catalyst. 3,072,458, 1-8-63, Cl. 23—2.
Pagel, Hayes L., and O. Gundersen. Pneumatic combine. 3,105,339, 10-1-63, Cl. 56—19.
Pagel, Richard F., to American Zinc, Lead and Smelting Co. Electrolytic production of zinc. 3,098,019, 7-16-63, Cl. 204—55.

Pagel, Richard F., to American Zinc, Lead and Smelting Co. Recovery of metal values. 3,113,860, 12-10-63, Cl. 75—115.
Pagendarm, Richard V.: *See*—
Hoyrup, Sigurd J., and Pagendarm. 3,085,479.
Pagendarm, Richard V., to Atlas General Industries, Inc. Drive mechanism for folding box machines of the plunger and die type. 3,089,393, 5-14-63, Cl. 93—51.
Pages, Inc.: *See*—
Asher, Sidney. 3,087,245.
Paget, George E., and A. L. Walpole, to Imperial Chemical Industries Ldt. Bis(lower alkyl-thio-carbamoyl)-hydrazine derivatives for regulating gonadotrophin. 3,105,797, 10-1-63, Cl. 167—74.
Paget, John A., to United States of America, Atomic Energy Commission. Safety system for control rod. 3,089,838, 5-14-63, Cl. 204—193.2.
Paget, John A., S. L. Koutz, R. S. Stone, and H. B. Stewart, to United States of America, Atomic Energy Commission. Emergency shutdown for nuclear reactors. 3,115,453, 12-24-63, Cl. 204—193.2.
Pagnacco, Arrigo. Apparatus for determining and evaluating a curve indicating the frequency of test valves in a series of tests. 3,113,453, 12-10-63, Cl. 73—95.
Pagny, Pierre, and P. Koussoros, to Potasse et Engrais Chimiques. Process of preparing double fluorids of tetravalent uranium and alkaline earth metal. 3,073,671, 1-15-63, Cl. 23—14.5.
Pagoda, Walter S. Filing device for distributor contact points. 3,079,668, 3-5-63, Cl. 29—76.
Pagons, John L. Block aligner. 3,102,339, 9-3-63, Cl. 33—85.
Pagonis, George A., to Light Metals Research Laboratory, Inc. Apparatus for treating titanium and other metals. 3,079,451, 2-26-63, Cl. 13—27.
Pagonis, George A., to Light Metals Research Laboratory, Inc. Method of and apparatus for forming an ingot of molten reactive material. 3,093,872, 6-18-63, Cl. 22—79.
Pahl, James H., to Rodgers Hydraulic Inc. Track press. 3,099,130, 7-30-63, Cl. 59—7.
Pahl, John G., to K-P-F Electric Co. Switch operating device. 3,077,949, 2-19-63, Cl. 185—27.
Pahud, George M., to Sigma Instruments, Inc. Sensitive relay. 3,079,478, 2-26-63, Cl. 200—104.
Paidar, Emil J., Co.: *See*—
Siegal, Burton L., and Shubart. 3,108,837.
Springer, Paul A., and Dlouhy. 3,115,368.
Paiement, Georges E., to The Flintkote Co. Chimney housing. 3,089,521, 5-14-63, Cl. 138—158.
Paige, James H., and J. L. Wells, to Fabrodynamics, Inc. Mobile work holder. 3,096,890, 7-9-63, Cl. 214—1.
Paige, Robert, to The Stalker Drill Works Ltd. Drills. 3,073,189, 1-15-63, Cl. 77—68.
Paige, Walter G., to Burroughs Corp. High speed print mechanism. 3,077,830, 2-19-63, Cl. 101—93.
Paige, Walter G., to Burroughs Corp. Printing machine. 3,085,670, 4-16-63, Cl. 197—16.
Paige, Walter G., and P. R. Hoffman, to Burroughs Corp. Printing apparatus. 3,085,504, 4-16-63, Cl. 101—93.
Paillard S.A.: *See*—
Ascoli, Enzo. 3,067,772.
Chevallaz, Henri. 3,079,055.
Egger, Bernard. 3,078,773.
Zimmer, Michel. 3,073,231.
Paine, Jordan. Street light bracket connection means. 3,098,668, 7-23-63, Cl. 287—56.
Painter, Claude D. One piece collapsible and glueless egg carton. 3,107,039, 10-15-63, Cl. 229—28.
Painter, David L.: *See*—
Teague, James, Jr., Painter, and Petertil. 3,107,816.
Painter, Erle V.: *See*—
Hering, Harold E., and Painter. 3,085,689.
Painter, Giles W.: *See*—
Campbell, Bruce W., and Painter. 3,078,969.
Painter, Giles W., to Lord Mfg. Co. Damped structure. 3,079,277, 2-26-63, Cl. 117—121.
Painter, John B., to Johns-Manville Corp. Dry cold molding composition containing thermosetting resin binder and hydrated mineral absorbent. 3,084,130, 4-2-63, Cl. 260—29.3.
Paintex Mfg. Co.: *See*—
Desrosiers, George L. 3,091,950.
Paisley, John, to Eastwoods Ltd. Apparatus for marshalling a group of articles in spaced rows. 3,089,577, 5-14-63, Cl. 198—31.
Paisley, John, to Eastwoods Ltd. Apparatus for adjusting the spacing of spaced rows of articles upon a support. 3,113,682, 12-10-63, Cl. 214—6.
Paist, Charles, D. W. Sibal, and D. V. Clay, to St. Regis Paper Co. Machine for applying metal stays to cartons. 3,085,881, 5-7-63, Cl. 93—41.1.
Paitchell, Harold, and I. Goldberg, to Bagel Machines, Inc. Apparatus for automatically forming dough rings for making bagels. 3,080,831, 3-12-63, Cl. 107—8.
Pajac, Theodore P., to General Grid Corp. Low density construction material. 3,096,053, 7-2-63, Cl. 244—133.
Pajaczkowski, Andrzej, and J. M. Turner, to Canadian Industries Ltd., and Imperial Chemical Industries Ltd. New chemical compounds and uses thereof. 3,108,093, 10-22-63, Cl. 260—89.5.
Pakan, John J., to A.R.F. Products, Inc. Tunable filter. 3,074,035, 1-15-63, Cl. 333—73.
Pak-Mar Mfg. Co.: *See*—
Dean, Francis H. 3,074,571.
Pako Corp.: *See*—
Clapp, Roy A. 3,100,419.
Clapp, Roy A. 3,105,410.
Haviland, Douglas L. 3,073,214.
Kallenberg, Karl J. 3,113,498.
Maddock, Ralph B., and Winter. 3,077,155.
Sardeson, Robert. 3,078,024.
Päksy, Jeno. Toy constructional outfit. 3,074,203, 1-22-63, Cl. 46—29.
Pakutka, Willard M.: *See*—
Buck, Ivan E., Jr., and Pakutka. 3,073,982.
Palajac, Peter, Jr., to Ford Motor Co. Vehicle suspension. 3,103,349, 9-10-63, Cl. 267—52.
Palamidessi, Giorgio: *See*—
Camerino, Bruno, and Palamidessi. 3,098,069.
Palandri, Giuseppe, and P. G. Priaroggia, to Pirelli Societa per Azioni. Underground plastic pipeline system for laying high tension electric cables. 3,084,208, 4-2-63, Cl. 174—24.
Palandri, Giuseppe, and P. G. Priaroggia, to Pirelli Societa per Azioni. Submarine electric cables. 3,115,542, 12-24-63, Cl. 174—102.
Palanker, Walter P.: *See*—
Marcellino, Carmen L., and Palanker. 3,088,516.
Palazzolo, Girolama. Ear dewaxer. 3,099,263, 7-30-63, Cl. 128—184.
Palcanis, Franklin G.: *See*—
Green, Paul R., and Palcanis. 3,106,071.
Palermo, Anthony, Jr., and E. B. Graves, to Picker X-ray Corp. Waite Mfg. Div. Inc. X-ray table with tilted tube. 3,094,616, 6-18-63, Cl. 250—61.5.
Palermo, Ralph: *See*—
Jordan, Joseph J., and Palermo. 3,099,885.
Paleschuck, Maurice: *See*—
Giampapa, Cirino, Paleschuck, and Bruno. 3,070,959.
Palevsky, Max, R. M. Beck, and G. J. Giel, to Packard-Bell Computer Corp. Data converter. 3,077,303, 2-12-63, Cl. 235—154.
Paley, Winston B., to E. M. Javits. Cigarette lighting means. 3,109,435, 11-5-63, Cl. 131—7.
Palfey, Albert J.: *See*—
Evans, Thomas A., and Palfey. 3,111,471.
Palfrey, Frederick M., and R. Wolfe, to E. I. du Pont de Nemours and Co. Process for treating tetraalkyllead compositions. 3,088,920, 5-7-63, Cl. 252—386.
Palfreyman, Jack, to Rolls-Royce Ltd. Gas turbine engine. 3,107,489, 10-22-63, Cl. 60—39.14.
Palic, Petar, to North American Philips Co., Inc. Magnetic recording of measuring processes. 3,084,011, 4-2-63, Cl. 346—33.
Paliotta, John. Fastener for use as a cuff link. 3,080,630, 3-12-63, Cl. 24—97.
Palix-Holding A.G.: *See*—
Brãm, Walter. 3,090,214.
Grendelmeier, Werner. 3,075,373.
Pall Corp.: *See*—
Pall, David B. 3,077,854.
Pall, David B. 3,083,834.
Pall, David B., and Cordes. 3,093,581.
Pall, David B., and Siebel. 3,077,176.
Verrando, Marcell G., Jr. 3,109,809.
Pall, David B.: *See*—
Gerstenfeld, Arthur, and Pall. 3,110,826.
Pall, David B., to Pall Corp. Magnetic pressure indicator. 3,077,854, 2-19-63, Cl. 116—70.
Pall, David B., to Pall Corp. Filter unit. 3,083,834, 4-2-63, Cl. 210—299.
Pall, David B., and M. P. L. Siebel, to Pall Corp. Magnetic pressure-responsive devices. 3,077,176, 2-12-63, Cl. 116—70.
Pall, David B., and H. Cordes, to Pall Corp. High pressure sealing element. 3,093,581, 6-11-63, Cl. 210—444.
Pallansch, Michael J.: *See*—
Leviton, Abraham, and Pallansch. 3,072,491.
Pallante, Gerardo P.: *See*—
Williams, George M., and Pallante. 3,087,201.
Pallet Devices, Inc.: *See*—
Budd, Larry J. 3,071,045.
Budd, Larry J. 3,080,690.
Budd, Larry J. 3,088,423.
Budd, Larry J. 3,090,177.
Pallisades Products Corp.: *See*—
Weisy, Matthias A. 3,076,466.
Palluel, Pierre: *See*—
Henry-Besy, Georges, Kantorowiez, and Palluel. 3,101,461.
Palluts, Heinrich: *See*—
Smeykal, Karl, and Pallutz. 3,078,297.
Palm, Albert: *See*—
Merkel, Karl, Werner, and Palm. 3,073,823.
Palm, Alfred, to Siemens & Halske Aktiengesellschaft. Coordinate selector switch. 3,086,085, 4-16-63, Cl. 179—27.54.
Palm, Bert E., to The Lubrizol Corp. Process for producing core laminations. 3,114,661, 12-17-63, Cl. 148—122.
Palm, Clifford W., and J. E. Cunningham, to Celanese Corp. of America. Method and apparatus for producing novelty yarn. 3,105,349, 10-1-63, Cl. 57—34.
Palm, Donald C., to The B. F.Goodrich Co. Bushing assembly. 3,107,951, 10-22-63, Cl. 308—36.1.
Palm, Donald C., to The B. F. Goodrich Co. Bushing assembly. 3,107,952, 10-22-63, Cl. 308—36.1.
Palm, Donald C., to The B. F. Goodrich Co. Bushing assembly. 3,107,953, 10-22-63, Cl. 308—36.1.

Palm, Michael M., to Curtiss-Wright Corp. Fuel tank filler adapter cap. 3,080,995, 3–12–63, Cl. 220—55.

Palmaer, Tore G. Connecting mechanism between a head-strap and devices connected to it. 3,104,398, 9–24–63, Cl. 2—209.

Palmason, Einar H., to Parkson Industrial Equipment Co. Concentration of foaming materials. 3,073,380, 1–15–63, Cl. 159—49.

Palmer, Charles E. Method of packaging meat. 3,074,798, 1–222–63, Cl. 99—174.

Palmer, Charles H.: *See*—
Behnke, Robert C., and Palmer. 3,073,292.

Palmer Chemical & Equipment Co., Inc.: *See*—
Crockford, Jack A., Hayes, Feurt, Jenkins, and Palmer. 3,087,196.

Palmer, Dewey H.: *See*—
Mycock, John R., and Palmer. 3,085,776.

Palmer, Dewey H., to Clay-Adams, Inc. Intravenous needle. 3,082,769, 3–26–63, Cl. 128—221.

Palmer, Everett S., Jr., to Phillips Petroleum Co. Control of stripping still and dephlegmator operation. 3,096,274, 7–2–63, Cl. 208—341.

Palmer, Gregory E. Cardholder. 3,086,658, 4–23–63, Cl. 211—50.

Palmer, Harold C.: *See*—
Crockford, Jack A., Hayes, Feurt, Jenkins, and Palmer. 3,087,196.

Palmer, Harold V. Toiletries dispenser for shower. 3,091,402, 5–28–63, Cl. 239—315.

Palmer, Harry A., to Kelsey-Hayes Co. Loading and unloading apparatus. 3,090,498, 5–21–63, Cl. 214—1.

Palmer, Howard R., to Titanium Metals Corp. of America. Vacuum furnace. 3,072,392, 1–8–63, Cl. 263—3.

Palmer, Howard R., to Titanium Metals Corp. of America. Electrolytic pickling apparatus. 3,082,164, 3–19–63, Cl. 204—225.

Palmer, John E., to Golden Arrow Mfg. Ltd. Agricultural crop sprayers. 3,107,055, 10–15–63, Cl. 239—164.

Palmer, John M., to Shell Oil Co. Method for investigating earth formations. 3,114,256, 12–17–63, Cl. 73—38.

Palmer, John P. Tool handle. 3,089,525, 5–14–63, Cl. 145—29.

Palmer, Karl, to Westinghouse Electric Corp. Filar suspended instrument movement. 3,090,007, 5–14–63, Cl. 324—154.

Palmer, Karl, to Westinghouse Electric Corp. Crosspiece and balance screw for instruments and the like. 3,106,906, 10–15–63, Cl. 116—136.5.

Palmer, Lavinia J.: *See*—
Barnard, Marcellus C. 3,113,531.

Palmer, Leon E., to International Business Machines Corp. Case shift interlock for typewriter. 3,077,971, 2–19–63, Cl. 197—16.

Palmer, Leon E., to International Business Machines Corp. Keylever storage mechanism. 3,086,635, 4–23–63, Cl. 197—16.

Palmer, Max. Storage battery charging system utilizing a controlled rectifier switch responsive to the battery-load voltage. 3,114,095, 12–10–63, Cl. 320—39.

Palmer, Maxwell R.: *See*—
Wilson, Porter C., and Palmer. 3,099,985.

Palmer, Osmond F., to Eastman Kodak Co. Process programming timer. 3,081,688, 3–19–63, Cl. 95—89.

Palmer, Reed A., to Westinghouse Electric Corp. Frankfurter cooker. 3,099,202, 7–30–63, Cl. 99—337.

Palmer, William E., to Swift & Co. Tenderness testing device. 3,078,710, 2–26–63, Cl. 73—81.

Palmer, William F., to Sylvania Electric Products Inc. Apparatus for charging and regulating the voltage across a capacitor. 3,105,170, 9–24–63, Cl. 315—183.

Palmer, William H., and B. M. Hannon, to National Distillers and Chemical Corp. Internally heated die plate for polyethylene extruder. 3,114,169, 12–17–63, Cl. 18—12.

Palmieri, Nicola, to Pirelli Societa per Azioni. Construction of joints and sealing ends for high tension electric cables. 3,104,275, 9–17–63, Cl. 174—73.

Palmore, Frank E. Hydro-foil apparatus. 3,105,249, 10–1–63, Cl. 9—310.

Palmore, Robert A., to American Air Filter Co., Inc. Plate electrode assembly for electrostatic precipitator. 3,114,616, 12–17–63, Cl. 55—143.

Palmquist, Carl W.: *See*—
Phillips, Leonard R., Waeldner, Palmquist, and Barlow. 3,084,711.

Palmqvist, Fredrik T. E., to Separator, Aktiebolaget. Apparatus for maintaining constant flow resistance in a centrifugal extractor. 3,085,742, 4–16–63, Cl. 233—15.

Palmqvist, Fredrik T. E., and S. Beskow to Aktiebolaget Separator. Apparatus for contacting two fluids with each other countercurrently. 3,108,953, 10–29–63, Cl. 233—15.

Palopoli, Frank P., V. J. Fell, and H. D. Benson, to Richardson-Merrill, Inc. Basic substituted alkoxy diphenylalkanols, diphenylalkenes and diphenylalkanes. 3,075,014, 1–22–63, Cl. 260—570.

Paltier Corp., The: *See*—
Skubic, Leroy F. 3,095,837.

Palumbo, Pete: *See*—
Bowman, Walter A., Hunter, and Palumbo. 3,079,007.

Paluska, Roy T.: *See*—
Parks, John H., Miller, and Paluska. 3,077,873.

Pam Clock Co., Inc.: *See*—
Gait, John A. 3,077,778.

Pampus, Gottfried, and H. Groene, to Farbenfabriken Bayer Aktiengesellschaft. Polymerization of conjugated diolefines. 3,072,621, 1–8–63, Cl. 260—83.7.

Pan, Samuel C.: *See*—
Diassi, Patrick A., and Pan. 3,083,210.

Pan, Wen Y.: *See*—
Carlson, David J. and Pan. 3,108,231.

Pan, Wen Y., to Radio Corp. of America. Wide band electric tuning utilizing diodes. 3,103,637, 9–10–63, Cl. 331—59.

Pan American Corp.: *See*—
Vincent, Renie P. 3,074,352.

Pan American Petroleum Corp.: *See*—
Anderson, Duane B., Lummus, and Park. 3,110,668.
Campion, Frank E. 3,112,255.
Campion, Frank E., Glass, and Morse. 3,115,928.
Davis, Robley W., and Wagner. 3,111,988.
Fast, Clarence R., and Evans. 3,080,920.
Flickinger, Don H. 3,107,725.
Geyer, Robert L., and Sparks. 3,093,810.
Glass, Eugene D. 3,093,191.
Howard, George C. 3,107,727.
Howard, George C., and Jennings. 3,110,347.
Landrum, Ralph A., Jr., Martner, and Eisler. 3,108,250.
Lantz, Dae C., Jr. 3,098,458.
Latta, James E. 3,093,465.
Lummus, James L., and Randall. 3,111,999.
O'Neal, George E. 3,111,991.
Park, Arthur. 3,081,260.
Park, Arthur, and Spurlock. 3,085,977.
Spurlock, James W., Holmgren, and Bearden. 3,110,346.
Stall, Joe C., and Vincent. 3,101,796.
Walker, Scott W. 3,080,917.
Wilder, Lawrence B. 3,111,176.

Pan American Resources, Inc.: *See*—
Lantz, Dae C., Jr. 3,103,426.

Pan American Sulphur Co.: *See*—
Gormley, Frederick J. 3,071,445.

Pandell, Nestor W., and H. R. Bellinson, to Cluett, Peabody & Co., Inc. Wrinkle measuring device. 3,072,012, 1–8–63, Cl. 88—14.

Pandjiris Weldment Co.: *See*—
Wuesthoff, Paul P. 3,088,613.
Wuesthoff, Paul P. 3,093,249.

Panek, Louis A., and J. A. Stock, to United States of America, Interior. Pressure control mechanism. 3,108,716, 10–29–63, Cl. 222—48.

Panel Engineering Corp.: *See*—
Hall, Trevor W. 3,100,952.

Panel-Lift Door Corp.: *See*—
Brodsky, Michael M. 3,103,246.

Panetta, Frank S.: *See*—
Schacht, Kenneth N., and Panetta. 3,102,623.

Pangborn Corp.: *See*—
Croft, Charles P. 3,094,768.
Moore, Ralph W. 3,089,285.
Moore, Ralph W. 3,110,983.
Powell, George W. 3,087,615.
Powell, George W., and Fahrney. 3,081,580.

Pangborn, Edward L.: *See*—
Handwerk, William B., and Pangborn. 3,090,518.

Pangrac, George D., to The Dow Chemical Co. Anti-block edge for plastic bags and the like. 3,113,715, 12–10–63, Cl. 229—53.

Panhandle Industrial Co.: *See*—
Neil, Joe L. 3,091,227.

Panhard, Paul, to Societe Anonyme des Anciens Etablissements Panhard & Levassor. Machines of the piston-pump type. 3,108,436, 10–29–63, Cl. 60—52.

Panhard, Paul, to Societe Anonyme des Anciens Etablissements Panhard & Levassor. Differential transmission. 3,111,043, 11–19–63, Cl. 74—650.

Paniagua, Juan G. Combination bottle cap seal and opener. 3,095,991, 7–2–63, Cl. 215—40.

Panicello, Joseph F., to Bell Telephone Laboratories, Inc. Frequency divider employing a device operated to provide a dynamic input versus output signal transfer characteristic of an exponential nature. 3,110,820, 11–12–63, Cl. 307—88.5.

Panissidi, Hugo A.: *See*—
Wicklund, Harold P., and Panissidi. 3,112,473.

Panissidi, Hugo A., to International Business Machines Corp. Fluid apparatus. 3,114,394, 12–17–63, Cl. 137—625.64.

Panizzi, Luigi, and A. Vercellone, to Societa Farmaceutici Italia. Process for making 1,4-dicaffeylquinic acid. 3,100,224, 8–6–63, Cl. 260—473.

Pankove, Jacques I., to Radio Corp. of America. Multielectrode semiconductor devices. 3,108,210, 10–22–63, Cl. 317—235.

Pankow, Paul A. H.: *See*—
Hoffman, William J., and Pankow. 3,103,323.
Nelson, Leroy E., and Pankow. 3,103,330.

Pankratz, A. J., and R. M. Shoemaker, to General Precision, Inc. Transducer assembly for magnetic recorders. 3,075,051, 1–22–63, Cl. 179—100.2.

Pankratz, Paul M., H. C. Houvener, and R. H. Matthias, to The Dow Chemical Co. Adjustable flexible orifice for extrusion of foam plastics. 3,112,527, 12–3–63, Cl. 18—12.

Panmetals and Processes Inc.: *See*—
Beetz, Pierre. 3,097,922.
Jadot, Edgard. 3,115,390.

Panneton, Jean J.: *See*—
Archambault, Maurice, Olivier, Panneton, and Fortier. 3,112,172.

Pannier Corp., The: *See*—
Black, Robert H. 3,111,413.
Pannier, Ralph A. 3,112,688.

Pannier, Ralph A., to The Pannier Corp. Remotely operated metal stamping and marking machine. 3,112,688, 12–3–63, Cl. 101—4.

Pannill, James K., Jr.: *See*—
Calnes, James F., Dyer, and Pannill. 3,099,594.

Panossian, Jacques: *See*—
Ertaud, André, and Panossian. 3,087,885.

Pansing, Nelson J., and G. B. Long, to General Motors Corp. Time comparator or drier control. 3,088,221, 5–7–63, Cl. 34—45.

Pansing, Nelson J., G. B. Long, and J. L. Miller, to General Motors Corp. Domestic appliance. 3,102,008, 8–27–63, Cl. 34—79.

Pansini, Andrew L. Portable leaf trap for swimming pools. 3,091,340, 5–28–63, Cl. 210—354.

Pansy, Felix E., and J. D. Dutcher, to Olin Mathieson Chemical Corp. Perlimycin. 3,096,243, 7–2–63, Cl. 167—65.

Panther, Leslie: *See*—
Moody, Jack C., and Panther. 3,104,580.

Panthofer, Ernest H., to Perfex Corp. Cooling apparatus. 3,093,189, 6–11–63, Cl. 165—69.

Pantke, Heins-Dieter: *See*—
Von Bogdandy, Ludwig, and Pantke. 3,100,699.

Panton, Thomas J.: *See*—
Basford, Kenneth A., and Panton. 3,095,030.

Panton, Verner. Chair. 3,086,818, 4–23–63, Cl. 297—349.

Pantray, Inc.: *See*—
Senn, Louella E. 3,087,417.

Panza, Eugene. Sanitary device. 3,090,965, 5–28–63, Cl. 4—1.

Panzer, Jerome, and J. E. Shewmaker, to Esso Research and Engineering Co. Lubricants containing various cross-linked substances as thickening agents. 3,086,942, 4–23–63, Cl. 252—40.5.

Panzer, Jerome, A. Beerbower, and F. Bonmartini, to Esso Research and Engineering Co. Method of preparing finely divided solid metal salts. 3,111,381, 11–19–63, Cl. 23—89.

Panzer, Mitchell E. Strip winding means. 3,084,884, 4–9–63, Cl. 242—74.

Pao, John. Toy monorail train system. 3,111,910, 11–26–63, Cl. 104—120.

Paola, Carl R.: *See*—
Nielsen, Robert J., Paola, and Rongved. 3,116,434.

Paolantonio, Nicholas. Mopping device having grapple means for disposal of swab. 3,101,500, 8–27–63, Cl. 15—118.

Paoletti, Lino M., and L. L. Rakoczi, to Radio Corp. of America. Circuits for generating pulses whose duration is controlled by delay means or external circuits. 3,107,332, 10–15–63, Cl. 328—63.

Papa, Donald M., to Cutler-Hammer, Inc. Pressure responsive operator. 3,080,890, 3–12–63, Cl. 137—784.

Papa, Joseph: *See*—
Foster, James A., Sr., and Papa. 3,071,993.

Papajohn, Elissa D. Sanitary napkin cradle support. 3,079,922, 3–5–63, Cl. 128—291.

Papalos, John G.: *See*—
Schenck, Leslie M., and Papalos. 3,089,882.

Papaminas, Andrew A. Sleep inhibiting device and method. 3,082,414, 3–19–63, Cl. 340—279.

Papanti, Ralph. Door lock. 3,073,144, 1–15–63, Cl. 70—211.

Pape, William H.: *See*—
Roach, James L., Pape, Eickhoff, and W. F. Roach. 3,108,720.

Papee, Denis, and R. Gauguin, to Pechiney, Compagnie de Produits Chemique et Electrometallurgiques. Process for the preparation of a transition alumina dehydration catalyst. 3,112,279, 11–26–63, Cl. 252—438.

Paper Converting Machine Co., Inc.: *See*—
Nystrand, Ernst D. 3,107,585.
Nystrand, Ernst D., and Small. 3,071,259.

Paper, Meyer, D. W. Knudtson, G. K. Olson, and R. F. Rouser; said Knudtson, said Olson and said Rouser assors. to said paper. Hardware marking during rolling. 3,076,358, 2–5–63, Cl. 80—9.

Paperlynen Co.: *See*—
De Villers, Edmund J. 3,082,429.

Papero, Patrick V., Jr.: *See*—
Apostle, Basil G., Papero, and Snider. 3,109,835.

Papero, Patrick V., Jr., O. E. Snider, and R. J. Duggan, to Allied Chemical Corp. Caprolactam polymerization. 3,090,773, 5–21–63, Cl. 260—78.

Papero, Patrick V., Jr., and R. L. Morter, Jr., to Allied Chemical Corp. Stabilized caprolactam polymer composition. 3,113,120, 12–3–63, Cl. 260—42.

Paper Sacks Ltd.: *See*—
Owens, William V. 3,081,930.

Papesch, Viktor, to G. D. Searle & Co. 2,4,6-trialkylpyrazolo[4,3-d]-4,5,6,7-tetrahydropyrimidine-5,7-diones. 3,113,944, 12–10–63, Cl. 260—256.4.

Papesh, Steven A., and J. A. Donohue, to Standard Oil Co. Metal removing with an asphaltene containing wash oil. 3,076,756, 2–5–63, Cl. 208—251.

Papin, Joseph E., to Wagner Electric Corp. Anti-creep brake mechanism. 3,106,221, 10–8–63, Cl. 137—598.

Papineau, Milton D. Phase analyzer. 3,092,804, 6–4–63, Cl. 340—6.

Papke, Friedrich: *See*—
Reiche, Wilhelm, Mische, and Papke. 3,094,911.

Papke, Friedrich, to Voigtlander A.G. Block type photographic viewfinder with parallax compensation. 3,081,664, 3–19–63, Cl. 88—1.5.

Papke, Friedrich, to Voigtlander A.G. Albada type viewfinder having undulating reflecting mask frame. 3,087,375, 4–30–63, Cl. 88—1.5.

Papke, Friedrich, to Voigtlander A.G. Photographic finder with imaging of the indicator position of the exposure meter. 3,087,376, 4–30–63, Cl. 88—1.5.

Papke, Friedrich, to Voigtlander A.G. Albada type viewfinder with image frame in composite rear lens assembly. 3,094,579, 6–18–63, Cl. 88—1.5.

Papo, Maurice: *See*—
Estrems, Eugeni, and Papo. 3,107,342.

Papp, Andrew, to Regis Plastics. Detachable hand guard for knives. 3,108,375, 10–29–63, Cl. 30—295.

Papp, Cornelius A., to United States of America, Army. Apparatus and process for producing coatings on metals. 3,108,900, 10–29–63, Cl. 117—93.1.

Pappas, George F.: *See*—
Fish, Leonard W., and Pappas. 3,093,571.

Pappas, George F., to Esso Research and Engineering Co. Short contact time system. 3,074,878, 1–22–63, Cl. 208—127.

Pappas, George F., and D. D. MacLaren, to Esso Research and Engineering Co. Hydrofining of shale oil. 3,091,586, 5–28–63, Cl. 208—210.

Pappas, James: *See*—
New, Thorndike, C. T., and Pappas. 3,099,588.

Pappas, James K. Gear checking fixture. 3,090,128, 5–21–63, Cl. 33—179.5.

Pappas, Peter H., to Pappas Refrigeration Co. Food chilling. 3,097,501, 7–16–63, Cl. 62—63.

Pappas, Phillip M. Frying apparatus. 3,075,702, 1–29–63, Cl. 236—32.

Pappas Refrigeration Co.: *See*—
Pappas, Peter H. 3,097,501.

Pappas, Thomas P.: *See*—
Gray, Edward E., Pappas, and Taylor. 3,113,989.

Pappas, William S., to United States of America, Atomic Energy Commission. Continuous analyzer utilizing boiling point determination. 3,081,619, 3–19–63, Cl. 73—17.

Pappo, Raphael: *See*—
Nysted, Leonard N., and Pappo. 3,109,016.

Pappo, Raphael, to G. D. Searle & Co. 17α-alkyl-17β-hydroxy-18-norandrost-4-en-3-ones. 3,080,360, 3–5–63, Cl. 260—239.55.

Pappo, Raphael, to G. D. Searle & Co. Optionally 6-methylated and optionally 17-alkanoyloxygenated 2-oxapregnane-3,20-diones, A-homo compounds corresponding, and 4,5-dehydro and 4,5,6,7-bisdehydro derivatives thereof. 3,080,381, 3–5–63, Cl. 260—343.2.

Pappo, Raphael, to G. D. Searle & Co. 18-acyloxy-5-pregnen-3-ols, derivatives and intermediates for their preparation. 3,087,926, 4–30–63, Cl. 260—239.55.

Pappo, Raphael, to G. D. Searle & Co. 17α,21-dihydroxy-2-oxapregnane-3,11,20-trione, esters thereof and intermediates thereto. 3,093,658, 6–11–63, Cl. 260—343.2.

Pappo, Raphael, to G. D. Searle & Co. Optionally 17-alkylated 2-oxa-5α-androstane-3β,11β-diols, ethers and esters thereof. 3,101,350, 8–20–63, Cl. 260—345.2.

Pappo, Raphael, and C. Jung, to G. D. Searle & Co. Optionally 17-alkylated 17-oxygenated-2-oxaandrostanes and intermediates. 3,101,349, 8–20–63, Cl. 260—345.2.

Papritz, Franz, H. Goldmann, and T. Schmidt, to Hoag-Streit A.G. Apparatus for measuring the intra-ocular or tonometric pressure of an eye. 3,070,997, 1–1–63, Cl. 73—80.

Paprocki, Stanley J., and G. W. Cunningham, to United States of America, Atomic Energy Commission. Ductile chromium. 3,074,153, 1–22–63, Cl. 29—182.5.

Papsdorf, Robert A., to Emerson-Pryne Co. Recessed lighting fixture having a separable pre-wired section. 3,091,687, 5–28–63, Cl. 240—78.

Papworth, Thomas H. Grain probe with ratchet handle. 3,109,307, 11–5–63, Cl. 73—425.2.

Paquet, Maxime. Treatment of tanned leathers. 3,079,211, 2–26–63, Cl. 8—94.21.

Paquin, Leon J.: *See*—
Masanek, John B., and Paquin. 3,115,829.

Paradis, Lucien, to Sopas Profumi S.p.A. Cosmetic kit. 3,099,272, 7–30–63, Cl. 132—79.

Paradise, Mose L. Laundry table. 3,089,438, 5–14–63, Cl. 108—26.

Paradise, Ronald Y.: *See*—
Schroeder, George, and Paradise. 3,071,324.

Paragon Bridge and Steel Co.: *See*—
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Paragon Products Corp.: *See*—
Scholz, Peter S. 3,090,848.

Paramelle, Bernard, to Electronique Medicale Serdal. Respiratory apparatus. 3,106,204, 10–8–63, Cl. 128—29.

Paramount Fabricating Co.: *See*—
Davidson, Howard M. 3,096,749.

Paramount Paper Products Co.: *See*—
Epstein, Lawrence. 3,106,363.

Paramount Pictures Corp.: *See*—
Akrell, Carl A. S. 3,104,280.
Raibourn, Paul, and Gewertz. 3,112,421.
Sanford, Emil E. 3,096,396.

Parana, William J., to Waukesha Foundry Co. Non-galling alloy. 3,072,477, 1–8–63, Cl. 75—170.

Paravox, Inc.: *See*—
Tresise, Raleigh E., and Kendall. 3,095,483.
Parayarn Elastic Co.: *See*—
Smith, Wilbert D. 3,098,347.
Parcell, Robert F.: *See*—
Godefrol, Erik F., Maddox, and Parcell. 3,097,136.
Pardee, William A.: *See*—
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Pare, Philip J., to American Cyanamid Co. Process for the preparation of s-vinyl phosphorodithioates. 3,073,859, 1-15-63, Cl. 260—461.
Pare, Philip J., to American Cyanamid Co. Preparation of 1-cyclohexenes. 3,088,967, 5-7-63, Cl. 260—464.
Parechoc S.A.: *See*—
Matthey, Roger. 3,112,964.
Parent, Donald F.: *See*—
Rubio, Abdon, and Parent. 3,077,334.
Parfums Christian Dior: *See*—
Picot, Bernard T. E. 3,101,160.
Parham, Charles D., and J. E. Spake, to Collins and Aikman. Automatic double shuttle loom. 3,074,439, 1-22-63, Cl. 139—243.
Parl, Jack M. Traction attachment for beds. 3,086,519, 4-23-63, Cl. 128—75.
Parl, Jack M. Adjustable drawer and shelf slide mounting assembly. 3,087,771, 4-30-63, Cl. 312—332.
Parilla, Arthur R. Aircraft, missiles, missile weapons systems, and space ships. 3,094,072, 6-18-63, Cl. 102—50.
Parilla, Arthur R.: Fabrication of bodies having compound curvature. 3,096,576, 7-9-63, Cl. 29—421.
Paris, James H.: *See*—
Church, Richard A., Blanchette, and Paris. 3,082,676.
Paris, James H., to Carrier Corp. Gas and liquid contact apparatus. 3,101,383, 8-20-63, Cl. 261—24.
Paris, Michel H. L. M., and E. M. Burstlein, to Compagnie de Pont-A-Mousson, and SOVACO Societe pour la Valorisation des Combustibles, Minerals et autres Matieres Minerales. Process of agglomerating fines of materials containing iron of which a portion has been completely reduced. 3,097,945, 7-16-63, Cl. 75—3.
Paris Precision Products: *See*—
Weiss, Bernhardt B., and Running. 3,090,599.
Paris, René A., and R. Périères, to Pechiney. Process of making aluminum nitride. 3,092,455, 6-4-63, Cl. 23—192.
Parish, William, to Swift & Co. Fluorine recovery. 3,091,513, 5-28-63, Cl. 23—153.
Parisot, Jean: *See*—
Moutaud, Gilbert, and Parisot. 3,102,826.
Park, Arthur: *See*—
Anderson, Duane B., Lummus, and Park. 3,110,668.
Ellers, Louis H., and Park. 3,075,463.
Ellers, Louis H., and Park. 3,104,706.
Park, Arthur, to Pan American Petroleum Corp. Low solids drilling fluid. 3,081,260, 3-12-63, Cl. 252—8.5.
Park, Arthur, and J. W. Spurlock, to Pan American Petroleum Corp. Fluid loss retarder for clear water drilling fluids. 3,085,977, 4-16-63, Cl. 252—8.5.
Park-Baker Electronic Development Corp.: *See*—
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Park, Donald M., to Park-Baker Electronic Development Corp. Gaseous glow tube controlled musical instrument. 3,105,106, 9-24-63, Cl. 84—1.03.
Park Electrochemical Corp.: *See*—
Kend, David. 3,108,707.
Park, John K., and W. K. Lydic, to Owens-Corning Fiberglas Corp. Yarn spool. 3,105,655, 10-1-63, Cl. 242—118.7.
Park, Joseph D., and A. P. Stefani, to Minnesota Mining and Mfg. Co. Process for reacting nitrosyl halide with fluorine-containing olefins and products produced therefrom. 3,072,705, 1-8-63, Cl. 260—466.
Park, Linwood D. Apparatus for removing snow from highways. 3,106,792, 10-15-63, Cl. 37—12.
Park, Neil H. Cigarette coal anchor for filter cigarette. 3,081,776, 3-19-63, Cl. 131—4.
Park Plastics Co.: *See*—
Joffe, Edward J. 3,104,848.
Park, Richard L., to Martin-Marietta Corp. Apparatus for threading wire into a machine. 3,110,430, 11-12-63, Cl. 226—91.
Park, Robert H., to Brockway Glass Co., Inc. Method and apparatus for making plastic articles. 3,078,507, 2-26-63, Cl. 18—5.
Park, Robert H., to Brockway Glass Co., Inc. Apparatus for blow molding hollow articles. 3,089,186, 5-14-63, Cl. 18—5.
Park, Robert H., to Brockway Glass Co., Inc. Plastic extrusion tube scraper apparatus. 3,104,421, 9-24-63, Cl. 18—14.
Park, Russell A.: *See*—
Kuhn, Leroy B., and Park. 3,078,179.
Park, Wallace S. Stabilizer for the optical projector carriage of photogrammetric projection instruments. 3,099,934, 8-6-63, Cl. 88—24.
Park, William H.: *See*—
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Parke, Davis & Co.: *See*—
Brandon, Frank B., and Taylor. 3,105,012.
Capps, David B. 3,074,938.
De Wald, Horace A., Hoefle, and Holmes. 3,112,337.
Ehrlich, John, Barts, and Knudsen. 3,100,176.
Elslager, Edward F. 3,083,195.
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Parke, Davis & Co.: *See*—Continued
Frohardt, Roger P., Dion, and Ehrlich. 3,111,523.
Godefrol, Erik F. 3,111,527.
Godefrol, Erik F., Maddox, and Parcell. 3,097,136.
Hoefle, Milton L., and Holmes. 3,111,521.
Hull, Robert L. 3,086,011.
Kinney, Aldon M. 3,112,535.
Lo Grippo, Gerald A., Timm, and Taylor. 3,076,748.
Maddox, V. Harold, and Godefrol. 3,097,207.
Meyer, Robert F. 3,111,540.
McLean, I William, Jr., and Rightsel. 3,105,011.
McLean, I. William, Jr., and Trader. 3,100,178.
Meyer, Robert F. 3,074,956.
Meyer, Robert F. 3,089,878.
Miller, Charles A. 3,076,816.
Mottin, Ralph E. 3,087,595.
Mottin, Ralph E. 3,106,281.
Scherrer, Robert A. 3,107,263.
Scherrer, Robert A. 3,109,022.
Scholten, Lawrence M., McMillan, and Sutton. 3,097,748.
Stevens, Calvin L., and Fleming. 3,082,255.
Wheeler, Larry M. 3,100,177.
Parke, Melville R., and G. A. Gagnon, to Warwick Mfg. Corp. Insulated wire head. 3,102,324, 9-3-63, Cl. 29—33.
Parke, Robert M., to General Electric Co. Dip forming tubing. 3,094,732, 6-25-63, Cl. 22—203.
Parker, Alverta M., and P. J. Ulibarre. Cushioned fracture bedpan. 3,084,348, 4-9-63, Cl. 4—113.
Parker, Bernard, to General Precision Inc. Free rotor gas bearing gyro. 3,115,784, 12-31-63, Cl. 74—5.12.
Parker, Bernhard D., to Decca Ltd. Binary digital data transmission systems. 3,113,294, 12-3-63, Cl. 340—154.
Parker, Bruce B.: *See*—
Collier, Eugene L. 3,085,883.
Parker, Carlyle V., to United States of America, Navy. Electronic RF switch. 3,076,155, 1-29-63, Cl. 333—7.
Parker, Clarence B., to Longview Fibre Co. Container and cardboard blank for forming same. 3,101,882, 8-27-63, Cl. 229—39.
Parker, Earl R., to General Dynamics Corp. Method of weight determination. 3,083,298, 3-26-63, Cl. 250—106.
Parker, Edgar W., Jr., to A. Y. Dowell and A. Y. Dowell, Jr. Hoisery package and method for producing the same. 3,084,794, 4-9-63, Cl. 206—79.
Parker, Edward J., to Starch Products Ltd. Drying gluted and dough-like materials. 3,094,421, 6-18-63, Cl. 99—199.
Parker, Emery: *See*—
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Parker, Eric, to Decca Ltd. Apparatus for air traffic control. 3,113,292, 12-3-63, Cl. 340—26.
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Parker, Geoffrey J.: *See*—
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Klamm, Carl E. 3,088,755.
Lansky, Zdenek J., and Scalbom. 3,076,525.
Lebow, Ralph H. 3,095,179.
Simmons, Harold C. 3,097,795.
Stacey, Hugh J. 3,088,489.
Stacey, Hugh J. 3,106,065.
Webster, William G., and Simmons. 3,080,885.
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Parker, Harry W., to Phillips Petroleum Co. Flame position determination in well bores. 3,072,184, 1-8-63, Cl. 166—4.
Parker, Harry W., to Phillips Petroleum Co. Recovery of hydrocarbons by in situ combustion. 3,072,186, 1-8-63, Cl. 166—11.
Parker, Harry W., to Phillips Petroleum Co. In situ combustion using iron catalysts. 3,087,540, 4-30-63, Cl. 166—11.
Parker, Harry W., to Phillips Petroleum Co. Miscible-fluid flooding technique. 3,103,972, 9-17-63, Cl. 166—9.
Parker, Harry W., to Phillips Petroleum Co. Process for producing oil shale in situ by electrocarbonization. 3,106,244, 10-8-63, Cl. 166—11.
Parker, Harry W., and J. W. Marx, to Phillips Petroleum Co. Solvent-resistant molded articles. 3,081,185, 3-12-63, Cl. 106—218.
Parker, Herbert E., R. A. Sullivan, and R. R. Whipple, to Western Electric Co., Inc. Mold for casting electrical component mounting boards. 3,076,230, 2-5-63, Cl. 18—36.
Parker, Humphrey F.: *See*—
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Parker, Humphrey F., E. E. Robins, and F. O. Church, to Columbus McKinnon Corp. Conveyor trolley and track thereof. 3,074,356, 1-22-63, Cl. 104—172.

Parker, Humphrey F., and E. E. Robins, to Columbus McKinnon Corp. Conveyor trolley stabilisers. 3,094,943, 6-25-63, Cl. 104—172.
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Parker, John A., and J. Versnel, to Armstrong Cork Co. Noncrystallizing polyester, and polyurethane made therefrom. 3,094,510, 6-18-63, Cl. 260—75.
Parker, John H. Street barricade. 3,089,682, 5-14-63, Cl. 256—64.
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Wasson, Burton K., and Parker. 3,098,012.
Wasson, Burton K., and Parker. 3,099,662.
Parker, Joseph D., to Beloit Iron Works. Method and apparatus for feeding stock to paper making machine. 3,092,538, 6-4-63, Cl. 162—216.
Parker, Joseph D., to Beloit Iron Works. Method and apparatus for distributing particle suspension. 3,092,540, 6-4-63, Cl. 162—343.
Parker, Joseph W., to Pharma Plastics Inc. Closure. 3,081,899, 3-19-63, Cl. 220—27.
Parker, Kenneth G., to C.A.V. Ltd. Shaft bearings. 3,110,528, 11-12-63, Cl. 308—122.
Parker, Leon O., to San Francisco Research Corp. Tubular surgical bandages, casts, and molds. 3,097,644, 7-16-63, Cl. 128—157.
Parker, Leslie K., to Aluminum Laboratories Ltd. Inspecting or sorting apparatus. 3,091,332, 5-28-63, Cl. 209—75.
Parker, Leslie K., to The Perkin-Elmer Corp. Nuclear magnetic resonance apparatus. 3,113,264, 12-3-63, Cl. 324—5.
Parker, Louis W. Printed circuits. 3,080,541, 3-5-63, Cl. 336—200.
Parker, Louis W. Three-dimensional direction finder for aircraft guidance. 3,103,663, 9-10-63, Cl. 343—108.
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Owen, George E., Jr., and Parker. 3,076,873.
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Parker, Paul T., J. L. Bryan, Jr., A. B. Small, D. W. Pugh, and F. J. Buchmaan, to Esso Research and Engineering Co. Continuous chlorination and bromination of butyl rubber. 3,099,644, 7-30-63, Cl. 260—85.3.
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Green, Homer T. 3,115,119.
Jeffris, Bruce M. 3,073,285.
Tullis, Lyell C. 3,079,679.
Wittnebert, Frederick R., and Sonntag. 3,087,464.
Parker, Richard W., W. Houser, and T. P. R. Stout, to Parker Sweeper Co. Sweeper with side dumping debris basket. 3,089,169, 5-14-63, Cl. 15—83.
Parker, Rienzi B., Jr., and P. A. Reiman, to Kalvar Corp. Scatter photography element containing Werner type chrome carboxylic acid complexes. 3,081,169, 3-12-63, Cl. 96—75.
Parker, Robert B. Hand cleaning device. 3,075,221, 1-29-63, Cl. 15—176.
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Parker, Roy A., and J. D. Thompson; said Thompson assor. to Highland Dairies, Inc. Can dispensing apparatus. 3,096,908, 7-9-63, Cl. 221—176.
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Parker, Stewart H. Duplicating device. 3,075,458, 1-29-63, Cl. 101—131.
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Simmons, Harold C., and O'Sickey. 3,093,317.
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Parkinson, Harold B. Process of preparing printing plates. 3,105,783, 10-1-63, Cl. 156—14.
Parkinson, John, to New York Business Development Corp. Filter unit and filter cartridge therefor. 3,112,262, 11-26-63, Cl. 210—130.
Parkinson, Martin C., and C. E. Bender, to The Vir Tis Co., Inc. Freeze-drying flasks. 3,080,990, 3-12-63, Cl. 215—31.
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Parks, Asbury S., to Clayton Mark & Co. Shutoff valve with needle element therein and valve seating construction. 3,084,903, 4-9-63, Cl. 251—187.
Parks, Christ F., J. E. Strassner, and F. W. Burtch, to The Dow Chemical Co. Inhibition of deposition of hydrocarbonaceous solids from oil. 3,096,777, 7-9-63, Cl. 137—15.
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Parks, John H., R. H. Miller, and R. T. Paluska, to Caterpillar Tractor Co. Pressure actuated fuel control for supercharged engines. 3,077,873, 2-19-63, Cl. 123—140.
Parks, Kenneth E. Optical illusion walking game. 3,111,313, 11-19-63, Cl. 273—1.
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Kirkpatrick, Alan R. 3,110,654.
Kolb, Paul. 3,079,754.
Martin, Albert E. 3,079,834.
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Pawl, Walter S. Universal timepiece. 3,091,915, 6-4-63, Cl. 58—44.

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Rohlfs, Gerhard, and Pawlenko. 3,099,687.

Pawletko, Joseph P., to International Business Machines Corp. Magnetic drum storage apparatus. 3,092,816, 6-4-63, Cl. 340—174.1.

Pawloski, Chester E.: *See*—
Sterling, George B., Watson, and Pawloski. 3,116,298.
Sterling, George B., Watson, and Pawloski. 3,116,299.

Pawloski, Chester E., to The Dow Chemical Co. Propynyl hydrazobenzenes. 3,082,254, 3-19-63, Cl. 260—569.

Pawlowski, Walter F. Automatic tension control device. 3,107,679, 10-22-63, Cl. 137—85.

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Paxton, Jack G., to General Nailing Machine Corp. Quick-change sprocket. 3,082,637, 3-26-63, Cl. 74—243.

Paxton, John J. Domestic smoothing iron. 3,098,922, 7-23-63, Cl. 219—25.

Paxton, Joseph M., to Sun Oil Co. Elevation of granular solids. 3,106,429, 10-8-63, Cl. 302—53.

Payerle, Frank S., and C. F. Gressard, to The Morse Instrument Co. Single lever control for multiple actions. 3,091,130, 5-28-63, Cl. 74—471.

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Payne, George B., to Shell Oil Co. Epoxy acetals. 3,107,253, 10-15-63, Cl. 260—348.

Payne, Harold. Siphoning liquid dispenser. 3,097,769, 7-16-63, Cl. 222—416.

Payne, Harry R., and J. M. Womack, to Cavalier Corp. Dispensing mechanism for articles in staggered stack. 3,107,812, 10-22-63, Cl. 221—67.

Payne, Harry R., and A. L. Rankin, Jr., to Cavalier Corp. Dispensing mechanisms for articles in side by side staggered stacks. 3,107,813, 10-22-63, Cl. 221—67.

Payne, Hugh F., and E. Beanland, to Hygrotherm Engineering Ltd. Restoration of decomposed and polymerized heat transfer fluids. 3,088,915, 5-7-63, Cl. 252—78.

Payne, John H., Jr. Wheel camber and caster gauge. 3,088,215, 5-7-63, Cl. 33—203.18.

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Payne, Robert E., and F. P. Gooch, to The Sharples Corp. Centrifugal dust separator. 3,094,828, 6-25-63, Cl. 55—407.

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Paytas, Anthony J. Shaft extractor. 3,087,236, 4-30-63, Cl. 29—244.

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Loudon, Robert E., Oldenburg, Beall, Christoff, and Payton. 3,077,590.

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Peach, John R. Returnable billing envelope. 3,111,257, 11-19-63, Cl. 229—73.

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Brauuholtz, John T., and Peacock. 3,085,930.

Peacock, George T.: *See*—
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Peacock, George T., and S. W. George. Automatic coin receiving and transfer mechanism. 3,106,924, 10-15-63, Cl. 133—5.

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Peak, Betsey A. Animal tie-out stake. 3,100,476, 8-13-63, Cl. 119—121.

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Cohen, Murray S., and Pearl. 3,098,877.
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Pearsall, Ralph E., and W. R. Wade, to United Shoe Machinery Corp. Bottom roughing equipment for slip shoes. 3,077,098, 2–12–63, Cl. 69—6.5.

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Pearson, Charles, Jr. Toy liquid dispensing device. 3,100,588, 8–13–63, Cl. 222—156.

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Pearson, Lincoln E., to Crompton & Knowles Corp. Methods of manufacturing composite webs from tow. 3,087,203, 4–30–63, Cl. 19—145.5.

Pearson, Louis O. Building block. 3,073,061, 1–15–63, Cl. 47—34.

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Peaster, Bertram A., to Integral Ltd. Reciprocating pumps. 3,101,056, 8–20–63, Cl. 103—37.

Peat, Macly R., to Wm. J. Stange Co. Method of stabilizing spice material and the resulting product. 3,095,306, 6–25–63, Cl. 99—140.

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Pecci, Angelo A. Electric heating system. 3,103,575, 9–10–63, Cl. 219—38.

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Pechtold, Walter, A. Carstensen, and L. Meyer, to Knapsack-Griesheim Aktiengesellschaft. Method for charging dry gasifiers with calcium carbide. 3,090,685, 5–21–63, Cl. 48—216.

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Pedersen, Clarence S., to Duraplastics, Inc. Mold positioning jack for horizontal injection molding machine. 3,100,623, 8–13–63, Cl. 254—98.

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Pederson, Helmer T., to Modutronics, Inc. Translator switch. 3,112,431, 11–26–63, Cl. 317—148.5.

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Babcock, John C., Campbell, and Pederson. 3,098,850.
Babcock, John C., and Pederson. 3,102,896.

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Pedley, Eric L. and P., to Pedley-Knowles & Co. Apparatus for use in making rope nets. 3,091,834, 6–4–63, Cl. 28—1.

Pedley-Knowles & Co.: *See*—
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Pedley, Eric L. and P. 3,091,834.

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Pedley, Eric L. and P. 3,091,834.

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Peebles, David D., to Western Condensing Co. Apparatus for the treatment of dry powdered materials. 3,085,492, 4–16–63, Cl. 99—234.

Peebles, David D., to Foremost Dairies, Inc. Centrifugal atomizer and method. 3,095,149, 6–25–63, Cl. 239—224.

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Peebles, David M. Air purifying and ventilating means for beds. 3,101,488, 8–27–63, Cl. 5—347.

Peedu, Einar, to Ulvsunda Verkstader Aktiebolag. Chuck. 3,090,632, 5–21–63, Cl. 279—1.

Peek, Henry L., and J. W. Timmerman, to Allis-Chalmers Mfg. Co. Interrupting device employing continuous hydraulic control. 3,105,126, 9–24–63, Cl. 200—82.

Peek, Johannes J. A., H. Rinia, and S. Duinker, to North American Philips Co., Inc. Variable reluctance magnetic circuit. 3,100,852, 8–13–63, Cl. 310—15.

Peek, Sandford C., Jr.: *See*—
Spencer, Domina E., and Peek. 3,115,309.

Peek, Sandford C., Jr., and H. B. Sloan, to Sylvania Electric Products Inc. Incandescent lamp with vibration damping support for filament. 3,114,069, 12–10–63, Cl. 313—269.

Peek, Vernon E., to Anderson Electric Corp. Hot line clamp. 3,075,166, 1–22–63, Cl. 339—109.

Peel, Earl H., to McGraw-Edison Co. Unloading apron. 3,070,985, 1–1–63, Cl. 68—139.

Peel, Earl H., to McGraw-Edison Co. Door closure and operating means. 3,071,184, 1–1–63, Cl. 160—40.

Peel, Robert: *See*—
De Moss, John, and Peel. 3,083,553.

Peeler, Cletus E., Jr., to Diamond Alkali Co. Treatment of earth strata containing acid forming chemicals. 3,094,846, 6–25–63, Cl. 61—36.

Peeler, Lawrence F., and E. L. La Foy. Precast unit for forming a hyperbolic paraboloidal roof structure. 3,094,812, 6–25–63, Cl. 50—52.

Peelers Co., The: *See*—
Lapeyre, Fernand S. 3,070,832.

Peeling, Richard C., to Bethlehem Steel Co. Net structure and method of making. 3,111,060, 11–19–63, Cl. 87—13.

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Peen Plate, Inc.: *See*—
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Peeps, Donald J., to The De Vilbiss Co. Multi-liquid spray gun. 3,087,682, 4–30–63, Cl. 239—407.

Peeps, Donald J., to The De Vilbiss Co. Air flow control for pressure feed containers. 3,090,530, 5–21–63, Cl. 222—400.7.

Peer, Hendricus G., to Nederlandse Organisatie voor Toegepast-Natuurwetenschappelijk Onderzoek ten behoeve van. Process for the chlorination of allene. 3,110,740, 11–12–63, Cl. 260—654.

Peer, Hendricus G., and O. E. van Lohuizen, to Nederlandse Organisatie Voor Toegepast-Natuurwetenschappelijk Onderzoek Ten Behoeve Van Nijverheid. Process for the production of unsaturated hydrocarbons with three carbon atoms. 3,082,273, 3–19–63, Cl. 260—683.

Peer, Kenneth C.: *See*—
Price, Robert L., and Peer. 3,078,006.

Peerless Aluminum Foundry Co., Inc.: *See*—
Hardy, Peter S. 3,074,298.
Hardy, Peter S. 3,086,277.
Hardy, Peter S. 3,092,411.

Peerless Equipment Co.: *See*—
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Peerless Photo Products, Inc.: *See*—
Arnold, Francis T., Kniffin, Brewster, and Crouse. 3,107,596.

Peers, Charles H.: *See*—
Doe, Frederick H., Freeman, Lawson, Newman, Peers, and Young. 3,073,730.

Peet, George W., and L. F. X. Gowen, to United States of America, Navy. Conductive explosive primer mixture and device. 3,090,310, 5–21–63, Cl. 102—46.

Peet, John R.: *See*—
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Mowell, Roger W., and Peet. 3,073,343.

Peet, William H. Accumulator charging structure. 3,100,058, 8–6–63, Cl. 220—89.

Peet, William H., to Clark Equipment Co. Pressure loaded gear pump. 3,104,616, 9–24–63, Cl. 103—126.

Peeters, Jean, to Canadian Pittsburgh Industries Ltd. Package. 3,091,331, 5–28–63, Cl. 206—62.

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Keilsohn, Jacob J., and Peghiny. 3,090,944.

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Peham, John A.: *See*—
Peham, Engelbert J. and J. A. 3,097,447.

Pehr, Harold T. Combined salt and pepper dispenser. 3,096,910, 7–9–63, Cl. 222—142.5.

Pehr, Harold T. Container caps. 3,110,410, 11–12–63, Cl. 215—70.

Peickii, Vasalie L., to Federal-Mogul-Bower Bearings, Inc. High speed molding machine. 3,079,632, 3–5–63, Cl. 18—5.

Peickii, Vasalie L., to Federal-Mongul-Bower Bearings, Inc. Method of installing a shaft seal within a housing. 3,110,095, 11–12–63, Cl. 29—401.

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Peickii, Vasalie L., and J. E. Lepetich, to Federal-Mogul-Bower Bearings, Inc. Face seal. 3,086,782, 4–23–63, Cl. 277—92.

Peickii, Vasalie L., and J. E. Lepetich, to Federal-Mogul-Bower Bearings, Inc. Method of producing a face seal. 3,108,370, 10–29–63, Cl. 29—529.

Peiffer, Norman H., and E. S. Proctor, to Kaman Aircraft Corp. Blade pitch control mechanism for a helicopter. 3,095,931, 7–2–63, Cl. 170—160.25.

Pellet, Lester R. Self-cleaning brushes. 3,108,305, 10–29–63, Cl. 15—169.

Peirce, Earl H., to United States Steel Corp. Flow meter. 3,096,646, 7–9–63, Cl. 73—228.

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Kiefer, Harry J., Pekarek, and Zier. 3,080,246.

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Pekor, Charles B.: *See*—
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Pekor, Charles B., and F. K. Hanna, to United States Rubber Co. Buoy. 3,098,246, 7-23-63, Cl. 9—8.

Pelagatti, Vincenzo, to Fabbrica Italiana Magneti Marelli S.p.A. Control device of a window regulator in motor car doors. 3,088,727, 5-7-63, Cl. 268—126.

Pelak, Andrew. Trays. 3,095,093, 6-25-63, Cl. 211—126.

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Pelensky, Joseph, to Philco Corp. Laundry apparatus. 3,102,408, 9-3-63, Cl. 68—18.

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Pelikan, John M. Ignition systems for internal combustion engines. 3,096,752, 7-9-63, Cl. 123—149.

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Pelino, William M.: *See*—
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Pelino, William M., to Servo Corp. of America. Hot-box detector alarm circuit. 3,108,772, 10-29-63, Cl. 246—169.

Pelino, William M., to Servo Corp. of America. Hot box detector. 3,108,773, 10-29-63, Cl. 246—169.

Pelino, William M., and C. A. Gallagher, to Servo Corp. of America. Shunting aid for railway signalling circuits. 3,108,771, 10-29-63, Cl. 246—28.

Pelishek, Roy A. Humidity and temperature responsive thermostat. 3,080,465, 3-5-63, Cl. 200—138.

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Pell, Phil S. Cutter construction for cutting cables, solid bars and the like. 3,093,024, 6-11-63, Cl. 83—508.

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Pelletier, Joseph E. A. Double bed mattress. 3,090,972, 5-28-63, Cl. 5—352.

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Pelletier, Romeo. Traffic sign. 3,085,546, 4-16-63, Cl. 116—63.

Pellett, Fred G., and R. K. Flaskamp, to Owens-Illinois Glass Co. Vented closure. 3,071,276, 1-1-63, Cl. 215—56.

Pelley, Perry H., to Tru-Scale, Inc. Canopy construction. 3,081,579, 3-19-63, Cl. 50—61.

Pellicone, Joseph S., E. N. Dejewski, and L. Pezza, to Cheesebrough-Pond's Inc. Swab making apparatus. 3,090,080, 5-21-63, Cl. 19—143.5.

Pellon Corp.: *See*—
Hartmann, Ludwig. 3,101,994.
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Pellon, Joseph J., and W. G. Deichert, to American Cyanamid Co. Water-soluble linear polyamides and compositions containing the same. 3,108,991, 10-29-63, Cl. 260—78.

Pelm Research and Development Corp.: *See*—
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Peloggio, Achille. Thread-cutting device in linking machines. 3,081,722, 3-19-63, Cl. 112—252.

Peloggio, Achille. Driving device for linking machines. 3,103,902, 9-17-63, Cl. 112—25.

Pelosi, Joseph. Golfers club selection aid. 3,106,030, 10-8-63, Cl. 40—70.

Pelosi, Michael H., Jr., and G. J. Maleno, Jr., to CRS Industries Inc. Safety door switch. 3,102,176, 8-27-63, Cl. 200—61.62.

Peltier, Maurice L., and P. A. Rombau, to Societe de Produits Chimiques des Terres Rares. Process for separating samarium, europium and ytterbium from other rare earths. 3,102,783, 9-3-63, Cl. 23—24.

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Peltola, Veikko K., to Illinois Testing Laboratories, Inc. Pulsed resistance thermometers. 3,076,338, 2-5-63, Cl. 73—362.

Peltola, Veikko K., to Illinois Testing Laboratories, Inc. Pyrometer apparatus. 3,100,397, 8-13-63, Cl. 73—359.

Peltola, Veikko K., to Illinois Testing Laboratories, Inc. Eddy current tachometer indicator assembly for indicating revolutions per minute. 3,108,221, 10-22-63, Cl. 324—70.

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Pelton, Jay C., Jr.: *See*—
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Pelton, John F., and J. M. Koffskey, Jr., to Union Carbide Corp. Process of flame spraying a tungsten carbide-chromium carbide-nickel coating, and article produced thereby. 3,071,489, 1-1-63, Cl. 117—22.

Peltz, Kenneth J. Vibrasonic fishing lure. 3,071,884, 1-8-63, Cl. 43—17.1.

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Pence, Joan C. Partitioned hat box. 3,104,010, 9-17-63, Cl. 206—9.

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Pendergast, Raymond F. Polishing apparatus. 3,094,815, 6-25-63, Cl. 51—60.

Pendleton, David W., and M. Sussman. Transparent electronic display systems. 3,096,516, 7-2-63, Cl. 343—11.

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Penfold, Frederick T., to Lines Bros. Ltd. Baby-carriages and the like. 3,079,194, 2-26-63, Cl. 296—27.

Penfold, Vincent H., and R. E. Ireland, to W. E. O'Shiel. Current pulsing circuit which is sensitive to current changes. 3,099,756, 7-30-63, Cl. 307—132.

Pengilly, Brian W., to The Goodyear Tire & Rubber Co. Uranium compounds as catalysts in a process for preparing esters. 3,072,612, 1-8-63, Cl. 260—75.

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Penland, Lowell B., to National Automatic Tool Co., Inc. Positive drive for rotatable tools. 3,115,348, 12-24-63, Cl. 279—51.

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Penn Aircraft Products, Inc.: *See*—
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Penn, Arthur, and F. Marsh, to Simon-Carves Ltd. Means for retarding the movement of vehicles or the like. 3,075,476, 1-29-63, Cl. 104—256.

Penn Controls, Inc.: *See*—
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Matthews, Russell B. 3,089,014.
Pounds, Richard T. 3,086,147.
Wilder, Justin E. 3,094,599.

Penn, Ernest J., to General Motors Corp. Jet thrust reverser. 3,080,710, 3-12-63, Cl. 60—35.54.

Penn, Franz: *See*—
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Penn, Harry S. Esters of bile acid degradation products and a process for preparing same. 3,076,000, 1-29-63, Cl. 260—397.1.

Penn, Harry S. Test for cancer employing esters of bile acid degradation products. 3,087,862, 4-30-63, Cl. 167—84.5.

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Penn, Walter H., and F. G. Lotz, to Hartmann & Braun Aktiengesellschaft. Gas analyser based on the principle of thermal conductivity. 3,088,310, 5-7-63, Cl. 73—27.

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Penning, Kurt, and M. Ahrend, to Carl Zeiss Optische Werke. Stereoscopic map plotting device for transforming a physical three-dimensional movement into two two-dimensional movements. 3,100,265, 8-6-63, Cl. 250—220.

Penningroth, Herbert M., to General Motors Corp. Decoder mechanism. 3,074,051, 1-15-63, Cl. 340—164.

Penningroth, Herbert M., to General Motors Corp. Radiotelephone cabinet. 3,101,225, 8-20-63, Cl. 312—222.

Penningroth, Herbert M., to General Motors Corp. Shielded electrical coil assembly. 3,101,463, 8-20-63, Cl. 336—87.

Pennington, Edgar T., to Sylvania Electric Products Inc. Planar tube. 3,082,348, 3-19-63, Cl. 313—250.

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Pennington, Kermit M., and R. D. Swanson. Walk-in stairwell closet. 3,100,915, 8-20-63, Cl. 20—.5.

Pennington, Richard E. and G. L. Combination window sash lock and lift. 3,083,419, 4-2-63, Cl. 20—52.2.

Pennington, Wilfrid A., R. C. Harris, and G. F. Sharples, to The English Electric Co. Ltd. Air intakes for air aspirating aircraft engines. 3,104,522, 9-24-63, Cl. 60—35.6.

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Pennow, Willis A., deceased (C. C. Pennow, executrix), and C. H. Loch, to Westinghouse Electric Corp. Runway lighting unit. 3,113,720, 12-10-63, Cl. 240—1.2.

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Mockrin, Isadore, and Kowalski. 3,112,207.
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Schuster, Ludwig K., and Baldi. 3,112,281.
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Pennstrom, Robert G., to Union Carbide Corp. Balanced valve and seal construction. 3,095,897, 7-2-63, Cl. 137—454.2.

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Penta, Michael G. Encapsulated mailbox. 3,107,848, 10-22-63, Cl. 232—17.

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Peoples, Graydon, to Lennox Industries, Inc. Dual blower and burner for furnaces. 3,111,978, 11-26-63, Cl. 158—1.

Peoples, Graydon, to Lennox Industries Inc. Dual fuel burner construction. 3,111,979, 11-26-63, Cl. 158—11.

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Jarmotz, Paul, and Pepinsky. 3,072,863.

Peplin, Stephen C., to Lakewood Mfg. Co. Ball wheel with reinforced resilient insert. 3,101,945, 8-27-63, Cl. 273—49.

Peppard, Donald F., E. P. Horwitz, and G. W. Mason, to United States of America, Atomic Energy Commission. Separation of europium from other lanthanide rare earths by solvent extraction. 3,077,378, 2-12-63, Cl. 23—23.

Peppard, Donald F., and G. W. Mason, to United States of America, Atomic Energy Commission. Process for separating yttrium from the rare earths by solvent extraction. 3,110,556, 1-112-63, Cl. 23—23.

Pepperell Mfg. Co.: *See*—
Hilt, Eugene W., and Whalon. 3,107,397.

Pepplatt, Harry J., to General Electric Co. Low noise crystal diode mixer. 3,092,774, 6-4-63, Cl. 325—445.

Pepworth, Frederick J., to Associated Electrical Industries Ltd. Electric brush gear for holding and lifting. 3,075,110, 1-22-63, Cl. 310—240.

Pequignot, Michel. Device for the extreme purification of water or other liquid. 3,091,577, 5-28-63, Cl. 202—189.

Per Corp.: *See*—
Hobson, Russell B., Jr. 3,100,190.

Pera, John D.: *See*—
Buckman, Stanley J., Pera, and Funderburk. 3,085,893.

Péras, Lucien: *See*—
Bunodiere, Andre, and Péras. 3,078,391.

Peras, Lucien, to Regie Nationale des Usines Renault. Door checks, notably for automobile doors. 3,070,829, 1-1-63, Cl. 16—85.

Péras, Lucien, to Regie Nationale des Usiness Renault. Disk brakes. 3,072,221, 1-8-63, Cl. 188—73.

Péras, Lucien, to Regie Nationale des Usines Renault. Front axle suspension of vehicles. 3,074,737, 1-22-63, Cl. 280—96.2.

Péras, Lucien, to Regie Nationale des Usines Renault. Door assembly for a vehicle. 3,074,755, 1-22-63, Cl. 296—44.

Péras, Lucien, to Regie Nationale des Usines Renault. Conveyors. 3,083,650, 4-2-63, Cl. 104—172.

Péras, Lucien, to Regie Nationale des Usines Renault. Devices for ensuring the fluid-tightness of hydraulic cooling systems of engines. 3,083,701, 4-2-63, Cl. 123—41.54.

Péras, Lucien, to Regie Nationale des Usines Renault. Braking power distributors. 3,084,002, 4-2-63, Cl. 303—22.

Péras, Lucien, to Regie Nationale des Usines Renault. Windscreen wiper. 3,086,239, 4-23-63, Cl. 15—250.29.

Péras, Lucien, to Regie Nationale des Usines Renault. Air line lubricator. 3,086,615, 4-23-63, Cl. 184—55.

Péras, Lucien, to Regie Nationale des Usines Renault. Epicyclic gearboxes for transmission mechanisms. 3,091,981, 6-4-63, Cl. 74—759.

Peras, Lucien, to Regie Nationale des Usines Renault. Auxiliary apparatus for automatic line welding, notably fuel tanks. 3,092,712, 6-4-63, Cl. 219—81.

Péras, Lucien, to Regie Nationale des Usines Renault. Foundry machines. 3,095,620, 7-2-63, Cl. 22—64.

Péras, Lucien, to Regie Nationale des Usines Renault. Change-speed gears for engine and transmission mechanism units. 3,095,764, 7-2-63, Cl. 74—763.

Peras, Lucien, to Regie Nationale des Usines Renault. Safety device for the guiding wheel of a vehicle. 3,099,491, 7-30-63, Cl. 301—126.

Peras, Lucien, to Regie Nationale des Usines Renault. Methods of manufacturing hydrodynamic torque transmitters. 3,101,672, 8-27-63, Cl. 103—115.

Peras, Lucien, to Regie Nationale des Usines Renault. Overhead-camshaft rocker-arm. 3,102,626, 8-27-63, Cl. 74—559.

Peras, Lucien, to Regie Nationale des Usines Renault. Multichannel spectral analyzer with internal standard control of light integration period. 3,102,921, 9-3-63, Cl. 88—14.

Peras, Lucien, to Regie Nationale des Usines Renault. Hydraulic lifting devices for tractors. 3,103,147, 9-10-63, Cl. 91—48.

Peras, Lucien, to Regie Nationale des Usines Renault. Front axle and steering assembly of automobile vehicle. 3,105,699, 10-1-63, Cl. 280—96.2.

Peras, Lucien, to Regie Nationale des Usines Renault. Method and apparatus for the preparation of ferrous oxide. 3,105,757, 10-1-63, Cl. 75—1.

Péras, Lucien, to Regie Nationale des Usines Renault. Automatic chain tensioning device. 3,111,039, 11-19-63, Cl. 74—242.11.

Péras, Lucien, to Regie Nationale des Usines Renault. Gear change control device for mounting under the steering wheel or on the instrument panel. 3,111,041, 11-19-63, Cl. 74—484.

Péras, Lucien, to Regie Nationale des Usines Renault. Means for controlling hydraulic cylinders and like actuators. 3,111,062, 11-19-63, Cl. 92—13.

Péras, Lucien, to Regie Nationale des Usines Renault. Upholstery of seats and seat backs, in particular for the seats of automobile vehicles. 3,111,345, 11-19-63, Cl. 297—455.

Peras, Lucien, to Regie Nationale des Usines Renault. Rotors of rotary engines. 3,111,884, 11-26-63, Cl. 91—56.

Peras, Lucien, to Regie Nationale des Usines Renault. Waste conveyors. 3,112,025, 11-26-63, Cl. 198—174.

Peras, Lucien, to Regie Nationale des Usines Renault. Flexible bearings. 3,112,141, 11-26-63, Cl. 308—184.

Peras, Lucien, to Regie Nationale des Usines Renault. Devices for gradually establishing an electric current, notably for controlling electromagnetic clutches. 3,112,418, 11-26-63, Cl. 310—95.

Peras, Lucien, to Regie Nationale des Usines Renault. Valve tappets of internal combustion engines. 3,112,739, 12-3-63, Cl. 123—90.

Péras, Lucien, to Regie Nationale des Usines Renault. Link-mounted disc brakes. 3,115,953, 12-31-63, Cl. 188—73.

Percifield, Edward K.: *See*—
Carrico, Ralph T., Ford, Halbrooks, Beyersdorfer, and Percifield. 3,111,860.

Percival, Joseph W., and R. W. Cook, to Westinghouse Electric Corp. Stereophonic receiving apparatus. 3,099,714, 7-30-63, Cl. 179—15.

Percival, William, to J. Goddard & Sons Ltd. Intermittent fountain feed polish applicator with composite head. 3,090,060, 5-21-63, Cl. 15—131.

Percival, Worth H.: *See*—
Flynn, Gregory, Jr., and Percival. 3,080,706.

Perconti, Tina. Restraining device. 3,084,686, 4-9-63, Cl. 128—133.

Percy, Allan W., and W. J. Zollinger, to The Pure Oil Co. Fuel oil and method of operating fuel oil furnaces. 3,112,789, 12-3-63, Cl. 158—117.5.

Percy, James W. Metallurgical process control. 3,080,755, 3-12-63, Cl. 73—355.

Perdigao, Manuel F.: *See*—
Williams, Frank R., Perdigao, and Boonstra. 3,104,985.

Perdijk, Henrdik J. R.: *See*—
Hovingh, Albertus R., and Perdijk. 3,102,764.

Perdijk, Hendrik J. R., and J. J. N. Stouten, to North American Philips Co., Inc. Method of manufacturing a non-evaporating getter and getter made by this method. 3,082,174, 3-19-63, Cl. 252—181.6.

Perdue, Jack, to Electro-Hydraulics Ltd. Shock absorbers. 3,083,000, 3-26-63, Cl. 267—64.

Perdue, Jack, and C. B. Vere-Neilson, to Electro-Hydraulics Ltd. Aircraft undercarriage. 3,096,051, 7-2-63, Cl. 244—100.

Pereiman, Melvin, and E. Farkas, to Eli Lilly and Co. 19-nor-4, 9(10)-steroids and process. 3,086,027, 4-16-63, Cl. 260—397.3.

Pereny, Louis, E. G. Gibbs, and C. O. Pyron, to Protective Treatments, Inc. Liquid adhesive compositions. 3,090,694, 5-21-63, Cl. 106—177.

Perez Del Valle, Alfonso, to Lumineon, S.L. Load fall-off circuit breaker. 3,088,009, 4-30-63, Cl. 200—102.

Perez, Guillermo, to Sperry Rand Corp. Selective platform tensioning mechanism. 3,094,218, 6-18-63, Cl. 211—51.

Perfect Circle Corp.: *See*—
Marie, Robert. 3,086,608.
Teetor, Ralph R. 3,090,460.
Vanderbilt, Vern C., Jr. 3,099,154.

Perfect Equipment Corp.: *See*—
Sunday, Richard K., Van Dolsen, Moore, and Jennings. 3,078,526.

Perfecting Service Co.: *See*—
Bass, John E., Jr. 3,085,219.
Poetzsch, Paul H., and Lowe. 3,110,537.
Williamson, John G., Jr. 3,089,302.

Perfection Automotive Products Corp.: *See*—
Osterhoudt, Harry. 3,074,253.
Osterhoudt, Harry. 3,096,084.
Osterhoudt, Harry. 3,105,368.

Perfection Pipe Nipple Co.: *See*—
Jacobson, Irvin D. 3,093,161.

Perfex Corp.: *See*—
Panthofer, Ernest H. 3,093,189.

Perger, Ernst. Gear hobbing machines. 3,103,143, 9-10-63, Cl. 90—4.

Perhacs, Leslie. Live center. 3,078,884, 2-26-63, Cl. 142—53.

Perl, Cesare A., G. Rossi, and G. Michieli, to Montecatini Societa Generale per l'Industria Mineraria e Chimica. Alpha-dialkylthio-(dithio)-phosphoryl alpha - phenylacetic esters of cyano-hydrin, and parasiticidal composition containing said esters. 3,080,277, 3-5-63, Cl. 167—30.

Perlard, John N.: *See*—
Waldron, George W., and Perlard. 3,080,215.

Périat, Robert: *See*—
Kircher, René, and Périat. 3,095,267.

Périères, René: *See*—
Páris, René A., and Périères. 3,092,455.

Perilhou, Jean R.: *See*—
Bansard, Pierre M. P., Dujols, and Perilhou. 3,091,683.

Perilloux, Charles J., to Texaco Inc. Method and apparatus for taking fluid samples from a flowing line. 3,084,554, 4-9-63, Cl. 73—422.

Perlstein, Louis. Reinforced frame member of elastomeric material. 3,092,877, 6-11-63, Cl. 20—56.4.

Perini, Anthony R. Collapsible book rack. 3,095,974, 7-2-63, Cl. 211—43.

Perini Electronic Corp.: *See*—
Kilburg, James. 3,081,047.

Perino, Dominic A., and J. D. Andrews, to Milprint, Inc. Opener for commodity container. 3,088,654, 5-7-63, Cl. 229—85.

Perino, Peter R., to Statham Instrument, Inc. Linear electrical compensation circuits. 3,085,193, 4-9-63, Cl. 323—69.

Perkerson, Olivia. Hair straightening device. 3,074,416, 1-22-63, Cl. 132—40.

Perkin-Elmer Corp., The: *See*—
McLaughlin, Robert D., Landsman, and Borden. 3,093,736.
Mehr, Morton H. 3,109,984.
Parker, Leslie K. 3,113,264.
Saperstein, Sol. 3,079,835.
Scott, Larkin B. 3,071,320.
Woodcock, Eugene L., Ducker, and Golay. 3,094,001.

Perkins, Arthur F.: *See*—
Brune, William L., A. F. Perkins, and J. C. Perkins, Jr. 3,105,937.

Perkins, Baker, Holdings Ltd.: *See*—
Atkins, John H. C. 3,115,237.

Perkins, Carl C., Jr.: *See*—
Mathews, William K., and Perkins. 3,072,967.

Perkins, Charles H., to Robertshaw-Fulton Controls Co. Thermally responsive device. 3,082,626, 3-26-63, Cl. 73—368.4.

Perkins, Charles M., to Eaton Mfg. Co. Automotive device. 3,105,395, 10-1-63, Cl. 74—745.

Perkins, Donald W., to General Electric Co. Spherical coordinate proportional control device. 3,116,468, 12-31-63, Cl. 336—30.

Perkins, Fred D., Jr., to Kimberly-Clark Corp. Consistency responsive device. 3,071,962, 1-8-63, Cl. 73—59.

Perkins, Frederick M., Jr.: *See*—
Gaskell, Merwin H., Lindley, and Perkins. 3,083,764.
Gaskell, Merwin H., Lindley, and Perkins. 3,104,702.

Perkins, Glenn H., to Oxford Paper Co. Stabilized methylolated polyacrylamide aqueous solutions and process for preparing same. 3,072,587, 1-8-63, Cl. 260—29.4.

Perkins, J. Carter, Jr.: *See*—
Brune, William L., A. F. Perkins, and J. C. Perkins, Jr. 3,105,937.
Scott, Richard, Brightman, and Perkins. 3,111,557.

Perkins, Kenneth, to The Cincinnati Butchers' Supply Co. Cam type spacing feeder. 3,081,713, 3-19-63, Cl. 104—250.

Perkins, Merlyn H.: *See*—
Behrndt, Marianne E., Gledd, Perkins, and Weed. 3,091,566.

Perkins Pipe Linings Inc.: *See*—
Perkins, Warren E. 3,105,282.

Perkins, Richard E., to Sylvania Electric Products Inc. Wire fastening method. 3,100,254, 8-6-63, Cl. 219—58.

Perkins, Robert L., and J. G. Wilson, to Sperry Rand Corp. Pneumatically positioned record member. 3,108,259, 10-22-63, Cl. 340—174.1.

Perkins, Warren E., to Union Carbide Corp. Thermally insulated bulk storage containers. 3,088,787, 5-7-63, Cl. 312—214.

Perkins, Warren E., to Perkins Pipe Linings Inc. Trowel for pipe lining material. 3,105,282, 10-1-63, Cl. 25—38.

Perkins, Wilder E., and E. J. Justus, ½ to Raybestos-Manhattan, Inc., and ½ to Beloit Iron Works. Suction box belt. 3,077,925, 2-19-63, Cl. 162—367.

Perkins, William C., and E. A. Van Der Wal, to Collins Radio Co. Fast switching bistable thyratron control circuit. 3,113,240, 12-3-63, Cl. 315—84.5.

Perkovich, Mark J., to General Foods Corp. Scouring pad. 3,097,387, 7-16-63, Cl. 15—209.

Perkovich, Mark J., C. R. Wardwell, and E. H. Wolfe, to General Foods Corp. Scouring pads. 3,104,915, 9-24-63, Cl. 300—21.

Perkow, Werner, ½ to Norddeutsche Affinerie and ½ to C. F. Spiess & Sohn. Herbicidal method employing 1-phenyl-2,3-dimethyl-4-chloro-pyrazolone and salts thereof. 3,092,483, 6-4-63, Cl. 71—2.5.

Perk-Pak Packing Inc.: *See*—
Baran, John. 3,083,100.

Perl, Albert H. F., to Joseph Billingham, Ltd. Can openers. 3,088,203, 5-7-63, Cl. 30—23.

Perl, Alexander I., to Foster Wheeler Corp. Pressure vessel closure. 3,112,842, 12-3-63, Cl. 220—46.

Perl, Richard L., to The Tappan Co. Forced vented cooking top and oven. 3,089,479, 5-14-63, Cl. 126—21.

Perl, Richard L., to The Tappan Co. Liquid detergent dispenser. 3,107,824, 10-22-63, Cl. 222—207.

Perla, Martin R., to The Singer Mfg. Co. Two speed drive for sewing machines. 3,095,765, 7-2-63, Cl. 74—785.

Perla, Martin R., to The Singer Co. Sewing machine for automatic embroidery stitching. 3,113,536, 12-10-63, Cl. 112—158.

Perla, Martin R., to The Singer Co. Pattern cam selecting mechanism for zigzag sewing machines. 3,113,538, 12-10-63, Cl. 112—158.

Perlick Co., Inc., The: *See*—
Perlick, Hilbert R. 3,077,202.

Perlick, Hilbert R., to The Perlick Co., Inc. Beer keg tap. 3,077,202, 2-12-63, Cl. 137—324.

Perlini, Robert S., to International Business Machines Corp. Tape reel. 3,088,689, 5-7-63, Cl. 242—71.8.

Perlman, David, to Olin Mathieson Chemical Corp. Synthesis of cobamides. 3,093,552, 6-11-63, Cl. 195—114.

Perlman, Harry S., and J. Levin. Means for dispensing toilet paper in wet or dry condition. 3,084,664, 4-9-63, Cl. 118—235.

Perlman, Moses. Semi-automatic slider mount for zipper assembly. 3,110,414, 11-12-63, Cl. 221—22.

Perlman, Preston L., to Schering Corp. Steroid-amino acid compositions for preventing negative nitrogen balance. 3,105,010, 9-24-63, Cl. 167—77.

Perlman, Sidney H., to Temperature Engineering Corp. Glove assembly for controlled atmosphere enclosure. 3,103,016, 9-10-63, Cl. 2—270.

Perlman, Sidney H., to Temperature Engineering Corp. Controlled atmosphere oven. 3,113,199, 12-3-63, Cl. 219—35.

Perls, Thomas A., J. J. Hartog, and B. L. Mattes, to Lockheed Aircraft Corp. Pyroelectric squaring element. 3,088,670, 5-7-63, Cl. 235—193.

Perlstein, Edward. Combination letter with message carrying unit and return mailing piece. 3,111,258, 11-19-63, Cl. 229—92.3.

Permaglass, Inc.: *See*—
Nitschke, Norman C., and McMaster. 3,087,316.

Permali Ltd.: *See*—
Douglas, Robert I. 3,071,325.

Perma-Line Mfg. Corp. of America: *See*—
Lipkins, Norman. 3,070,822.

Permalux Co., The: *See*—
Molyneaux, Robert J., and Goldich. 3,094,250.

Permanent Filter Corp.: *See*—
Smith, Paul A. 3,080,972.

Permanente Cement Co.: *See*—
Zagar, Peter G., Burns, Falcioni, and Kleiber. 3,070,870.

Perma-Pur, Inc.: *See*—
Gross, George E. 3,109,288.

Perma Tubes Ltd.: *See*—
Batcheller, Frederick A. 3,087,241.
Hunkeler, Jules W. 3,084,088.

Perme, Rudolph J.: *See*—
Floyd, Edwin, Jr., and Perme. 3,076,490.

Permold Co., The: *See*—
Fahlman, Everett G., and Brown. 3,074,769.

Permuta Closures Ltd.: *See*—
Wood, Arthur G. 3,109,547.
Wood, Arthur G. 3,109,548.

Permutit Co. Ltd., The: *See*—
Davis, John B. 3,085,970.

Pernick, David. Machine for converting tubular fabric into a web of fabric. 3,105,283, 10-1-63, Cl. 26—1.

Perner, Raymond F.: *See*—
Culver, Frederick H., Haeber, Lagucki, and Perner. 3,101,118.

Pernetta, Charles. Rectilinearly guided members. 3,093,424, 6-11-63, Cl. 308—6.

Perona, Giovanni: *See*—
Bassi, Alberto, Corsetti, Mantega, and Perona. 3,102,090.

Perovich, Batris W. Troweler. 3,106,006, 10-8-63, Cl. 25—38.

Perpetuum Ebner, Fabrik fur Feinmechanik und Elektrotechnik Steidiner & Co., Kom.-Ges.: *See*—
Knopfle, Walter J., and Hagenah. 3,081,094.

Perras, Philippe: *See*—
Bo, Gilbert, Fichet, Perrot, and Perras. 3,079,371.
Bo, Gilbert, and Perras. 3,109,863.

Perraut, Jean M., and H. Michel, to Compagnie de Saint-Gobain. Apparatus for automatically loading and changing bobbins. 3,075,714, 1-29-63, Cl. 242—18.

Perreault, Donald A., to General Dynamics Corp. Blocking oscillator controlled electronic switch. 3,071,701, 1-1-63, Cl. 307—88.5.

Perrella, Guido, to Clix Fastener Corp. Slide fastener tape joining device. 3,093,893, 6-18-63, Cl. 29—200.

Perrelli, John, to Filper Corp. Method of removing pits from drupe halves. 3,113,602, 12-10-63, Cl. 146—28.

Perrelli, Nicholas J. Untimed method of and apparatus for making cartons. 3,111,885, 11-26-63, Cl. 93—49.

Perret, Jean. Apparatus for manufacturing a watch glass. 3,110,929, 11-19-63, Cl. 18—5.

Perri, Andrew. Multiple purpose auto carrier and dump box. 3,103,290 9-10-63, Cl. 214—450.

Perri, Frank B.: *See*—
Joiner, Edgar E., and F. B. and P. R. Perri. 3,086,566.

Perri, Giovanni, and G. Tubiello, to Montecatini, Societa General per l'Industria Mineraria e Chimica. Process for enriching of phosphoric anhydride phosphate minerals containing calcium carbonate. 3,113,838, 12-10-63, Cl. 23—165.

Perri, Peter R.: *See*—
Joiner, Edgar E., and F. B. and P. R. Perri. 3,086,566.

Perriam, Leonard T.: *See*—
Goldberg, Samuel S., and Perriam. 3,075,145.

Perrin, Bernard, to Molins Machine Co. Ltd. Reconstituting tobacco. 3,081,779, 3-19-63, Cl. 131—140.

Perrin, Jack L.: *See*—
Layton, J. C., and Perrin. 3,073,541.

Perrin, Jack L., to Towlsaver, Inc. Method of automatically dismounting rolled web material. 3,089,659, 5-14-63, Cl 242—55.2.

Perrinjaquet, Roger P. Tooth brush actuating mechanism 3,104,405, 9-24-63, Cl. 15—22.

Perrins, Allen R., to The Superior Electric Co. Voltage surge protection network. 3,099,789, 7-30-63, Cl. 323—9.

Perrochat, Jean, to A. Raymond. Molding fastener. 3,110,068, 11-12-63, Cl. 24—73.

Perron, Robert R., and B. C. Wiggin, to Advanced Instruments, Inc. Spectrometry apparatus. 3,074,308, 1-22-63, Cl. 88—14.

Perron, Yvon G., and L. C. Cheney. Alpha-alkoxy, alpha, alpha-dialkyl-methyl penicillins. 3,082,204, 3-19-63, Cl. 260—239.1.

Perron, Yvon G., and W. F. Minor, to Bristol-Myers Co. 3-(3-indolyl)pyrrolidines. 3,109,844, 11-5-63, Cl. 260—247.2.

Perrone, Arrigo, and A. Salvi. Spacer for twin and multiple conductors of high voltage aerial transmission lines. 3,107,272, 10-15-63, Cl. 174—40.

Perrot, André: *See*—
Bo, Gilbert, Fichet, Perrot, and Perras. 3,079,371.

Perrotto, Joseph, to International Air-Springs, Inc. Auxiliary safety brake mechanism for motor vehicles. 3,114,440, 12-17-63, Cl. 188—152.

Perrus, Roger, to Esso Standard Societe Anonyme Francaise. Acetate greases. 3,083,163, 3-26-63, Cl. 252—42.

Perry, Arthur J. Foldable barricade and sign frame. 3,094,802, 6-25-63, Cl. 40—125.

Perry, Charles I., Jr. Machine for forming highway markers in situ. 3,086,431, 4-23-63, Cl. 94—39.

Perry, Clarence H.: *See*—
Tebb, Bernard, and Perry. 3,073,562.

Perry, D Cameron, to Armco Steel Corp. Methods of producing extreme flatness in heat treated stainless steel and the like. 3,094,442, 6-18-63, Cl. 148—12.

Perry, Dan E., to Phillips Petroleum Co. Method and apparatus for molding hollow plastic articles. 3,100,317, 8-13-63, Cl. 18—5.

Perry, Daniel E.: *See*—
Doyle, Robert, and Perry. 3,112,522.

Perry, Donald D.: *See*—
Mann, David J., Perry, and Dudak. 3,083,235.
Schaeffer, Paul F., and Perry. 3,086,895.

Perry, Edward G., to Texas Instruments Inc. Apparatus for recording geophysical signals on a depth basis. 3,085,845, 4-16-63, Cl. 346—33.

Perry, Edward G., and A. L. Wade, to Texas Instruments Inc. Method and apparatus for effecting corrections on records. 3,080,545, 3-5-63, Cl. 340—15.5.

Perry, Frank L., Jr.: *See*—
Kleeberg, Gunther K. E., and Perry. 3,083,346.

Perry, Franklin W.: *See*—
Bennett, John W., and Perry. 3,100,113.

Perry, Frederick G., to Texas Instruments Inc. Miniaturized printed circuit electrical switching device. 3,095,486, 6-25-63, Cl. 200—122.

Perry, Frederick G., A. J. Grenier, and J. J. Wilson, III, to Texas Instruments Inc. Electrical control device. 3,099,732, 7-30-63, Cl. 200—122.

Perry, Gerald H., and E. W. Shallow, to National Research Development Corp. Electronic storage and switching arrangements. 3,087,070, 4-23-63, Cl. 307—88.

Perry, Gerald H., and E. W. Shallow, to International Business Machines Corp. Electronic circuits. 3,113,296, 12-3-63, Cl. 340—174.

Perry, Henry: *See*—
Dawson, Fred, Perry, and Peterson. 3,110,989.
Peterson, Evald O., Rodes, and Perry. 3,090,055.

Perry, Holt R., to Continental Carbon Co. Apparatus for carbon black manufacture. 3,102,790, 9–3–63, Cl. 23—259.5.

Perry, John C., and M. G. Kunec. Three-dimensional display system. 3,079,585, 2–26–63, Cl. 340—23.

Perry, Joseph A., Jr., to Cherry-Burrell Corp. Mounting for force measuring device. 3,072,209, 1–8–63, Cl. 177—179.

Perry, Joseph A., Jr., to Cherry-Burrell Corp. Temperature error compensator. 3,099,156, 7–30–63, Cl. 73—141.

Perry, Joseph J., Sr.: *See*—
Crowe, Wylie W., and Livar. 3,111,573.

Perry, Kenneth R., to Pye Ltd. Control and indicating arrangement. 3,072,327, 1–8–63, Cl. 235—61.

Perry, Kenneth R., and M. C. W. Andrews, to Pye Ltd. Electronic time cycled respirator. 3,101,708, 8–27–63, Cl. 128—29.

Perry, Lindsey R., and W. E. Rowe, to Columbia Broadcasting System, Inc. Process for photographically forming color screens. 3,080,231, 3–5–63, Cl. 96—35.

Perry, Robert H., Jr., to Esso Research and Engineering Co. 1,3-cyclododecadiene and method of preparation. 3,093,693, 6–11–63, Cl. 260—666.

Perry, Robert O., and D. R. Holbert, to Sinclair Research, Inc. Method for polymerizing liquid resin-forming materials. 3,114,419, 12–17–63, Cl. 166—33.

Perry Rubber Co.: *See*—
Adelman, Edward A. 3,107,786.

Perry, Thomas E.: *See*—
Garmy, Robert J., and Perry. 3,108,151.

Perry, Wallace: *See*—
Davis, Phil E. 3,089,264.

Perry, Willard P., deceased; The Philadelphia National Bank, executor. Steam generating apparatus. 3,101,588, 8–27–63, Cl. 60—31.

Perry, William A., to Ingersoll-Rand Co. Engine control. 3,099,984, 8–6–63, Cl. 123—148.

Perry, William M., to General Aniline & Film Corp. Non-alcoholic aerosol film forming compositions. 3,100,179, 8–6–63, Cl. 167—87.1.

Persidsky, Maxim D. Vacuum sealed rotary glass valve. 3,111,136, 11–19–63, Cl. 137—315.

Persinger, Laverne O. and M. L., to Big Boy Mfg. Co., a division of Seidelhuber Steel Rolling Mill Corp. Barbecue equipment. 3,085,562, 4–16–63, Cl. 126—25.

Persinger, Merle L.: *See*—
Persinger, Laverne O. and M. L. 3,085,562.

Person, Ernest H., to Allied Thermal Corp. Air diffuser. 3,107,597, 10–22–63, Cl. 98—40.

Person, Herman R., to Dale Electronics, Inc. Miniature multiple surge arrestor. 3,112,429, 11–26–63, Cl. 317—74.

Personal Products Corp.: *See*—
Curran, Irene S., Glielmi, and Lafortezza. 3,078,989.

Persson, Karl G. A., to LKB-Produkter Fabriaaktiebolag. Microtome with illumination and observation means. 3,103,844, 9–17–63, Cl. 83—167.

Persson, Karl R., to Ahlen & Akerlund Forpackning, AB. Foldable blanks, and cartons, boxes, trays or packing cases made therefrom. 3,112,854, 12–3–63, Cl. 229—39.

Persson, Per-Oskar. Air conditioning apparatus. 3,092,477, 6–4–63, Cl. 55—196.

Persson, Per W. S., to Svenska Rotor Maskiner Aktiebolag. Regenerative heat exchangers. 3,072,182, 1–8–63, Cl. 165—9.

Perthen, Johannes F., and H. K. Steudel; said Steudel assor. to said Perthen. Linear dimension gauge. 3,088,591, 5–7–63, Cl. 209—88.

Pertrix-Union G.m.b.H.: *See*—
Huber, Richard. 3,098,771.

Perucca, Pietro. Machine for the preparation of coffee infusion. 3,098,424, 7–23–63, Cl. 99—302.

Perusse, Walter L. Clip for securing an article to a table. 3,089,211, 5–14–63, Cl. 24—259.

Pervier, Charles F., to Amot Controls Corp. Vibration responsive trip valve assembly. 3,109,441, 11–5–63, Cl. 137—46.

Perzyk, Conrad J., to Ford Motor Co. Dynamoelectric machine. 3,089,047, 5–7–63, Cl. 310—239.

Pesarek, Walter: *See*—
Varadi, Louis E., Bourque, and Pesarek. 3,098,355.

Pesce, Gabriel V., to American Brake Shoe Co. Hydraulic pumps. 3,108,544, 10–29–63, Cl. 103—162.

Pesch, Anthony W., to International Paper Co. Process for preparation of fibers having differing characteristics. 3,085,927, 4–16–63, Cl. 162—55.

Pesch, Willem: *See*—
Nelemans, Johannes E., Pecasse, Pesch, and Verstrijden. 3,105,067.

Pesel, Harry F.: *See*—
Northern, Harry O., Pesel, Pruitt, and White. 3,115,032.

Pesenti, Pierre, to Commissariat a l'Energie Atomique. Head for remote manipulators. 3,111,230, 11–19–63, Cl. 214—1.

Peshel, Robert L., and L. M. Hoffman, to Precision Instrument Co. Low power tape drive mechanism. 3,114,512, 12–17–63, Cl. 242—55.12.

Pesola, Raymond H., to Minneapolis-Honeywell Regulator Co. Control apparatus. 3,081,968, 3–19–63, Cl. 244—76.

Pesson, Marcel. Triazolo (4-3,b) pyridazines. 3,079,392, 2–26–63, Cl. 260—250.

Pestronk, Saul M., and E. Mauro, to Post Mfg. Co. Headgear. 3,107,356, 10–22–63, Cl. 2—3.

Pet Milk Co.: *See*—
Hodson, Adrian Z., and Miller. 3,080,235.

Peter, Eugenie. Convertible tables. 3,095,833, 7–2–63, Cl. 108—3.

Peter, Julius: *See*—
Bartl, Herbert, and Peter. 3,111,500.

Peter, Julius, K.-L. Schmidt, and E. Müller, ½ to Farbenfabriken Bayer Aktiengesellschaft, and ½ to Mobay Chemical Co. Polyurethane plastics. 3,085,993, 4–16–63, Cl. 260—75.

Peter Paul Electronics Co.: *See*—
Mangiafico, Paul and P. J., and Seybold. 3,082,359.

Petering, Harold G., and H. H. Fall; to The Upjohn Co. Isoalloxazines. 3,077,474, 2–12–63, Cl. 260—251.5.

Peterkin, Melvin E., and S. S. Kurtz, Jr., to Sun Oil Co. Artificial board and process for preparing same. 3,096,297, 7–2–63, Cl. 260—9.

Petermann, Johannes H. and N. A., to Olympia Werke AG. Magnetic data recording apparatus. 3,096,521, 7–2–63, Cl. 346—74.

Petermann, Nora A.: *See*—
Petermann, Johannes H. and N. A. 3,096,521.

Petermeier, Edwin F. Bale loading apparatus. 3,102,625, 9–3–63, Cl. 198—7.

Peters, Adolph T., and R. G. La Valley, to The Dow Chemical Co. Preparation of foundry cores. 3,108,340, 10–29–63, Cl. 22—193.

Peters, Beldon A.: *See*—
Carlton, Louis A., and Peters. 3,075,585.

Peters, Beldon A., L. A. Carlton, E. Rich, and H. M. Buck, to Jersey Production Research Co. Subsurface parker inflating pump. 3,083,774, 4–2–63, Cl. 166—187.

Peters, Bruce A.: *See*—
Ennis, Joseph F., and Peters. 3,095,045.

Peters, Carl W. Door and window water shield. 3,096,816, 7–9–63, Cl. 160—215.

Peters, Charles J., to Sylvania Electric Products Inc. Magnetic tape transducer. 3,084,227, 4–2–63, Cl. 179—100.2.

Peters, Clifford M.: *See*—
Brown, Norman F., and Peters. 3,095,819.
Dinning, Robert W., and Peters. 3,073,392.
Scott, Vernon B., and Peters. 3,071,002.

Peters Co., The: *See*—
Colt, Victor L., and Willock. 3,093,168.

Peters, Don L.: *See*—
Scott, John N., Jr., Alexander, and Peters. 3,091,803.

Peters, Donald L., to Phillips Petroleum Co. Injection molding of plastic materials. 3,077,636, 2–19–63, Cl. 18—30.

Peters, Donald L., and J. N. Scott, Jr., to Phillips Petroleum Co. Injection molding of plastic materials. 3,093,865, 6–18–63, Cl. 18—42.

Peters, Edwin F., and B. L. Evering, to Standard Oil Co. Polymerization process. 3,082,195, 3–19–63, Cl. 260—93.7.

Peters, Erhardt N. Arrow and projector therefor. 3,085,560, 4–16–63, Cl. 124—23.

Peters, Ernest J., to United States of America, Atomic Energy Commission. Method of manufacture of metal encased core material. 3,091,847, 6–4–63, Cl. 29—471.5.

Peters, Frank J.: *See*—
Dell, Joseph C., Fauber, Poe, and Peters. 3,070,868.

Peters, Fretimut: *See*—
Garten, Wilhelm, Debmelt, von Dobren, and Peters. 3,089,913.

Peters, Grace A.: *See*—
Hechenbleikner, Ingenuin, and Peters. 3,102,884.

Peters, Grace A., to American Cyanamid Co. Tertiary phosphine sulfides and method of preparing same. 3,079,427, 2–26–63, Cl. 260—485.

Peters, George T.: *See*—
Melikian, Gorken, and Peters. 3,093,470.

Peters, Harold P., to Whirlpool Corp. Home appliance. 3,096,885, 7–9–63, Cl. 248—240.

Peters, Henry, to Bell Telephone Laboratories, Inc. Method of bonding polymers and articles produced. 3,111,451, 11–19–63, Cl. 161—216.

Peters, Henry F., to Lukens Steel Co. Radiation shielding plastic clad. 3,114,839, 12–17–63, Cl. 250—108.

Peters, Irma F.: *See*—
Dell, Joseph C., Fauber, Poe, and Peters. 3,070,868.

Peters, John. Stand-off ladder bracket. 3,072,218, 1–8–63, Cl. 182—214.

Peters, John G.: *See*—
Cantrell, Troy L., and Peters. 3,079,339.
Cantrell, Troy L., and Peters. 3,095,285.
Cantrell, Troy L., Peters, and Smith. 3,072,572.

Peters, John H., 3d, to United Aircraft Corp. Method of making hollow articles. 3,097,620, 7–16–63, Cl. 113—52.

Peters, Kurt. Separation of lithium isotopes. 3,085,852, 4–16–63, Cl. 23—32.

Peters Machinery Co.: *See*—
Talbot, Richard C., Bahr, and Rose. 3,105,418.

Peters, Martin C., to Babcock & Wilcox Ltd. Finned tubes. 3,073,385, 1–15–63, Cl. 165—181.

Peters, Melville F., 50%, to J. J. Mascuch. High pressure valve assembly. 3,088,487, 5–7–63, Cl. 137—505.35.

Peters, Melville F., 50% to J. J. Mascuch. High pressure high temperature valve assemblies. 3,097,662, 7–16–63, Cl. 137—338.

Peters, Melville F., 50% to J. J. Mascuch. Flexible rotary seals and bellows assemblies. 3,106,414, 10–8–63, Cl. 285—226.

Peters, Oliver O. Hot water heater. 3,105,465, 10–1–63, Cl. 122—37.

Peters, Ralph D., 8% to S. F. and/or J. Booker. Signature identification device. 3,113,461, 12–10–63, Cl. 73—432.

Peters, Robert I.: *See*—
Mori, Takeshi, Peters, and Austin. 3,092,191.

Peters, Russell W.: *See*—
Groce, Irwin J., Ritchey, and Peters. 3,098,711.

Peters & Russell, Inc.: *See*—
Ronsheim, Nelson. 3,090,348.
Russell, Linus E. 3,079,657.
Russell, Linus E. 3,096,704.

Peters, Theodore F., to General Motors Corp. Circuit controlling switch apparatus. 3,105,127, 9–24–63, Cl. 200—83.

Peters, Theodore J., J. F Collins, and A. Gathman, to Esso Research and Engineering Co. Instrument lubricating oil. 3,090,752, 5–21–63, Cl. 252—33.4.

Peters, Walter E., and L. Mills, to The English Electric Co. Ltd. Feed water heaters. 3,101,595, 8–27–63, Cl. 60—67.

Petersen, Conrad W., and H. A. Helde, to Baker Perkins Inc. Depanning apparatus. 3,099,360, 7–30–63, Cl. 214—309.

Petersen, Conrad W., W. W. Wittenberger, and J. M. St. John, to Baker Perkins Inc. Bread handling apparatus. 3,101,475, 8–20–63, Cl. 198—84.

Petersen, Flemming H. Pickle syringe. 3,082,681, 3–26–63, Cl. 99—257.

Petersen, Gerald A. M.: *See*—
Goode, Robert W. 3,084,765.

Petersen, Gunnar G., and J. J. Verstappen, to Shell Oil Co. Production of graphite from petroleum. 3,112,181, 11–26–63, Cl. 23—209.1.

Petersen, Harlie O. Irrigation systems. 3,099,395, 7–30–63, Cl. 239—562.

Petersen, Poul A. S., to Chr. Olsen, Akts. Writing instrument with a holder containing a shiftable writing unit. 3,093,921, 6–18–63, Cl. 40—334.

Petersen, Povl V., N. O. Lassen, and T. O. Holm, to Kefalas, A/S. 9-(propene-3-ylidene-1), and 9-[3'-(N-hydroxyalkylpiperazino-N)-propylidene], xanthenes and thiaxanthenes, and processes for their preparation. 3,116,291, 12–31–63, Cl. 260—240.

Petersen, Siegfried: *See*—
Schellhammer, Carl-Wolfgang, Petersen, and Domagk. 3,084,165.
Tietze, Ernst, Petersen, and Hoffmeister. 3,075,982.

Petersen, Siegfried, K. Swinckicki, and W. Wirth, to Farbenfabriken Bayer Aktiengesellschaft. Tris-pyridyl hydrazone derivatives of triaminoguanidine. 3,097,203, 7–9–63, Cl. 260—240.

Petersen, Thorvald, to Reed Mfg. Co. Pipe cutter. 3,098,296, 7–23–63, Cl. 30—95.

Petersen, Thorvald K., to Douglas Aircraft Co., Inc. Sectional air cushion cargo floor. 3,108,698, 10–29–63, Cl. 214—1.

Petersen, Willy. Folding trailers. 3,081,125, 3–12–63, Cl. 296—27.

Peterson, Adolphe C. Yieldable support means for land and air vehicles. 3,085,771, 4–16–63, Cl. 244—104.

Peterson, Adolphe C. Apparatus and hoist means for construction. 3,085,785, 4–16–63, Cl. 254—89.

Peterson, Adolphe C. Vehicle resilient suspension means. 3,096,974, 7–9–63, Cl. 267—65.

Peterson, Adolphe C. Rotor sustentation and propulsion means of jet type. 3,111,992, 11–26–63, Cl. 170—135.4.

Peterson, Albert L.: *See*—
Degutis, Anthony C., and Peterson. 3,100,604.

Peterson, Alge T., Jr., and O. R. Potter, to Midwest Conveyor Co., Inc. Combination trolley and switch. 3,073,259, 1–15–63, Cl. 104—104.

Peterson, Archie A. Apparatus for loading a coach body into a pick-up truck. Re. 25,443, 9–10–63, Cl. 214—515.

Peterson, Archie A. Apparatus for loading a coach body into a pick-up truck. 3,074,576, 1–22–63, Cl. 214—515.

Peterson, Axel F. Bag closing apparatus. 3,115,736, 12–31–63, Cl. 53—371.

Peterson, C. Lynn, to Peterson Filters and Engineering Co. Contour scraper for disc filters. 3,080,597, 3–12–63, Cl. 15—256.5.

Peterson, Charles J., to United Aircraft Corp. Turbine nozzle vane mounting means. 3,075,744, 1–29–63, Cl. 253—78.

Peterson, Dale S., to Longview Fibre Co. Divisible case. 3,101,880, 8–27–63, Cl. 229—15.

Peterson, Dana. Shower attachment. 3,092,334, 6–4–63, Cl. 239—516.

Peterson, Dean M., to Eastman Kodak Co. Film winding mechanism. 3,106,142, 10–8–63, Cl. 95—31.

Peterson, Dean M., and C. G. Vroom, to Eastman Kodak Co. Camera. 3,106,144, 10–8–63, Cl. 95—64.

Peterson, Don L.: *See*—
Benesi, Hans A., and Peterson. 3,106,593.
Stivers, David A., and Peterson. 3,096,314.
Stivers, David A., and Peterson. 3,116,266.

Peterson, Donald A.: *See*—
Bible, Robert E., McIntyre, and Peterson. 3,074,638.

Peterson, Donald H. Internal building partition structures. 3,093,218, 6–11–63, Cl. 189—34.

Peterson, Edward C., to Birdsboro Corp. Figure eight shear. 3,083,603, 4–2–63, Cl. 83—530.

Peterson, Edward C., to Whirlpool Corp. Surface tension measuring device. 3,096,642, 7–9–63, Cl. 73—53.

Peterson, Edwin F. Core box seal strip. 3,074,129, 1–22–63, Cl. 22—13.

Peterson, Edwin F. Vibrator housing. 3,076,346, 2–5–63, Cl. 74—87.

Peterson, Edwin F. Vibration-inducing apparatus. 3,097,537, 7–16–63, Cl. 74—61.

Peterson, Edwin F. Method and means for sealing adjacent coacting closure surfaces of cavity contouring structures. non-transmissive apparatus. 3,098,890, 7–23–63, Cl. 174—5.

Peterson, Edwin F. Core box sealing strip and method of attachment. 3,102,309, 9–3–63, Cl. 22—13.

Peterson, Edwin F. Blow tube and method of making same. 3,104,432, 9–24–63, Cl. 22—13.

Peterson, Edwin F. Vibrator mounting. 3,107,889, 10–22–63, Cl. 248—14.

Peterson, Edwin F. Mounting blocks for vibratory mechanisms. 3,112,016, 11–26–63, Cl. 189—36.

Peterson, Elmer J., to American Monarch Corp. Threshold circuit. 3,105,924, 10–1–63, Cl. 317—148.5.

Peterson, Eric O., and R. C. Cole, to General Electric Co. Tube socket. 3,087,136, 4–23–63, Cl. 339—193.

Peterson, Evald O.: *See*—
Dawson, Fred, Perry, and Peterson. 3,110,989.

Peterson, Evald O., to Compo Shoe Machinery Corp. Toe lasting of shoes. 3,101,495, 8–27–63, Cl. 12—12.4.

Peterson, Evald O., J. A. Rodes, and H. Perry, to Compo Shoe Machinery Corp. Splitting machine. 3,090,055, 5–21–63, Cl. 12—16.5.

Peterson Filters and Engineering Co.: *See*—
Kroff, Eugene. 3,113,926.
Peterson, C. Lynn. 3,080,597.
Peterson, John G. 3,077,990.

Peterson, Floyd V. Liquid transmissive and electric current 3,095,619, 7–2–63, Cl. 22—10.

Peterson, Gerald H. Kinetic energy absorber. 3,097,725, 7–16–63, Cl. 188—94.

Peterson, Glen, to Well Surveys, Inc. Multiplex radioactivity well logging system. 3,091,695, 5–28–63, Cl. 250—83.6.

Peterson, Harold B. Folding and swinging hydraulic boom. 3,094,228, 6–18–63, Cl. 214—133.

Peterson, Henry F. Balancing machine. 3,096,655, 7–9–63, Cl. 73—483.

Peterson, Herbert L. Time base A.M. detector. 3,100,875, 8–13–63, Cl. 329—145.

Peterson, Herbert R. Air screen producing mechanism. 3,112,686, 12–3–63, Cl. 98—36.

Peterson, Herman: *See*—
Peterson, Peter A. 3,108,808.

Peterson, Jack A., and H. J. Wagner, to Minneapolis-Honeywell Regulator Co. Control apparatus. 3,082,630, 3–26–63, Cl. 74—5.12.

Peterson, James A.: *See*—
Adams, Ernest C., Jr., and Peterson. 3,092,463.
Adams, Ernest C., Jr., and Peterson. 3,092,464.

Peterson, James H.: *See*—
Freeman, John F., Peterson, and Schmalz. 3,115,703.

Peterson, Joel D., to The Bendix Corp. Force measuring device. 3,071,974, 1–8–63, Cl. 73—497.

Peterson, John B.: *See*—
Conrad, Edwin O., and Peterson. 3,108,840.

Peterson, John G., to Peterson Filters and Engineering Co. Filter medium guide. 3,077,990, 2–19–63, Cl. 210—401.

Peterson, John H., E. D. Foggin, and E. J. O'Donnell, to United States Gypsum Co. Precreased paper tape for wallboard joint. 3,086,328, 4–23–63, Cl. 50—202.

Peterson, Jürgen F. Sommer, W. Lehmann, and W. Cordt, to Siemens & Halske Aktiengesellschaft. Coordinate switch. 3,114,008, 12–10–63, Cl. 179—27.54.

Peterson, Kenneth L., to United Shoe Machinery Corp. Fastener separating and distributing mechanisms. 3,095,999, 7–2–63, Cl. 221—233.

Peterson, Leslie D., and G. E. Hirt. Ballistic rotary actuator. 3,096,957, 7–9–63, Cl. 244—122.

Peterson, Lowell E.: *See*—
Reyerson, Lloyd H., and Peterson. 3,075,823.

Peterson Mfg. Co.: *See*—
Trautner, Wagn, and Armacost. 3,114,182.
Trautner, Wagn, and Armacost. 3,114,508.

Peterson, Marvin D.: *See*—
Evelyn, George B., Newell, and Peterson. 3,101,918.

Peterson, Merle E.: *See*—
Kucmerosky, Theodore L., and Peterson. 3,098,642.

Peterson, Morris W.: *See*—
Rackley, John M., and Peterson. 3,076,496.

Peterson, Norman L., to Cutler-Hammer, Inc. Magnetic core structure. 3,082,390, 3–19–63, Cl. 336—210.

Peterson, Oscar A., to Scientific Design Co., Inc. Distillation apparatus. 3,094,575, 6–18–63, Cl. 261—114.

Peterson, Peter A. Toy games. 3,071,378, 1–1–63, Cl. 273—101.

Peterson, Peter A., to H. Peterson. Ball game. 3,108,808, 10–29–63, Cl. 273—101.

Peterson, Peter A. Spinning toy game device. 3,108,809, 10–29–63, Cl. 273—110.

Peterson, Richard H. Electronic musical instrument. 3,097,253, 7–9–63, Cl. 84—1.22.

Peterson, Robert A., to Caterpillar Tractor Co. Large capacity earthmoving scraper. 3,077,681, 2–19–63, Cl. 37—129.

Peterson, Robert A., to Caterpillar Tractor Co. Multiple actuating lever. 3,088,328, 5–7–63, Cl. 74—471.

Peterson, Robert E.: *See*—
Rynders, Robert D., and Peterson. 3,107,628.

Peterson, Robert J. Hanger hamper. 3,115,968, 12–31–63, Cl. 206—56.

Peterson, Robert R.: *See*—
Gorndt, John H., Peterson, and Schmidt. 3,106,965.
Gorndt, John H., Peterson, and Schmidt. 3,111,172.
Peterson, Ruben O., to The Osborn Mfg. Co. Brush element and belt brush construction. 3,072,945, 1-15-63, Cl. 15—202.
Peterson, Ruben O., to The Osborn Mfg. Co. Brush construction. 3,076,219, 2-5-63, Cl. 15—179.
Peterson, Ruben O., to The Osborn Mfg. Co. Rotary abrading tool. 3,078,624, 2-26-63, Cl. 51—193.5.
Peterson, Ruben O., to The Osborn Mfg. Co. Surface finishing and cleaning apparatus and method. 3,102,056, 8-27-63, Cl. 134—9.
Peterson, Ruben O., to The Osborn Mfg. Co. Brush construction. 3,105,988, 10-8-63, Cl. 15—179.
Peterson, Russell E. Guard for a circular table saw. 3,105,530, 10-1-63, Cl. 143—159.
Peterson, Russell M., and S. B. Reierson, to Fire Engineers Inc. Incinerator charging door. 3,111,098, 11-19-63, Cl. 110—18.
Peterson, Soren E. Seed potato cutting machine. 3,082,806, 3-26-63, Cl. 146—98.
Peterson, Stanley A., to American Can Co. Ham canning method. 3,114,644, 12-17-63, Cl. 99—177.
Peterson, Stanley O., to Preway Inc. Fastening device. 3,090,587, 5-21-63, Cl. 248—27.
Peterson, Stanley W., ¼ to A. Cottons and ¼ to A. F. Skover. Rack for paper bags or the like. 3,094,217, 6-18-63, Cl. 211—49.
Peterson, Thomas, and A. C. Uttin, to Simms Motor Units Ltd. Apparatus comprising rotatable shafts or the like. 3,074,625, 1-22-63, Cl. 230—206.
Peterson, Thomas F. Conduit with preformed elements. 3,086,557, 4-23-63, Cl. 138—133.
Peterson, Victor E., to Pacific Natural Gas Exploration Co. Method and apparatus for fracturing underground earth formations. 3,108,636, 10-29-63, Cl. 166—42.
Peterson, Walter R.: *See*—
Anderson, Donald H., and Peterson. 3,082,917.
Peterson, Ward E., and H. R. Stokes. Tow pin mounting for subfloor conveyor system. 3,072,073, 1-8-63, Cl. 104—172.
Peterson, Willard D., and R. W. Fabian, to Thomas J. Moran's Sons, Inc. Photographic reliefs made by means of transfer intermediates which produce gas upon irradiation. 3,093,478, 6-11-63, Cl. 96—35.
Peterson, William: *See*—
Deal, Bruce E., and Peterson. 3,098,763.
Peterson, William H., to Pullman Inc. Long travel cushion body railroad car. 3,082,708, 3-26-63, Cl. 105—392.5.
Peterson, William J., to Bostitch, Inc. Nail assembly. 3,083,369, 4-2-63, Cl. 1—56.
Petertil, Victor A.: *See*—
Teague, James, Jr., Painter, and Petertil. 3,107,816.
Petgrave, Rita M.: *See*—
Siegal, Bernard, and Petgrave. 3,101,301.
Siegal, Bernard, Petgrave, and Thau. 3,101,300.
Pethrick, Samuel R., and T. R. Welch, to The British Petroleum Co. Ltd. Lubricating oil compositions and the operation of internal combustion engines. 3,089,853, 5-14-63, Cl. 252—37.
Petit, Jean: *See*—
Bonnet, Georges, and Petit. 3,114,945.
Petit, Roger: *See*—
Boulet, Francis, and Petit. 3,102,847.
Petit, Ruth A. Posting board assemblies. 3,073,625, 1-15-63, Cl. 282—29.
Petitjean, Alzer L. Moisture measuring system. 3,073,153, 1-15-63, Cl. 73—73.
Petkwitz, Carl F., to General Motors Corp. Domestic appliance. 3,075,258, 1-29-63, Cl. 20—69.
Petkwitz, Carl F., to General Motors Corp. Refrigeration. 3,078,688, 2-26-63, Cl. 62—159.
Petnel, Joseph A. Metal tape. 3,093,886, 6-18-63, Cl 29—155.
Peto, Howard B., and M. Ayala, 16⅔% to Troeles Udsen. Harvesting apparatus. 3,070,944, 1-1-63, Cl. 56—327.
Petrasek, Donald W.: *See*—
McDanels, David L., Jech, Weeton, and Petrasek. 3,084,421
Petraske, Otto J. Children's games. 3,072,409, 1-8-63, Cl. 273—138.
Petrea, James C.: *See*—
Harmon, Albert D., Drake, and Petrea. 3,108,647.
Petrea, James C., to Sperry Rand Corp. Vibratory feeder. 3,087,603, 4-30-63, Cl. 198—220.
Petrea, James C., to Sperry Rand Corp. Large volume weigher. 3,098,537, 7-23-63, Cl. 177—98.
Petri, Albert L., and H. Lewin, to Petri Cigar Co. Cigar making machine. 3,105,497, 10-1-63, Cl. 131—35.
Petri, Andrew W., to Wm. W. Nugent & Co. (Inc.). Spool assembling machine. 3,080,646, 3-12-63, Cl. 29—252.
Petri, Ralph: *See*—
Rockola, David C., Petri, and Sifferle. 3,082,853.
Petri Cigar Co.: *See*—
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Petri, Nello J., to N & N, Inc., d.b.a. Colnrap Co. Coin wrapper forming apparatus. 3,105,421, 10-1-63, Cl. 93—81.
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Philadelphia Valve Co.: *See*—
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Philbrick, Herbert S., Jr., to John Mohr & Sons. Gas sterilizer apparatus. 3,077,010, 2–12–63, Cl. 20—11.
Philbrick-Strickland Laminates, Inc.: *See*—
Strickland, Edward T. 3,090,172.
Strickland, Edward T., and Amos. 3,090,173.
Philbrook, Earle S. Snow melter. 3,098,478, 7–23–63, Cl. 126—343.5.
Philco Corp.: *See*—
Berenbaum, Arthur, Vanderslice, and Yoast. 3,100,144.
Bingley, Frank J., and Fisher. 3,113,180.
Bisbing, Paul E. 3,089,052.
Bonner, John J. 3,111,018.
Boothroyd, Wilson P. 3,109,886.
Boothroyd, Wilson P. 3,109,896.
Boothroyd, Wilson P., and Creamer. 3,087,011.
Bradley, James K. 3,109,887.
Bradley, William E. 3,085,055.
Bradley, William E., and Roschen. 3,075,902.
Brauer, Frederick N. 3,093,750.
Brill, Richard H., and Bicsel. 3,091,974.
Chatten, John B. 3,089,959.
Chatten, John B. 3,107,275.
Clapp, Richard G. 3,102,923.
Combs, Charles W., and Simmons. 3,077,563.
Cotteta, Jerome E. 3,104,167.
Creamer, Edgar M., Jr. 3,098,212.
Cullen, Albert E., and Fransen. 3,114,364.
Dahlberg, Robert S., Jr. 3,072,801.
Davies, Richard S. 3,088,111.
Demand, Erhart E. 3,095,709.
Devery, Michael H. 3,080,727.
Dimmig, John D., and Vaughan. 3,088,587.
Doelp, Walter L., Jr. 3,082,522.
Dow, Harrison E. 3,094,587.
Doyle, Edward J. 3,102,410.
Fields, George C. 3,085,445.
Focht, Louis R. 3,102,967.
Gosnell, Michael P. 3,085,415.
Gosnell, Michael P. 3,096,637.

Philco Corp.: *See*—Continued
Henrickson, Russell M. 3,099,516.
Hubbard, Burnette L. 3,091,953.
Hubbard, James R., and Horecky. 3,100,387.
Janke, Kurt E., and Simmons. 3,079,572.
Jessen, Frederic A., Jr. 3,114,149.
Keiper, Francis P., Jr. 3,103,552.
Lasser, Marvin E., and Zaromb. 3,113,047.
Laurent, George J. 3,110,897.
Manns, Thomas J. 3,102,084.
Marsilio, Dominic O. 3,098,581.
Matthews, Alfred C. 3,071,643.
McCoy, Claudius T. Re. 25,317.
McMahon, John F., Jr., and Fahey. 3,088,299.
Mentzer, Robert E. 3,084,287.
Moore, Robert C. 3,089,096.
Moore, Robert C. 3,116,364.
Pelensky, Joseph. 3,102,408.
Petrilla, Anthony D., and Sentell. 3,088,082.
Preston, Glenn W. 3,080,500.
Rapp, Adolph K., and Spiegel. 3,094,630.
Reber, Carroll J., Jr. 3,081,607.
Robinson, John L. 3,089,134.
Robinson, John L. 3,108,227.
Robinson, John L. 3,114,053.
Robinson, John L., and Rapp. 3,076,105.
Scofield, Donald W. 3,086,101.
Scofield, Donald W. 3,103,162.
Shoemaker, Malcolm G. 3,071,933.
Siegal, Marvyn E. 3,109,148.
Slomko, George. 3,092,778.
Staebler, Lloyd A. 3,073,126.
Steinberg, Bernard D. 3,078,458.
Thornton, Clarence G. 3,095,526.
Tiegel, Ralph. 3,079,132.
Webb, Deril T. 3,089,096.
Williams, Richard A. 3,096,259.
Zaromb, Solomon. 3,114,658.
Zearfoss, Elmer W., Jr. 3,088,290.
Zechter, Sol, Gruen, and Golden. 3,111,622.
Philibert, Georges, to Compagnie de Saint-Gobain. Process and apparatus for sorting balls. 3,075,642, 1–29–63, Cl. 209—84.
Philip, Morris. Pattern wheel and knitting machine combination. 3,075,372, 1–29–63, Cl. 66—50.
Philip, Morris. Method and apparatus for knitting. 3,084,528, 4–9–63, Cl. 66—24.
Philip, Thomas B., to The Distillers Co. Ltd. Method of working materials. 3,077,802, 2–19–63, Cl. 82—1.
Philip, Thomas B., to The Distillers Co. Ltd. Pressure safety device. 3,080,091, 3–5–63, Cl. 220—89.
Philip, Thoni V.: *See*—
Steven, Gary, and Philip. 3,114,630.
Philipp, Fritz: *See*—
Horn, Lutz, Dieberg, Philipp, and Dickfeldt. 3,071,637.
Horn, Lutz, and Philipp. 3,097,975.
Horn, Lutz, and Philipp. 3,099,899.
Horn, Lutz, and Philipp. 3,102,329.
Philippe, Howard L., to Imperial-Eastman Corp. Flush valve. 3,085,779, 4–16–63, Cl. 251—21.
Philippe, Maurice. Locking device for chokes for shotguns. 3,089,273, 5–14–63, Cl. 42—79.
Philippi, Carl J.: *See*—
Cosby, Kenneth W. 3,090,221.
Philippi, Thomas E.: *See*—
Blefeld, Lawrence P., Philippi, and Collier. 3,081,195.
Philippi, Virgil J., to American Machine & Foundry Co. Liquid circulators. 3,106,383, 10–8–63, Cl. 259—97.
Philips, Albert R., to Young Brothers Co. Automotic uniform tension expansion take-up for oven conveyor. 3,078,988, 2–26–63, Cl. 198—208.
Philips, Annunciata and R. C. Article of furniture. 3,082,435, 3–26–63, Cl. 5—2.
Philips Electronics and Pharmaceutical Industries Corp.: *See*—
Wilska, Alvar P. 3,100,260.
Philips, Fred O. Removable shelf for station wagon. 3,110,429, 11–12–63, Cl. 224—42.42.
Philips, Harlow D.: *See*—
Bornemann, William, Bechtold, Philips, Freeman, Loretz, and Neuman. 3,099,199.
Philips, Raymond C.: *See*—
Philips, Annunciata and R. C. 3,082,435.
Philips Roxane, Inc.: *See*—
Slater, Eben A. 3,106,514.
Philipson, Joseph, to Aerojet-General Corp. Ammonium perchlorate resin base propellants. 3,092,526, 6–4–63, Cl. 149—19.
Phillips, Alan H., to Sperry Rand Corp. Carrier phase modulated dual purpose communication system. 3,092,833, 6–4–63, Cl. 343—105.
Phillips, Albert J., and R. Baier, to American Smelting and Refining Co. Method for continuous casting of metal. 3,089,209, 5–14–63, Cl. 22—200.1.
Phillips, Alvin B.: *See*—
Young, Ronald D., Heil, and Phillips. 3,074,792.
Phillips, Arthur P., and R. B. Burrows, to Burroughs Wellcome & Co. (U.S.A.) Inc. Anthelmintic distilbasoles and method. 3,075,975, 1–29–63, Cl. 260—240.9.
Phillips, Arthur P., and R. B. Burrows, to Burroughs Wellcome & Co. (U.S.A.) Inc. Method for the elimination of nematode infestations. 3,085,935, 4–16–63, Cl. 167—53.
Phillips, Austin, to Douglas Aircraft Co., Inc. Coining structural parts. 3,110,086, 11–12–63, Cl. 29—155.
Phillips, Benjamin: *See*—
Starcher, Paul S., Tinsley, and Phillips. 3,072,680.
Phillips, Benjamin, and F. C. Frostick, Jr., to Union Carbide Corp. 4,5-epoxypentyl 4,5-epoxypentanoate and process for its preparation. 3,074,973, 1–22–63, Cl. 260—348.
Phillips, Benjamin and D. G., to Reichhold Chemicals, Inc. Roof of panel units. 3,113,434, 12–10–63, Cl. 50—64.
Phillips, Benjamin A.: *See*—
Lamp, James K., Jr., and Phillips. 3,104,698.
Phillips, Benjamin A., and J. Roeder, Jr., to Whirlpool Corp. Absorption refrigeration apparatus. 3,078,690, 2–26–63, Cl. 62—491.
Phillips, Bernard C., to The Tillotson Mfg. Co. Charge forming method and apparatus. 3,072,390, 1–8–63, Cl. 261—35.
Phillips, Bernard C., to The Tillatson Mfg. Co. Charge forming apparatus. 3,085,791, 4–16–63, Cl. 261—35.
Phillips, Bernard C., to The Tillotson Mfg. Co. Method for delivering combustible mixture to an internal combustion engine. 3,090,608, 5–21–63, Cl. 261—41.
Phillips, Charles E. Machine for mixing particulate materials. 3,088,711, 5–7–63, Cl. 259—3.
Phillips, Charles J.: *See*—
Von Wranau, Guido, and Phillips. 3,095,311.
Phillips, Christopher F.: *See*—
Harris, Howard G., and Phillips. 3,075,816.
Phillips, Clifford F., and P. G. Stultz, Jr., to C. M. O'Boyle. Installing tool for assembly hydraulic lash adjuster bodies of diesel engines. 3,103,063, 9–10–63, Cl. 29—244.
Phillips Cooling Tower Co., Inc.: *See*—
Bottner, Joseph A. 3,115,534.
Phillips, David G.: *See*—
Phillips, Benjamin and D. G. 3,113,434.
Phillips, Delbert L., and J. S. Jonkey. Modular electrical connector. 3,090,027, 5–14–63, Cl. 339—31.
Phillips, Donald D., to Shell Oil Co. Halogenated oxo spiro insecticidal compounds. 3,106,580, 10–8–63, Cl. 260—586.
Phillips, Donald D., to Shell Oil Co. Halogenated epoxy spiro insecticidal compounds. 3,115,505, 12–24–63, Cl. 260—348.
Phillips, Donald D., and L. F. Ward, Jr., to Shell Oil Co. Dialkyl alpha-(trihalophenyl)-beta-(halo)-vinyl phosphates. 3,102,842, 9–3–63, Cl. 167—30.
Phillips, Edward H.: *See*—
Vaughan, James W., and Phillips. 3,076,159.
Phillips, Edwin D. Mixing paddle. 3,097,002, 7–9–63, Cl. 287—20.
Phillips, Frank J., to The Cyril Bath Co. Stretch and wipe forming method and apparatus with tension control by wipe shoe. 3,074,464, 1–22–63, Cl. 153—40.
Phillips, George T. Fastening devices for securing accessories to concrete and the like. 3,100,517, 8–13–63, Cl. 151—68.
Phillips, Harry L., and L. S. Fain, to Floseal Corp. Blank forming die. 3,105,420, 10–1–63, Cl. 93—58.
Phillips, Harry L., and L. S. Fain, to Floseal Corp. Mold for use in making die for forming cardboard blanks. 3,108,327, 10–29–63, Cl. 18—36.
Phillips, Harry L., and L. S. Fain, to Floseal Corp. Method of making mold for blank forming dies. 3,112,164, 11–26–63, Cl. 18—59.
Phillips, James H., and R. H. Booth, to Electric & Musical Industries Ltd. Automatic position motor control device using inductive balance network. 3,111,614, 11–19–63, Cl. 318—30.
Phillips, Leonard R., to Anemostat Corp. of America. Air diffuser. 3,072,038, 1–8–63, Cl. 98—40.
Phillips, Leonard R., W. J. Waeldner, C. W. Palmquist, and R. S. Barlow, to Anemostat Corp. of America. Air distribution apparatus. 3,084,711, 4–9–63, Cl. 137—521.
Phillips, Malcolm E., Jr., J. R. Pinkham, and J. E. Hinckle, to American Machine and Foundry Co. Automatic cigarette paper splicer. 3,089,661, 5–14–63, Cl. 242—58.4.
Phillips, Norman W. F.: *See*—
Hollingshead, Ethan A., and Phillips. 3,078,159.
Phillips, Oliver V.: *See*—
Edwards, Joe E., Jr., Evans, and Phillips. 3,079,115.
Phillippa, Gordon H., to Glaxo Laboratories Ltd. Production of 17α-hydroxy-20-keto-16β-methyl steroid derivatives of the pregnane series. 3,115,508, 12–24–63, Cl. 260—397.45.
Phillips Petroleum Co.: *See*—
Ackaret, Robert L. 3,095,604.
Adelman, Barnet R. 3,077,734.
Alleman, Carl E., and Adams. 3,113,437.
Anderson, Herbert R., Jr. 3,098,777.
Anderson, Herbert R., Jr. 3,098,808.
Anderson, Herbert R., Jr. 3,112,291.
Andrews, Alvin J., and Pollock. 3,102,795.
Atkinson, Robert G., and Loy. 3,072,474.
Austin, Oliver K. 3,071,803.
Austin, Oliver K. 3,095,273.
Axe, William N., and Montgomery. 3,077,733.
Ayers, Buell O. 3,111,025.
Bailey, Ernest J. 3,084,134.
Banks, Robert L. 3,075,026.
Barton, Hugh M., Jr., and Brexx. 3,078,756.
Benedict, Bruce C. 3,093,572.
Berger, Donald E. 3,090,683.
Berger, Donald E., and Atkinson. 3,078,265.
Bertuzzi, Andrew F. 3,073,386.
Blackwell, Jennings P. 3,113,836.

Phillips Petroleum Co.: *See*—Continued
Bobo, Roy A. 3,112,800.
Bodkins, Roy L. 3,111,717.
Bolen, Kenneth E. 3,096,380.
Bowman, Mark M., Jr., and Matthews. 3,108,374.
Bracken, Robert C. 3,092,127.
Branscum, Tony E. 3,111,714.
Branscum, Tony E., and Havely. 3,097,058.
Britton, Sylvester C., and Schirmer. 3,101,593.
Broerman, Arthur B. 3,102,512.
Broerman, Arthur B. 3,103,807.
Broerman, Arthur B. 3,106,096.
Broerman, Arthur B. 3,111,849.
Bunn, George P., and Hartmann. 3,083,669.
Burk, Marvin C. 3,077,770.
Burk, Marvin C. 3,094,862.
Cabbage, John T. 3,084,119.
Canterino, Peter J. 3,110,709.
Canterino, Peter J., and Martinovich. 3,086,958.
Canterino, Peter J., and McGlamery. 3,113,118.
Canterino, Peter J., and Smith. 3,102,050.
Cardwell, Charles G. 3,112,963.
Carr, Donald E. 3,071,924.
Carr, Donald E. 3,072,187.
Carr, Donald E. 3,080,708.
Carr, Donald E. 3,108,039.
Carter, Randall W. 3,086,957.
Cassatt, Wayne A., Jr., and Bradley. 3,078,220.
Cines, Martin R. 3,072,626.
Cines, Martin R. 3,093,626.
Clark, Edgar W., Jr., Reynolds, and Root. 3,095,042.
Coale, Harold D. 3,096,146.
Coale, Harold D. 3,113,831.
Cobb, Raymond L., Hudson, and Mayfield. 3,109,761.
Cobb, Raymond L., and Marana. 3,099,639.
Collins, Russell F. 3,113,263.
Constantikes, George J. 3,081,823.
Cottle, John E. 3,081,290.
Cottle, John E. 3,106,462.
Cox, Clyde M. 3,096,647.
Coyner, Herbert N. 3,108,148.
Crain, Donald L., and Hartzfeld. 3,076,855.
Crawford, Francis W. 3,076,506.
Crouch, Willie W. 3,106,856.
Dale, Glenn H. 3,097,248.
Davis, Charles L., and Alexander. 3,112,186.
Davis, Charles L., Alexander, and Wallace. 3,112,288.
De Haven, Clark G. 3,078,512.
De Haven, Clark G., and Berger. 3,070,836.
De Vault, Albert N. 3,074,230.
Dixon, Henry O. 3,098,734.
Doyle, Robert. 3,084,389.
Doyle, Robert. 3,097,915.
Doyle, Robert, and Perry. 3,112,522.
Dye, Robert F. 3,099,648.
Dye, Robert F. 3,102,005.
Dye, Robert F. 3,103,809.
Dye, Robert F., and Morgan. 3,074,922.
Eddy, William R., and Moss. 3,087,645.
Edmonds, James T., Jr. 3,081,288.
Edmonds, James T., Jr. 3,101,328.
Edmonds, Lee O. 3,097,105.
Edwards, Harold L. 3,087,198.
Engel, John H. 3,105,811.
Favre, John A. 3,097,519.
Fetkovich, Michael J., and Sargent. 3,077,929.
Findlay, Robert A. 3,076,776.
Fisher, Henry B. 3,102,588.
Fluegel, Dale A. 3,094,875.
Fluegel, Dale A. 3,115,603.
Fox, Homer M. 3,083,527.
Fox, Homer M. 3,115,007.
Franzus, Boris, and Wickliffe. 3,073,873.
Gardner, Lloyd E., and Hogan. 3,099,618.
Goard, Howard W. 3,091,335.
Goins, Robert R. 3,089,194.
Goodhue, Lyle D., and Cantrel. 3,079,298.
Goodhue, Lyle D., and Cantrel. 3,082,149.
Goodhue, Lyle D., Cantrel, and Louthan. 3,092,542.
Goodhue, Lyle D., Cantrel, and Louthan. 3,103,465.
Goodhue, Lyle D., Cobb, and Cantrel. 3,108,037.
Goodhue, Lyle D., Reinert, and Williams. 3,113,072.
Gragson, James T., and De Vault. 3,111,473.
Grantham, Lloyd B., and Mengelkamp. 3,077,745.
Green, Richard M. 3,082,211.
Greenfield, Bill E. 3,101,499.
Gregory, Charles W. 3,098,656.
Griffith, William T. 3,105,467.
Gruver, Jerry T. 3,097,193.
Guenther, Emmerich. 3,085,440.
Gunnell, Thomas J. 3,116,114.
Haas, Frank C. 3,081,149.
Hall, Dick S. 3,076,795.
Hanes, Lewis F. 3,102,626.
Hann, Paul D. 3,078,177.
Hann, Paul D. 3,096,383.
Harper, Ernest A. 3,099,619.
Harper, Kenneth A. 3,094,478.
Harrison, Roy C. 3,074,808.
Hart, James L. 3,105,734.
Hart, James L., and Koble. 3,104,941.
Hart, James L., and Reusser. 3,086,841.
Harvey, George R., Jr. 3,080,219.

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Hatfield, Kent E. 3,102,422.
Hays, George, and Cantwell. 3,097,919.
Hearne, Richard A., and Hanesworth. 3,081,880.
Held, Edward C., Jr. 3,099,043.
Henderson, Eulas W. 3,073,812.
Henderson, William B. 3,074,920.
Herring, Liles G. 3,079,355.
Hill, Oliver W., and Thomas. 3,093,597.
Hillyer, John C., and Hart. 3,081,148.
Hillyer, John C., and Sneary. 3,086,840.
Hitzman, Donald O. 3,096,254.
Hitzman, Donald O., and Mills. 3,084,106.
Hix, Marvin C. 3,107,684.
Hoch, Robert S. 3,086,592.
Hogan, John P. 3,098,062.
Hogan, John P. 3,102,876.
Holm, Vernon C. F. 3,072,627.
Hsieh, Henry L. 3,091,606.
Hudson, Paul S. 3,083,526.
Hudson, Paul S., and Bice. 3,087,844.
Hutson, Thomas, Jr. 3,113,987.
Jennings, Gerald P. 3,074,587.
Johnson, Marvin M., and Pitchford. 3,097,156.
Johnson, Marvin M., Ray, and Smith. 3,081,257.
Johnson, Marvin M., and Streets. 3,103,781.
Johnson, Paul H. 3,073,878.
Jones, Robert L. 3,116,235.
Keene, William A. 3,072,314.
Kindred, Raymond L. 3,106,087.
Kindred, Raymond L., and Fourroux. 3,095,728.
King, William R. 3,101,909.
Kinney, Patrick J., and Kahre. 3,097,924.
Kleiss, Louis D. 3,085,050.
Kleiss, Louis D., and Murray. 3,115,445.
Kline, Marvin E., and Reilly. 3,095,888.
Koble, Robert A. 3,078,141.
Koble, Robert A. 3,081,147.
Koble, Robert A., and Goard. 3,099,525.
Kolner, Samuel J. 3,083,193.
Kraft, Donald L., and Beason. 3,083,757.
Kraus, Gerard. 3,093,561.
Kraus, Gerard, and Gruver. 3,084,141.
Kraus, Gerard, and Short. 3,113,912.
Krejci, Joseph C. 3,103,418.
Kron, Carl M. 3,104,266.
Kruse, Carl W., and Kleinschmidt. 3,094,563.
Kuerston, Richard D. 3,095,293.
Kuntz, Louis E. 3,101,613.
Kuntz, Louis E. 3,107,526.
Larkin, Mark E. 3,077,989.
Lawson, Shelby D. 3,071,538.
Legatski, Harold R. 3,080,220.
Legatski, Harold R. 3,096,625.
Legatski, Theodore W. 3,091,225.
Levy, Dale F., and Gagle. 3,093,595.
Lewis, Clifford J. 3,098,707.
Loewen, Bruno F. 3,101,936.
Loewen, Bruno F., and Morgan. 3,076,694.
Louthan, Rector P. 3,084,116.
Louthan, Rector P. 3,085,955.
Lupfer, Dale E. 3,085,000.
Lupfer, Dale E. 3,095,887.
Lupfer, Dale E. 3,104,810.
Lyons, Harold D. 3,101,327.
MacSporran, Charles. 3,072,189.
Mader, George E., Jr. 3,101,898.
Mahan, John E. 3,082,598.
Martinez, Jesus S., and Gaede. 3,084,915.
Martinovich, Robert J., and Marsh. 3,074,616.
Marx, John W. 3,095,925.
Marx, John W. 3,105,754.
Marx, John W., and Parker. 3,072,593.
Mathis, Clyde H., and Gray. 3,113,164.
Matthews, Thomas A., II. 3,108,060.
McGlamery, Roger M. 3,083,410.
McMahon, Martin E. 3,084,107.
Meade, Leonard P. 3,114,344.
Meek, Sherman E. 3,071,804.
Mellow, Ernest W. 3,074,919.
Mertz, Clyde W. 3,073,808.
Mertz, Clyde W. 3,116,242.
Miller, Alvin J. 3,116,130.
Mills, Kenneth R., Franzus, and Ganterino. 3,102,870.
Mitacek, Bill, and Graham. 3,112,270.
Mitacek, Bill, and Holman. 3,085,978.
Moon, John J. 3,080,354.
Morgan, Lyman W. 3,085,153.
Morgan, Lyman W. 3,108,094.
Myers, John W. 3,109,038.
Naifeh, Sam C. 3,095,272.
Nave, Thomas J., and Havely. 3,103,036.
Naylor, Floyd E., and Ettling. 3,116,273.
Needham, Donald G., and Windle. 3,079,642.
Nowlin, Gene, and Lyons. 3,082,232.
Oglesby, Minor W., Jr., and Brashear. 3,088,664.
Orr, Harold W. 3,111,460.
Osburn, Carl L., and Marsh. 3,116,119.
Overfield, Gerald H. 3,111,023.
Palmer, Everett S., Jr. 3,096,274.
Parker, Harry W. 3,072,184.
Parker, Harry W. 3,072,186.
Parker, Harry W. 3,087,540.

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Parker, Harry W. 3,103,972.
Parker, Harry W. 3,106,244.
Parker, Harry W., and Marx. 3,081,185.
Parsons, James R. 3,081,153.
Perry, Dan E. 3,100,317.
Peters, Donald L. 3,077,636.
Peters, Donald L., and Scott. 3,093,865.
Pitchford, Armin C. 3,089,846.
Pitchford, Armin C. 3,096,191.
Pitchford, Armin C. 3,096,192.
Pitchford, Armin C. 3,098,094.
Platt, Albert M. 3,112,640.
Polk, Walter B. 3,084,110.
Pollock, Lyle W. 3,112,880.
Prentiss, Spencer S. 3,106,246.
Pritchard, James E. 3,086,275.
Pritchard, James E. 3,087,843.
Pritchard, James E., and Reger. 3,097,981.
Pryor, Robert C. 3,076,505.
Puckett, Robert A. 3,097,247.
Rains, Cloral O. 3,071,249.
Ratje, John D., and Tompkins. 3,093,649.
Ray, Charles A., Jr. 3,083,231.
Reed, Edwin E. 3,101,874.
Reed, Edwin E. 3,105,358.
Reed, Edwin E., Hale, and Hamlin. 3,097,516.
Reichle, Alfred D. 3,072,190.
Reichle, Alfred D. 3,113,619.
Reilly, Robert C. 3,099,366.
Reinecke, Marvin E. 3,077,766.
Reinecke, Marvin E. 3,086,848.
Reinecke, Marvin E., and Eckert. 3,095,746.
Remke, Marvin A. 3,087,036.
Reynolds, William B. 3,074,917.
Reynolds, William B., and Pritchard. 3,104,995.
Roof, Lewis B. 3,076,301.
Roof, Lewis B. 3,101,606.
Rush, Elton F. 3,092,673.
Rush, Robert L. 3,112,160.
Sailors, Howard R. 3,080,438.
Schechter, Alfred. 3,079,037.
Schechter, Alfred. 3,115,245.
Schellenberg, Walter O., and Engel. 3,109,292.
Schirmer, Robert M. 3,099,910.
Scofield, Raymond C., and Stoller. 3,080,437.
Scoggin, Jack S. 3,087,917.
Scoggin, Jack S. 3,090,774.
Scott, John N., Jr. 3,095,606.
Scott, John N., Jr., Alexander, and Peters. 3,091,803.
Seefluth, Charles L. 3,084,489.
Sherk, Fred T. 3,073,877.
Short, James N. 3,094,512.
Short, James N., and Puckett. 3,095,406.
Smith, Lon T. 3,100,200.
Sneary, Loy D., and Pritchard. 3,102,865.
Solomon, Paul W. 3,086,982.
Spainhour, James D. 3,095,414.
Stacy, Carl J. 3,115,564.
Stark, Christopher P. 3,085,973.
Stevens, James L., and Cottle. 3,084,149.
Stoller, Frederick L. 3,108,944.
Stoops, Charles E. 3,105,802.
Stoops, Charles E., and Day. 3,112,252.
Stratton, Charles A. 3,089,842.
Thomas, John C., and Morgan. 3,083,569.
Tolin, Ernest D. 3,107,293.
Tolin, Ernest D., and Berger. 3,108,929.
Tolin, Ernest D., and Fluegel. 3,105,896.
Toren, Paul E. 3,106,592.
Uraneck, Carl A., and Buck. 3,083,191.
Usher, Francis C. 3,105,493.
Van Pool, Joe, and Hann. 3,078,321.
Veal, Dean J. 3,104,946.
Venable, Charles R., Jr., and Ladley. 3,087,515.
Vesper, Daniel M., and Larkin. 3,092,765.
Vineyard, Henry B. 3,094,482.
Warner, Paul F. 3,086,997.
Warner, Paul F. 3,114,776.
Warner, Paul F., and Archer. 3,093,473.
Weedman, John A. 3,086,965.
Whitney, William R., Jr. 3,080,910.
Whittington, William H. 3,087,922.
Wiley, Bruce F. 3,076,334.
Wiley, Fred E., and Wain. 3,074,108.
Wilson, Joseph F., Vives, and Hillyer. 3,116,185.
Wilson, Lawrence V., Jr., and Williams. 3,094,571.
Witt, Donald R. 3,082,197.
Worth, Daniel P. 3,102,601.
Zavasnik, Frederick J. 3,108,324.
Zelinski, Robert P., and Hsieh. 3,078,254.
Zelinski, Robert P., Hsieh, and Strobel. 3,109,871.
Zelinski, Robert P., and Strobel. 3,108,994.

Phillips, Richard A.: *See*—
Trevoy, Donald J., and Phillips. 3,072,483.

Phillips, Robert, B. B. Levine, G. A. Centrella, and T. A. Underwood, to Redi-Knot Tie Clip Corp. Bow necktie clip. 3,071,776, 1–8–63, Cl. 2—154.

Phillips, Robert A., and J. W. Lee, to The Dow Chemical Co. Corrective shampoos containing cadmium sulfide. 3,071,514, 1–1–63, Cl. 167—87.

Phillips, Robert K., to International Business Machines Corp. Pulse stretcher utilizing saturable reactor with series inductor in regenerative feedback circuit of transistor. 3,073,967, 1–15–63, Cl. 307—88.5.

Phillips Screw Co.: *See*—
Muenchinger, Herman G. 3,108,623.

Phillips, Stanley D., to United States of America, Navy. Double acting spring device. 3,098,644, 7–23–63, Cl. 267—1.

Phillips, Thomas, and N. L. Somerson, to Merck & Co., Inc. Production of glutamic acid. 3,080,297, 3–5–63, Cl. 195—47.

Phillips, Wallace G., W. O. Hall, and H. H. Overstreet. Method of producing container handle construction. 3,084,641, 4–9–63, Cl. 112—10.

Phillips, Walter J., Sr. Rotary mower blade. 3,087,298, 4–30–63, Cl. 56—295.

Phillips, Wayne E., to Beckman Instruments, Inc. Drive for recorder chart paper. 3,113,823, 12–10–63, Cl. 346—136.

Phillips, William A.: *See*—
Beggs, Donald, and Phillips. 3,097,836.

Phillips, William H., to United States of America, National Aeronautics and Space Administration. Variable-geometry winged reentry vehicle. 3,104,079, 9–17–63, Cl. 244—1.

Phillips, William H. Dual control circuit. 3,104,769, 9–24–63, Cl. 214—75.

Phillips, William H., Jr., to American Carbide Co. Die assemblies. 3,109,663, 11–5–63, Cl. 279—41.

Phillipson, Phillip W., to Phillipson Rod & Tackle Co. Ski pole wrist straps. 3,113,786, 12–10–63, Cl. 280—11.37.

Phillipson Rod & Tackle Co.: *See*—
Phillipson, Phillip W. 3,113,786.

Philmon Laboratories, Inc.: *See*—
Grib, Boris F. 3,116,466.

Philmrick-Strickland Laminates, Inc.: *See*—
Hernley, Kenneth P. 3,075,320.

Phin, James R.: *See*—
Caulford, Donald A., and Phin. 3,097,983.

Phin, Sydney R. Carton with interlocking closure means. 3,073,502, 1–15–63, Cl. 229—16.

Phinizy, Robert B., and B. D. Menkin, to P.S.P. Engineering Co. Rotary electromagnetic actuator. 3,073,995, 1–15–63, Cl. 317—192.

Phinney, Frederick G., to Ford Motor Co. Latch mechanism. 3,110,513, 11–12–63, Cl. 292—226.

Phipps, Orville. Piercing point rotary drill bit. 3,071,201, 1–1–63, Cl. 175—410.

Phipps, Russell A., to Dennison Mfg. Co. Transfer labeling machine. 3,113,904, 12–10–63, Cl. 156—541.

Phister, Montgomery, Jr., C. G. Laspe, and T. M. Stout, to Thompson-Ramo Wooldridge Inc. Process and control apparatus for improving operating efficiency. 3,079,079, 2–26–63, Cl. 235—151.

Phlaum, Edward G., to A. O. Smith Corp. Cross lighter for a gas burner assembly. 3,092,168, 6–4–63, Cl. 158—115.

Phoenix Gems, Inc.: *See*—
De Lisle, Auguste L. 3,078,164.
De Lisle, Auguste L. 3,078,175.

Phoenix-Rheinrohr Aktiengesellschaft Vereinigte Hutten-und Rohrenwerke: *See*—
Fischer, Wilhelm A., Schutz, and Straube. 3,091,119.

Phonex Instrument Co., Inc.: *See*—
Murawski, Edmund R. 3,077,664.

Photinos, Harry R., to The Ryan Aeronautical Co. Servo power amplifier. 3,101,437, 8–20–63, Cl. 318—207.

Photo-Entwicklungsgerate A.G.: *See*—
Schwienbacher, Georg. 3,104,603.

Photogrammetry, Inc.: *See*—
Merritt, Everett L. 3,080,801.

Photo-Marker Corp., The: *See*—
Totten, Edward F. 3,083,465.

Photo Materials Co.: *See*—
Stanley, Alfred W. 3,077,805.

Photomechanisms, Inc.: *See*—
Wright, Joseph H., Jr. 3,097,584.

Phyl, Joseph, and R. G. Streuber, to Research-Cottrell, Inc. Mechanical dust collector. 3,074,219, 1–22–63, Cl. 55—348.

Physical Sciences Corp.: *See*—
Curtis, Gerald R., Robinson, and Baugh. 3,077,571.
Earl, John A. 3,106,490.

Physio-Control Co., Inc.: *See*—
Edmark, Karl W., Jr. 3,113,586.

Phythian, Thomas E., to R. W. Crabtree & Sons Ltd. Clamping mechanism for the plates of printing machines. 3,083,643, 4–2–63, Cl. 101—378.

Pianowski, Leon J.: *See*—
Clauss, Richard J., Klein, and Pianowski. 3,081,239.
Davis, John V., and Pianowski. 3,074,418.
Davis, John V., and Pianowski. 3,078,859.

Pianowski, Leon J., to The Udylite Corp. Skip and delayed dip mechanism for conveying apparatus. 3,088,610, 5–7–63, Cl. 214—89.

Pianowski, Leon J., to The Udylite Corp. Drain mechanism for barrel type conveying apparatus. 3,099,275, 7–30–63, Cl. 134—46.

Piasecki Aircraft Corp.: *See*—
Piasecki, Frank N. 3,083,935.

Piasecki, Frank N., to Piasecki Aircraft Corp. Convertible aircraft. 3,083,935, 4–2–63, Cl. 244—12.

Piatti, Sanzio P. V. Universal joints. 3,103,798, 9–17–63, Cl. 64—17.

Piasolo, Ludwig W. Multi-story garage construction. 3,105,999, 10–8–63, Cl. 20—1.13.

Piazza, Giuseppe. Carrier wing unit for a craft with a constant predetermined lift, and self variable incidence. 3,104,642, 9–24–63, Cl. 114—66.5.

Piazze, Thomas E., to Continental Can Co., Inc. Apparatus for punching holes or cutouts in thermoplastic sheet materials. 3,075,573, 1–29–63, Cl. 156—513.

Piazze, Thomas E., to Continental Can Co., Inc. Vacuum pack bag and sealing package therefor. 3,086,693, 4–23–63, Cl. 229—62.5.

Picard, Etienne, to Commissariat a l'Energie Atomique. Devices for the automatic monitoring of the variations of a physical magnitude at a multiplicity of distinct points and in particular for detecting can leaks in the channels of a heterogeneous nuclear reactor. 3,109,929, 11–5–63, Cl. 235—151.

Picard, Fred A. Sightseeing car. 3,093,210, 6–11–63, Cl. 187—9.

Picard, Pierre C., to Faurot, Inc. Obtaining prints or impressions to be transferred onto a receptive medium. 3,089,459, 5–14–63, Cl. 118—31.5.

Picca, Giacomo, to FIV Officine di Villar Perosa Societa per Azioni. Method of making a ball joint. 3,084,417, 4–9–63, Cl. 29—149.5.

Piccard, Donald L.: *See*—
Schjeldahl, Gilmore T., Piccard, and Carlsen.

Piccinini, Arnaldo. Radio receiving set for motor cars. 3,099,797, 7–30–63, Cl. 325—312.

Picclone, Edythe V., to Alfred Angelo, Inc. Garment having concealed slide fastener. 3,078,468, 2–26–63, Cl. 2—265.

Pichard, Frederick J.: *See*—
Freeman, Ardee H., and Pichard. 3,097,450.
Freeman, Ardee H., and Pichard. 3,097,451.
Freeman, Ardee H., and Pichard. 3,097,452.
Freeman, Ardee H., and Pichard. 3,103,766.

Pick, Hans H.: *See*—
Zimmerley, Stuart R., Back, Beck, and Pick. 3,096,172.

Pick, William J. Means for analyzing involute gear profiles. 3,095,652, 7–2–63, Cl. 33—179.5.

Pickard, Edgar C., W. R. Jackson, and G. A. Grappo, to Fordees Corp. Hydraulically operated portable scaffold. 3,091,305, 5–28–63, Cl. 182—141.

Pickard, Paul: *See*—
Chanaryn, Victor, Jeavons, and Pickard. 3,073,638.

Pickard, William J., Jr. Heater. 3,093,129, 6–11–63, Cl. 126—65.

Pickels, Edward G., to Beckman Instruments, Inc. Continuous flow ultracentrifuge apparatus and rotary fluid connection. 3,103,489, 9–10–63, Cl. 233—21.

Pickels, Edward G., and R. C. Stallman, to Beckman Instruments, Inc. Continuous flow centrifuge apparatus and rotor therefor. 3,073,517, 1–15–63, Cl. 233—32.

Pickener, Walter H., to The Fellows Gear Shaper Co. Mechanism for crowning gears. 3,071,897, 1–8–63, Cl. 51—95.

Pickens, Gerald F.: *See*—
Stimson, Allen G., and Pickens. 3,071,055.

Pickens, Gerald F., to Eastman Kodak Co. Manual override for photoelectric exposure control in camera. 3,110,240, 11–12–63, Cl. 95—64.

Picker X-Ray Corp.: *See*—
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Picker X-Ray Corp., Waite Mfg. Division, Inc.: *See*—
Graves, Edward B. 3,079,526.
McLaughlin, William R. 3,094,618.
Palermo, Anthony, Jr., and Graves. 3,094,616.

Pickering & West Ltd.: *See*—
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Pickert, Paul E.: *See*—
Matsch, Ladislas C., Wang, Rabo, Pickert, and Cheung. 3,108,706.
Rabo, Julie A., and Pickert. 3,114,695.

Pickett, Harold, to The Glidden Co. Honeycomb panel. 3,103,460, 9–10–63, Cl. 161—69.

Pickett, David A.: *See*—
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Brubaker, Wilson M., and Pickett. 3,107,044.

Pickett, Herbert: *See*—
Hutchinson, William M., Pickett, and Cutforth. 3,072,510.

Pickford, George, to United Shoe Machinery Corp. Pneumatic rivet setting guns. 3,088,618, 5–7–63, Cl. 218—48.

Pickinpaugh, Asa: *See*—
Ridenour, Stewart J., and Pickinpaugh. 3,092,330.

Pickle, Linwood A.: *See*—
Hilkemeier, Louis G., and Pickle. 3,114,478.

Pickles, Joseph, to Ferro Stamping Co. Window regulator. 3,072,395, 1–8–63, Cl. 268—126.

Pickles, Joseph, to Ferro Stamping Co. Seat adjusting mechanism. 3,079,118, 2–26–63, Cl. 248—420.

Pickles, Joseph, to Ferro Stamping Co. Power seat adjuster. 3,089,676, 5–14–63, Cl. 248—394.

Pickles, Joseph, to Ferro Stamping Co. Memory type automatic seat adjuster. 3,105,669, 10–1–63, Cl. 248—394.

Pickles, Joseph, to Ferro Stamping Co. Automotive vehicle seat adjustment mechanism with memory devices. 3,105,670, 10–1–63, Cl. 248—420.

Pickles, Joseph, and O. R. Iding, to Ferro Stamping Co. Memory type automatic seat adjuster. 3,105,668, 10–1–63, Cl. 248—394.

Pickles, Sidney. Self-supporting dipole antenna with balanced-to-unbalanced transformer. 3,074,064, 1–15–63, Cl. 343—807

Pickrell, Hugh E., Jr., to R.P.T.Z. Patco Inc. Shallow-draft cargo vessel with captive air spaces. 3,091,204, 5–28–63, Cl. 114—26.

Pickrell, John W. Frontal means for cotton picking machines. 3,081,590, 3–19–63, Cl. 56—11.

Pickren, James H. Wood preservative. 3,094,459, 6–18–63, Cl. 167—38.5.

Pickup, Arnold. Weft spreading machine. 3,094,760, 6–25–63, Cl. 26—54.

Picot, Bernard T. E., to Parfums Christian Dior. Aerosol atomizer and its refill container. 3,101,160, 8–20–63. Cl. 222—183.

Pid Corp.: *See*—
Leach, Sam L. 3,100,439.

Pidany, John: *See*—
McDermid, Malcolm, and Pidany. 3,090,409.

Pidhayny, Denny D., E. Lakatos, and E. M. Goodell, to Thompson Ramo Wooldridge Inc. Guidance system. 3,074,061, 1–15–63, Cl. 343—5.

Pidhayny, Denny D., and E. Lakatos, to Thompson Ramo Wooldridge Inc. Collison direction indication system. 3,112,479, 11–26–63, Cl. 343—7.

Piechota, Helmut: *See*—
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Pieczynski, Joseph W., to Electronic Products Corp. Self-powered interval timer. 3,099,758, 7–30–63, Cl. 307—141.8.

Piekarski, Stanley J. Door and frame assembly. 3,111,724, 11–26–63, Cl. 20—11.

Piel, Alfred J. Air propelled electricity generator for moving vehicles. 3,076,510, 2–5–63, Cl. 170—40.

Piell, Reinhart. Load cell mounting for mill-roll chock. 3,091,961, 6–4–63, Cl. 73—141.

Piemonte, William J., and A. F. Ippolito, to Loundes Instrument Corp. Bottle support and cap assembly for centrifuge. 3,071,316, 1–1–63, Cl. 233—26.

Piepenburg, Martin O., to Smith-Corona Marchant Inc. Switching system for selectively ionizing gas tubes by radio frequency energy under control of moveable blocking shield. 3,071,730, 1–1–63, Cl. 328—5.

Pieper, David A.: *See*—
Baker, Gerald W., and Pieper. 3,092,941.

Pieper, Ernest O. Golf putter. 3,085,804, 4–16–63, Cl. 273—168.

Pieper, Howard B. Portable blower. 3,099,386, 7–30–63, Cl. 230—117.

Pieper, Willi. Drafting machine. 3,091,036, 5–28–63, Cl. 33—79.

Pieper, Willi. Drafting machine. 3,111,763, 11–26–63, Cl. 33—79.

Pier, Inc.: *See*—
Casey, Walter P., Jr. 3,076,467.

Pier, Stanley M.: *See*—
Meyers, Richard K., and Pier. 3,089,854.

Pierazzuoli, Mario: *See*—
Sesini, Enrico, and Pierazzuoli. 3,075,380.

Pierce, Bernard N., to The Merrow Machine Co. Enclosure for sewing machine feed mechanism. 3,079,881, 3–5–63, Cl. 112—256.

Pierce, Elliot S., S. S. Slowata, and S. J. O'Brien, to American Cyanamid Co. Soil retardant composition and material treated therewith. 3,089,778, 5–14–63, Cl. 106—2.

Pierce, Elwood K., Jr., to Gray Tool Co. Closure means. 3,095,110, 6–25–63, Cl. 220—46.

Pierce, Erold F.: *See*—
Bentele, Max, Pierce, and Jones. 3,102,492.

Pierce, George C. Time base analogue-to-digital-converter 3,111,662, 11–19–63, Cl. 340—347.

Pierce, Gilbert L., to Rockwell Mfg. Co. Lathe drive trains. 3,106,116, 10–8–63, Cl. 82—2.

Pierce, Gilbert L., to Rockwell Mfg. Co. Back gear control for lathe drive. 3,109,319, 11–5–63, Cl. 74—472.

Pierce, Guy D.: *See*—
Bryant, John A., II, and Pierce. 3,097,724.

Pierce, James G.: *See*—
Johnston, Herrick L., and Pierce. 3,095,220.

Pierce, John H.: *See*—
Banner, Robert G., Pierce, and Chain. 3,092,436.

Pierce, John R.: *See*—
David, Edward E., Jr., and Pierce. 3,109,070.

Pierce, John R., to Bell Telephone Laboratories, Inc. Polarization tracking receiver. 3,089,137, 5–7–63, Cl. 343—100.

Pierce, Ogden R.: *See*—
McGee, Earl T., and Pierce. 3,114,760.

Pierce, Penn W., to R. C. Powell. Method and machine for knitting seamless gloves. 3,115,760, 12–31–63, Cl. 66—65.

Pierce, Raymond L. Stabilising attachment for vehicle front suspensions. 3,104,117, 9–17–63, Cl. 280—96.2.

Pierce, Robert J.: *See*—
Blankenship, Paul V., and Pierce. 3,104,579.

Pierce, Robert M., to United States of America, Air Force. Flight indicator. 3,115,627, 12–24–63, Cl. 343—8.

Pierce Specialized Equipment Co.: *See*—
Bishop, Lewis H., and Pedersen. 3,114,543.

Pierce Trailer & Equipment Co.: *See*—
Adams, Charles R. 3,101,959.

Pierce, William J., and G. E. Sanden, to General Motors Corp. Fastener. 3,110,372, 11–12–63, Cl. 189—36.

Pierce, William L. Ramie harvesting machine. 3,109,271, 11–5–63, Cl. 56—17.

Pierdet, André: *See*—
Nomine, Gerard, Bertin, Tessier, Pierdet, and Bucourt. 3,101,354.
Nomine, Gerard, Bucourt, and Pierdet. 3,115,507.

Pierelli S.p.A.: *See*—
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Pieroh, Ernst-Albrecht: *See*—
Werres, Horst, and Pieroh. 3,088,862.

Pieroh, Ernst-Albrecht, and H. Werres, to Schering A.G. Destroying nematodes employing methyl isothiocyanate. 3,113,908, 12–10–63, Cl. 167—39.

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Furr, Robert J., Pierpont, Shelton, and Weidenhammer. 3,114,131.

Pierpont, Lafayette L.: *See*—
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Pierrat, Michel A.: *See*—
Weaver, John R., Jr., and Pierrat. 3,105,697.

Piersma, Henry D., to American Cyanamid Co. Disposable sample probe for bulk chemicals. 3,080,760, 3–12–63, Cl. 73—425.2.

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Wilkinson, John R. 3,103,990.

Pierson, John R. Combination shelter and swimming pool. 3,114,153, 12–17–63, Cl. 4—172.

Pierson, Norman A., to Naturizer Co. Magnetic separator. 3,087,616, 4–30–63, Cl. 209—221.

Pierson, Norman A. Refuse accumulator and metering device. 3,103,301, 9–10–63, Cl. 222—310.

Pierson, Norman A., to Naturizer Co. Cardboard disintegrating apparatus. 3,111,248, 11–19–63, Cl. 225—93.

Pierson, Robert M., A. H. Weinstein, B. Wargotz, and G. E. Meyer, to The Goodyear Tire & Rubber Co. Aryl disulfides. 3,072,707, 1–8–63, Cl. 260—470.

Pierson, Thomas J.: *See*—
Wilkinson, John R. 3,103,990.

Pieschel, Walter L., to The Coca-Cola Bottling Works. Combined bar and cooler. 3,097,028, 7–9–63, Cl. 312—277.

Pieterse, Marius C. Pressure fluid control device for a propulsion plant, particularly for marine propulsion. 3,100,402, 8–13–63, Cl. 74—472.

Pietri, Georges, to North American Philips Co., Inc. Photoelectric tube. 3,082,342, 3–19–63, Cl. 313—95.

Pietroroia, Dominic. Tracking apparatus for trailers. 3,114,563, 12–17–63, Cl. 280—445.

Pietrusza, Edward W.: *See*—
Thorsell, Richard S., and Pietrusza. 3,083,686.

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Raecke, Bernhard, Kohler, and Pietsch. 3,073,803.
Raecke, Bernhard, Kohler, and Pietsch. 3,073,804.

Pietsch, Helmut, and W. Clas, to Henkel & Cie G.m.b.H. Resinous composition comprising hard rubber dust and a diester of a benzene dicarboxylic acid and an epoxy alcohol. 3,086,948, 4–23–63, Cl. 260—3.

Pietsch, Joseph A., to General Electric Co. Control arrangement for thermoelectric apparatus. 3,077,079, 2–12–63, Cl. 62—3.

Pietsch, Joseph A., to General Electric Co. Thermoelectric air conditioning apparatus. 3,077,080, 2–12–63, Cl. 62—3.

Piette, Ruth E. Shower curtain rod attachment. 3,104,014, 9–17–63, Cl. 211—123.

Piffath, Ralph P., and J. J. Shaw, to Superior Magneto Corp. Cargo release hook. 3,073,643, 1–15–63, Cl. 294—83.

Piffko, Heinz. Purification process. 3,085,974, 4–16–63, Cl. 208—305.

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Piggly Wiggly Corp.: *See*—
Thompson, Harold D. 3,115,975.

Piggott, John: *See*—
Brockbank, Robert A., Piggot, Clarke, Jury, and Taylor. 3,105,676.

Pighini, Gerald P., to Pacific Semiconductors, Inc. Method of producing a broad area low resistance contact to a silicon semiconductor body. 3,071,854, 1–8–63, Cl. 29—473.1.

Pigman, George L., to United States of America, Navy. Spin-induced dispersal bomb. 3,093,072, 6–11–63, Cl. 102—7.2.

Pigman, Jay F.: *See*—
Hornbostel, Lloyd, and Pigman. 3,082,439.

Pignone, Edward H. Instrument for locating radii of lines tangent to right angularly related lines. 3,080,658, 3–12–63, Cl. 33—112.

Pignone, Joseph, to Daystrom Inc. Instrument bearing arrangement. 3,077,368, 2–12–63, Cl. 308—159.

Pigott, Kenneth A., to Mobay Chemical Co. Polyester-urethane castings. 3,114,735, 12–17–63, Cl. 260—75.

Pigott, Kenneth A., and W. Archer, Jr., to Mobay Chemical Co. Polyurethane collapsed foam elastomer. 3,115,481, 12–24–63, Cl. 260—77.5.

Pigott, Miles T.: *See*—
Miller, Norman B., Pigott, Whitmarsh, and Rowlands. 3,113,286.

Pihl, Cedric H. Percussion instrument. 3,106,860, 10–15–63, Cl. 84—402.

Pihl, Eric L.: *See*—
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Pihl, George E., to Acton Laboratories, Inc. Self-calibrating variable range phase meter. 3,096,480, 7–2–63, Cl. 324—83.

Pihl, Paul E., and P. M. Hall. Siphon apparatus for flush tanks. 3,094,706, 6–25–63, Cl. 4—48.

Pike, Charles O.: *See*—
Crone, John W., Jr., and Pike. 3,078,182.

Pike, Daniel E., and A. F. Stone, to Chemical Construction Corp. Apparatus for scrubbing solids from gas streams. 3,085,793, 4–16–63, Cl. 261—112.

Pike, Edward W.: *See*—
Little, David S., and Pike. 3,098,381.

Pike, Edward W., D. S. Little, and F. C. Melchior. Airborne mechanical pressure sensing and communication system. 3,112,649, 12–3–63, Cl. 73—386.

Pike, Frederick P., and E. E. Erickson, to Research Corp. Moving-bed liquid-solid contactor and operation thereof. 3,092,515, 6–4–63, Cl. 134—25.

Pike, George J. Orthopedic structures, and methods and compositions for making same. 3,089,486, 5–14–63, Cl. 128—90.

Pike, Jesse A., and E. L. Euliss, to Alamance Industries, Inc. Yarn cutting and clamping means for knitting machines. 3,097,513, 7–16–63, Cl. 66—145.

Pike, John E.: *See*—
Jackson, Robert W., and Pike. 3,114,757.

Pike, Milton. Screen printing device. 3,107,595, 10–22–63, Cl. 95—77.5.

Pike, Ronald M., to Union Carbide Corp. Sulfonic acid-catalyzed condensation process. 3,078,255, 2–19–63, Cl. 260—46.5.

Pike, Roscoe A., to Union Carbide Corp. Process for producing cyclic diorganosiloxanes from diorganodihalosilanes and alkali and alkali earth metal oxides and carbonates. 3,110,720, 11–12–63, Cl. 260—448.2.

Pike, Roscoe A., to Union Carbide Corp. Cyanoalkylsilanediols. 3,112,332, 11–26–63, Cl. 260—448.2.

Pike, Roscoe A., and W. T. Black, to Union Carbide Corp. Preparation of carboalkoxy alkyl silanes from silanes containing silanic hydrogen and acrylic acid esters. 3,109,011, 10–29–63, Cl. 260—448.2.

Pike, Sele S., and R. K. Hansen, to Skywriting Corp. of America. Production of smoke signs in the air. 3,114,214, 12–17–63, Cl. 40—213.

Pikl, Josef, to E. I. du Pont de Nemours and Co. Process for purifying triphenyl methane dyes. 3,098,081, 7–16–63, Cl. 260—393.

Pilboue, Pierre M., ¼ to Societe Lefort & Cie. Fence post and tie means. 3,080,149, 3–5–63, Cl. 256—57.

Pilch, Chester W. Stock feeding device. 3,085,552, 4–16–63, Cl. 119—57.

Pilch, Chester W. Stock feeding device. 3,105,463, 10–1–63, Cl. 119—52.

Pilch, John S. Pilot-operated ball check valve in cylinder head. 3,074,384, 1–22–63, Cl. 121—40.

Pilczuk, Aleksander. Machine for making flexible shafts. 3,110,999, 11–19–63, Cl. 57—17.

Pile, John F.: *See*—
Nelson, George, and Pile. 3,110,534.

Pilgram, Kurt H. G., and F. W. A. G. K. Korte, to Shell Oil Co. Heterocyclic compounds containing ring carbon, nitrogen and phosphorus or arsenic atoms and their preparation. 3,116,309, 12–31–63, Cl. 260—440.

Pilla, Frank J.: *See*—
Manz, August F., and Pilla. 3,112,393.

Pilipovich, Donald: *See*—
Lawton, Emil A., and Pilipovich. 3,109,711.

Pilkington Bros. Ltd.: *See*—
Barnes, Philip C., and Kay. 3,084,063.
Cole, Horace, and Procter. 3,082,102.
Jack, Harry R. S., Jacquest, and Rothwell. 3,077,094.
Pilkington, Lionel A. B. 3,083,551.
Wynne, Hubert C. 3,083,505.

Pilkington, Lionel A. B., to Pilkington Bros. Ltd. Manufacture of flat glass. 3,083,551, 4–2–63, Cl. 49—3.

Piller, Lawrence. Moving and storage container and strengthening frame therefor. 3,096,923, 7–9–63, Cl. 229—49.

Pilliner, Bernard J., to Rational Automation Ltd. Apparatus for cutting moving material transversely. 3,089,372, 5–14–63, Cl. 83—318.

Pilloton, Roger L., to Union Carbide Corp. Preparation of ammonium paratungstate. 3,077,379, 2–12–63, Cl. 23—51.

Pillsbury, Albert F., Jr., to Ampex Corp. Tape cleaning apparatus. 3,091,794, 6–4–63, Cl. 15—308.

Pillsbury Co., The: *See*—
Cheng, Francis M. Y., and Neibling. 3,111,408.
Durst, Jack R. 3,108,873.
Rozsa, Tibor A., Harrel, and Manning. 3,077,407.
Rozsa, Tibor A., Harrel, Manning, Ward, and Gracza. 3,077,408.
Rozsa, Tibor A., Ward, and Gracza. 3,077,308.
Williams, Alfred E. 3,103,439.
Zoeller, Richard J., and Henderson. 3,102,818.

Pilot Distributing Co.: *See*—
Hayman, Max, and Hellenga. 3,083,040.

Pilot Research Corp.: *See*—
Garrou, Louis W., and Squillario. 3,075,375.
Garrou, Louis W., and Squillario. 3,109,300.
Garrou, Louis W., and Squillario. 3,109,301.
Loizillon, Guy G. 3,085,410.

Piloty, Robert, to International Standard Electric Corp. Arrangement for the storing of binary informations, arriving in series or series-parallel, in a storage chain or a storage matrix. 3,101,468, 8–20–63, Cl. 340—174.

Piltingsrud, Dale R. Adjustable scaffolding. 3,071,204, 1–1–63, Cl. 182—27.

Pimbley, George H., and G. A. Yager, to Purex Corp., Ltd. Process and composition for producing aluminum surface conversion coatings. 3,113,051, 12-3-63, Cl. 148—6.2.

Pimentel, Demetrio. Rodent exterminator. 3,075,316, 1-29-63, Cl. 43—67.

Pinamonti, Franco, to Montecatini Societa Generale per l'Industria Mineraria e Chimica. High-stability insecticide compositions, emulsifiable or soluble in water, of N-monomethylamide of O,O-dimethyldithiophosphorylacetic acid. 3,090,719, 5-21-63, Cl. 167—22.

Pinckaers, Balthasar H., to Minneapolis-Honeywell Regulator Co. Burner control apparatus. 3,082,814, 3-26-63, Cl 158—125.

Pinco, Inc.: *See*—
Carr, Roy E. 3,103,727.

Pincus, Gregory G.: *See*—
Wernicoff, Nathan, and Pincus. 3,088,865.
Wernicoff, Nathan, and Pincus. 3,088,866.

Pincus, Max: *See*—
Nagin, Leon, H. S., and Pincus. 3,106,878.

Pincus, Ralph M.: *See*—
Benjamin, Sidney L., Epstein, and Pincus. 3,105,235.
Lurie, William B., and Pincus. 3,105,234.

Pine, Robert M., and L. M. Narel, to Uarco, Inc. Deleaver for continuous form stationery. 3,079,142, 2-26-63, Cl. 270—52.5.

Pine, Wilbur M., to Thermovent Products Corp. Ventilated building. 3,086,323, 4-23-63, Cl. 50—16.

Pines, Arthur N.: *See*—
Morehouse, Edward L., and Pines. 3,085,908.

Pines, Arthur N., to Union Carbide Corp. Aminoalkyl silicon compounds as bonding agents for resins to metals. 3,088,847, 5-7-63, Cl. 117—75.

Pines Engineering Co., Inc.: *See*—
Unterbrink, Victor. 3,097,385.
Unterbrink, Victor. 3,099,851.
Unterbrink, Victor, and L. 3,108,303.

Pinet, André E., and G. Rattali. Pulse-code modulation transmission systems. 3,097,338, 7-9-63, Cl. 325—38.

Ping, Samuel, Jr., to Schwitzer Corp. Turbocharger oil seal. 3,077,296, 2-12-63, Cl. 230—132.

Pingon, Pierre J. Rotary tower crane. 3,106,299, 10-8-63, Cl. 212—46.

Pingry, Carl O., III, to International Business Machines Corp. Logic and/or gate having magnetically induced pulses as one input. 3,087,076, 4-23-63, Cl. 307—88.5.

Pingry, Harry J., to Union Carbide Corp. Expendable pattern bonding agent. 3,105,277, 10-1-63, Cl. 22—195.

Pink, Chester A.: *See*—
Kamp, Ewald A., and Pink. 3,113,324.

Pinke, August H., to H. D. Hudson Mfg. Co. Rotatable and removable supply tube and discharge hose for sprayers and the like. 3,109,567, 11-5-63, Cl. 222—464.

Pinkel, Edward B.: *See*—
Moore, James G., and Pinkel. 3,082,541.

Pinkerton, Richard C., to Ethyl Corp. High energy batteries. 3,073,884, 1-15-63, Cl. 136—100.

Pinkham, Jesse R.: *See*—
Phillips, Malcolm E., Jr., Pinkham, and Hinckle. 3,089,661.

Pinkley, Clyde W., to Industrial Nucleonics Corp. Resonance seeking circuit. 3,099,793, 7-30-63, Cl. 324—5.

Pinkston, Herbert C., L. W. Gilbert, and W. B. Lloyd, to Westinghouse Electric Corp. Fluid drive. 3,102,454, 9-3-63, Cl. 91—414.

Pinkwart, Dieter, R. Schneider, W. Strittmatter, and E. Gruber, to Farbenfabriken Bayer Aktiengesellschaft. Construction and arrangement of wipers in thin-film evaporators. 3,090,732, 5-21-63, Cl. 202—236.

Pino, Piero: *See*—
Natta, Giulio, Pino, and Mazzanti. 3,112,300.

Pinsley, Edward A.: *See*—
Edelbaum, Theodore N., and Pinsley. 3,110,154.
Natta, Giulio, Pino, and Mazzanti. 3,112,301.

Pinson, Abraham, and B. Stoudt; said Stoudt assor. to said Pinson. Collection means for a coin box. 3,094,275, 6-18-63, Cl. 232—16.

Pinson, Ellis R., Jr., to Chas. Pfizer & Co., Inc. Diquaternary ammonium salts of N,N,N',N'-tetra substituted alkylene diamines. 3,071,618, 1-1-63, Cl. 260—567.6.

Pintell, Robert H., to Intron International, Inc. Controllable alternating-current generator. 3,088,075, 4-30-63, Cl. 328—72.

Pion, Arthur L., and B. Zapolski, said Zapolski assor. to said Pion. Object supporting box. 3,099,991, 8-6-63, Cl. 134—143.

Pioneer Gen-E-Motor Corp.: *See*—
Goldberg, Harry, Siwek, and Fosnacht. 3,110,998.

Pioneer Heddle and Reed Co., Inc.: *See*—
Ray, Roy W. 3,106,942.
Suhr, Robert N., and Goodman. 3,096,793.
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Piontkowski, Clement C.: *See*—
Jackson, William H., and Piontkowski. 3,094,475.

Piontkowski, Clement C., to The Udylite Corp. Transformer control switch. 3,090,841, 5-21-63, Cl. 200—11.

Piorunneck, Heinz, to Gorn Electric Co., Inc. Connector. 3,099,510, 7-30-63, Cl. 339—256.

Piot, Paul: *See*—
Mabru, Marcel, and Piot. 3,080,736.

Piot, Paul, and J. Barassin, to Compagnie de Saint Gobain. Process and apparatus for producing perforations of very small cross-section. 3,098,148, 7-16-63, Cl. 219—69.

Pipe, Edward W., D. S. Little, and E. C. Melchior. Airborne electro mechanical pressure sensory and telemetry system. 3,091,122, 5-28-63, Cl. 73—398.

Pipe Machinery Co., The: *See*—
Anschutz, Reynolds G. 3,108,699.
Herbkersman, Earle C. 3,083,024.
Herbkersman, Earle C. 3,083,025.
McKay, John G. 3,108,819.
Thenerkauf, Fred. 3,082,538.

Pipelife Corp.: *See*—
Curtis, Arvel C. 3,108,012.
Curtis, Arvel C. 3,112,227.

Piper, David E.: *See*—
Piper, Iver L., D. E., and F. N. 3,104,689.

Piper, Frank N.: *See*—
Piper, Iver L., F. N., and D. E. 3,104,689.

Piper, Glenn T., to The Hoover Co. Process of bonding metals. 3,099,869, 8-6-63, Cl. 22—204.

Piper, Iver L., D. E., and F. N. Router guide for steps and shelves. 3,104,689, 9-24-63, Cl. 144—136.

Piper, Paul P., Sr.: *See*—
Silver, Walter H. 3,075,801.

Piper, Raymond C., to Youngstown Ornamental, Inc. Solar screen construction. 3,113,356, 12-10-63, Cl. 20—63.

Piper, Robert T. Scale mounting device. 3,083,466, 4-2-63, Cl. 33—79.

Piper, Roger D., and R. F. Leifield, to United States of America, Atomic Energy Commission. Double-baked, self-channelling electrode. 3,081,237, 3-12-63, Cl. 204—1.5.

Pipes, George R., to Eaton Mfg. Co. Deformable closure device. 3,081,904, 3-19-63, Cl. 220—60.

Pipkin, Royace H. Paper clip dispenser. 3,100,932, 8-20-63, Cl. 29—212.

Pippert, Aaron J., and E. B. Heathcott, to Universal Packing & Gasket Co. Seal ring. 3,094,337, 6-18-63, Cl. 277—188.

Pippert, Elvin R., Sr., and H. Miller; said Miller assor. to said Pippert. Air conditioner. 3,101,599, 8-27-63, Cl. 62—238.

Pippin Construction Equipment, Inc.: *See*—
Pastore, Michael W., and Holbrooke. 3,092,222.

Piquette, Horace E. Method of constructing bituminous aggregate surfaces. 3,103,860, 9-17-63, Cl. 94—23.

Pirc, Anthony J., to United States Steel Corp. Die assembly for making T-head nails. 3,109,187, 11-5-63, Cl. 10—43.

Pirelli S.p.A.: *See*—
Angioletti, Attilio. 3,078,519.
Angioletti, Attilio. 3,093,866.
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Bottasso, Carlo. 3,091,273.
Cappa, Giulio. 3,105,536.
Fresia, Giulio, and Valentinotti. 3,095,206.
Giletta, Dario, and Pacciarini. 3,101,289.
Monelli, Riccardo, and Bortolotto. 3,082,387
Palandri, Giuseppe, and Priaroggia. 3,084,208.
Palandri, Giuseppe, and Priaroggia. 3,115,542.
Palmieri, Nicola. 3,104,275.
Previati, Augusto. 3,115,353.
Priaroggia, Paolo G., and Siegfried. 3,073,441.
Sesini, Enrico, and Pierazzuoli. 3,075,380.
Vanzo, Marcello. 3,082,140.
Vanzo, Marcello. 3,113,738.
Vittorelli, Sergio. 3,077,165.

Pirhonen, Elno. Shoe sole construction. 3,077,886, 2-19-63, Cl. 128—607.

Pirkle, Louis E.: *See*—
Jurice, Carlton A., and Pirkle. 3,095,458.

Pirko, Stephen D. Plumbing training aid. 3,094,789, 6-25-63, Cl. 35—10.

Pirooz, Perry P., to Owens-Illinois Glass Co. Sealing glass. 3,088,833, 5-7-63, Cl. 106—53.

Pirooz, Perry P., to Owens-Illinois Glass Co. Thermally devitrifiable sealing glasses. 3,088,834, 5-7-63, Cl. 106—53.

Pirooz, Perry P., to Owens-Illinois Glass Co. Thermally devitrifiable sealing glasses. 3,088,835, 5-7-63, Cl. 106—53.

Piros, Robert J.: *See*—
Zimmerman, Hollis P., Merrill, and Piros. 3,073,382.

Pirrie, Norman D., G. W. Amann, and R. J. Woolgar, to Economic Foundations Ltd. Tunnel boring machines. 3,075,591, 1-29-63, Cl. 175—319.

Pirsh, Edward A.: *See*—
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Pirsh, Edward A., N. L. Dickinson, and D. N. Felgar, to The Babcock-Wilcox Co. Determination of iron in boiler water. 3,102,789, 9-3-63, Cl. 23—230.

Pirson, Ewald: *See*—
Nitzsche, Siegfried, and Pirson. 3,086,953.
Nitzsche, Siegfried, and Pirson. 3,090,765.
Nitzsche, Siegfried, and Pirson. 3,111,535.

Pisa, Pietro. Ship propelling unit. 3,093,961, 6-18-63, Cl. 60—35.5.

Pisano, Frank T., and L. L. Pitney. Aircraft occupant protecting and ejecting system. 3,093,353, 6-11-63, Cl. 244—122.

Pisano, Michael A., A. I. Fleischman, and S. E. Vaccaro, to St. John's University. Thrombocyn-fibrinolytic substance. 3,109,780, 11-5-63, Cl. 195—101.

Pischinger, Franz, to H. List. Device for measuring the consumption of liquid fuels. 3,105,565, 10-1-63, Cl. 177—190.

Piscitelli, Vincent J. Dental mirror. 3,091,034, 5-28-63, Cl. 32—69.

Pistacchio, Nicandro: *See*—
Di Stefano, Thomas M., and Pistacchio. 3,097,847.

Pistillo, John P. Steering device. 3,084,566, 4-9-63, Cl. 74—495.

Pistole, Harry, and H. H. Hansen, Jr., to Jersey Production Research Co. Drill bit. 3,095,053, 6-25-63, Cl. 175—329.

Pistole, Harry, and P. D. Weiner, to Jersey Production Research Co. Pipe coupling having holding means responsive to high internal fluid pressure. 3,100,657, 8-13-63, Cl. 285—107.

Piston, John: *See*—
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Pita, Federico Fernandez: *See*—
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Pitcher, Kenneth R.: *See*—
Kline, Richard M., and Pitcher. 3,077,875.
Kline, Richard M., and Pitcher. 3,084,833.

Pitchford, Armin C.: *See*—
Johnson, Marvin M., and Pitchford. 3,097,156.

Pitchford, Armin C., to Phillips Petroleum Co. Well drilling and fracturing fluids. 3,089,846, 5-14-63, Cl. 252—8.5.

Pitchford, Armin C., to Phillips Petroleum Co. Asphalt amine sulfonate antistripping agent for asphalt. 3,096,191, 7-2-63, Cl. 106—275.

Pitchford, Armin C., to Phillips Petroleum Co. Compositions having reduced stripping tendencies. 3,096,192, 7-2-63, Cl. 106—281.

Pitchford, Armin C., to Phillips Petroleum Co. Production of carboxylic acids and salts thereof from asphaltenes. 3,098,094, 7-16-63, Cl. 260—524.

Pitchford, Richard L., to Bausch & Lomb Inc. Slide viewer. 3,076,276, 2-5-63, Cl. 40—106.1.

Pitchon, Esra: *See*—
Clinton, William P., and Pitchon. 3,077,405.

Pitler, Richard K.: *See*—
Dyrkacz, Wasil W., Hastings, and Pitler. 3,097,092.

Pitman, Gilbert A., to Crown Zellerbach Corp. Sterile package and method. 3,084,793, 4-9-63, Cl. 206—63.2.

Pitman, Herbert J., to Texaco Inc. Solids thickened greases containing petroleum oxidates. 3,074,884, 1-22-63, Cl. 252—28.

Pitman, Herbert J., to Texaco Inc. Extreme pressure lubricants containing highly oxidized waxes. 3,095,375, 6-25-63, Cl. 252—28.

Pitman Mfg. Co.: *See*—
Pitman, Raymond F. 3,087,581.

Pitman, Raymond F., to Pitman Mfg. Co. Fiberglas structural member and method of making same. 3,087,581, 4-30-63, Cl. 182—2.

Pitney-Bowes, Inc.: *See*—
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Bogdanski, John J., and Kubovy. 3,084,490.
Hanson, Walter J. 3,084,931.

Pitney, Lennor L.: *See*—
Pisano, Frank T., and Pitney. 3,093,353.

Pitrot, Adrian R., to National Lead Co. Corrosion-inhibitive pigment. 3,072,495, 1-8-63, Cl. 106—296.

Pitrot, Adrian R., and J. G. Hendricks, to National Lead Co. Paraffin wax vinyl chloride coated stabilizer. 3,072,586, 1-8-63, Cl. 260—28.5.

Pitt, Angus R.: *See*—
Knights, Richard N., Pitt, Willitt, and Wood. 3,091,416.

Pitt, Angus R., to Dowty Rotol Ltd. Aircraft alighting gear. 3,091,418, 5-28-63, Cl. 244—103.

Pitt, Arnold, and T. Budzich. Load responsive control for power systems. 3,093,946, 6-18-63, Cl. 56—20.

Pitt, Harold W., J. E. Stauffer, and H. Bender, to Stauffer Chemical Co. Process thermal reaction between carbon tetrachloride and propylene. 3,076,042, 1-29-63, Cl. 260—655.

Pittman, Clarence E., and J. W. Hilverink. Automatic marking machine. 3,112,697, 12-3-63, Cl. 101—292.

Pittman, Edgar H., to Deering Milliken Research Corp. Methods and apparatus for producing intermittently elasticized yarns. 3,095,630, 7-2-63, Cl. 28—1.

Pittman, Fred E.: *See*—
Haynes, William F., Jr., and Pittman. 3,097,636.

Pitts, Donald W.: *See*—
Garland, Christopher M., Wallace, Pitts, and Lin. 3,111,242.

Pitts, Frank, to Magnesium Elektron Ltd. Extraction of thorium from thorium chloride and to the production of magnesium-thorium alloys. 3,084,040, 4-2-63, Cl. 75—122.7.

Pitts, Kennard, and A. J. Stiebel, to Rockwell-Standard Corp. Center armrest with detachable radio. 3,103,630, 9-10-63, Cl. 325—312.

Pitts, Paul M., Jr., and R. W. Rieve, to The Atlantic Refining Co. Method of recovering sulfur. 3,097,925, 7-16-63, Cl. 23—225.

Pitts, Robert W., Jr.: *See*—
Hall, Hugh E., Jr., and Pitts. 3,088,068.

Pitts, Thomas E.: *See*—
Barnes, Porter I., Jr., and Pitts. 3,081,046.

Pitts, Thomas E., and C. A. Steele, to Leesona Corp. Automatic supply package indexing mechanism for winding machines. 3,081,045, 3-12-63, Cl. 242—35.6.

Pitts, William A. Apparatus for handling elongated articles. 3,076,562, 2-5-63, Cl. 214—1.

Pitts, William A., to Jersey Production Research Co. Positive volume fluid meter. 3,083,571, 4-2-63, Cl. 73—224.

Pitts, William A., to Jersey Production Research Co. Perforating of pipe strings. 3,104,710, 9-24-63, Cl. 166—55.1.

Pittsburgh Annealing Box Co.: *See*—
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Pittsburgh Chemical Co.: *See*—
Crowley, Edgar L., Mackay, Manes, and Vancheri. 3,095,416.
Hay, William J., Jr. 3,089,727.
Mackay, Johnstone S., and Vancheri. 3,071,627.
Schult, Joachim C. E., and Shrader. 3,089,908.

Pittsburgh Corning Corp.: *See*—
D'Eustachio, Dominic. 3,087,576.
D'Eustachio, Dominic. 3,094,188.

Pittsburgh-Des Moines Steel Co.: *See*—
Turner, George W. 3,104,026.

Pittsburgh Envelope Co.: *See*—
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Pittsburgh Plate Glass Co.: *See*—
Allen, Edward M., and Benner. 3,105,742.
Allen, Robert M., and Walton. 3,071,816.
Benner, Floyd E., Jr., May, and Reich. 3,115,528.
Booth, Arthur, Pizzarello, and De Graff. 3,093,602.
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Christenson, Roger M., and Jaruzelski. 3,088,922.
Cochran, John K. 3,079,104.
Cortes, Ricardo. 3,074,777.
Davidson, Charles R., Jr. 3,092,413.
Davidson, Charles R., Jr., and Mitchell. 3,084,969.
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Dehn, Frederick C. 3,076,043.
Denniston, Donald W. 3,082,614.
Donovan, Arthur F., Jacquot, and Richardson. 3,102,016.
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Dowbenko, Rostyslaw, and Christenson. 3,087,965.
Duncan, James E., and Thomas. Re. 25,312.
Edmonds, Byron P., Dahms, and Helvenston. 3,096,969.
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Elliott, James H. 3,088,300.
Fix, Earl L. 3,113,034.
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Gosselink, Karl R., Fay, and Loop. 3,113,117.
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Huffman, Charles O., Galey, and Misson. 3,107,834.
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King, Murray A., and Dennison. 3,074,841.
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Korach, Malcolm, and Thomas. 3,095,270.
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Tilgner, Ralph F. 3,107,382.
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Pittsburgh Steel Co.: *See*—
McShane, Jack. 3,077,131.
Roehl, Edward J. 3,076,260.

Pitzer, Edmund W.: *See*—
Blom, Leo M., Jr., and Pitzer. 3,080,735.

Pitzl, Gilbert, to E. I. du Pont de Nemours and Co. Process for producing bulkable filamentary polyamide yarns. 3,107,972, 10-22-63, Cl. 18—54.

Pluma, Joseph A. Constant flow oil dripper. 3,112,813, 12-3-63, Cl. 184—6.

Pivacek, William J.: *See*—
Shea, William C., and Pivacek. 3,072,437.

Pivovonsky, Mark: *See*—
La Manna, Richard J., Wilson, Pogorzelski, and Pivovonsky. 3,116,410.

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Pixley, Francis V. Conveyor and conveyor system. 3,085,671, 4-16-63, Cl. 198—20.

Pixley, Francis V. and G. W., and H. Lopinot, to Pelm Research and Development Corp. Apparatus for forming lightweight aggregates. 3,116,055, 12-31-63, Cl. 263—32.

Pixley, George W.: *See*—
Pixley, Francis V. and G. W., and Lopinot. 3,116,055.

Pizzarello, Roy A.: *See*—
Dehn, Joseph W., Jr., Pizzarello, and Eltonhead. 3,090,789.
Polk, James K., and Woody. 3,100,310.
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Place, Robert E.: *See*—
Brown, Joe B., and Place. 3,092,262.

Place, Thomas M., Sr.: *See*—
Miller, Kenneth F., and Place. 3,102,990.

Place, Virgil A.: *See*—
Cooper, Murray S., Taylor, and Place. 3,074,403.

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Plach, Alvin H., and A. E. Ericson, to Union Carbide Corp. Accurate bag counter. 3,081,861, 3–19–63, Cl. 198—40.

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Plaisance, Louis M. Combination bird bath and plant receptacle support. 3,084,666, 4–9–63, Cl. 119—1.

Plaisance, Stanley F.: *See*—
Fileg, Werner, and Plaisance. 3,092,310.

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Plaistowe, Donald L., and R. P. Brash, to Marconi Co. Ltd. Repetitive signal systems for improving signal to noise ratio. 3,115,629, 12–24–63, Cl. 343—17.1.

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Planche, Marcelle: *See*—
Planche, Benjamin R. and M. 3,087,133.

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Chen, Peter R., and Planer. 3,114,122.

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Plank, Willi: *See*—
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Plant, Franklin D. Mechanical pin setter. 3,090,619, 5–21–63. Cl. 273—44.

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Geary, Robert J. 3,076,744.

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Plante, Raymond E., to Ford Motor Co. Voltage regulator for generators. 3,107,323, 10–15–63, Cl. 320—48.

Plante, Robert A., to The L. S. Starrett Co. Gage with adjustable pantograph preloading means. 3,104,470, 9–24–63, Cl. 33—147.

Plante, Robert A., to The L. S. Starrett Co. Area comparison gage. 3,115,711, 12–31–63, Cl. 33—174.

Plante, Robert F., to Whirlpool Corp. Additive dispensing means for a cleaning machine. 3,086,379, 4–23–63, Cl. 68—12.

Plapper, Jürgen: *See*—
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Plas, Paul J. Pipe cutting tool. 3,106,776, 10–15–63, Cl. 30—102.

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Plasser, Franz, and J. Theurer. Mobile track leveling mechanism. 3,111,907, 11–26–63, Cl. 104—7.

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Plasser, Franz, and J. Theurer. Mobile track tamper assembly. 3,111,909, 11–26–63, Cl. 104—12.

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Plastic Age Sales Inc.: *See*—
Green, Lawrence B. 3,097,125.

Plastic Applicators, Inc.: *See*—
O'Rourke, Fred C. 3,087,513.

Plastic Binding Corp.: *See*—
Wldell, Charles. 3,089,370.

Plastic-Clad Metal Products, Inc.: *See*—
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Plastic Coating Corp., The: *See*—
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Kratt, Henry J. 3,079,736.
Kratt, Henry J. 3,087,284.
Kratt, Henry J. 3,100,955.
Kratt, Henry J., and Bronstein. 3,079,737.

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Plastic-Ware Inc.: *See*—
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Plastino, Mario. Head-protecting head gear. 3,103,015, 9–10–63, Cl. 2—3.

Plastiwall, Inc.: *See*—
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Plastomatic Corp.: *See*—
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Betner, Thomas E. 3,101,870.
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Platt, Clyde D. Attachment for lift jack. 3,095,182, 6–25–63, Cl. 254—134.

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Platt, Harold S., to Seismograph Service Corp. Method and apparatus for minimizing cavity effects in acoustic logging. 3,081,838, 3–19–63, Cl. 181—.5.

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Platt, Leland H., Jr., and J. D. Platt. Bag closing apparatus. 3,099,116, 7–30–63, Cl. 53—138.

Platt, Louis, and H. V. Manseau, to Saco-Lowell Shops. Condenser. 3,071,823, 1–8–63, Cl. 19—203.

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Platt, Richard O., and T. W. Lloyd, to Harbison-Walker Refractories Co. Apparatus for making tapered metal blanks for key brick cases. 3,085,458, 4–16–63, Cl. 83—240.

Platt, Stephen A. Method and apparatus for bending wire. 3,082,797, 3–26–63, Cl. 140—71.

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Platzer, Peter J. Sectional grain sampling probe. 3,091,968, 6–4–63, Cl. 73—425.2.

Platzman, Paul M., to Ultrasonic Industries Inc. Ultrasonic tank housing. 3,113,761, 12–10–63, Cl. 259—72.

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Gold, Marvin H., and Plaut. 3,094,566.

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Simon, Walter, Waldmann, Melan, and Plauth. 3,093,686.

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Plegat, Alain E., to Societe Anonyme des Usines Chausson. Refrigerating unit, more particularly for air cooling. 3,091,943, 6–4–63, Cl. 62—196.

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Plehn, Henry M. Undergarment. 3,110,313, 11–12–63, Cl. 128—443.

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Plesset, Milton S., and R. E. Devine, to California Institute Research Foundation. Transducer plate for high acoustical-mechanical energy transfer to liquids. 3,072,808, 1–8–62, Cl. 310—26.

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Wilson, Murray V. 3,110,414.
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Plodowski, Tomasz, to Raymond International Inc. Method of erecting an offshore structure. 3,107,495, 10–22–63, Cl. 61—46.

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Ploetz, Ernst, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Carboxylic acid esters of polyfunctional hydroxymethyl ethers and a process for their production. 3,086,045, 4–16–63, Cl. 260—488.

Ploetz, Theodor, and H. Richtzenhain, to Feldmuehle, Papier- und Zellstoffwerke Aktiengesellschaft. Polymerization products of epihalogenohydrins containing an epoxy group in their molecule and process of making same. 3,078,280, 2–19–63, Cl. 260—348.

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Plogstedt, Allen E., and R. W. Bradmiller, to Avco Corp. Transistor servo system. 3,110,851, 11–12–63, Cl. 318—28.

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Plumb, Robert F., to Iowa Mfg. Co. Split deck vibrating screen. 3,077,266, 2–12–63, Cl. 209—317.

Plumley, Harold J. Trepanning of cased explosives by etching. 3,108,918, 10–29–63, Cl. 156—18.

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Abedon, Byron H., and Pogorilich. 3,114,942.

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La Manna, Richard J., Wilson, Pogorzelski, and Pivovonsky. 3,116,410.

Pogue, Albert. Football kicking tee. 3,087,726, 4–30–63, Cl. 273—55.

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Overn, William M., and Pohm. 3,089,961.

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Pohorilles, Eugene M., to Schlumberger Well Surveying Corp. Shaped charge apparatus. 3,100,443, 8–13–63, Cl. 102—20.

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Jaffe, David L. 3,076,932.
Jaffe, David L. 3,115,622.
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Jaffe, David L., Luck, and Schneider. 3,108,222.
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Blout, Elkan R., Buzzell, and Farney. 3,097,106.
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Brandt, Edison R. 3,091,164.
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Budde, Nan G. 3,103,866.
Casselman, Robert C., and Matz. 3,081,415.
Corley, Richard S. 3,116,279.
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Eburn, William H., Jr., and Wills. 3,113,496.
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Erikson, Herman E., and Frede. 3,103,864.
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Land, Edwin H. 3,114,636.
Mark, Herman F. 3,081,282.
Mason, Paul B., Rubinstein, and Sable. 3,103,865.
Milligan, Terry W. 3,081,351.
Ostberg, Bertil E. 3,078,178.
Rogers, Howard G. 3,087,817.
Rogers, Howard G., and Lutes. 3,077,400.
Ryan, William H., and Yankowski. 3,087,815.
Sullivan, Robert T. 3,091,163.
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Polidori, Vincent, Jr., to Commercial Envelope Mfg. Co., Inc. Blank folding and gluing device. 3,079,847, 3–5–63, Cl. 93—62.

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Polisco, Joseph W., to The Bendix Corp. Pump. 3,099,222, 7–30–63, Cl. 103—152.

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Politzer, Alfred, J. C. H. Teng, and T. Singh, to Nylonge Corp. Method of producing a regenerated cellulose sponge. 3,110,602, 11–12–63, Cl. 106—122.

Politzer, Alfred, J. Teng, W. L. Kendall, and P. C. Wang, to Nylonge Corp. Method of producing a detergent impregnated cleaning device. 3,112,219, 11–26–63, Cl. 117—98.

Polk, Isaac H., to The Texstar Corp. Methods and apparatus for use in freezing packaged products. 3,074,247, 1–22–63, Cl. 62—63.

Polk, James K., and C. L. Woody, to Pittsburgh Plate Glass Co. Simplified brush construction. 3,100,310, 8–13–63, Cl. 15—193.

Polk, Louis F., to The Sheffield Corp. Gaging device. 3,074,264, 1–22–63, Cl. 73—37.5.

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Polk, Ralph, Jr., W. C. Belk, and T. G. Cox; said Belk and said Cox assors. to FMC Corp. Citrus fruit peeling machine. 3,073,365, 1–15–63, Cl. 146—3.

Polk, Walter B., to Phillips Petroleum Co. Method and apparatus for preventing stagnation near the reboiler of a distillation tower. 3,084,110, 4–2–63, Cl. 202—70.

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Polkosnik, Bernard L., to Conso Products, Inc. Traverse rod for draperies. 3,095,033, 6–25–63, Cl. 160—345.

Poll, Benjamin, to Holland Transplanter Co. Pot planter. 3,078,816, 2–26–63, Cl. 111—2.

Pollak, Abraham. Sabre saw machine. 3,111,147, 11–19–63, Cl. 143—72.

Pollak, Edward G. Boat having movable keel device. 3,080,845, 3–12–63, Cl. 114—140.

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Pollak, Henry M., to Ingersoll-Rand Co. Self-priming pump. 3,093,085, 6–11–63, Cl. 103—113.

Pollak, Henry M., and T. J. Hotler, to Ingersoll-Rand Co. Electric motor driven pump. 3,115,839, 12–31–63, Cl. 103—87.

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Polley, Charles R. Poultry feed conveyors. 3,105,590, 10–1–63, Cl. 198—204.

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Pollia, Andrew A. Detachable pipe coupling including a detachable flange. 3,085,820, 4–16–63, Cl. 285—368.

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Pollmann, Adolf, to August Thyssen-Hutte Aktiengesellschaft. Beam retarder with brake beams supported by stirrups. 3,093,211, 6–11–63, Cl. 188—62.

Pollmann, Adolf, to August Thyssen-Hutte Aktiengesellschaft. Lifting beam retarder for brake beam system. 3,111,197, 11–19–63, Cl. 188—62.

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Pollock, Daniel D., to Leeds and Northrup Co. Copper base alloys particularly suited for precision resistance. 3,091,527, 5–28–63, Cl. 75—159.

Pollock, Gordon J., and G. L. Fowles, to The E. F. Hauserman Co. Composite panel assembly. 3,099,863, 8–6–63, Cl. 20—4.

Pollock, James A. Earth working tool having a specific tool and standard connection. 3,104,724, 9–24–63, Cl. 172—762.

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Pollock, Walter, and G. H. Provost, to United States Rubber Co. Method of lining pipe. 3,080,269, 3–5–63, Cl. 156—87.

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Polmon, Anthony P. Knob and self-locking insert. 3,074,292, 1–22–63, Cl. 74—553.

Polo, Friz L., to Laboratorio Bioterapico Milanese Selvi & C.S. A.S. Thio-derivatives of benzo-oxazine, having antiphlogistic, anti-pyretic and analgesic properties. 3,116,292, 12-31-63, Cl. 260—244.

Polo, Raymond, to Fabriques Movado. Self-winding watch. 3,109,281, 11-5-63, Cl. 58—82.

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Polonsky, Samuel, and B. E. King, to General Electric Co. Timer mechanism with improved gear meshing means. 3,101,586, 8-27-63, Cl. 58—16.

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Polsky, David. Magnetically retained window shade roller. 3,104,700, 9-24-63, Cl. 160—298.

Polster, John A., to Polyco, Inc. Structure in a vending machine for garment hangers and similar articles. 3,103,298, 9-10-63, Cl. 221—231.

Polster, Morton A., to General Signal Corp. Directional sonic vehicle detector. 3,105,953, 10-1-63, Cl. 340—39.

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Polysius G.m.b.H.: *See*—
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Polzella, Louis C., A. E. Snowdon, and W. P. Carpenter, to The Superior Electric Co. Transformer coil construction. 3,099,074, 7-30-63, Cl. 29—155.58.

Polzin, Donald H., to Deere & Co. Drive mechanism for an agricultural implement. 3,108,482, 10-29-63, Cl. 74—221.

Polzin, Lester A., to Western Metal Specialty Division, Western Industries Inc. Flush-type door lock. 3,096,113, 7-2-63, Cl. 292—147.

Pomar, Ellodoro. Rotary piston mechanism. 3,092,031, 6-4-63, Cl. 103—129.

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Pomot, Jean L. E., E. J. F. Luzarreta, and R. L. P. Becanne, to Office National Industriel de L'Azote. Copper-containing fungicides. 3,078,213, 2-19-63, Cl. 167—33.

Pomot, Jean L. E., E. J. F. Luzarreta, and G. G. J. Cousserans, to Office National Industriel de l'Azote. Production of carbamic esters. 3,086,987, 4-23-63, Cl. 260—482.

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Pomper, Boris, to The British Petroleum Co. Ltd. Plate columns. 3,095,462, 6-25-63, Cl. 261—113.

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Poncelet, Eugene F., to United States of America, Navy. Method of demolishing underwater obstacles. 3,078,798, 2-26-63, Cl. 102—23.

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Pond, Robert B., to Marvalaud, Inc. Method for forming bicrystalline specimens. 3,116,175, 12-31-63, Cl. 148—1.6.

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Pong, William, to The Baldwin Piano Co. Encoder. 3,076,959, 2-5-63, Cl. 340—347.

Pongratz, Alfred: *See*—
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Ponndorf, Wilhelm. 3,099,495.

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Ponsa, Carlos S. Apparatus for treating feed-water by the zeolite process. 3,071,250, 1-1-63, Cl. 210—190.

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Ponsen, Willem, to North American Philips Co., Inc. Device for separating one specimen from a plurality of elongated electrically conductive flexible bodies. 3,112,184, 11-26-63, Cl. 294—1.

Ponsness, Dorothy P.: *See*—
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Ponsness, Lloyd E., and R. N. Barker; said Barker assor. to said L. E. and D. P. Ponsness. Progressive reloading machine for shot shell. 3,097,560, 7-16-63, Cl. 86—27.

Ponson, Lloyd J., and R. H. Becker, to American Cyanamid Co. Plalting apparatus. 3,095,615, 7-2-63, Cl. 19—163.

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Gerardin, Jean-Jacques. 3,100,321.
Gerardin, Jean-Jacques. 3,100,920.
Paris, Michel H. L. M., and Burstlein. 3,097,945.

Pontet, Hermann C. Containers for radioactive isotopes. 3,114,838, 12-17-63, Cl. 250—106.

Pontin, Fernando A. Electro-magnetic motor. 3,109,946, 11-5-63, Cl. 310—46.

Ponting, Eric J., to Ingot Casting Machines Ltd. Casting machines. 3,099,867, 8-6-63, Cl. 22—76.

Pontius, Paul E., and S. B. Campbell, to Zurn Industries, Inc. Synchronizing clutch. 3,089,575, 5-14-63, Cl. 192—53.

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Bray, William W., Jr., and Ponzek. 3,092,674.

Pool, Stuart D., and B. M. Hyman, to International Harvester Co. Wagon elevator for corn pickers. 3,083,812, 4-2-63, Cl. 198—104.

Pool, William, to British Celanese Ltd. Yarn winding machinery. 3,087,685, 4-30-63, Cl. 242—43.2.

Pool, William O., to McGaw Laboratories, Inc. Process for purifying protein hydrolysate solutions. 3,100,201, 8-6-63, Cl. 260—112.

Poole, Alton P.: *See*—
Lovering, David W., and Poole. 3,085,040.

Poole, Arnold L., to International Business Machines Corp. Information retrieval system. 3,107,343, 10-15-63, Cl. 340—172.5.

Poole, Arthur B., to General Time Corp. Torque limiting device. 3,082,336, 3-19-63, Cl. 310—83.

Poole, Charles P., Jr.: *See*—
O'Reilly, Donald E., and Poole. 3,080,520.

Poole, Harmon A., and F. W. Bellows. Treatment of liquid immersed material. 3,098,370, 7-23-63, Cl. 68—3.

Poole, Henry G.: *See*—
Nachtman, John S., and Poole. 3,090,686.

Poole, John W.: *See*—
Gardocki, Joseph F., Poole, and Poos. 3,094,462.

Poole, Lloyd C., to Weltronic Co. Electrical welding control system. 3,114,099, 12-19-63, Cl. 323—25.

Poole, Richard C.: *See*—
Andrew, Herbert F., and Poole. 3,097,910.

Poole, Victor D.: *See*—
Banks, William H., and Poole. 3,093,290.

Poole, William: *See*—
Jeffrey, George M., and Poole. 3,106,326.

Pooley, Robert W., and G. L. Barnes, to United States Rubber Co. Process for expanding polyethylene. 3,098,832, 7-23-63, Cl. 260—2.5.

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Poon, George S. Y., to Standard Chemical Products, Inc. Preparation of modified cyclic urea resins. 3,073,800, 1-15-63, Cl. 260—69.

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Groff, Emory L. 3,111,264.
Heer, Ralph W., and Mundy. 3,088,384.
Liebenthal, John H. 3,086,613.
Margraf, Philbert S. 3,085,748.
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Poor, John H.: *See*—
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Poor, Walter S., and M. H. Arck, to Barnes Engineering Co. Oscillatory scanning system. 3,087,373, 4-30-63, Cl. 88—1.

Poorman, Frank, Jr., and C. W. Lafitte, to Shell Oil Co. Hydraulically operated manifold valve sytem. 3,083,729, 4-2-63, Cl. 137—620.

Poorman, Richard M.: *See*—
Skinner, Ransom P., and Poorman. 3,105,293.

Poorman, Richard M., and G. C. Haettinger, to Union Carbide Corp. Light weight liquid helium control system. 3,092,972, 6-11-63, Cl. 62—52.

Poort, Henry H., to Drake Corp. Bowling ball press. 3,089,412, 5-14-63, Cl. 101—4.

Poorter, Teunis, to North American Philips Co., Inc. Wideband transistor amplifier. 3,079,567, 2-26-63, Cl. 330—21.

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Gardocki, Joseph F., Poole, and Poos. 3,094,462.
Meschino, Joseph A., and Poos. 3,115,494.

Poos, George I., to McNeil Laboratories, Inc. Certain new norbornenes. 3,074,961, 1-22-63, Cl. 260—326.3.

Poos, George I., to McNeil Laboratories, Inc. 2-R-3a,4,7,7a-tetrahydro-4,7-(R_1,R_2-Y)-R_4-isoindolines and the corresponding 3a,4,5,6,7,7a-hexahydro compounds. 3,100,776, 8-13-63, Cl. 260—296.

Poos, George I., to McNeil Laboratories, Inc. 2-amino-bicycloheptanes, octanes, nonanes and decanes. 3,108,998, 10-29-63, Cl. 260—247.2.

Poos, George I., and L. H. Sarett, to Merck & Co., Inc. 3-mono-oxime derivatives of C-4 unsaturated steroids. 3,074,979, 1-22-63, Cl. 260—397.45.

Popa, John, to General Electric Co. Inductive device. 3,077,570, 2-12-63, Cl. 336—61.

Pope, Geoffrey A. K., E. R. Brealey, and N. H. Kent, to Rolls-Royce Ltd. Gas turbine engine having adjustable guide vanes. 3,107,490, 10-22-63, Cl. 137—601.

Pope, Ira T., to Avco Corp. Frequency selector using voltage-sensitive capacitors for tuning and bandwidth control. 3,110,004, 11-5-63, Cl. 334—15

Pope, Jessie M. Hair conditioning implement. 3,102,941, 9-3-63, Cl. 219—24.

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Pope, John R., to United Shoe Machinery Corp. Shoe machines. 3,091,785, 6-4-63, Cl. 12—12.

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Pope, Lyman B., and J. W. Sjostrom, to Pope Machinery Corp. Grinding machine. 3,088,249, 5-7-63, Cl. 51—105.

Pope Machinery Corp.: *See*—
Pope, Lyman B., and Sjostrom. 3,088,249.

Pope Products Ltd.: *See*—
Erns, Elmar F. 3,080,123.

Popell, Samuel J. Variable cut dicer-slicer. 3,112,781, 12-3-63, Cl. 146—169.

Popejoy, Leland B. Telephone party line clearing component. 3,095,480, 6-25-63, Cl. 179—82.

Popelak, Alfred, and G. Lettenbauer, to C. F. Boehringer and Soehne G.m.b.H. Production of methyl ethers of compounds of the yohimbane series. 3,108,107, 10-22-63, Cl. 260—287.

Popelak, Alfred, and G. Lettenbauer, to C. F. Boehringer & Soehne G.m.b.H. Process for the production of reserpic acid diesters. 3,113,134, 12-3-63, Cl. 260—287.

Popenoe, Charles H., to United States of America, Navy. Coiling fin for tube launched missiles. 3,103,886, 9-17-63, Cl. 102—50.

Popham, Jack L.: *See*—
Phansalkar, Achyut K., and Popham. 3,085,976.

Popich, Nicholas P., to Submarine Trenching, Inc. Submerged trenching machine. 3,103,790, 9-17-63, Cl. 61—72.4.

Popiel, Edmund J., to Ford Motor Co. Bearing adjusting means. 3,112,965, 12-3-63, Cl. 308—178.

Popin, Thomas E.: *See*—
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Popkin, Alexander H., to Esso Research and Engineering Co. Preparation, treatment and storage, under a nitrogen blanket, of the diesters of dicarboxylic acids and oxo alcohols. 3,099,682, 7-30-63, Cl. 260—485.

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Smith, Robert K., and Popoff. 3,078,228.

Popoff, Ivan C., and H. Albert, to Pennsalt Chemicals Corp. Novel antiozonants for elastomers. 3,113,124, 12-3-63, Cl. 260—45.9.

Popovich, George, to General Motors Corp. Drive assembly. 3,101,010, 8-20-63, Cl. 74—700.

Popp, Bernhard, O. Scherer, H. Wolfram, A. Steinmetz, and A. Turk, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Process for the manufacturing of carboxylic acids. 3,105,091, 9-24-63, Cl. 260—524.

Poppe, Hubbert: *See*—
Kohl, Christoph, Schutz, Poppe, and Krusche. 3,113,824.

Poppe, Jan K. A.: *See*—
Van Rossum, Hendrikus C., and Poppe. 3,112,430.

Poppelsdorf, Fedor, to Union Carbide Corp. Purification of beta-alanine. 3,105,092, 9-24-63, Cl. 260—534.

Poppelsdorf, Fedor, and R. C. Myerly, to Union Carbide Corp. Process for the preparation of piperazine. 3,095,417, 6-25-63, Cl. 260—268.

Poppelsdorf, Fedor, and R. C. Myerly, to Union Carbide Corp. Process for the preparation of N-phenylpiperazines. 3,106,557, 10-8-63, Cl. 260—268.

Poppelsdorf, Fedor, and R. C. Myerly, to Union Carbide Corp. Process for the preparation of piperazines. 3,106,558, 10-8-63, Cl. 260—268.

Popper, Otto. Chains and marine apparatus moored or anchored by chains to the sea bed. 3,086,368, 4-23-63, Cl. 61—46.5.

Poradun, Daniel P. Vent pipe support holder. 3,105,664, 10-1-63, Cl. 248—56.

Porambo, Francis E., to Franchett's Kruellers, Inc. Automatic cruller machine. 3,106,151, 10-8-63, Cl. 99—353.

Porcara, Peter J., to The Givaudan Corp. Gel spot remover. 3,093,592, 6-11-63, Cl. 252—163.

Porcelli, John C., to Polymold Plastics, Inc. Apparatus for closing a nozzle or spout with a captive cap. 3,102,332, 9-3-63, Cl. 29—208.

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Pore, Glen L. Flushing tank actuator. 3,088,122, 5-7-63, Cl. 4—67.

Porges, Frederick B., to Flexibox Ltd. Mechanical seals for rotating parts. 3,072,414, 1-8-63, Cl. 277—93.

Poris, Harry. Display box. 3,079,039, 2-26-63, Cl. 220—97.

Porlund, Kjeld, to Danfoss ved Ingenior Mads Clausen. Mixing valve for hot and cold water installations. 3,116,015, 12-31-63, Cl. 236—12.

Porland, Kjeld, and C. Sorensen, to Danfoss ved Ingenior Mads Clausen. Regulating valve with cylindrical valve body. 3,071,156, 1-1-63, Cl. 137—625.4.

Porret, Daniel, W. Fisch, H. Batzer, and O. Ernst, to Ciba Ltd. Diepoxides of ether acetals of 1,1-bis (hydroxymethyl)-cyclohexene. 3,072,678, 1-8-63, Cl. 260—340.7.

Porsch, Friedrich, to Dragoco Spezialfabrik Konz, Riech- und Aromastoffe Gerberding & Co., G.m.b.H. Process of preparing 1-(4-hydroxy phenyl)-butanone-(3). 3,098,874, 7-23-63, Cl. 260—590.

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Hoenick, Hans H. 3,098,472.
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Komenda, Erwin. 3,088,781.
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Von Rucker, Nikolaus. 3,090,468.

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Portal, Pierre. Reinforced spool. 3,099,417, 7-30-63, Cl. 242—118.62.

Portal, Pierre. Spool. 3,104,851, 9-24-63. Cl. 242—118.62.

Porta-Panel Products, Inc.: *See*—
Ramseur, Vardry D., Jr. 3,071,871.

Porteous, John A., to United States Rubber Co. Polyurethane coated fabric filled with isocyanate free elastomer and method of making same. 3,085,027, 4-9-63, Cl. 117—68.

Porter, Allan W. H., to Hobourn-F.N.F. Ltd. Warp knitting machines. 3,097,511, 7-16-63, Cl. 66—86.

Porter, Ann L. Apparatus for restraining animals. 3,094,101, 6-18-63, Cl. 119—103.

Porter-Cable Machine Co., The: *See*—
Stelljes, Charles R., Frostad, and Leach. 3,095,748.

Porter, Clarence W., to Square D Co. Control circuit. 3,071,712, 1-1-63, Cl. 317—142.

Porter, Clarence W., to Square D Co. Control circuit. 3,079,547, 2-26-63, Cl. 323—58.

Porter, David J., to FMC Corp. Combined catalytic and non-catalytic process of producing hydrogen sulfide and carbon disulfide. 3,087,788, 4-30-63, Cl. 23—181.

Porter, Donald H.: *See*—
Jenney, Theodore M., and Porter. 3,073,680.
Jenney, Theodore M., Porter, and Zdrojewski. 3,112,278.

Porter, Donald K., to The B. F. Goodrich Co. Bead winding apparatus. 3,080,127, 3-5-63, Cl. 242—7.

Porter, Edward. Internal bore measuring apparatus. 3,114,978, 12-24-63, Cl. 33—174.

Porter, Forrest V., to Dresser Industries, Inc. Sidewall sampler. 3,080,005, 3-5-63, Cl. 175—2.

Porter, Frank E., to Quality Pearl Products Corp. Method of making pearlized plastics. 3,113,829, 12-10-63, Cl. 18—58.

Porter, Frank W., to Productive Equipment Corp. Vibrating equipment. 3,071,901, 1-8-63, Cl. 51—163.

Porter, Frederick W.: *See*—
White, Peter T., and Porter. 3,071,629.

Porter, Frederick W. B., and P. T. White, to The British Petroleum Co. Ltd. Catalytic reforming of petroleum hydrocarbons. 3,071,537, 1-1-63. Cl. 208—65.

Porter, Frederick W. B., and P. T. White, to The British Petroleum Co. Ltd. Catalytic reforming of petroleum hydrocarbons. 3,071,539, 1–1–63, Cl. 208—135.
Porter, Glenn M., to National Distillers and Chemical Corp. Adjustable angle travelling saw. 3,090,269, 5–21–63, Cl. 83—473.
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Porter, H. K., Co., Inc.: *See*—
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Connor, Richard E., and Kitching. 3,112,772.
Hill, Rowland E. 3,084,432
Porter, Thomas M. 3,074,164.
Richardson, Joseph W., Jr. 3,084,734.
Richardson, Joseph W., Jr. 3,104,364.
Rittenhouse, Godfrey J. 3,073,353.
Rittenhouse, Godfrey J. 3,100,659.
Roudabush, Ned W. 3,086,330.
Shaback, Andrew J. 3,096,392.
Smith, Norman L. 3,090,112.
Sprigings, Donald G. 3,098,894.
Sprigings, Donald G. 3,114,411
Teeple, Frank A., Jr. 3,115,056.
Porter, Henry H., S. Karrer, R. D. Mindlin, and J. A. Van Allen. Rugged vacuum tube. 3,113,235, 12–3–63, Cl. 313—285.
Porter, Hubert T., A. K. Renshaw, and P. T. White, to The British Petroleum Co. Ltd. Production of gas suitable for use as town gas. 3,104,957, 9–24–63, Cl. 48—197.
Porter, James A., and L. A. Staskelunas, to General Motors Corp. Automatically reversible motor for domestic appliance. 3,090,900, 5–21–63, Cl. 318—207.
Porter, Joe A., and A. L. Kohl, to The Fluor Corp. Ltd. Apparatus and method for promoting biological oxidation of organic material. 3,112,261, 11–26–63, Cl. 210—17.
Porter, Joe M., to Northrop Corp. Disengaging tool. 3,087,235, 4–30–63, Cl. 29—206.
Porter, John H., to Crestmont Consolidated Corp. Apparatus for simulating pulse signals generated by a PAM/PDM commutator. 3,080,526, 3–5–63, Cl. 328—187.
Porter, Lee M., to Shell Oil Co. Polymerizing diolefins with alkyl lithium catalyst in tetrahydrofuran solvent. 3,105,828, 10–1–63, Cl. 260—83.7.
Porter, Louis E. Combined cigarette and match container. 3,113,669, 12–10–63, Cl. 206—48.
Porter, Louis M., and F. T. Speck, to Fike Metal Products Corp. Rupture disc unit. 3,109,554, 11–5–63, Cl. 220—89.
Porter, Noel E., to Hewlett-Packard Co. Electrical apparatus. 3,084,308, 4–2–63, Cl. 317—14
Porter, Norman, to Ametek, Inc. Instrument casing. 3,108,477, 10–29–63, Cl. 73—431.
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Porter, Robert D. Method of installing furnace, and furnace for easy installation. 3,103,924, 9–17–63, Cl. 126—116.
Porter, Roger S., and G. H. Cady, to United States of America, Navy. Preparation of perfluorodimethyl peroxide. 3,100,803, 8–13–63, Cl. 260—610.
Porter, Thomas M., to H. K. Porter, Inc. Multiple lever tool. 3,074,164, 1–22–63, Cl. 30—193.
Porter, Walter G., and B. W. Wickemeler, to Porter Precision Products. Demountable retainer for punch and die sets 3,103,845, 9–17–63, Cl. 83—698.
Porter, Walter J., Jr.: *See*—
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Portnoy, Allen J., to Blair Displays, Inc. Moving shelf display case. 3,103,396, 9–10–63, Cl. 312—126.
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Portz, William E., to True Temper Corp. Reel mounting means for fishing rods. 3,098,313, 7–23–63, Cl. 43—22.
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Portzer, Harry J., H. B. Sargent, M. L. Kasbohm, and E. A. Bohner, Jr., to Union Carbide Corp. Acetylene transport system. 3,108,445, 10–29–63, Cl. 62—48.
Porwancher, Samuel R., to Michigan Oven Co. Fluid flow responsive switch apparatus. 3,113,189, 12–3–63, Cl. 200—81.9.
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Poschenrieder, Werner, to Siemens & Halske Aktiengesellschaft. Electrostrictive flexing oscillator. 3,114,849, 12–17–63, Cl. 310—9.7.
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Posener, Armand L. A., and A. E. Elmore, to Kitchen Master Appliance, Inc. Fruit and vegetable juice extractor. 3,101,107, 8–20–63, Cl. 146—76.
Posh, Raymond C., to American Metal Products Co. Accumulator. 3,115,162, 12–24–63, Cl. 138—30.
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Posner, Woolf. Optical apparatus for producing changing designs. 3,100,418, 8–13–63, Cl. 88—15.
Posniak, Benjamin, G. A. McCoubrey, and E. Bablarz, to Kaman Aircraft Corp. Rotor for a helicopter. 3,106,963, 10–15–63, Cl. 170—160.12.
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Possis Machine Corp.: *See*—
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Possis, Zinon C., W. E. Johnson, M. J. Straub, and M. H. Franke, to Possis Machine Corp. Automatic taping apparatus for applying adhesive tape strips about a wire coil. 3,108,922, 10–29–63, Cl. 156—468.
Post, Charles B. Disconnect coupling. 3,083,992, 4–2–63, Cl. 287—119.
Post, Frederick L., to International Business Machines Corp. Magnetic core device. 3,099,821, 7–30–63, Cl. 340—174.
Post, Herbert G., and W. L. Carroll. Controlled feed mechanism for yarn. 3,073,139, 1–15–63, Cl. 66—132.
Post, Herman D. Tape splicer. 3,077,808, 2–19–63, Cl. 83—581.
Post, Herman D. Tape splicer with turnable cutter. 3,110,210, 11–12–63, Cl. 83—550.
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Post, James D., deceased, by I. Post, administratrix, to Republic Foil, Inc. Multi-layer laminating machine. 3,104,073, 9–17–63, Cl. 242—67.2.
Post, Leo B.: *See*—
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Klein, George I., Newby, and Post. 3,100,693.
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Post, Paul J., and E. F. Moynihan. Apparatus for winding toroidal cores. 3,104,840, 9–24–63, Cl. 242—4.
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Post, Richard F. Expendable vapor noisemaker. 3,094,968, 6–25–63, Cl. 116—27.
Post, Richard F., to United States of America, Atomic Energy Commission. Magnetic end closures for plasma confining and heating devices. 3,101,310, 8–20–63, Cl. 204—193.2.
Post, Richard F., and C. E. Taylor, to United States of America, Atomic Energy Commission. Cryogenic magnets. 3,090,894, 5–21–63, Cl. 317—158.
Post, Richard F., and C. E. Taylor, to United States of America, Atomic Energy Commission. Method for reducing the impurity resistivity of sodium. 3,100,730, 8–13–63, Cl. 148—13.
Post, Roy G., to United States of America, Atomic Energy Commission. Nuclear reactor. 3,088,904, 5–7–63, Cl. 204—193.2.
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Bonvicini, Alberto, and Postal. 3,093,615.
Postal, Robert: *See*—
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Bostrom, John D. 3,111,220.
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Brockbank, Robert A., Piggott, Clarke, Jury, and Taylor. 3,105,676.
Flowers, Thomas H. 3,098,218.
Flowers, Thomas H. 3,110,867.
French, James A. T. 3,100,243.
Law, Harry B. 3,089,920.
Lynch, Arnold C. 3,089,228.
Lynch, Arnold C. 3,093,819.
Taylor, Frederick J. D. 3,089,511.
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Downing, Kenneth D., Hall, and Poston. 3,115,401.
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Postula, Victor A.: *See*—
Postula, Louis J., and V. A. 3,089,745.
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Potapenko, Gennady, to R. Robbins. Air directing isolation apparatus. 3,107,863, 10–22–63, Cl. 240—1.4.
Potapenko, Gennady, to R. Robbins. Method and system for the prevention of the spread of infectious disease by airborne microorganisms. 3,107,974, 10–22–63, Cl. 21—53.
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Potechina, Lidia A.: *See*—
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Potenza, Joseph, 60% to R. Williams. Fluid motivated abrading and washing device. 3,088,149, 5–7–63, Cl. 15—29.
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Groeneveld, Ymc R. F. J., and Potjer. 3,084,328.
Potlatch Forests, Inc.: *See*—
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Potrafke, Werner. Cashier's station for self-service stores. 3,076,528, 2–5–63, Cl. 186—1.
Potrafke, Werner. Cashier's table for self-service stores. 3,094,191, 6–18–63, Cl. 186—1.
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Potschka, Joseph W. 3,092,818.
Potschka, Joseph W., to Potschka Enterprises Ltd. Vehicle load indicator. 3,092,818, 6–4–63, Cl. 340—198.
Pottash, Herbert. Gasoline tank fill. 3,104,777, 9–24–63, Cl. 220—86.
Pottenger, Carl H., to Koppers Co., Inc. Storable stable expandable polymeric composition containing expandable polymeric particles and two different blowing agents and method of making same. 3,089,857, 5–14–63, Cl. 260—2.5.
Potter, Allen G., Jr., to American Cyanamid Co. Diphenylamine process. 3,079,439, 2–26–63, Cl. 260—576.
Potter, Barrie V., to Esso Research and Engineering Co. Method of cleaning engine exhaust gases. 3,100,376, 8–13–63, Cl. 60—30.
Potter, Charles, to Engelhard Industries, Inc. Noise suppressor. 3,075,609, 1–29–63, Cl. 181—44.
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Potter, David V., to American Motors Corp. Engine lubricating apparatus. 3,087,582, 4–30–63, Cl. 184—6.
Potter, Francis M.: *See*—
Achtmeyer, George B., and Potter. 3,104,070.
Potter, Frank J., to General Dynamics Corp. Test circuit for determining dynamic transistor characteristics. 3,094,660, 6–18–63, Cl. 324—158.
Potter, Frederick M., to The Bendix Corp. A.C. generator negative slip ring construction. 3,073,979, 1–15–63, Cl. 310—231.
Potter, Frederick M., to The Bendix Corp. Dynamoelectric machine. 3,074,002, 1–15–63, Cl. 322—25.
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Antonucci, Carmine J. 3,086,157.
Comstock, George E., 3d. 3,090,299.
Fradkin, Joseph. 3,110,250.
Gabor, Andrew. 3,071,723.
Gabor, Andrew. 3,114,899.
Newberg, Gerald. 3,104,071.
Potter, John T., Comstock, and Sekyra. 3,110,431.
Schoeneman, Robert E. 3,091,408.
Potter, John A. Roof ventilator. 3,080,808, 3–12–63, Cl. 98—42.
Potter, John T., G. E. Comstock, and E. Sekyra, to Potter Instrument Co., Inc. Tape loop handler with air support. 3,110,431, 11–12–63, Cl. 226—93.
Potter, Omer R.: *See*—
Peterson, Alge T., Jr., and Potter. 3,073,259.
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Cotter, Perry G., and Potter. 3,088,805.
Potter, Ralph M.: *See*—
Aven, Manuel, and Potter. 3,080,325.
Potter, Ronald E.: *See*—
Crates, James C., and Potter. 3,085,775.
Pottern, Alvin R.: *See*—
Fischer, Edmund F., and Pottern. 3,089,373.
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Jones, James B., and Potthoff. 3,071,216.
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Sorstokke, Harold, and Pottkotter. 3,079,419.
Pottle, Kenneth L. Type for composing for lithographing. 3,099,947, 8–6–63, Cl. 95—85.
Pottle, Ralph K., to American Can Co. Machine and method for manufacturing fibrous container bodies. 3,087,393, 4–30–63, Cl. 93—94.
Pottle, Ralph K., to American Can Co. Cutter spacing device. 3,094,026, 6–18–63, Cl. 82—46.
Pottle, Ralph K., to American Can Co. Tube stuffing machine. 3,113,410, 12–10–63, Cl. 53—119.
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French, Alfred W., and Potts. 3,092,017.
Potts, James H., Jr., to United States of America, Navy. Parachute pack opening mechanism. 3,087,695, 4–30–63, Cl. 244—147.
Potts, James H., Jr., to United States of America, Navy. Parachute pack and pack opener. 3,087,697, 4–30–63, Cl. 244—149.
Potts, James H., Jr., and J. L. Baldwin, Jr., to United States of America, Navy. Parachute pack opener. 3,092,358, 6–4–63, Cl. 244—147.
Potts, John, and E. Cairelli, to Wilson-Jones Co. Loose leaf binder. 3,080,562, 3–5–63, Cl. 129—41.
Potts, Thomas J., Jr., and E. F. Grant, to National Co., Inc. Pulse power resolving system. 3,115,611, 12–24–63, Cl. 331—183.
Potzick, Anthony J., to The Mosler Lock Co. Manipulation resistant combination lock. 3,073,145, 1–15–63, Cl. 70—303.
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Pouilloux, Jacques, to Pneumatiques et Caoutchouc Manufacture Kleber-Colombes. Tire building drum. 3,111,444, 11–19–63, Cl. 156—416.
Pouilloux, Jacques, and J. R. Saint Paul, to Pneumatiques et Caoutchouc Manufacture Kleber-Colombes. Tire building and shaping drum. 3,111,445, 11–19–63, Cl. 156—416.
Poujade, Anne M. L.: *See*—
Hadancourt, Alain C., and Poujade. 3,089,983.
Poujade, Jules C. J.: *See*—
Hadancourt, Alain C., and Poujade. 3,089,983.
Poulin, Allan R., to National Twist Drill & Tool Co. Drill construction. 3,089,359, 5–14–63, Cl. 77—69.
Poulos, Nicholas A., to Olin Mathieson Chemical Corp. Method of operating an electrolytic analysis cell. 3,096,258, 7–2–63, Cl. 204—1.
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Poundstone, William N., to Consolidation Coal Co. Self training roller assemblies for endless belt conveyors. 3,072,242, 1–8–63, Cl. 198—192.
Poundstone, William N., to Christopher Coal Co. Troughing idler roller assembly for belt conveyors. 3,082,860, 3–26–63, Cl. 198—192.
Poundstone, William N., to Consolidation Coal Co. Resiliently mounted cutting tool. 3,101,934, 8–27–63, Cl. 262—33.
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Poupitch, Ouglјesa J., to Illinois Tool Works, Inc. Container carrier. 3,085,682, 4–16–63, Cl. 206—65.
Poupitch, Ouglјesa J., to Illinois Tool Works, Inc. Container-carrier device. 3,086,651, 4–23–63, Cl. 206—65.
Poupitch, Ouglјesa J., to Illinois Tool Works Inc. Container carrier pack and method of making same. 3,097,740, 7–16–63, Cl. 206—65.
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Powell, Earl A. Portable work counter. 3,089,742, 5–14–63, Cl. 312—223.
Powell, Edward J. E. Machines for forming cartons. 3,079,845, 3–5–63, Cl. 93—44.1.
Powell, Edward J. E. Cartons. 3,082,926, 3–26–63, Cl. 229—7.
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Powell, Milton W., 40% to L. J. McConnell, and 20% to P. H. Mansfield. Lantern mounting bracket for boats. 3,096,961, 7–9–63, Cl. 248—229.

Powell, Ralph C.: *See*—
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Powell, Robert J., and J. E. Champion, to Continental Motors Corp. Engine controls. 3,094,836, 6–25–63, Cl. 60—13.

Powell, Stanley F., ½ to S. L. Selko. Toilet tissue holder. 3,086,724, 4–23–63, Cl. 242—55.53.

Powell, Vernon, to Joseph Bradbury & Sons Ltd. Roll-on-to-free-wheel convertible vehicle lift. 3,078,961, 2–26–63, Cl. 187—8.54.

Powell, Wesley, to Texas Gulf Tank Co. Treater for well fluids. 3,105,751, 10–1–63, Cl. 55—175.

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Chambers, Hubert H., and Bird. 3,114,961.
Charlton, George H., and Allen. 3,076,622.
Cheeseman, Ian C., and Moss. 3,096,041.
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Fitchie, John W. 3,089,306.
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Kentfield, John A. C. 3,109,580.
Kuchemann, Dietrich, Lilley, and Maskell. 3,090,584.
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Powers, Donald H., and M. M. Rieger, to Warner-Lambert Pharmaceutical Co. Iodine preparation and method of disinfecting the skin. 3,081,232, 3–12–63, Cl. 167—70.

Powers, Dwight W. Combustion control with combustion air and draft diversion air control system. 3,092,320, 6–4–63, Cl. 236—9.

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Powers, Richard M., to Sylvania Electric Products Inc. Apparatus for determining radioactive material ratios. 3,086,116, 4–16–63, Cl. 250—83.

Powers, Robert E., to Bell Telephone Laboratories, Inc. Transmission regulator utilizing passive variable-losser which is controlled, via circuit having expansion network, by signal level. 3,086,179, 4–16–63, Cl. 333—14.

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Hackley, Brennie E., Jr., Poziomek, and Steinberg. 3,093,539.
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Prahl, Walter H., S. J. Lederman, and E. I. Lichtblau, to Hooker Chemical Corp. Production and purification of diphenylolalkanes. 3,073,868, 1–15–63, Cl. 260—619.

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Prange, Charles J., to Flexible Sewertool Corp. Reciprocative mechanism for feeding sewer cleaner drive rod. 3,083,391, 4–2–63, Cl. 15—104.3.

Prater, Arthur N., and T. M. Lukes, to Consolidated Foods Corp. Method of preparing toasted dehydrated onions. 3,098,750, 7–23–63, Cl. 99—204.

Prater, Arthur N., and A. P. Vosti, to Gentry Division, Consolidated Foods Corp. Method of dehydrating union fragments. 3,113,875, 12–10–63, Cl. 99—204.

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Giuffrida, Philip, and Pratt. 3,091,724.

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Pratt, Verneur E., to General Telephone Directory Co. Microfilm reader. 3,072,013, 1–8–63, Cl. 88—24.

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Ruhlman, Jon R. 3,087,008.
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Preis, Carl G., and L. K. Kuhnl, to Eversharp, Inc. Safety razor blade having means for tiltably locking the same in the opened up head of a razor. 3,071,857, 1–8–63, Cl. 30—351.

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Preiser, Aaron, to Esso Research and Engineering Co. Coalescing sulphuric acid-hydrocarbon emulsions. 3,098,108, 7–16–63, Cl. 260—683.42.

Preiser, Herman S. Flexible trailing anode. 3,104,220, 9–17–63, Cl. 204—196.

Preiser, Herman S., and F. E. Cook, to Chemionics Engineering Laboratories, Inc. Pipe plug anode. 3,081,252, 3–12–63, Cl. 204—196.

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Preload Corp.: *See*—
Closner, John J., Maroti, and Magers. 3,092,933.

Prelog, Vladimir: *See*—
Gaeumann, Ernst, and Prelog. 3,105,794.

Prelog, Vladimir, to Ciba Corp. Aliphatic aldehydes. 3,076,847, 2–5–63, Cl. 260—593.

Pre-Met Manufacturers Ltd.: *See*—
Eberle, Otto E., and Hoare. 3,115,758.

Premier Carton Co.: *See*—
Fobiano, Frank E. 3,086,691.
Fobiano, Frank E. 3,088,648.

Premier Gear & Machine Works, Inc.: *See*—
Heth, Edwin M. 3,078,887.
Heth, Edwin M., and Lofstedt. 3,110,330.
Lofstedt, William J. 3,073,363.

Premier Industrial Corp.: *See*—
Kriewall, William B., and Leston. 3,102,827.

Premo, Ellis J., and R. J. Williams, to General Motors Corp. Vehicle closure. 3,078,119, 2–19–63, Cl. 296—44.

Premo, Howard J. Ice auger. 3,093,199, 6–11–63, Cl. 175—18.

Premo, John G.: *See*—
Ryznar, John W., and Premo. 3,100,181.

Premoli, Ercole: *See*—
Zoppi, Bruno, Premoli, and Tamburini. 3,094,652.

Prendergast, Agnes: *See*—
Prendergast, John J. 3,082,707.

Prendergast, John J., deceased; A. Prendergast, executrix, to Evans Products Co. Merchandise loader for railway freight cars. 3,082,707, 3–26–63, Cl. 105—369.

Prener, Jerome S., to General Electric Co. Method of making silicon carbide. 3,085,863, 4–16–63, Cl. 23—208.

Prentice, E. V., Co.: *See*—
Ensley, Irvin L., and Buckner. 3,080,958.

Prentice, G. E., Mfg. Co., The: *See*—
Jensen, Robert. 3,112,546.

Prentice, George D., to A. F. Klinzing Co., Inc. Animal watering fountain. 3,095,856, 7–2–63, Cl. 119—75.

Prentice, Russell E., to Hycon Mfg. Co. Shutter drive mechanism. 3,091,973, 6–4–63, Cl. 74—2.

Prentice, William H., to Owens-Corning Fiberglas Corp. Devices and methods for applying strands. 3,111,440, 11–19–63, Cl. 156—71.

Prentiss, Spencer S., to Phillips Petroleum Co. Means for supporting the walls of a well. 3,106,246, 10–8–63, Cl. 166—58.

Prentki, Stefan. Dental articulator. 3,078,577, 2–26–63, Cl. 32—32.

Prentky, Peter I.: *See*—
Witt, Victor R., Prentky, and Dudek. Re. 25,405.

Preotle, John J., and C. E. Rembold, to General Motors Corp. Refrigerating apparatus. 3,115,020, 12–24–63, Cl. 62—275.

Prep Foods, Inc.: *See*—
Jones, Eynon, and Johnson. 3,113,872.

Prerovske strojirny, narodni podnik: *See*—
Zacpal, Zdeněk, and Šafář. 3,102,719.

Prescon Corp., The: *See*—
Middendorf, Karl H. 3,115,727.

Prescott, Francis J., and E. A. Wich, to General Aniline & Film Corp. Preparation of paint compositions containing a pyrrolidone compound. 3,088,837, 5–7–63, Cl. 106—262.

Prescott, Robert E.: *See*—
Jack, Robert F., Prescott, and White. 3,075,280.
Mitchell, Clifford E., Prescott, Schenker, and Tweed. 3,109,071.

Prescott, Robert E., to Bell Telephone Laboratories, Inc. Alignment device. 3,116,365, 12–31–63, Cl. 178—5.6.

Prescott, Thomas W., and F. H. Scrimshaw, to Minister of Aviation in Her Majesty's Government of the United Kingdom of Great Britain and Northern Ireland. Automatic blind landing systems for aircraft. 3,092,357, 6–4–63, Cl. 244—77.

Presnell, Frank G. Flow proportioner. 3,113,581, 12–10–63, Cl. 137—101.

Press Accessories Co.: *See*—
Crance, Harry W., Jr. 3,099,092.

Press, Harold: *See*—
Borisof, Bernard. 3,102,634.

Press, Irving D., to Resistoflex Corp. Reusable fitting with metallic sealing ring. 3,083,989, 4–2–63, Cl. 285—110.

Presser, Leiser. Window cleaning device. 3,104,411, 9–24–63, Cl. 15—250.03.

Pressler, Antone L. Speed jack. 3,094,005, 6–18–63, Cl. 74—15.2.

Pressley, Robert C., Jr.: *See*—
Shell, Ernest F., and Pressley. 3,071,329.

Pressman, Abraham I., to Radio Corp. of America. Transistor-negative resistance diode shifting and counting circuit. 3,102,209, 8–27–63, Cl. 307—88.5.

Pressman, Abraham I., to Radio Corp. of America. Self-resetting tunnel diode-transistor hybrid pulse circuit. 3,114,846, 12–17–63, Cl. 307—88.5.

Prestel, Karl: *See*—
Deinhardt, Hans, Muessig, and Prestel. 3,115,011.

Prestia, Michael J. Ceiling tile with sound attenuating and visual effects. 3,087,577, 4–30–63, Cl. 181—33.

Prestidge, Allen F.: *See*—
Packer, Mervyn B., Prestidge, Rodway, and Parnell. 3,093,422.

Prestige Furniture Corp.: *See*—
Baermann, Walter P. 3,101,218.
Baermann, Walter P. 3,103,082.
Baermann, Walter P. 3,107,944.

Prestige, Harry T., D. G. Eade, A. P. Hale, B. M. Lee, R. T. Lovelock, W. F. P. Smith, and V. Teacher to Belling & Lee Ltd. Securing inserts in sheet material. 3,093,887, 6–18–63, Cl. 29—155.55.

Prestige, Inc.: *See*—
Burd, Samuel I., and Lord. 3,094,954.
Clarke, Joseph V. Re. 25,331.

Presto Lock Co.: *See*—
Gehrie, Charles S. 3,112,018.

Prestole Corp.: *See*—
Munse, Robert A. 3,074,287.

Preston, Daniel S., to Hughes Aircraft Co. Flexible electrical cable and method of making the same. 3,086,071, 4–16–63, Cl. 174—117.

Preston, Evalyn: *See*—
Fish, Richard H. 3,092,327.

Preston, Glenn W., to Philco Corp. Cathode ray system. 3,080,500, 3–5–63, Cl. 315—16.

Preston, Glenn W., to General Atronics Corp. Computing device. 3,100,943, 8–20–63, Cl. 35—30.

Preston, James N. Super-charged fire jet torque and propulsion reaction engine. 3,092,967, 6–11–63, Cl. 60—39.35.

Preston, James N. Super-charged jet torque and propulsion reverse reaction engine. 3,095,703, 7–2–63, Cl. 60—39.35.

Preston, James N. High compression torque and propulsion jet reaction engine. 3,102,391, 9–3–63, Cl. 60—39.35.

Preston, Jerome A., to The Ransom & Randolph Co. Dental stone. 3,083,110, 3–26–63, Cl. 106—38.35.

Preston, John: *See*—
Bleazey, John C., and Preston. 3,073,411.

Preston, Neil D., to General Railway Signal Co. Automatic CTC system. 3,079,494, 2–26–63, Cl. 246—5.

Preston, Raymond: *See*—
Lubash, John J. 3,086,738.

Preston, Robert W. G.: *See*—
Walsh, William D., and Preston. 3,108,121.

Preston-Thomas, Hugh: *See*—
Dauphinee, Thomas McC., and Preston-Thomas. 3,087,337.

Preston, William E.: *See*—
Gibson, Fred M., and Preston. 3,073,474.

Preteeille, Maurice A., to Lignes Telegraphiques & Telephoniques. Amplifier with regulated output level. 3,105,202, 9–24–63, Cl. 330—84.

Preu, Helmut W., and W. J. Hohenstein, to The F. & M. Schaefer Brewing Co. Crowned bottle rejection pin for bottle pick up apparatus. 3,071,403, 1–1–63, Cl. 294—64.

Preuss, Albert F., Jr., to Rohm & Haas Co. Removal of ferric chloride from iron-aluminum chloride solutions. 3,082,062, 3–19–63, Cl. 23—92.

Preuss, Ernest A., to Aircraft Radio Corp. Course director. 3,104,390, 9–17–63, Cl. 343—107.

Preuss, Frederick W., to Storkline Corp. Cabinet construction. 3,088,560, 5–7–63, Cl. 189—36.

Preuss, Walter A., to Radio Corp. of America. Apparatus for feeding parts. 3,103,283, 9–10–63, Cl. 214—1.

Preve, Jacques: *See*—
Montarnal, Roger, and Preve. 3,110,653.

Previati, Agusto, to Pirelli S.p.A. Sealing device between a flexible tube and its rigid connector. 3,115,353, 12–24–63, Cl. 285—14.

Previte, Dominick L., and A. D. Schultz, to Eaton Mfg. Co. Method of making a wheel. 3,080,644, 3–12–63, Cl. 29—159.

Previte, Richard A.: *See*—
Abbott, Henry H., Martin, Previte, and H. J. and J. G. Walsh. 3,087,025.

Previti, Marte. Combination swimming pool and fallout shelter. 3,074,080, 1–22–63, Cl. 4—172.

Prevost, Maurice E.: *See*—
Kyser, Robert J., Prevost, and Beaudin. 3,086,226.

Prevot, Francois, to Commissariat a l'Energie Atomique. Ion injection device for thermonuclear plasma apparatus. 3,093,765, 6–11–63, Cl. 313—63.

Prevot, Pierre, and P. Guinet, to Societe des Usines Chimiques Rhone-Poulenc. Treatment of finely divided solids with organosilicic derivatives. 3,085,905, 4–16–63, Cl. 117—100.

Prew, Thomas B., to Stafford Tool and Die Co. Ltd. Machinery for cutting, embossing or marking materials. 3,099,596, 7–30–63, Cl. 156—380.

Preway, Inc.: *See*—
Allen, Joseph A. 3,090,374.
Claywell, Jack W. 3,104,669.
Claywell, Jack W. 3,111,941.
Claywell, Jack W. 3,111,963.

Preway, Inc.: *See*—Continued
Jenson, Kenneth S. 3,077,825.
Nelson, Averd G. 3,090,375.
Pavlak, Casimir J. 3,077,920.
Peterson, Stanley O. 3,090,587.

Prewitt Plastics Co.: *See*—
Prewitt, Richard H., and Purcell. 3,078,911.

Prewitt, Richard H., and T. H. Purcell, Jr., to Prewitt Plastics Co. Apparatus for the assembly of an airfoil. 3,078,911, 2–26–63, Cl. 156—581.

Prewitt, Richard H., Jr., to Burroughs Corp. Centrifugal mercury switch. 3,104,294, 9–17–63, Cl. 200—80.

Prewitt, Richard H., Jr., to Burroughs Corp. Centrifugal mercury switch. 3,114,017, 12–10–63, Cl. 200—80.

Preziosi, Anthony. Scoop shovel. 3,094,348, 6–18–63, Cl. 294—55.5.

Prezioso, Nicholas, Jr., ½ to E. P. Daugherty. Paint roller with detachable drip catcher. 3,112,729, 12–3–63, Cl. 15—230.

Priaroggia, Paolo G.: *See*—
Palandri, Giuseppe, and Priaroggia. 3,084,208.
Palandri, Giuseppe, and Priaroggia. 3,115,542.

Priaroggia, Paolo G., and W. Siegfried, to Pirelli Societa per Azioni. Apparatus for hot-sheathing electric cables with tubular metal sheaths. 3,073,441, 1–15–63, Cl. 207—4.

Pribonic, John F., to General Motors Corp. Pressure relief valve. 3,101,739, 8–27–63, Cl. 137—529.

Pribonic, John F., and J. E. Whelan, to General Motors Corp. Means for controlling the dampening of an elastically suspended rotating drum during centrifuging. 3,114,705, 12–17–63, Cl. 210—145.

Pribyl, Edward J.: *See*—
Yale, Harry L., Sowinski, and Pribyl. 3,079,400.

Price, Albert E., to General American Transportation Corp. Loading and unloading systems for bodies of railway cars or the like. 3,102,496, 9–3–63, Cl. 104—98.

Price, Alfred G. Cigarette pack dispensing carton. 3,101,884, 8–27–63, Cl. 229—51.

Price, Anthony R.: *See*—
Capewell, William K., and Price. 3,105,207.
Gwin, Gilmore T., and Price. 3,108,980.

Price, Bernard M. Windshield wiper. 3,078,494, 2–26–63, Cl. 15—250.17.

Price, Berry G., E. A. Placke, and C. D. Stegall, to Tuboscope Co. Paper holder, drive take-up apparatus. 3,107,064, 10–15–63, Cl. 242—55.

Price, Dennis T., and I. Gordon, to Hooker Chemical Corp. Production of phosphine. 3,109,787, 11–5–63, Cl. 204—101.

Price, Earl R., to The Bendix Corp. Power actuated master cylinder. 3,100,379, 8–13–63, Cl. 60—54.6.

Price, Earl R., to The Bendix Corp. Servomotor construction. 3,109,282, 11–5–63, Cl. 60—10.5.

Price, Earl R., to The Bendix Corp. Reaction means for servomotors. 3,110,031, 11–5–63, Cl. 60—54.5.

Price, Earl R., D. L. Hoover, R. R. Hager, and G. Pfeifer, to The Bendix Corp. Fluid pressure motor construction. 3,083,698, 4–2–63, Cl. 121—48.

Price, Earl R., and E. E. Hupp, to The Bendix Corp. Low input braking system. 3,103,854, 9–17–63, Cl. 91—395

Price, Edison, and I. Goodbar. Lighting fixtures. 3,098,612, 7–23–63, Cl. 240—41.35.

Price, Edmund T.: *See*—
Cremer, George D., Long, Filippe, and Price. 3,072,225.

Price, Edmund T., G. D. Cremer, F. J. Filippi, and J. V. Long, to Solar Aircraft Co. Method and apparatus for making brazed honeycomb. 3,071,853, 1–8–63, Cl. 29—471.1.

Price, Edward P. Electric heating and/or cooling blanket. 3,080,723, 3–12–63, Cl. 62—3.

Price, Frank B.: *See*—
Steele, Clarence R., and Price. 3,100,462.

Price, George C., to Oliver Electrical Mfg. Co. Aerial cable support spacer. 3,095,471, 6–25–63, Cl. 174—160.

Price, Glenn R., E. N. Walsh, and J. T. Hallett, to Stauffer Chemical Co. Phosphorus-containing thioureas. 3,083,135, 3–26–63, Cl. 167—22.

Price, Glenn R., E. N. Walsh, and J. T. Hallett, to Stauffer Chemical Co. Oxime and hydroxamic acid derivatives of phosphorothioic acids. 3,094,406, 6–18–63, Cl. 71—2.3.

Price, Glenn R., E. N. Walsh, and J. T. Hallett, to Stauffer Chemical Co. Phosphoro carbamoyl disulfides. 3,094,548, 6–18–63, Cl. 260—461.

Price, Glenn R., E. N. Walsh, and J. T. Hallett, to Stauffer Chemical Co. Dialkoxyphosphinyl carbalkoxyalkyl disulfide pesticides. 3,109,770, 11–5–63, Cl. 167—22.

Price, Glenn R., E. N. Walsh, and J. T. Hallett, to Stauffer Chemical Co. Thiophosphoric acid ester compounds having P-S-N-P linkage. 3,114,761, 12–17–63, Cl. 260—461.

Price, H. Curtis, to Duracote Corp. Electro-magnetic wave reflecting laminate and method of making it. 3,112,221, 11–26–63, Cl. 117—217.

Price, Harry N.: *See*—
Biehl, Richard E., Price, and Sternberg. 3,097,766.

Price, Harry N., and A. H. Raye, to Curtiss-Wright Corp. Intake port construction for rotary mechanisms. 3,103,208, 9–10–63, Cl. 123—8.

Price, Herbert P., and W. J. Belanger, to Devol & Raynolds Co., Inc. Aliphatic modified epoxide resins. 3,071,562, 1–1–63, Cl. 260—47.

Price, Hollas K. Rocket-propelled vehicle with propulsion assistant. 3,092,027, 6–4–63, Cl. 102—49.

Price, Howard W., to Joy Mfg. Co. Gas sampling apparatus. 3,085,439, 4–16–63, Cl. 73—421.5.

Price, James O., and F. T. Smith, to Goodyear Aircraft Corp. Method of plastic edge attachment. 3,093,526, 6–11–63, Cl. 156—85.

Price, James R., and R. G. Cunningham, to Shell Oil Co. Lubricating compositions. 3,112,267, 11–26–63, Cl. 252—32.5.

Price, John A., to American Viscose Corp. Polymeric compositions. 3,071,568, 1–1–63, Cl. 260—93.7.

Price, Martin A. Aircraft auxiliary fuel tank. 3,098,633, 7–23–63, Cl. 244—135.

Price, Martin A., to United States of America, Army. Combined vent and drain assembly. 3,100,507, 8–13–63, Cl. 137—588.

Price, Martin A. Inflatable and deflatable external aircraft fuel tank. 3,101,921, 8–27–63, Cl. 244—135.

Price, Marlin L., to Utah Radio Products Corp. Loud-speaker. 3,109,072, 10–29–63, Cl. 179—115.5.

Price, Nathan C., to Lockheed Aircraft Corp. High velocity high altitude V.T.O.L. aircraft. 3,103,324, 9–10–63, Cl. 244—12.

Price, Noble E. Process and apparatus for shaping and polishing gem stone particles. 3,094,818, 6–25–63, Cl. 51—164.

Price, Peter R., and G. Buckle, to G. E. B. Abell, and H. T. Chadder. Apparatus for acting in turn on sheets in a pile thereof. 3,093,729, 6–11–63, Cl. 235—61.11.

Price, Ralph E.: *See*—
Balsiger, Harold E., and Price. 3,109,269.

Price, Ralph E., to Landis Tool Co. Work handling mechanism for rotary grinder. 3,073,074, 1–15–63, Cl. 51—108.

Price, Ralph E., to Landis Tool Co. Profile dresser with follower rigidly supported in one direction. 3,079,907, 3–5–63, Cl. 125—11.

Price, Ralph E., to Landis Tool Co. Adjustable follower for crowning mechanisms. 3,104,501, 9–24–63, Cl. 51—94.

Price, Ralph E., to Landis Tool Co. Work driver. 3,105,404, 10–1–63, Cl. 82—40.

Price, Raymond M.: *See*—
Rittenhouse, William E., Briggs, and Price. 3,096,300.

Price, Richard T.: *See*—
Thompson, Kenneth W., Schapiro, Price, Vincent, and Jensen. 3,073,746.

Price, Robert A., and L. E. Massing, to The Bendix Corp. Brake system for rail vehicles. 3,096,854, 7–9–63, Cl. 188—42.

Price, Robert J. Precision variable delay pulse generator. 3,089,090, 5–7–63, Cl. 328—55.

Price, Robert L., and K. C. Peer, to Ekco Products Co. Carbon-containing silicone resin coated metallic bake form. 3,078,006, 2–19–63, Cl. 220—64.

Price, Robert W.: *See*—
Haus, Joseph B., Brooks, and Price. 3,098,004.

Price, Robert W., to The Dow Chemical Co. Slitting tool. 3,079,670, 3–5–63, Cl. 29—95.

Price, Stanley J., Jr., to Consolidation Coal Co. Constant mesh transmission. 3,080,767, 3–12–63, Cl. 74—360.

Price, Stanley J., Jr., to Consolidation Coal Co. Reversible vehicle steering mechanism. 3,103,985, 9–17–63, Cl. 180—45.

Price, Stuart N., to Ford Motor Co. Seat spring retainer. 3,106,389, 10–8–63, Cl. 267—107.

Price, Thomas C., to Burndy Corp. Terminal assembly. 3,086,194, 4–16–63, Cl. 339—272.

Price, Vernard L., to Zenith Radio Corp. Coil winding machine. 3,086,502, 4–23–63, Cl. 140—92.2.

Price, Warren H.: *See*—
Heth, Sherman C. and Price. 3,112,598.
Heth, Sherman C., Price, and Wridt. 3,112,597.

Price, Warren H., to Jacobsen Mfg. Co. Rotary lawn mower hinged grass catching chute. 3,099,123, 7–30–63, Cl. 56—202.

Price, Warren H., to Jacobsen Mfg. Co. Rotary mower cleaning means. 3,112,596, 12–3–63, Cl. 56—25.4.

Price, William I. J., to Council for Scientific and Industrial Research. Snow ploughs. 3,105,312, 10–1–63, Cl. 37—47.

Price, Wilson T.: *See*—
Andrews, Zenas B. Brown, and Price. 3,089,389.

Pricer, Wilbur D., to International Business Machines Corp. High speed memory. 3,114,135, 12–10–63, Cl. 340—173.

Prichard, Evan S., to Challenge-Cook Bros., Inc. Truck-trailer transit mixer. 3,112,100, 11–26–63, Cl. 259—161.

Prichard, John H.: *See*—
Brown, Frank, and Prichard. 3,091,935.

Prichard, Reno W.: *See*—
Sullivan, Hubert C., and Prichard. 3,114,826.

Pride Products Co.: *See*—
Flam, Frederick H. 3,075,783.
Myers, Dean W. 3,110,504.

Pridgeon, Herbert, to F. Pratt & Co. Ltd. Mounting studs for machine tool chucks, face plates or the like. 3,085,811, 4–16–63, Cl. 279—1.

Prielipp, Glenn E.: *See*—
Scholten, Herman G., and Prielipp. 3,085,859.

Priendnieks, Voldemars, and K. Werner, to Burroughs Corp. Keyboard training device. 3,100,351, 8–13–63, Cl. 35—8.

Pries, Rinehard, and H. J. Moore, to The Gene Olsen Corp. Method of handling materials. 3,071,266, 1–1–63, Cl. 214—152.

Priese, Werner K., to Hills-McCanna Co. Fluid actuated valve. 3,107,080, 10–15–63, Cl. 251—31.

Priesemuth, Wolfgang H. Solenoid relay with pneumatic stroke retardation. 3,071,664, 1–1–63, Cl. 200—97.

Priesmeyer, Charles, to Meyer & Wenthe, Inc. Egg marker. 3,094,920, 6–25–63, Cl. 101—41.

Priesmeyer, Charles H., to The Powers Regulator Co. Check valve with removable filter. 3,097,660, 7–16–63, Cl. 137—316.

Priest, Dwight E., deceased; by E. L. Priest, executrix, and J. F. Ewig, Jr. Tapered sabre saw blade. 3,111,970, 11–26–63, Cl. 143—133.

Priest, Emmy L.: *See*—
Priest, Dwight E., and Ewig. 3,111,970.

Priest, Jefferson J. Control mechanism for motor vehicles. 3,089,560, 5–14–63, Cl. 180—77.

Priest, William J., and J. S. Yudelson, to Eastman Kodak Co. Method of quick-setting protein containing coatings by fuming with a nitrogenous alkaline gas. 3,085,897, 4–16–63, Cl. 117—34.

Priestley, Eric, to Elliott Brothers (London) Ltd. Automatic landing system for aircraft. 3,096,955, 7–9–63, Cl. 244—77.

Priestley, Winfred K., and J. G. Stone, to Kaiser Aluminum & Chemical Corp. Cable hanger and spacer. 3,084,892, 4–9–63, Cl. 248—61.

Prieto, Fernando G. Jet sustained and propelled aircraft. 3,096,042, 7–2–63, Cl. 244—12.2.

Prietzschk, Arthur: *See*—
Zygan, Hieronymus, Koch, Schnell, Prietzschk, and Romling. 3,114,929.

Prigal, Samuel J. Emulsion composition. 3,096,249, 7–2–63, Cl. 167—82.

Prigozy, Stephen, to Simonds Precision Products, Inc. Pick-off transformer for measuring dielectric material. 3,111,845, 11–26–63, Cl. 73—304.

Prill, Erhard J.: *See*—
Smith, Franklin D., Prill, Wygant, and Kosmin. 3,096,366.
Stephens, John A., and Prill. 3,095,437.

Prill, Erhard J., to Monsanto Chemical Co. Manufacture of diarylethanes. 3,096,381, 7–2–63, Cl. 260—668.

Primack, Howard: *See*—
Weinstein, Meir, and Primack. 3,095,112.

Primas, Alex L.: *See*—
Bitterlich, Gordon M., Primas, and Hahn. 3,088,812.

Primas, Johann J., to Trüub, Täuber & Co. AG. Device for the generation of a static and homogeneous magnetic field. 3,105,176, 9–24–63, Cl. 317—158.

Prime Mfg. Co., The: *See*—
Morgan, James I. 3,077,761.
Sjoberg, Nils W. 3,102,287.

Primeau, George H., and W. S. Wolfram, to General Motors Corp. Caster and camber adjustment means. 3,096,994, 7–9–63, Cl. 280—96.1.

Primich, Theodore. Cutting tool. 3,079,842, 3–5–63, Cl. 90—12.

Prince, Arthur E., to Otis Elevator Co. Electromagnetic relay. 3,080,460, 3–5–63, Cl. 200—104.

Prince, F. H., & Co., Inc.: *See*—
Krueger, Oscar E. 3,081,857.

Prince, John S.: *See*—
Cabaniss, Edward H., and Prince. 3,109,090.

Prince, Louis A.: *See*—
Sharav, William, Coless, and Prince. 3,076,735.

Prince, Philip E.: *See*—
Blythe, James E., and Prince. 3,115,731.

Prince, Richard. Truck frame and retractable truck bed. 3,074,574, 1–22–63, Cl. 214—505.

Principe, Michael J.: *See*—
Dickey, Donald K., and Principe. 3,081,115.

Principe, Michael J., and J. C. Richardson, to General Motors Corp. Railway vehicle suspension and shock absorbing means. 3,101,679, 8–27–63, Cl. 105—368.

Principe, Pacifico A.: *See*—
Diassi, Patrick A., and Principe. 3,079,384.

Principe, Pacifico A., and P. A. Diassi, to Olin Mathieson Chemical Corp. Method of 9α-hydroxylating steroids. 3,080,298, 3–5–63, Cl. 195—51.

Prindle, James H., to Minneapolis-Honeywell Regulator Co. Mass flowmeter. 3,102,423, 9–3–63, Cl. 73—194.

Pringle, James M., to U.S. Industries Inc. Engineering Ltd. Rotary shaft sealing ring having removable metal annulus supported elastic seal. 3,106,405, 10–8–63, Cl. 277—153.

Pringle, Ross A., and C. F. Wallace, Jr., to General Electric Co. Low electrical resistance composition and cable made therefrom. 3,098,893, 7–23–63, Cl. 174—102.

Prins, Daniel A.: *See*—
Renner, Ulrich, and Prins. 3,090,787.

Printed Motors Inc.: *See*—
Henry-Baudot, Jacques. 3,090,933.
Henry-Baudot, Jacques. 3,091,711.
Henry-Baudot, Jacques. 3,091,715.
Henry-Baudot, Jacques. 3,093,762.
Henry-Baudot, Jacques. 3,097,319.
Henry-Baudot, Jacques. 3,109,113.
Henry-Baudot, Jacques. 3,109,114.
Henry-Baudot, Jacques. 3,116,431.
Raymond, Francois H. 3,090,880.

Printing Arts Research Laboratories, Inc.: *See*—
Marx, Walter S., Jr., and Collier. 3,104,175.

Printz, Hillard A. Gem cutter's dop. 3,109,268, 11–5–63, Cl. 51—229.

Priolo, Charles R. Wind-proof clothes pin. 3,076,242, 2–5–63, Cl. 24—138.

Prior, Walter L., to Nashua Corp. Non-curling gummed paper. 3,104,179, 9–17–63, Cl. 117—122.

Priscu, John C., to Titanium Metals Corp. of America. Chlorination apparatus and process. 3,101,249, 8-20-63, Cl. 23—87.
Prismo Safety Corp.: *See*—
De Vries, Eduard R. 3,110,614.
Pritchard, Hugh E.: *See*—
Goulet, Roger T., and Pritchard. 3,104,966.
Pritchard, J. F., & Co.: *See*—
Effer, Walter R., Marshall, and Hopper. 3,095,265.
Pritchard, James E.: *See*—
Reynolds, William B., and Pritchard. 3,104,995.
Sneary, Loy D., and Pritchard. 3,102,865.
Pritchard, James E., to Phillips Petroleum Co. Method of treating filamentous articles of ethylene polymer and the resulting product. 3,086,275, 4-23-63, Cl. 28—76.
Pritchard, James E., to Phillips Petroleum Co. Solid propellant compositions. 3,087,843, 4-30-63, Cl. 149—19.
Pritchard, James E., and J. L. Reger, to Phillips Petroleum Co. Propellant compositions. 3,097,981, 7-16-63, Cl. 149—19.
Pritchard, Paul B., to General Motors Corp. Friction engaging devices having a lever spring. 3,107,766, 10-22-63, Cl. 192—89.
Pritchett, Ralph M., and O. H. Axtell, to Celanese Corp. of America. Recovery of isophthalic and terephthalic acids. 3,072,717, 1-8-63, Cl. 260—524.
Pritsching, Ingo: *See*—
Anke, Klaus, Ertel, Frohr, Kessler, Pritsching, and Sinn. 3,093,781.
Pro, George M., to Air Placement Equipment Co. Shut-off valve for cementitious pressure vessels. 3,090,593, 5-21-63, Cl. 251—87.
Prober, Maurice, to General Electric Co. Hydrolyzable silyl thioethers. 3,078,292, 2-19-63, Cl. 260—448.2.
Prober, Maurice, to General Electric Co. Addition of silicon hydrides to aliphatically unsaturated organic compounds. 3,099,670, 7-30-63, Cl. 260—448.2.
Probst, Delbert C., to General Motors Corp. Window regulator mechanism. 3,093,404, 6-11-63, Cl. 296—44.
Probst, Gerald W.: *See*—
Murphy, Hubert W., Probst, and Stephens. 3,108,042.
Stark, William M., Kleinschmidt, and Probst. 3,108,047.
Probst, Otto: *See*—
Hornig, Lothar, Paszthory, Probst, Riemenschneider, and Steinmetz. 3,087,968.
Probst, Otto, H. Fernholz, E. Mundlos, H. Oehme, and A. Orth, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Process for the continuous manufacture of sorbic acid. 3,113,149, 12-3-63, Cl. 260—526.
Probstl, Ernst: *See*—
Granacher, Hugo. 3,080,872.
Proc, Wiatsheslaw, to Elco/Electronic Instrument Co., Inc. Transistor regulated direct current power supply. 3,105,933, 10-1-63, Cl. 323—22.
Process Engineers, Inc.: *See*—
Kelly, Earl M. 3,077,991.
Kelly, Earl M. 3,078,999.
Process Gear & Machine Co.: *See*—
Klomp, Alfred W. 3,107,506.
Process & Steam Specialties Inc.: *See*—
Irwin, William C. 3,110,172.
Prochaska, Robert J.: *See*—
Caprino, Joseph C., and Prochaska. 3,096,303.
Procházka, Čeněk: *See*—
Huml, František, and Procházka. 3,084,429.
Prochnow, Claus: *See*—
Weiss, Richard, and Prochnow. 3,099,194.
Prochnow, Claus, to Franke & Heidecke, Fabrik Photographischer Prazisions-Apparate. Photographic flash apparatus. 3,096,025, 7-2-63, Cl. 240—1.3.
Procon Pump & Engineering Co.: *See*—
Swanson, Victor E. 3,097,610.
Procopio, Ralph G., to Sperry Rand Corp. Method of encapsulating electrical stators. 3,084,418, 4-9-63, Cl. 29—155.5.
Procopis, James: *See*—
Caloyannidi, Elpis. 3,085,722.
Procter, Edward C., to Sperry Rand Corp. Forage harvester. 3,100,369, 8-13-63, Cl. 56—16.
Procter & Gamble Co., The: *See*—
Anderson, Donald C., Lucas, and Watrous. 3,098,601.
Anderson, John A. 3,085,067.
Baker, Joseph S. 3,116,150.
Banker, Robert D., Grounds, and Cody. 3,099,603.
Barton, Stanley. 3,102,820.
Barton, Stanley. 3,105,766.
Bates, Charles J., and Andre. 3,089,773.
Bedenk, William T. 3,078,168.
Brocklehurst, Peter, and Pengilly. 3,075,921.
Burt, Robert V. 3,073,358.
Burt, Robert V. 3,073,436.
Burt, Robert V. 3,094,252.
Burt, Robert V., Gex, and Franz. 3,097,783.
Chaffee, Robert H., and Bowles. 3,089,197.
Eckey, Eddy W., and Alderson. 3,093,481.
Gex, Virgil E., and Bart. 3,107,702.
Hager, Richard E., and Lowrey. 3,071,472.
Hawley, Harold K., and Laycock. 3,102,101.
Holliday, William M., Schweizer, and Norris. 3,105,798.
Janssen, Edmund G., Jr. 3,093,234.
Lang, Edward W. 3,086,943.
Laskey, Richard P. 3,081,267.
Procter & Gamble Co., The: *See*—Continued
Logan, Ted J. 3,096,384.
Lorentzen, Carl P. 3,074,980.
Lucas, Malcolm B., and Dewees. 3,101,871.
Luedtke, Ralph E. 3,116,149.
Morgenthaler, John H., and Parks. 3,112,274.
Reller, Herbert H., and Jordan. 3,084,097.
Rosekrans, David de L., and McDaniel. 3,088,634.
Schmitt, Robert O. 3,102,898.
Schneider, William S., and Corella. 3,074,214.
Schweizer, Henry C. 3,112,247.
Shepard, William W., Baude, and Moore. 3,103,468.
Short, Robert J., Hammond, and Joyce. 3,108,853.
Steer, David C., and Smith. 3,085,982.
Torongo, Albert H., Jr., Frederickson, and Hood. 3,108,722.
Wehr, Rudolf. 3,071,515.
Wolfe, Gene R., and Robisch. 3,106,524.
Procter, James P.: *See*—
Cole, Horace, and Procter. 3,082,102.
Procter, Samuel A., to E. J. Hankes. Interval timer using magnetic pickup probe and binary counter with reset circuit. 3,089,966, 5-14-63, Cl. 307—88.5.
Proctor, Barton A., to Proctor Dictating Machine Corp. Improved drive for sound recording and reproducing apparatus. 3,102,699, 9-3-63, Cl. 242—55.14.
Proctor, Barton A., to Proctor Dictating Machine Corp. Magnetic sound reproduction. 3,111,282, 11-19-63, Cl. 242—55.13.
Proctor Dictating Machine Corp.: *See*—
Proctor, Barton A. 3,102,699.
Proctor, Barton A. 3,111,282.
Proctor, Earle S.: *See*—
Peiffer, Norman H., and Proctor. 3,095,931.
Proctor, Edward A. Wall hung shelves. 3,085,521, 4-16-63, Cl. 108—27.
Proctor Hydro-Set Company: *See*—
Brewin, Grant H. 3,091,377.
Proctor, James A.: *See*—
Reynolds, Martin M., Gottzmann, Hansen, Proctor, and Riede. 3,082,690.
Proctor, James S., to E. I. du Pont de Nemours and Co. Polyvinyl fluoride dispersed in dimethyl sulfoxide. 3,096,299, 7-2-63, Cl. 260—30.8.
Proctor, James S., to E. I. du Pont de Nemours and Co. Polyvinyl fluoride film-forming compositions. 3,110,692, 11-12-63, Cl. 260—30.2.
Proctor, Ronald R.: *See*—
Garrity, Thomas A., Jr., and Proctor. 3,101,467.
Proctor & Schwartz, Inc.: *See*—
Christie, John S. 3,088,479.
Flaith, George D., and Westenberger. 3,105,266.
Proctor, Sidney E., to Hoy, Austen, and Co. Ltd. Cutter bit holder. 3,093,366, 6-11-63, Cl. 262—33.
Proctor-Silex Corp., The: *See*—
Clapp, Daniel E. 3,072,773.
Clapp, Daniel E. 3,083,287.
Clapp, Daniel E., and Eaton. 3,073,917.
Clapp, Daniel E. and Eaton. 3,073,939.
Eakins, William S. 3,110,444.
Turner, Charles R. 3,071,062.
Turner, Charles R. 3,089,406.
Turner, Charles R., and Clapp. 3,073,938.
Wunder, Wesley W. 3,082,305.
Proctor, Thomas, to General Dynamics Corp. Relay circuit. 3,111,558, 11-19-63, Cl. 179—16.
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Walls, William A., and Proctor. 3,103,486.
Prod-O-Matic, Inc.: *See*—
Scotti, Arthur L. 3,091,216.
Producers Creamery Co.: *See*—
Heinemann, Burdet. 3,086,320.
Heinemann, Burdet. 3,108,879.
Reddick, Leonard L., Fort, Baldi, Harmon, and Ziegelbein. 3,113,046.
Product Design, Inc.: *See*—
Vaughn, Claybron, Jr., and Walter. 3,077,138.
Product Development Associates, Ltd.: *See*—
Morrow, Robert D. 3,097,686.
Product Development Corp.: *See*—
Anonsen, Sheldon L. 3,086,236.
Production Machinery Corp.: *See*—
Friedlander, Samuel B. 3,114,151.
Ranney, Neil J. 3,079,976.
Productive Equipment Corp.: *See*—
Porter, Frank W. 3,071,901.
Producto Machine Co., The: *See*—
Calchera, Albert E., and Bucci. 3,103,701.
Products, Ltd., Inc.: *See*—
Klein, Paul S. 3,085,709.
Produits Chimiques des Terres Rares, Societe de: *See*—
Peltier, Maurice L., and Rombau. 3,102,783.
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Beau, Raymond. 3,108,934.
Proell, Wayne A.: *See*—
Bowman, Norman J., and Proell. 3,104,994.
Proell, Wayne A., to Standard Oil Co. Discharge pressure controlled gas generators. 3,102,386, 9-3-63, Cl. 60—35.6.
Proesch, John F.: *See*—
Holm, Roy F., and Proesch. 3,115,238.
Profera, Joseph. Golf swing training device. 3,104,880, 9-24-63, Cl. 273—190.

Professional Golf Co.: *See*—
Harkins, Jack. Re. 25,427.
Proffitt, Richard V., to General Electric Co. Broiling oven. 3,088,396, 5-7-63, Cl. 99—443.
Profos, Paul, to Sulzer Freres, Societe Anonyme. Method of controlling a forced-circulation boiler operating at supercritical pressure. 3,081,750, 3-19-63, Cl. 122—448.
Profos, Paul, to Sulzer Freres, S.A. Method and means for controlling a process or plant. 3,086,503, 4-23-63, Cl. 122—448.
Profos, Paul, to Sulzer Freres, S.A. Method and apparatus for controlling a forced flow steam generator. 3,086,504, 4-23-63, Cl. 122—451.
Profos, Paul, to Societe Anonyme Sulzer Freres. Feed-water control for forced-circulation boilers. 3,092,086, 6-4-63, Cl. 122—451.1.
Profos, Paul, to Sulzer Freres, Societe Anonyme. Steam generator. 3,096,743, 7-9-63, Cl. 122—479.
Profos, Paul, to Sulzer Freres, Societe Anonyme. Method of and apparatus for regulating the steam temperature in a steam generator. 3,096,744, 7-9-63, Cl. 122—479.
Profos, Paul, to Sulzer Freres, Societe Anonyme. Method and apparatus for controlling rate of temperature changes of heat generators during startup and shutdown. 3,102,513, 9-3-63, Cl. 122—406.
Progil, S.A.: *See*—
Laffetay, Louis A., and Boutin. 3,097,129.
Lehureau, Jean. 3,075,834.
Progressive Table Co., Inc.: *See*—
Petrone, Joseph D. 3,104,900.
Wysocki, Kazmier. 3,073,010.
Progressive Tool & Die Co.: *See*—
Kelleher, Cornelius T. 3,108,328.
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Bock, Willy, and Prohaska. 3,082,463.
Bock, Willy, and Prohaska. 3,085,277.
Projain, Richard J., to Bell Telephone Laboratories Inc. Regulated voltage converter circuit. 3,114,096, 12-10-63, Cl. 321—2.
Projectile & Engineering Co. Ltd., The: *See*—
Gasper, Emeric, Munns, and Butler. 3,099,861.
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Proksa, Arthur J., to Everede Tool Co. Rotary head milling attachment. 3,079,843, 3-5-63, Cl. 90—15.
Proler, Sam, and D. B. Bolding, to Proleride Transport Systems, Inc. Dump truck. 3,096,894, 7-9-63, Cl. 214—515.
Proleride Transport Systems, Inc.: *See*—
Proler, Sam, and Bolding. 3,096,894.
Prolss, Wilhelm. Sailing vessel with square-rigged masts. 3,085,539, 4-16-63, Cl. 114—89.
Prophet, Charlotte M., and L. M. Herrera. Coiffure protector. 3,076,972, 2-12-63, Cl. 2—174.
Pro-Phy-Lac-Tic Brush Co.: *See*—
Clayton, Robert G., Halberstadt, and Tarin. 3,072,944.
Propper, Eric, to Revere Corp. of America. Columnar stress sensing member. 3,100,290, 8-6-63, Cl. 338—5.
Propper Mfg. Co. Inc.: *See*—
Munz, Max M., and Kelson. 3,086,529.
Schuman, Seymour. 3,114,349.
Propst, Robert L., to Herman Miller, Inc. Connector. 3,088,128, 5-7-63, Cl. 20—92.
Propst, Robert L., to Herman Miller, Inc. Connector. 3,095,625, 7-2-63, Cl. 24—217.
Propst, Robert L., to Herman Miller, Inc. Litter. 3,110,912, 11-19-63, Cl. 5—82.
Propst, Robert L., to Herman Miller, Inc. Seating. 3,114,577, 12-17-63, Cl. 297—445.
Propster, Charles H., Jr., to General Electric Co. Automatic data accumulator. 3,093,730, 6-11-63, Cl. 235—151.
Propster, Charles H., Jr., to General Electric Co. Display device having a retentive memory. 3,098,221, 7-16-63, Cl. 340—324.
Prosen, Gildo J. Telephone index. 3,087,457, 4-30-63, Cl. 116—135.
Prosen, Richard J.: *See*—
Gran, Burton E., Holmen, and Prosen. 3,102,048.
Prosin, Louis, to Lockheed Aircraft Corp. Spindle. 3,083,927, 4-2-63, Cl. 242—68.3.
Prosin, Louis, to Lockheed Aircraft Corp. Monorail track and switch. 3,106,898, 10-15-63, Cl. 104—130.
Proske, Gerhard, H. Mueckter, G. Osterloh, and H.-W. von Schrader-Belelstein. Process for the manufacture of the acid addition salts of N-butyl-biguanide. 3,080,423, 3-5-63, Cl. 260—564.
Prospection Electrique Procedes Schlumberger, Societe de: *See*—
Baka, Claude. 3,104,611.
Prosser, Dwight M., to Shiloh Tool & Die Mfg. Co. Window structure. 3,091,797, 6-4-63, Cl. 16—197.
Prosser, Harold L., to Aqua-Trac Corp. Land-water transportation vehicle. 3,108,564, 10-29-63, Cl. 115—1.
Prosser, Herbert C. N-(2-thiazolyl)-2(5-nitro)furylacrylamide. 3,103,517, 9-10-63, Cl. 260—306.8.
Prosser Packers, Inc.: *See*—
Vance, Merton C. 3,106,691.
Prosser, Rae A., and J. W. Luchsinger, to Union Carbide Corp. Intensifier high pressure valve and block assembly. 3,106,169, 10-8-63, Cl. 103—228.
Prost, Maurice, to Societe Belge de l'Azote et de Produits Chimiques du Marly. Derivatives of 4-(2-propynyl)-4-piperidinol and their process of preparation. 3,081,309, 3-12-63, Cl. 260—293.4.
Protat d'Hauteville: *See*—
Protat, Hugues R. 3,104,211.
Protat, Hugues R., called Protat d'Hauteville. Sun furnace. 3,104,211, 9-17-63, Cl. 202—234.
Protective Treatments, Inc.: *See*—
Pereny, Louis, Gibba, and Pyron. 3,090,694.
Protectomatic, Inc.: *See*—
Tilbury, James R. 3,103,270.
Protiva, Jiří: *See*—
Kybal, Jan, Protiva, Strnadová, Stary, and Cekan. 3,110,651.
Proto, International Hygenic Food Co.: *See*—
Zacharia, Tewfic. 3,091,538.
Protona Produktionsgesellschaft fuer elektroakustiche Geraete m.b.H.: *See*—
Herrmann, Gunter, and Goerlich. 3,085,758.
Prototypes Inc.: *See*—
Seymour, Malcolm. 3,076,435.
Proulx, Romeo T. Sanding belt cleaner. 3,085,268, 4-16-63, Cl. 15—21.
Prout, Wesley C., to A. J. Hosmer Corp. Prosthetic joint. 3,107,358, 10-22-63, Cl. 3—12.2.
Prouty, Robert E.: *See*—
Baker, Robert L., and Prouty. 3,108,166.
Prouty, Robert E., and R. L. Baker, to Essex Wire Corp. Thermal timer switch. 3,108,167, 10-22-63, Cl. 200—122.
Provenzano, Alex P., W. K. Ward, and H. C. Crosland, to Chicago Rawhide Mfg. Co. Extruder die. 3,090,075, 5-21-63, Cl. 18—12.
Provi, Mike A., to The Bearley Co. Portable stand-up type bathroom scale. 3,097,966, 7-16-63, Cl. 177—239.
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Pollock, Walter, and Provost. 3,080,269.
Proxmire, Harry J., to General Electric Co. Method for producing magnetic core and coil assemblies with gaps in the magnetic core. 3,114,196, 12-17-63, Cl. 29—155.58.
Prucha, Richard V., to General Electric Co. Lubricating arrangement for compressors. 3,082,936, 3-26-63, Cl. 230—206.
Pruden, David H., and J. W. Timko; said Pruden, assor. to Western Electric Co., Inc., and said Timko, assor. to Bell Telephone Laboratories, Inc. Servo-mechanism control circuit. 3,109,128, 10-29-63, Cl. 318—19.
Pruess, Louis M., L. I. Feldman, and N. E. Rigler, to American Cyanamid Co. Microbiological 16α-hydroxylation of steroids. 3,116,219, 12-31-63, Cl. 195—51.
Pruett, Roy L.: *See*—
Parts, Leo, Pruett, and Myers. 3,101,360.
Pruett, Roy L., J. E. Wyman, and L. Parts, to Union Carbide Corp. Process for preparing organo-metallic compounds. 3,091,624, 5-28-63, Cl. 260—429.
Pruitt, Roland E.: *See*—
Northern, Harry O., Pesel, Pruitt, and White. 3,115,032.
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Morse, Stanley H. 3,091,945.
Prunkard, Franklin C. Magnetic toy. 3,097,448, 7-16-63, Cl. 46—241.
Pruss, Hugo E., 15% to O. H. Milmore. Bulk-hauling dump vehicles. 3,103,288, 9-10-63, Cl. 214—44.
Prussin, Samuel B., H. R. Shepherd, and J. Surks, to Aerosol Techniques, Inc. Spray apparatus. 3,101,904, 8-27-63, Cl. 239—337.
Pryale, Harry M., to Baldwin-Montrose Chemical Co. Inc. (Baldwin Division). Torsion mounting. 3,113,769, 12-10-63, Cl. 267—57.1.
Pryale, Harry M. Combination lid and seat. 3,114,574, 12-17-63, Cl. 297—193.
Pryde, Everett H., and D. E. Anders, to United States of America, Agriculture. Unsaturated aldehyde oils and method for preparing the same. 3,112,329, 11-26-63, Cl. 260—406.
Prye Ltd.: *See*—
Fuller, Dennis Q. 3,114,086.
Pryor, Harry H.: *See*—
Holstein, Alvin W., and Pryor. 3,084,047.
Pryor, Robert C., to Phillips Petroleum Co. Process for initiation of in situ combustion. 3,076,505, 2-5-63, Cl. 166—11.
Przekop, Stanley J. Lawn mower handle support. 3,089,301, 5-14-63, Cl. 56—249.
Przybylowicz, Leo S. Dough cutting device. 3,089,238, 5-14-63, Cl. 30—130
Przybylski, Daniel F., to The Warner & Swasey Co. Material handling apparatus. 3,081,891, 3-19-63, Cl. 214—138.
Ptertyl, Sidney V., and D. W. Davis, to Johns-Manville Corp. Fire retardant and control composition. 3,080,316, 3-5-63, Cl. 252—2.
Publow, Richard H., to Essex Wire Corp. Resistance core ignition cable. 3,109,881, 11-5-63, Cl. 174—118.
Pucci, Joseph, and T. J. Ryan. Book. 3,074,744, 1-22-63, Cl. 281—37.
Puccinelli, Alfred R. Method of and apparatus for assuring the supply of fuel to an aircraft engine during flight. 3,107,072, 10-15-63, Cl. 244—135.
Pucel, Edward L.: *See*—
Schmidt, Edward C. 3,100,123.
Puchaty, Robert J.: *See*—
Wilson, Robert C., and Puchaty. 3,085,245.
Wilson, Robert C., and Puchaty. 3,102,266.

Pucher, Walter. Oil circuit breaker comprising an extinguishing chamber for high voltages. 3,100,249, 8-6-63, Cl. 200—150.

Puckett, James E.: *See*—
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Puckett, John, ½ to G. Courtney. Razor clam digger. 3,089,721, 5-14-63, Cl. 294—50.7.

Puckett, Orville L. Chiropractic instrument. 3,111,944, 11-26-63, Cl. 128—69.

Puckett, Prentiss S. Fish grappling and landing device. 3,095,662, 7-2-63, Cl. 43—5.

Puckett, Robert A., to Phillips Petroleum Co. Alkali metal dispersions, their preparation and use as catalysts in the liquid phase polymerization of butadiene. 3,097,247, 7-9-63, Cl. 260—680.

Puddington, Ira E., and A. F. Sirianni. Method and apparatus for the treatment of hydrocarbon oils. 3,109,805, 11-5-63, Cl. 208—179.

Puechl, Karl H., to United States of America, Atomic Energy Commission. Pressurized water reactor core with plutonium burnup. 3,105,036, 9-24-63, Cl. 204—193.2.

Puetz, Jordan F., to Square D Co. Three-way adjustable timing device. 3,081,845, 3-19-63, Cl. 188—87.

Pufahl, Julius P. Portable electric drill press. 3,100,408, 8-13-63, Cl. 77—55.

Puffett, Brian E.: *See*—
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Puget Sound Fabricators, Inc.: *See*—
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Puget Sound Pulp & Timber Co.: *See*—
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King, Ellis G., and Adolphson. 3,095,4009.
King, Ellis G., and Adolphson. 3,108,008.
King, Ellis G., and Adolphson. 3,109,742.

Pugh, Duane W.: *See*—
Parker, Paul T., Bryan, Small, Pugh, and Buchmann. 3,099,644.

Pugh, Emerson W., to International Business Machines Corp. Magnetic memory. 3,071,756, 1-1-63, Cl. 340—174.

Pugh, Harold: *See*—
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Pugh, Harry H., to Gillette Inhibitor Co. Aryl mercuric fungicidal compositions. 3,089,811, 5-14-63, Cl. 167—42.

Pugh, James B. Well drilling guide. 3,109,501, 11-5-63, Cl. 175—325.

Pugh, James O., and W. J. Kirkpatrick, to Nashville Electronics, Inc. Method of capacitor manufacture. 3,099,069, 7-30-63, Cl. 29—25.41.

Pugh, Joseph M., and J. H. Edley, to J. & L. Engineering Co., Inc. Cane conveyor assembly for harvesters. 3,095,679, 7-2-63, Cl. 56—15.

Pugh, Kenneth P.: *See*—
Chanaryn, Victor, and Pugh. 3,095,226.

Pugh, Merlin L., to Studebaker Corp. Refrigerator construction. 3,101,227, 8-20-63, Cl. 312—300.

Pugh, William A. Milk carton with drinking straw. 3,071,303, 1-1-63, Cl. 229—7.

Pugh, William A. Gable type beverage container with straw. 3,074,610, 1-22-63, Cl. 229—7.

Pugh, William J. Turbine mounting means. 3,097,491, 7-16-63, Cl. 61—19.

Puglin, Andre, to J. R. Geigy, A.-G. 3-imido-isoindolinones. 3,076,815, 2-5-63, Cl. 260—325.

Puzin, Andre, and G. Schetty, to J. R. Geigy, A.-G. Dioxazine dyestuffs. 3,107,243, 10-15-63, Cl. 260—246.

Puglis, James C.: *See*—
Puglis, Joseph M. 3,084,871.

Puglis, Joseph M., 50% to Syndeur Scientific Laboratories, Inc., and 25% to J. C. Puglis. Selective spray dispenser. 3,084,871, 4-9-63, Cl. 239—305.

Pugsley, Lawrence E. Outing kit. 3,081,865, 3-19-63, Cl. 206—4.

Pugsley, Lawrence E. Electrical multipurpose shop tool. 3,096,798, 7-9-63, Cl. 144—1.

Pugsley, Lawrence E. Portable table or bench. 3,101,682, 8-27-63, Cl. 108—41.

Pugsley, Lawrence E. Drill and guide therefor. 3,107,556, 10-22-63, Cl. 77—55.

Pulaski, John W., to General Electric Co. Plastic foam insulated door structure including electrical hinge. 3,089,202, 5-14-63, Cl. 20—16.

Pullano, Samuel F.: *See*—
Shutt, Paul B., Larsen, Barnes, and Pullano. 3,077,283.

Pullen, Dennis I., to The British Oxygen Co. Ltd. Powder dispensing apparatus. 3,094,249, 6-18-63, Cl. 222—193.

Pullen, Joe W.: *See*—
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Pullen, Joseph A., to Pullen Molded Products, Inc. Cellulosic molded transplanter pot or other products containing bagasse components. 3,102,364, 9-3-63, Cl. 47—37.

Pullen Molded Products, Inc.: *See*—
Pullen, Joseph A. 3,102,364.

Pullen, Orrin V.: *See*—
Armstrong, Robert W., and Pullen. 3,085,595.

Pullen, Wayne G. Combination soil loosening and vegetation chopping device. 3,115,193, 12-24-63, Cl. 172—177.

Pulliam, Eugene H. Bridge comparing voltage indicating device. 3,102,981, 9-3-63, Cl. 324—98.

Pulling, Michael, to Damic Controls Ltd. Valves. 3,085,783, 4-16-63, Cl. 251—175.

Pullman Inc.: *See*—
Black, James J. 3,087,051.
Black, James J. 3,092,220.
Black, James J. 3,095,215.
Black, James J. 3,102,334.
Candlin, James E., Jr., and Bergstrand. 3,078,814.
Candlin, James E., Jr., and Bergstrand. 3,102,497.
Candlin, James E., Jr., and Christian. 3,104,624.
Faverty, Clyde B., and Shaver. 3,088,420.
Gutridge, Jack E. 3,107,634.
Gutridge, Jack E., and Borger. 3,094,226.
Hanner, Thomas E., and Turnbull. 3,115,541.
Peterson, William H. 3,082,708.
Shaver, Raymond M. 3,098,457.
Shaver, William R. 3,108,547.
Van Der Sluys, William, and Swarner. 3,094,604.

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Gutridge, Jack E. 3,096,730.
Martin, Howard B. 3,087,441.
Shaver, Raymond M., and Hartwig. 3,090,160.

Pullmax Aktiebolag: *See*—
Linnander, Carl-Eric. 3,108,180.

Pummer, Walter J., and L. A. Wall, to United States of America, Navy. Tris-[pentafluorophenyl]-phosphine and method of making the same. 3,075,018, 1-22-63, Cl. 260—606.5.

Pummer, Walter J., and L. A. Wall, to United States of America, Navy. Tetrakis-[pentafluorophenyl]-silane and method of making the same. 3,109,855, 11-5-63, Cl. 260—448.2.

Pump, Marion S.: *See*—
Kersten, Bruno W. 3,100,068.

Pumpelly, Charles T., to The Dow Chemical Co. Thermal stabilization of haloalkyl phosphoric acid esters. 3,079,418, 2-26-63, Cl. 260—461.

Pungs, Leo, K. Lamberts, and B. Griesbach; said Griesbach assor. to said Pungs, and said Lamberts. Continuous dielectric heating of electrically non-conductive material. 3,109,080, 10-29-63, Cl. 219—10.53.

Punke, John J. Adjustable dish holders. 3,094,258, 6-18-63, Cl. 224—45.

Punnett, Frazer D.: *See*—
Davis, Howard C., Eichorn, Punnett, Trumbull, and Wagner. 3,100,112.

Purcell, Howard M. Pump or motor. 3,079,869, 3-5-63, Cl. 103—162.

Purcell, Howard M. Piston type accumulator with flexible cylinder wall. 3,084,717, 4-9-63, Cl. 138—31.

Purcell, Thomas H., Jr.: *See*—
Prewitt, Richard H., and Purcell. 3,078,911.

Purdue Frederick Co., The: *See*—
Candon, Basil H., Chessin, and Lange. 3,108,045.

Purdue Research Foundation: *See*—
Hass, Henry B. 3,071,617.
Hass, Henry B., Bachman, Feuer, and Warren. 3,071,598
Standish, Norman W., and Bachman. 3,113,975.

Purdy, Burl O., to W. J. Haertel & Co. Ceiling construction means. 3,093,221, 6-11-63, Cl. 189—36.

Purdy, Burl O., to W. J. Haertel & Co. Ceiling suspension system with double locking clip. 3,096,862, 7-9-63, Cl. 189—36.

Purdy, Chester A., to Ransburgh Electro-Coating Corp. Drill fixture. 3,108,501, 10-29-63, Cl. 77—63.

Purdy, John F., to The Goodyear Tire & Rubber Co. Method and apparatus for making cord plies for tires. 3,081,216, 3-12-63, Cl. 156—196.

Purdy, Ralph E.: *See*—
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Dickison, Earl B., Graves, and Purdy. 3,107,432.

Pure Oil Co., The: *See*—
Ayers, George W. 3,080,314.
Ayers, George W. 3,105,038.
Ayers, George W., and Allinder. 3,076,039.
Ayers, George W., and Krewer. 3,073,778.
Ayers, George W., and Krewer. 3,083,156.
Ayers, George W., and Krewer. 3,091,585.
Bernard, George G. 3,079,343.
Bernard, George G. 3,096,820.
Bernard, George G. 3,098,700.
Bernard, George G. 3,115,930.
Bond, Donald C., and Holm. 3,072,185.
Bond, Donald C., and O'Brien. 3,072,191.
Braunwarth, John B., and Crosby. 3,116,300.
Carr, Norman L. 3,108,974.
Ellison, Lynn E., and Nuber. 3,105,379.
Fierce, William L., and Sandner. 3,091,629.
Fierce, William L., and Sandner. 3,116,313.
Fierce, William L., and Sandner. 3,116,318.
Fierce, William L., and Weichman. 3,095,275.
Finnigan, Frederick T., and Pfeifer. 3,108,961.
Folkins, Hillis O. 3,083,151.
Folkins, Hillis O. 3,083,152.
Garrity, Thomas A., Jr., and Proctor. 3,101,467.
Geerts, Marcellus J., and O'Malley. 3,116,259.
Holbrook, Orrin C., and Bernard. 3,070,991.
Holbrook, Orrin C., and Holm. 3,102,587.
Holm, Le Roy W. 3,075,918.
Holm, Le Roy W. 3,101,782.
Holm, Le Roy W., and Bernard. 3,082,822.
Howle, Ray B. 3,116,241.
Hunter, Wesley L. 3,101,619.
Hutchings, Le Roi E., and Crosby. 3,076,841.

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Klass, Donald L. 3,072,444.
Klass, Donald L. 3,092,672.
Klass, Donald L. 3,100,780.
Klass, Donald L. 3,110,257.
Klass, Donald L. 3,116,325.
Klass, Donald L., and Brozowski. 3,091,587.
Klass, Donald L., and Brozowski. 3,109,846.
Lindahl, Harold A. 3,083,245.
Marsh, Glenn A., and Schaschl. 3,098,801.
Marsh, Glenn A., and Schaschl. 3,116,117.
Millikan, Allen F. 3,073,846.
Millikan, Allen F. 3,089,829.
Millikan, Allen F., and Crosby. 3,073,857.
Millikan, Allen F., and Crosby. 3,098,824.
Millikan, Allen F., and Crosby. 3,102,130.
Millikan, Allen F., and Kramer. 3,112,167.
O'Brien, Leo J. 3,087,545.
O'Brien, Leo J. 3,103,248.
O'Brien, Leo J. 3,109,482.
Percy, Allan W., and Zollinger. 3,112,789.
Sandner, Walter J., and Fierce. 3,071,586.
Schaschl, Edward. 3,102,419.
Schaschl, Edward. 3,102,979.
Schaschl, Edward, and Littler. 3,101,413.
Schaschl, Edward, and Marsh. 3,073,154.
Willer, George J., Jr., and Callanen. 3,111,846.
Wolber, James E. 3,098,991.
Wright, Charles S. 3,083,223.

Puretic, Mario J. Brailer apparatus for use with a fishing boat. 3,091,879, 6-4-63, Cl. 43—6.5.

Puretic, Mario J. Means for recovering fish from a net and transferring same onto a boat. 3,091,880, 6-4-63, Cl. 43—8.

Puretic, Mario J. Apparatus for transferring fish from a seine to the hold of a ship. 3,113,394, 12-10-63, Cl. 43—6.5.

Purex Corp., Ltd.: *See*—
Arden, Benjamin. 3,095,380.
Atkins, Don C., Jr., and Edds. 3,079,352.
Brevik, Elmer L. 3,108,080.
Donnelly, William T. 3,114,932.
Ferris, Robert C. 3,093,590.
Holman, Emmette R. 3,101,839.
Newman, Kenneth W. 3,080,262.
Newman, Kenneth W. 3,080,323.
Pimbley, George H., and Yager. 3,113,051.
Rudolph, Martin. 3,115,673.
Thornbury, Sydney G. 3,108,187.

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Purnell, John H., to The Foxboro Co. Method for preparing a chromatographic column support. 3,116,161, 12-31-63, Cl. 117—118.

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Casaleggi, Charles J. 3,111,488.
Wilhelm, John R. 3,076,550.

Purpahn, Fritz, to Continental Elektroindustrie A.G., Askania-Werke. Device for mixing fluids flowing through conduits. 3,109,631, 11-5-63, Cl. 259—4.

Purpura, August C. Ironing and pressing appliance. 3,084,462, 4-9-63, Cl. 38—36.

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Schmitt, Werner, Purrmann, and Jochum. 3,107,427.

Pursche, Harry A. Two way plow construction with means to limit rotation of carrier. 3,087,556, 4-30-63, Cl. 172—224.

Pursell, Louise M. Sleeper protecting means for cribs and beds. 3,083,378, 4-2-63, Cl. 5—334.

Purser, James A., Sr. Drill bit. 3,099,325, 7-30-63, Cl. 175—412.

Pursglove, Laurence A., to The Dow Chemical Co. Phenylthiotolyl benzoates. 3,079,426, 2-26-63, Cl. 260—476.

Purtell, Rufus J., to R. B. and J. B. Knight, and J. K. Jones, d.b.a. J. B. Knight Co. Irrigation pipe moving system. 3,072,268, 1-8-63, Cl. 214—1.

Purtell, Rufus J., to R. B. and J. B. Knight, and J. K. Jones, d.b.a. J. B. Knight Co. Irrigation pipe moving system. 3,087,680, 4-30-63, Cl. 239—213.

Purtell, Rufus J., to R. B. and J. B. Knight, and J. K. Jones, d.b.a. J. B. Knight Co. Irrigation system. 3,094,282, 6-18-63, Cl. 239—213.

Puryear, David B., to The Bendix Corp. Floating port plate construction. 3,096,723, 7-9-63, Cl. 103—162.

Purzycki, Alfred Z., and N. D. Sargent, to Teletype Corp. Tape holder for telegraphic tape. 3,103,279, 9-10-63, Cl. 211—45.

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Letach, William L., and Pusateri. 3,098,227.

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Pustelnyk, Mike, to Bell Telephone Laboratories, Inc. Pulse modulation regenerative repeater with selectively suppressed timing wave. 3,110,768, 11-12-63, Cl. 178—70.

Puster, Louis M., to Robertshaw-Fulton Controls Co. Safety control system for a prime mover. 3,075,537, 1-29-63, Cl. 137—16.

Puster, Louis M., to Robertshaw-Fulton Controls Co. Control mechanism. 3,080,853, 3-12-63, Cl. 121—41.

Puster, Louis M., and J. P. Wagner, to Robertshaw Controls Co. Temperature responsive snap-acting valve. 3,105,637, 10-1-63, Cl. 236—48.

Puster, Louis M., and J. P. Wagner, to Robertshaw-Controls Co. Pneumatic relay. 3,107,693, 10-22-63, Cl. 137—625.66.

Put, Elias: *See*—
Van der Burgt, Cornelis M., and Put. 3,100,194.

Puterbaugh, Charles R. License plate attachment. 3,087,214, 4-30-63, Cl. 24—81.

Puth, George J. Method for reforming and reloading used shotgun shells. 3,113,483, 12-10-63, Cl. 86—23.

Putman, John L., S. Jefferson, and R. B. Owens, to United Kingdom Atomic Energy Authority. Gamma ray thickness gauges. 3,076,894, 2-5-63, Cl. 250—71.5.

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Putman, Laurel E., to Superior Air Products Co. Liquefied gas pump. 3,083,648, 4-2-63, Cl. 103—203.

Putman, Laurel E., to Superior Air Products Co. Liquefied gas container. 3,097,084, 7-9-63, Cl. 62—45.

Putnam Rolling Ladder Co., Inc.: *See*—
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Gillman, Edward T., and Basile. 3,108,921.

Putt, John W., and R. Thomann, Jr., to Specialties Development Corp. High temperature lubricated bearing surface and method of making the same. 3,115,395, 12-24-63, Cl. 29—183.

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Miller, Brinton M., and Putter. 3,102,076.

Puttroff, Glenn A., to ACF Industries, Inc. Valve packing composition. 3,109,744, 11-5-63, Cl. 106—199.

Putz, Hans, R. Lehnartz, and E. Feldman, to Joh. Vaillant K.G. Thermoelectric ignition safety device. 3,099,994, 8-6-63, Cl. 137—66.

Putzer, Murray, F. B. Sylvander, and R. J. Molnar, to The Bendix Corp. Monitor circuit for detecting failures in a data transmission system. 3,109,129, 10-29-63, Cl. 318—29.

Putzer, Walter, to North American Philips Co., Inc. Television receiver with ancillary apparatus for receiving further television transmissions in initially not present frequency bands. 3,092,775, 6-4-63, Cl. 325—461.

Putzrath, Franz L., and T. B. Martin, to Radio Corp. of America. Information processing apparatus. 3,097,349, 7-9-63, Cl. 340—172.5.

Puyear, Robert B., to Union Carbide Corp. Vapor diffusion coating process. 3,096,160, 7-2-63, Cl. 29—197.

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Puyear, Wallace R. Method and apparatus for roll straightening forged, cast and machine round parts. 3,113,608, 12-10-63, Cl. 153—54.

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Dulk, George A., and Pybus. 3,112,648.

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Pye, David J., to The Dow Chemical Co. Method of applying acrylamide polymer flocculants. 3,087,890, 4-30-63, Cl. 210—53.

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Pye Ltd.: *See*—
Bauer, Peter. 3,108,527.
Bicknell, Charles E. 3,080,053.
Fisher, Keith L., and Grimm. 3,072,897.
Fuller, Dennis O. 3,114,086.
Germany, Leslie W. 3,072,739.
Jackson, Donald. 3,114,798.
Perry, Kenneth R. 3,072,327.
Perry, Kenneth R. and Andrews. 3,101,708.
Speakman, Frank P., and Williams. 3,104 320.
Waters, Ian M., and Barratt. 3,114,799.

Pyke, Harold L. Protective device for swimming pools. 3,072,922, 1-15-63, Cl. 4—172.

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Pyle, John S.: *See*—
Gregg, Joseph, Gregg, and Pyle. 3,112,935.

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Feustel, George H., and Burton. 3,096,135.
Hawn, Walter M., Chann, Besal, and Vesely. 3,098,114.
Shearer, Jack F., and Nava. 3,097,905.

Pyle, Oden F., and W. E. Nichols, to H. E. Fletcher Co. Method for stone splitting. 3,101,706, 8-27-63, Cl. 125—23.

Pyle, Robert J., and G. L. Allen, to United States of America, Atomic Energy Commission. Coated carbon element for use in nuclear reactors and the process of making the element. 3,073,717, 1-15-63, Cl. 117—69.

Pyle, William M., to Rhoanglo Mine Services Ltd. Automatic sampling machine. 3,102,428, 9-3-63, Cl. 73—421.

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Pyne, William J., to Diamond Alkali Co. Tetrahydro-1,1-dioxo-3-thienyl carbanilates. 3,075,995, 1-29-63, Cl. 260—332.1.

Pyne, William J., to Diamond Alkali Co. 1,4-bis(2-nitrovinyl) benzene and derivatives thereof as fungicides. 3,105,004, 9-24-63, Cl. 167—30.

Pyne, William J., to Diamond Alkali Co. Phenolic pesticide. 3,108,927, 10-29-63, Cl. 167—31.

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Pereny, Louis, Gibbs, and Pyron. 3,090,694.
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Q-Panel Corp.. *See*—
Albee, Percy F., Jr. 3,077,056.
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Wasserman, Rene D., and Quaas. 3,084,074.
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Caldemeyer, Daniel F., and Quakenbush. 3,083,996.
Caldemeyer, Daniel F., and Quakenbush. 3,107,365.
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Quarles, Charles C., to E. I. du Pont de Nemours and Co. Preparation of hydrogen fluoride. 3,071,437, 1–1–63, Cl. 23—153.
Quarles, Richard W., and L. H. Wartman, to Union Carbide Corp. Molten phase extraction of polymeric olefins. 3,088,936, 5–7–63, Cl. 260—80.5.
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Quartullo, Orpheus F., to American Beryllium Co., Inc. High speed forging apparatus. 3,115,676, 12–31–63, Cl. 18—16.
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George, Henri J. C. 3,079,507.
Holmberg, Karl E. O. 3,101,256.
Quarve, Vernon K., to Rodgers Hydraulic Inc. Power operated wrench. 3,108,507, 10–29–63, Cl. 81—52.3.
Quarve, Vernon K., and J. L. Rodgers, Jr., to Rodgers Hydraulic Inc. Track press having opposed rams and retractable jaw. 3,075,346 1–29–63. Cl. 59—7.
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Quase, Harold G. Underwater storage system. 3,114,384. 12–17–63, Cl. 137—236.
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Quayle, George F., to The Yale and Towne Mfg. Co. Longitudinal and transverse steering for industrial truck. 3,087,564, 4–30–63, Cl. 180—79.2.
Quayle, George F., to The Yale and Towne Mfg. Co. Pallet handling device. 3,105,604, 10–1–63, Cl. 214—620.
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Archambault, Maurice, Olivier, Lemay, and Savard. 3,112,170.
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Quenot, Michel, to Quenot & Cie Etablissements. Surveyors' chains and wind-in magazines therefor. 3,070,889, 1–1–63, Cl. 33—137.
Quenzler, Henry H. W., to Boeing Airplane Co. Airplanes for vertical and/or short take-off and landing. 3,081,964. 3–19–63, Cl. 244—7.
Quenzler, Henry H. W., to Boeing Airplane Co. Airplane having changeable thrust direction. 3,089,666, 5–14–63, Cl. 244—7.
Quenzler, Henry H. W., and T. W. Schmidt, to The Boeing Co. Combined aircraft air intake scoop, foreign material ingestion inhibitor, and aerodynamic flap. 3,109,610, 11–5–63, Cl. 244—15.
Quercetti, Alessandro. Toy missile with automatic opening. 3,086,317, 4–23–63, Cl. 46—74.
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Quercia, Marcel, to Societe d'Etudes et de Recherches Techniques. Automatic gas lighters. 3,081,610, 3–19–63, Cl. 67—7.1.
Quercia, Marcel, to Societe d'Etudes et de Recherches Techniques. Container for fluids under pressure. 3,081,802. 3–19–63, Cl. 141—20.
Quercia, Marcel, to Societe d'Etudes et de Recherches Techniques. Reservoir provided with a valve. 3,081,917, 3–19–63, Cl. 222—394.
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Quester, Wilhelm W. K., to W. Quester. Method for the controlled feeding of material to processing units. 3,098,572. 7–23–63, Cl. 214—152.
Quianthy, John P. Safety device for power lawnmowers. 3,111,800, 11–26–63, Cl. 56—25.4.
Quick, Clarence C., Jr. Vehicle chassis. 3,115,350, 12–24–63, Cl. 280—106.
Quick, Desmond F. J., and D. J. Leech, to Normalair Ltd. Cooling systems for aircraft. 3,097,504, 7–16–63, Cl. 62—241.
Quick, Thomas E. Method and apparatus for producing cuts within a bore hole. 3,081,828, 3–19–63, Cl. 175—67.
Quick, William L. Egg washing machine. 3,086,539, 4–23–63, Cl. 134—165.
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Quin, Murray L., to The Emerson Electric Mfg. Co. Lighting and air conducting apparatus. 3,103,157, 9–10–63, Cl. 98—40.
Quinby, Thomas C., to United States of America, Atomic Energy Commission. Method of preparing radioactive cesium sources. 3,114,716, 12–17–63, Cl. 252—301.1.
Quinche, Albert, to American Can Co. Telescoping of flexible tubular elements on to mandrel like supporting members. 3,101,850, 8–27–63, Cl. 214—1.
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Quinn, Edward, to United Shoe Machinery Corp. Lasting apparatus. 3,097,380, 7–16–63, Cl. 12—107.
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Quinn, James L., to Cummins-Chicago Corp. Control systems for cyclically operating machines. 3,074,525, 1–22–63, Cl. 192—127.
Quinn, John N., 50% to Johnson Welding & Equipment Co., Inc. Portable crushing plant. 3,073,536, 1–15–63, Cl. 241—76.
Quinn, Richard E. Apparatus for stripping hides from conveyors. 3,073,430, 1–15–63, Cl. 198—28.
Quinn, Robert G., to Johns-Manville Corp. Method of preparing inorganic products. 3,096,200, 7–2–63, Cl. 117—54.
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Quintin, Albert A. J., to Compagnie des Metaux d'Overpelt-Lommell et de Corphalie S.A. Heating of zinc ovens. 3,097,835, 7–16–63, Cl. 263—37.
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Raab, Karl, and F. Burchard, to Joseph Graaff Niedersachsiche Waggonfabrik, G.m.b.H. Double-decker automobile transporter railroad car end unit. 3,101,680, 8–27–63, Cl. 105—368.
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Raabe, Herbert P., to United States of America, Air Force. Airborne moving target indication system. 3,115,626, 12–24–63, Cl. 343—7.7.
Raamat, Eric, to Superpack Vending (Curacao) N.A. Cylindrical packages. 3,080,048, 3–5–63, Cl. 206—46.
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Rabinow, Jacob, and W. Fischer, to Rabinow Engineering Co., Inc. Flexible sheet edger and stacker. 3,104,101, 9–17–63, Cl. 271—69.
Rabinow, Jacob, A. W. Holt, W. Fischer, and L. W. Mader, to Rabinow Engineering Co., Inc. High-speed optical identification of printed matter. 3,104,369, 9–17–63, Cl. 340—146.3.
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Ramsden, Hugh E., to M & T Chemicals Inc. Vinylphenylmetal compounds. 3,109,851, 11–5–63, Cl. 260—433.

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Rand, Albert, to General Electric Co. Afterburner fuel and nozzle area control. 3,080,709, 3–12–63, Cl. 60—35.6.

Rand, Burton, to Autosonics Inc. Dry cleaning machine. 3,071,953, 1–8–63, Cl. 68—18.

Rand, Burton, to Autosonics Inc. Cleaning apparatus. 3,073,323, 1–15–63, Cl. 134—70.

Rand, Burton, to Autosonics Inc. Air recirculation system for cleaning apparatus. 3,078,701, 2–26–63, Cl. 68—18.

Rand, Burton, to Autosonics Inc. Cleaning apparatus with closed air circulation system. 3,078,860, 2–26–63, Cl. 134—69.

Rand, Burton, to The Dow Chemical Co. Automatic ultrasonic cleaning device. 3,096,774, 7–9–63, Cl. 134—79.

Rand, Burton, to Autosonics Inc. Modular cleaning apparatus. 3,106,925, 10–15–63, Cl. 134—47.

Rand, Burton, to Autosonics Inc. Machined parts cleaning apparatus having air control system. 3,106,928, 10–15–63, Cl. 134—79.

Rand Corp., The: *See*—
Knapp, William J., and Shanley. 3,089,196.
Micks, William R. 3,098,723.

Rand Development Corp.: *See*—
Cooper, Hugh S. 3,108,877.
Cooper, Hugh S., Alvord, and Lewis. 3,113,028.
Eldred, Dewitt. 3,103,018.

Rand, William M., Jr., R. E. Rice, R. G. Shaver, and W. E. Whitney, to Comstock & Westcott, Inc. Carbon dioxide analyzer cartridge assembly. 3,092,466, 6–4–63, Cl. 23—255.

Randa, Stuart K., to E. I. du Pont de Nemours and Co. Foamable composition comprising a copolymer of tetrafluoroethylene and a perfluoro-alpha-olefin containing therein a fluoromethane and process for making same. 3,072,583, 1–8–63, Cl. 260—2.5.

Randall, Billy V.: *See*—
Lummus, James L., and Randall. 3,111,999.

Randall, Boardman M., and R. S. Frobisher. Method of making honeycomb structural panels. 3,106,503, 10–8–63, Cl. 156—290.

Randall, Brian P. Game projectiles for aerial flight. 3,099,450, 7–30–63, Cl. 273—106.

Randall, Burton T., to C. & D. Lumber Co. Lumber separator and feeder. 3,071,235, 1–1–63, Cl. 198—24.

Randall, David I., S. R. Buc, H. B. Freyermuth, and R. L. Mayhew, to General Aniline & Film Corp. Azo dyestuffs containing a benzene ring substituted by two hydroxyethylsulfonylmethyl groups. 3,094,516, 6–18–63, Cl. 260—163.

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Smith, Lester L., and Randall. 3,073,235.

Randall, George A., to Cosden Petroleum Corp. Method of separating ethylbenzene from styrene by low pressure drop distillation. 3,084,108, 4–2–63, Cl. 202—52.

Randall, Grant M., D. B. Anderson, and S. M. Kerber, to North American Aviation, Inc. Four horn feed bridge. 3,071,769, 1–1–63, Cl. 343—778.

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Randall, Herbert T., to Champion Papers Inc. Method of coating paper. 3,115,438, 12–24–63, Cl. 162—184.

Randall, James H.: *See*—
Close, Patrick B., Coulter, Ditmer, Fahrenbruck, Goldammer, Goodrick, Gulden, Holloran, Jenkins, Kilheffer, Kinker, Lyons, Manor, Marvin, Miller, O'Brian, Randall, Garner, Sather, Yost, and Braden. 3,112,394.

Randall, Kenneth W., to Insley Mfg. Corp. Loading machine. 3,080,076, 3–5–63, Cl. 214—138.

Randall, Max, to Ramco Equipment Corp. Degreaser. 3,100,-105, 8–6–63, Cl. 259—103.

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Randall, Pryor N., and J. B. Sodowsky, to Standard Oil Co. Compressor valve vibration absorber. 3,071,152, 1–1–63, Cl. 137—512.1.

Randall, Ralph S. Stack aligning chute. 3,075,625, 1–29–63, Cl. 193—43.

Randall, Wilbur W., and J. Rubenstein. Dual savings bank. 3,095,139, 6–25–63, Cl. 232—5.

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Gilvarry, John J., Gore, Augenstein, and Randels. 3,097,717.

Randino, Felix J.: *See*—
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Randles, Richard J., to International Business Machines Corp. Error detection circuit for instruction decoders. 3,091,-752, 5–28–63, Cl. 340—146.1.

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Rando, Robert A. Wire jacket skinner. 3,109,332, 11–5–63, Cl. 81—9.5.

Randol, Glenn T. Booster-type servomotor for brake systems. 3,072,106, 1–8–63, Cl. 121—41.

Randol, Glenn T. Booster-type servomotor for brake systems. 3,101,032, 8–20–63, Cl. 121—41

Randol, Glenn T. Razor blade dispenser. 3,108,683, 10–29–63, Cl. 206—16.

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Raney, Robert M., and L. Zednik, Jr., to The Electric Storage Battery Co., and Chrysler Corp. Storage battery and hold-down means therefor. 3,105,566, 10–1–63, Cl. 180—68.5.

Raney, Russell R., and T. Stott, to Avco Corp. Corn harvester. 3,075,340, 1–29–63, Cl. 56—104.

Rang, Hendrik J., to Stamicarbon N.V. Plastic valve bag and method of making same. 3,095,023, 6–25–63, Cl. 150—9.

Range, Walter K., Jr.: *See*—
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Ranhagen, Ernst G. R., to Celleco, Aktiebolaget. Methods for discharging rotating streams of fluids containing contaminants. 3,080,121, 3–5–63, Cl. 239—11.

Rank Precision Industries Ltd.: *See*—
Adams, John R. 3,074,176.
Cook, Gordon H. 3,081,671.
Merigold, Peter A. 3,099,701.
Rawstron, George O. 3,072,014.
Rawstron, George O. 3,079,739.
Rawstron, George O., and Reason. 3,079,731.
Rawstron, George O., and Reason. 3,079,732.
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Rankin, Alexander B. C., to S. Smith & Sons (England) Ltd. Flaw detection system using sonic and ultrasonic waves. 3,077,769, 2–19–63, Cl. 73—67.8.

Rankin, Alexander B. C. Ultra-sonic flaw detection. 3,090,-224, 5–21–63, Cl. 73—67.9.

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Payne, Harry R., and Rankin. 3,107,813.

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Rankin, John C., C. R. Russell, and J. H. Samalik, Sr., to United States of America, Agriculture. Process for preparing improved sizing agents from cereal flours. 3,073,-724, 1–15–63, Cl. 127—38.

Rankin, Lawrence H., to Hartford Faience Co. Insulating bushing assembly with spring retaining means. 3,116,362, 12–31–63, Cl. 174—153.

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Taylor, Herbert E., Rannenberg, and Macklin. 3,107,988.

Ranney, Boivin C. Revolving living room. 3,093,869, 6–18–63, Cl. 20—1.

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Gauthier, William D. 3,083,121.
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Spiller, Lester L. 3,112,217.
Spiller, Lester L. 3,112,218.

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Balz, Gunther W. 3,074,068.
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Ransohoff, Jackson A. Nuclear reactor control rods. 3,103,-479, 9–10–63, Cl. 204—193.2.

Ransom, Frederick J., and C. K. Lovejoy, to Scripto, Inc. Cartridge fountain pen. 3,095,860, 7–2–63, Cl. 120—45.4.

Ransom, James R.: *See*—
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Ransom, James R., to The Bendix Corp. Frequency divider system with preset means to select countdown cycle. 3,096,-483, 7–2–63, Cl. 328—48.

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Ransom, Robert B. Line pickup mechanism for a spinning reel. 3,092,352, 6–4–63, Cl. 242—84.21.

Ransome & Marles Bearing Co. Ltd.: *See*—
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Ransone, William H.: *See*—
Ganzel, Charles, and Ransone. 3,107,858.

Ransone, William H., Inc.: *See*—
Ganzel, Charles, and Ransone. 3,107,858.

Rantsch, Kurt, to M. Hensoldt & Sohne, Optische Werke Aktiengesellschaft. Circular scale. 3,108,378, 10–29–63, Cl. 33—1.

Rantsch, Kurt, to M. Hensoldt & Sohne Optische Werke AG. Slide gauges, screw gauges, or the like. 3,114,976, 12–24–63, Cl. 33—143.

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Rantsch, Kurt, and H. Staaden, to M. Hensoldt & Sohne, Optische Werke Aktiengesellschaft. Reading device for scales. 3,109,048, 10–29–63, Cl. 88—1.

Rao, Koppaka V., to Chas. Pfizer & Co., Inc. 3-[2-(5-acetoxy-2-hydroxy-3,5-dimethylcyclohexyl)-2-hydroxyethyl] glutarimide and derivatives thereof. 3,095,418, 6–25–63, Cl. 260—281.

Rao, Koppaka V., W. S. Marsh, and D. W. Renn, to Chas. Pfizer & Co., Inc. Process for preparing toyocamycin. 3,116,222, 12–31–63, Cl. 195—80.

Rap Industries, Inc.: *See*—
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Rapaport, Gerald M., to American Toy and Furniture Co., Inc. Process of decorating a painting. 3,093,462, 6–11–63, Cl. 41—26.

Rapaport, Robert M., to Food Products Corp., Inc. Glazed bakery product and method of making same. 3,088,829, 5–7–63, Cl. 99—139.

Rapata, George M., to Illinois Tool Works, Inc. Electronic chassis mounting assembly. 3,084,211, 4–2–63, Cl. 174—158.

Rapata, George M., to Illinois Tool Works Inc. Plastic drive fastener having a radially collapsible shoulder. 3,093,027, 6–11–63, Cl. 85—5.

Rapata, George M., to Illinois Tool Works Inc. Fastener. 3,093,874, 6–18–63, Cl. 24—73.

Rapata, George M., to Illinois Tool Works Inc. Fastener. 3,105,407, 10–1–63, Cl. 85—40.

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Raper, Lyle H., to United States of America, Navy. Method of manufacture of disc type cell. 3,116,173, 12–31–63, Cl. 136—175.

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Rapisarda, Edward D., to Gilbert & Barker Mfg. Co. Liquid dispensing unit with additive means for a second liquid. 3,084,832, 4–9–63, Cl. 222—28.

Rapisarda, Edward D., to Gilbert & Barker Mfg. Co. Register means for liquid dispensing unit. 3,107,032, 10–15–63, Cl. 222—26.

Rapoport, Lorence, and J. R. Stephens, to American Cyanamid Co. Process of increasing the tensile strength of cyanoethylated cotton textile fibers by soaking in specific chemicals and products produced thereby. 3,086,835, 4–23–63, Cl. 8—131.

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Johansson, Karl S., and Rapp. 3,085,794.

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McVicker, Robert F., and Rapp. 3,075,286.

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Rappaport, Bernardo: *See*—
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Rappaport, George, D. R. Strack, and D. E. Stare, to General Motors Corp. Rubber-metal laminates involving a chlorinated rubber base cement. 3,108,035, 10–22–63, Cl. 161—221.

Rappaport, Maximiliano and B., and R. Szuehman. Method and equipment for restoring paper paste web in paper making machinery and similar foils in other machines. 3,096,233, 7–2–63, Cl. 162—193.

Rappaport, Paul, to Radio Corp. of America. Radioactive batteries. 3,094,634, 6–18–63, Cl. 310—3.

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Rapplean, Eugene L., and C. Du Bois, to Outboard Marine Corp. Fuel delivery system including an antisiphoning feature. 3,115,114, 12–24–63, Cl. 115—.5.

Rappleyea, Frederick A., and G. E. Morgan, Jr., to John T. Riddell, Inc. Method of making a metal reinforced resinous structure. 3,076,262, 2–5–63, Cl. 29—517.

Rappleyea, Frederick A., and G. E. Morgan, Jr., to John T. Riddell, Inc. Method for making face guards. 3,082,515, 3–26–63, Cl. 29—422.

Rappold, Armin, to International Standard Electric Corp. Means for effecting automatic contrast control in television receivers. 3,087,012, 4–23–63, Cl. 178—7.3.

Rappold, Armin, and H. Hein, to Standard Elektrik Lorenz Aktiengesellschaft. Automatic frequency control arrangement. 3,076,154, 1–29–63, Cl. 331—177.

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Lewinski, Julius, and Rashbaum. 3,097,430.

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Raskin, Seymour H., to Mectron Corp. Weighing device and method. 3,085,642, 4–16–63, Cl. 177—134.

Raskin, Seymour H. Rails. 3,089,650, 5–14–63, Cl. 238—122.

Raskin, Seymour H., to Railroad Machinery Development Corp. System and method of weighing coupled railroad cars in motion. 3,093,200, 6–11–63, Cl. 177—1.

Raskin, Seymour H., to Railroad Machinery Development Corp. Weighing of moving objects. 3,101,800, 8–27–63, Cl. 177—1.

Raskin, Walter. Portable ice skating rink apparatus. 3,108,-454, 10–29–63, Cl. 62—235.

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Rasmussen, Arne P., R. J. Bertl, and A. I. Geyser, to Westinghouse Electric Corp. Multi-gimbal flight simulator. 3,085,-354, 4–16–63, Cl. 35—12.

Rasmussen, Donald E., to L. C. Baldwin and R. Crawford, d.b.a. Balford Mfg. Co. Game carrier. 3,096,010, 7–2–63, Cl. 224—7.

Rasmussen, Edgar E. Paint roller coating apparatus. 3,079,-625, 3–5–63, Cl. 15—257.06.

Rasmussen, Ernest. Container. 3,115,269, 12–24–63, Cl. 220—55.

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Rasmussen, Ross H. Means for installing concrete well casings. 3,095,041, 6–25–63, Cl. 166—235.

Rasmussen, Sherrill K., to The Burdick Corp. Electrocardiograph. 3,082,970, 3–26–63, Cl. 242—55.53.

Rasmussen, Svend A. Safety fence for motorways. 3,082,-994, 3–26–63, Cl. 256—13.1.

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Rasor, Ned S., and R. L. Hirsch, to United States of America, Atomic Energy Commission. Nuclear reactor and thermionic fuel element therefor. 3,113,091, 12–3–63, Cl. 204—193.2.

Raspe, Gerhard, K. Kiesslich, E. Olivar, R. Miller, and B. Wagner, to Schering A.G. Method of producing 1,4-diene-3-ketosteroids. 3,102,080, 8–27–63, Cl. 195—51.

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Rassler, Cecil A. Combustion mixtures containing guanidine nitrate. 3,074,830, 1–22–63, Cl. 149—2.

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Rastgeldi, Selahaddin. Centrifuge apparatus. 3,090,549, 5–21–63, Cl. 233—26.

Ratajski, Ziemowit R. S., to General Precision Inc. D.C. Motor fitted with hall generator. 3,083,314, 3–26–63, Cl. 310—219.

Ratajski, Ziemowit R. S., and D. R. Simon, to General Precision Inc. Hall effect translating devices. 3,112,464, 11–26–63, Cl. 338—32.

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Ratcliffe, Temple W., to The Babcock & Wilcox Co. Sintered refractory material. 3,094,424, 6–18–63, Cl. 206—59.

Rateau, Alexis. Steering mechanism for truck. 3,077,354, 2–12–63, Cl. 280—99.

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Rath, Virgil K. Drain plug. 3,094,712, 6–25–63, Cl. 4—295.

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Rathmann, Heinrich W., and J. C. Wolfe, to Vanadium Corp. of America. Production of medium carbon ferrochromium. 3,085,004, 4–9–63, Cl. 75—130.5.

Rathmann, William G. Soaker. 3,080,124, 3–5–63, Cl. 239—450.

Ratje, John D., and H. W. Tompkins, to Phillips Petroleum Co. Fractional crystallization process. 3,093,649, 6–11–63, Cl. 260—290.

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Rattee, Ian D.: *See*—
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Rattee, Ian D., and F. A. Waite, to Imperial Chemical Industries Ltd. Water-soluble dyestuffs containing polyhydroxylated alkylamino triazine groups. 3,110,710, 11–12–63, Cl. 260—153.

Rattenborg, William K. Routeman's signal. 3,089,607, 5–14–63, Cl. 220—18.

Rattenbury, Kenneth H., E. R. Levy, and A. H. Zakaryan, to Chemagro Corp. Preparation of 2-arylamino-4,6-dichloro-s-triazines. 3,074,946, 1–22–63, Cl. 260—249.5.

Rattner, Leonard C. Hollow container record keeper and advertising device. 3,084,844, 4–9–63, Cl. 229—22.

Ratts, Kenneth W., to Monsanto Chemical Co. N-(2-tetrahydropyranyl) and N-(2-tetrahydrofuranyl) 2-aminoacetamides. 3,099,661, 7–30–63, Cl. 260—345.7.

Rätz, Rudi F. W., to Olin Mathieson Chemical Corp. Trimeric isothiocyano polyfluoroalkoxy phosphorus nitriles. 3,074,989, 1–22–63, Cl. 260—454.

Ratz, Rudi F. W., to Olin Mathieson Chemical Corp. Phosphorus containing bifunctional isothiocyanates and process therefor. 3,090,800, 5–21–63, Cl. 260—461.

Ratz, Rudi F. W., to Olin Mathieson Chemical Corp. Pentraerythritol cyclic diphosphate dimethylsulfoxoniuin salt and process for preparation. 3,103,530, 9–10–63, Cl. 260—461.

Rätz, Rudi F. W., to Olin Mathieson Chemical Corp. Polymeric ethyleneimido polyfluoroalkoxy phosphorus nitriles. 3,113,129, 12–3–63, Cl. 260—239.

Rau, Gerald A.: *See*—
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Rau, Kurt, to Wilhelm Baier, K. G. Apparatus for setting space heating systems into operation. 3,071,183, 1–1–63, Cl. 158—28.

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Rauh, Samuel H. S., E. S. Malkin, and W. J. Alton, to Union Carbide Corp. Corrosive resistant pump. 3,089,423, 5–14–63, Cl. 103—87.

Rauch, Emil B., to General Aniline & Film Corp. Photographic silver halide emulsion sensitized with cyanine dyes containing the benzisoxazole nucleus. 3,071,467, 1–1–63, Cl. 96—106.

Rauch, Emil B., and C. R. Bance, to General Aniline & Film Corp. Cyan color formers. 3,079,259, 2–26–63, Cl. 96—100.

Rauch, Emil R., and F. Dersch, to General Aniline & Film Corp. Fog reduction in photographic silver halide emulsions. 3,081,170, 3–12–63, Cl. 96—109.

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Rauch, Johann: *See*—
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Rauch, Paul E., ¼ to J. M. Mohan. Conduit block making machine. 3,091,831, 6–4–63, Cl. 25—34.

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Rauenbuehler, John: *See*—
Howdle, Frederic E., and Rauenbuehler. 3,083,014.

Rauenbuehler, John A., to Cutler-Hammer, Inc. Kicker for newspapers. 3,089,394, 5–14–63, Cl. 93—93.

Raufenbarth, Franz, to W. H. Joens & Co., G.m.b.H. Electropneumatic transducer. 3,099,995, 8–6–63, Cl. 137—82.

Rauhut, Michael M., to American Cyanamid Co. Tertiary phosphine oxides. 3,116,315, 12–31–63, Cl. 260—465.

Rauhut, Michael M., to American Cyanamid Co. Tertiary phosphines and methods of preparing same. 3,116,316, 12–31–63, Cl. 260—465.

Rauhut, Michael M., and H. Currier, to American Cyanamid Co. Preparation of dialkyl 2-methyleneglutarates. 3,074,999, 1–22–63, Cl. 260—485.

Rauhut, Michael M., and A. M. Semsel, to American Cyanamid Co. Method of preparing tertiary phosphine oxides using elemental phosphorus. 3,099,684, 7–30–63, Cl. 260—485.

Rauhut, Michael M., and A. M. Semsel, to American Cyanamid Co. Preparation of organic phosphorus compounds from phosphorus, an alkyl halide and an organo-magnesium halide. 3,099,690, 7–30–63, Cl. 260—60.5.

Rauhut, Michael M., and A. M. Semsel, to American Cyanamid Co. Preparation of organic phosphines from phosphorus, an alkyl halide and an organic lithium or sodium compound. 3,099,691, 7–30–63, Cl. 260—606.5.

Rauhut, Michael M., and A. M. Semsel, to American Cyanamid Co. Process for preparing 1-hydroxyalkylphosphine oxides. 3,100,799, 8–13–63, Cl. 260—606.5.

Rauland-Borg Corp.: *See*—
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Rauland Corp., The: *See*—
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Kaplan, Sam H. 3,109,117.
Kaye, Theodore J., Jr., and Vogt. 3,092,733.
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Raulins, George M., to Otis Engineering Corp. Remotely controlled latch for well tools. 3,071,188, 1–1–63, Cl. 166—66.5.

Raulins, George M., to Camco, Inc. Pipe recesa locking device. 3,071,192, 1–1–63, Cl. 166—217.

Raulins, George M., to Camco, Inc. Well tubing sliding valve. 3,071,193, 1–1–63, Cl. 166—226.

Raulins, George M., to Otis Engineering Corp. Well casing suspending means. 3,089,543, 5–14–63, Cl. 166—71.

Raulins, George M., to Otis Engineering Corp. Multiple flow conductor suspension apparatus. 3,090,438, 5–21–63, Cl. 166—75.

Raulins, George M., to Otis Engineering Corp. Latch means. 3,102,591, 9–3–63, Cl. 166—75.

Raulins, George M., to Camco, Inc. Universal selective landing nipple and selector tool. 3,105,549, 10–1–63, Cl. 166—65.

Raulins, George M., to Otis Engineering Corp. Anchoring and sealing devices. 3,105,556, 10–1–63, Cl. 166—214.

Raulins, George M., and D. M. Koons to Otis Engineering Corp. Well tools for securing flow conductors in a tubular member. 3087,547, 4–30–63, Cl. 166—89.

Rault, Pierre A., to Compagnie Industrielle des Telephones. Device for measuring the temperature inside a nuclear reactor. 3,110,657, 11–12–63, Cl. 204—193.2.

Raum, Alaric L. J., to The Distillers Co. Ltd. Polymerisation of ethylene with a catalyst aluminum, a halide of titanium or vanadium and a halogen. 3,091,607, 5–28–63, Cl. 260—94.9.

Rauner, Frederick J., I. F. Rosati, and E. M. Robertson, to Eastman Kodak Co. Dry processed photothermographic printing plate and process. 3,100,702, 8–13–63, Cl. 96—33.

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Rausch, Douglas A., to The Dow Chemical Co. Aqueous polymerization of fluorinated monomer in the presence of halogenated aromatic compounds. 3,072,590, 1–8–63, Cl. 260—29.6.

Rausch, Douglas A., and H. G. Hahn, to The Dow Chemical Co. Aqueous polymerization of fluorinated monomer in the presence of halogenated aromatic compounds. 3,072,589, 1–8–63, Cl. 260—29.6.

Rausch, Martin. Machine for the uniform distribution of manure and the like substances over ground. 3,094,333, 6–18–63, Cl. 275—8.

Rausch, Martin. Mobile spreader. 3,105,694, 10–1–63, Cl. 275—8.

Rausch, Marvin D., to Monsanto Chemical Co. Arylferrocenes and a process for preparing them. 3,098,864, 7–23–63, Cl. 260—439.

Rauser, Erwin F., to Lewis Knitting Co. Undergarments. 3,083,710, 4–2–63, Cl. 128—159.

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Rausing, Gad A., and A. Tuma, to Hermorion Ltd. Apparatus for producing aseptic packages. 3,086,336, 4–23–63, Cl. 53—180.

Rautio, Laurie J., to Clayton & Lambert Mfg. Co. Swimming pools and like structures of the type having endless peripheral metal walls. 3,106,045, 10–8–63, Cl. 50—100.

Rave, Joseph A., Jr., to The Cincinnati Milling Machine Co. Positioning device including means for dividing intervals into preselected numbers of equal parts. 3,089,989, 5–14–63, Cl. 318—28.

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Raver, Clarence L. Pressure closure. 3,074,591, 1–22–63, Cl. 220—46.

Raver, Jack. Folding and adjustable rocking chair. 3,112,953, 12–3–63, Cl. 297—18.

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Raver, Louis J., to General Motors Corp. Protective circuit for transistor regulators. 3,098,966, 7–23–63, Cl. 322—73.

Raver, Louis J., and T. E. Kirk, to General Motors Corp. Variable resistance assembly. 3,089,111, 5–7–63, Cl. 338—260.

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Ravn, Jacob, to The West Co. Cap structure for bottles. 3,071,274, 1–1–63, Cl. 215—37.

Ravve, Abraham, and J. T. Khamis, to Continental Can Co., Inc. Vinyl halide copolymers with oxirane-containing side groups having improved heat stability. 3,100,758, 8–13–63, Cl. 260—45.5.

Raw, Marshall F. Brush device for napped or pile fabrics. 3,087,223, 4–30–63, Cl. 26—27.

Rawe, Martin, and W. Kerkmann, said Kerkmann assor. to said Rawe. Process and apparatus for manufacturing a flexible container. 3,103,856, 9–17–63, Cl. 93—8.

Rawle, David, to Clinch-Tite Corp. Pallet bin. 3,085,706, 4–16–63, Cl. 217—48.

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Rawls, Vaughn, to The Rawls Brothers Co. Multiple pneumatic tire retreading station. 3,091,802, 6–4–63, Cl. 18—2.

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Rawstron, George O., to Rank Precision Industries Ltd. trading as Taylor, Taylor & Hobson. Photographic apparatus for producing curved lines. 3,072,014, 1–8–63, Cl. 88—24.

Rawstron, George O., to Rank Precision Industries Ltd. trading as Taylor, Taylor & Hobson. Method and apparatus for positioning a workpiece for polishing. 3,079,739, 3–5–63, Cl. 51—277.

Rawstron, George O., and R. E. Reason, to Rank Precision Industries Ltd. trading as Taylor, Taylor & Hobson. Generation of shaped surfaces. 3,079,731, 3–5–63, Cl. 51—58.

Rawstron, George O., and R. E. Reason, to Rank Precision Industries Ltd. trading as Taylor, Taylor & Hobson. Generation of aspheric surfaces. 3,079,732, 3–5–63, Cl. 51—58.

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Ray, Kelvin J.: *See*—
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Ray, Leonard N., Jr., to Armstrong Cork Co. Asbestos fiber beater saturation using very small inorganic particles. 3,102,063, 8–27–63, Cl. 162—155.

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Ray, Nell H., and H. L. Roberts, to Imperial Chemical Industries Ltd. Chloroaliphatic sulfur pentafluorides. 3,086,048, 4–16–63, Cl. 260—543.

Ray, Norman L. Press for amalgams and the like. 3,095,648, 7–2–63, Cl. 32—40.

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Ray, Raymond: *See*—
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Ray, Richard L., E. A. Hunter, and J. L. Ernst, to Esso Research and Engineering Co. Polyvinylchloride-chlorinated isoolefin-multiolefin copolymer blend and method of making same. 3,090,768, 5–21–63, Cl. 260—45.5.

Ray, Richard L., and W. E. McAdams, to Esso Research and Engineering Co. Process for preparing latices of isobutylene polymers. 3,111,498, 11–19–63, Cl. 260—29.7.

Ray, Roy W., to Pioneer Heddle and Reed Co., Inc. Heddle frame. 3,106,942, 10–15–63, Cl. 139—88.

Ray, William A., to General Controls Co. Proportional positioning using hydraulic jet. 3,087,471, 4–30–63, Cl. 121—41.

Ray, William A., to General Controls Co. Ball valve structure. 3,101,740, 8–27–63, Cl. 137—596.

Ray, William A., to General Controls Co. Swing check type regulator valve. 3,105,513, 10–1–63, Cl. 137—484.8.

Ray, William A., to General Controls Co. Heat motor operated valve. 3,108,616, 10–29–63, Cl. 137—628.

Ray, William A., to General Controls Co. Oil-filled solenoid gas valve. 3,108,777, 10–29–63, Cl. 251—54.

Ray, William A., to General Controls Co. System and safety device for multiple furnaces. 3,115,926, 12–31–63, Cl. 158—131.

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Ray, William A., and R. D. Grayson, to General Controls Co. System for operating a rotary spit mechanism. 3,108,532, 10–29–63, Cl. 99—421.

Ray, William H., to United States Steel Corp. Collapsible safety cage for ladders. 3,106,986, 10–15–63, Cl. 182—106.

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Raybuck, William B., to Fred'k H. Levey Co., Inc. Folder for web-fed printing presses. 3,088,731, 5–7–63, Cl. 270—72.

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Reach, Roy W., Jr., to Minneapolis-Honeywell Regulator Co. Check number generator. 3,092,807, 6–4–63, Cl. 340—146.1.

Reach, Roy W., Jr., to Minneapolis-Honeywell Regulator Co. Race-preventing flip-flop switches by trailing edge of clock pulse applied through charged series capacitor. 3,102,208, 8–27–63, Cl. 307—88.5.

Read, Chester L.: *See*—
Lucchesi, Peter J., Read, and Long. 3,072,548.

Read, Leland B., to ACF Industries, Inc. Thermostatic idle. 3,089,648, 5–14–63, Cl. 236—93

Read, Robert C., and F. J. Gregor, to The Gorton Co. Juice expressing machine. 3,108,533, 10–29–63, Cl. 100—98.

Read, Walter F.: *See*—
Bowles, Vernon O., and Read. 3,111,480.

Reader, Ange R., to Reader Properties, Inc. Side rack stake and side wall construction. 3,097,880, 7–16–63, Cl. 296—36.

Reader Properties, Inc.: *See*—
Reader, Ange R. 3,097,880.

Reader, Trevor D.: *See*—
Cargill, Norman A., and Reader. 3,071,154.

Reading Laboratory, Inc., The: *See*—
Schaill, William S. 3,105,310.

Ready, Charles A., to W. R. Grace & Co. Packaging apparatus. 3,078,628, 2–26–63, Cl. 53—24.

Reagan, John J., and M. L. Payne, to The Standard Oil Co. Fired tank heater seal. 3,109,423, 11–5–63, Cl. 126—360.

Reagle, Gerald R.: *See*—
Rex, Martin A., and Reagle. 3,102,383.

Reali, Rodolfo, to Attrezzature e Dispositivi per Annunzi Reclamistici-A.D.A.R. Advertising billboard showing a multiplicity of subjects. 3,080,668, 3–12–63, Cl. 40—36.

Realisations Ultrasoriques: *See*—
Dory, Jacques. 3,089,458.
Dory, Jacques, and Renaut. 3,102,210

Realist, Inc.: *See*—
Glwosky, Harry L. 3,085,149.

Realty and Industrial Corp.: *See*—
Gubelmann, William S. 3,082,914.
Gubelmann, William S. 3,090,553.
Gubelmann, William S. 3,098,609.
Gubelmann, William S. 3,100,603.
Gubelmann, William S. 3,115,300.

Reamer, Thomas E., to Shell Oil Co. Metal working lubricant. 3,079,340, 2–26–63, Cl. 252—33.6.

Reames, Leonard, to H. M. Jacox, and K. E. Bauer, d.b.a. Jaybee Co. Backing plate for abrasive disks. 3,110,140, 11–12–63, Cl. 51—195.

Reames, Louis E. Educational activities building construction. 3,083,418, 4–2–63, Cl. 20—1.

Reamey, Herbert K., Jr.: *See*—
Simonson, Lowden, Wieman, Reamey, and Kiefer. 3,076,241.

Reams, Clinton A. Take-off assisting apparatus for rotary wing aircraft. 3,112,904, 12–3–63, Cl. 244—63.

Reaney, Donald, to Ericsson Telephones Ltd. Multi-electrode glow discharge tubes. 3,090,893, 5–21–63, Cl. 315—135.

Reardon, John J., and J. S. Axelson, to General Electric Co. Brush seating technique. 3,105,331, 10–1–63, Cl. 51—281.

Reardon, Patrick H., to The Lionel Corp. Method for making lens blockers. 3,114,992, 12–24–63, Cl. 51—284.

Rearwin, Earle W., to J. A. Kozma and J. A. Kozma, Jr. Automatic ladles. 3,077,015, 2–12–63, Cl. 22—81.

Reasby, Charles S.: *See*—
Blalklock, William J., and Reasby. 3,100,939.

Reasby, Charles S., to United States of America, Army. Dual level controlled automatic liquid dispensing nozzle. 3,100,007, 8–6–63, Cl. 141—209.

Reaser, Marshall. Fishhook holder. 3,101,964, 8–27–63, Cl. 289—17.

Reaser, Paul B. Means of recording and/or displaying physical magnitudes. 3,091,505, 5–28–63, Cl. 346—29.

Reason, Richard E.: *See*—
Rawstron, George O., and Reason. 3,079,731.
Rawstron, George O., and Reason. 3,079,732.

Reason, Richard E., to Rank Precision Industries Ltd. Suspension devices. 3,081,552, 3–19–63, Cl. 33—215.

Reasor, George A.: *See*—
Henry, John E., and Reasor. 3,085,087.

Reath, Roger E.: *See*—
Raymond, Louis W., and Reath. 3,108,056.

Reaves, John H., to Elcor, Inc. Differential amplifier. 3,075,155, 1–22–63, Cl. 330—69.

Reaves, John H., and J. F. Walton, to Elcor Inc. Flip-flop circuits. 3,076,900, 2–5–63, Cl. 307—88.5.

Re Baratelli, Giuseppe, to Count Numbering Machine, Inc. Typographic numerator progressively and regressively operating. 3,107,606, 10–22–63, Cl. 101—88.

Rebechini, Peter G., and P. E. Larson, to Thor Power Tool Co. Portable tool. 3,099,905, 8–6–63, Cl. 51—170.

Reber, Carroll J., Jr., to Philco Corp. Defrostable refrigeration system. 3,081,607, 3–19–63, Cl. 62—278.

Reber, John, Jr., to Hamilton Watch Co. Indexing mechanism for a battery operated electric watch. 3,090,245, 5–21–63, Cl. 74—126.

Reber, John, Jr., D. A. Bly, and D. Fritsch, to Hamilton Watch Co. Manual starting mechanism for timepieces. 3,071,920, 1–8–63, Cl. 58—85.5.

Rebikoff, Dimitri I., to Loral Electronics Corp. Control arrangement for a submarine vessel. 3,093,105, 6–11–63, Cl. 114—16.

Rebizzo, Edward P.: *See*—
Rebizzo, Victor and E. P. 3,073,325.

Rebizzo, Victor, and E. P. Drum washer. 3,073,325, 1–15–63, Cl. 134—148.

Rebka, Glen A., to The Metal Specialty Co. Bowling ball carrier and the like. 3,103,266, 9–10–63, Cl. 190—48.

Rebo, Reina R., to Ritepoint Pen and Pencil Co. Ballpoint refill units. 3,106,909, 10–15–63, Cl. 120—42.4.

Recchione, Dominic A., to Walter Balfour & Co. Inc. Rolling type closure construction. 3,078,917, 2–26–63, Cl. 160—120.

Rece, Wesley J., Jr.: *See*—
Jones, Wickliffe, and Rece. 3,111,065.

Rech, Elliott E.: *See*—
Smeltzer, Jack C., and Rech. 3,082,332.

Rech, Jean M. D.: *See*—
André, Joseph G. E., and Rech. 3,097,484.

Rechenmaschinenfabrik, Precisa, A.G.: *See*—
Julich, Werner. 3,097,790.

Recher, Werner, to Allgauer Maschinenbau G.m.b.H. Thread guide, particularly for textile twisting machines. 3,084,500, 4–9–63, Cl. 57—106.

Recherches Etudes Production R. E. P., Societe a Responsabilite Limitee: *See*—
Lucien, René. 3,082,697.
Lucien, René. 3,082,980.

Recherches et Propagande Scientifiques: *See*—
Jouillie, Maurice, Laurre, Maillard, and Muller. 3,094,464.

Rechsteiner, Paul, to Zelzer & Co. Slide-fasteners. 3,098,276, 7–23–63, Cl. 24—201.

Reck, Herbert J. and H. W. Feeding, arranging and grading apparatus for eggs. 3,100,571, 8–13–63, Cl. 209—121.

Reck, Hilbert W.: *See*—
Reck, Herbert J. and H. W. 3,100,571.

Reck, Richard A., W. W. Abramitis, and C. S. Wilhemy; said Reck assor. to Armour and Co. Oil-soluble plant growth regulation agents. 3,097,088, 7–9–63, Cl. 71—2.5.

Reck, Richard A., C. S. Wilhelmy, and J. Benveniste, to Conch International Methane Ltd. Containers for liquefied gases. 3,104,984, 9–24–63, Cl. 117—148.

Recknor, Clarence E., R. L. Merchant, and D. W. and D. O. Miller. Weighing and measuring apparatus for granular and the like material. 3,109,503, 11–5–63, Cl. 177—24.

Record Automaten A.G.: *See*—
Bodenroder, Karl. 3,085,805.

Record, Frank A.: *See*—
Hubbell, Richard L., and Record. 3,092,791.
Murdoch, Richard O., and Record. 3,076,078.

Rectenwald, Richard L. Cyclic arc welding. 3,103,065, 9–10–63, Cl. 29—401.

Rector, Charles W. Natural expression former. 3,103,052, 9–10–63, Cl. 27—21.

Rector, Joseph. Combined telephone amplifier and radio receiver. 3,092,688, 6–4–63, Cl. 179—1.

Rector, Laurence L., to Rector Well Equipment Co., Inc. Tubing hangers. 3,080,180, 3–5–63, Cl. 285—137.

Rector, Laurence L., to Rector Well Equipment Co., Inc. Multiple valved tubing hangers. 3,115,934, 12–31–63, Cl. 166—75.

Rector, Ralph H., to Stauffer Chemical Co. Battery case. 3,093,515, 6–11–63, Cl. 136—166.

Rector Well Equipment Co., Inc.: *See*—
Curry, John L. 3,095,644.
Rector, Laurence L. 3,080,180.
Rector, Laurence L. 3,115,934.

Recupito, Kenneth J. Muffler apparatus. 3,106,985, 10–15–63, Cl. 181—65.

Recupito, Kenneth J. Muffler apparatus. 3,111,192, 11–19–63, Cl. 181—65.

Red, Naomi P. Container for toothbrushes and related items. 3,099,273, 7–30–63, Cl. 132—84.

Red Arrow Tow Bar Mfg., Inc.: *See*—
Hawkins, Wallace H. 3,103,064.
Hollenbeck, Clifford M. 3,106,473.

Redd, Thomas J. Golf club. 3,081,087, 3–12–63, Cl. 273—80.

Redden, Thomas K., to General Electric Co. Tungsten base alloys. 3,085,006, 4–9–63, Cl. 75—176.

Reddick, John A., E. E. Berkley, L. L. Linthicum, and H. H. Buxton, to Anderson, Clayton & Co. Fractionating apparatus. 3,083,828, 4–2–63, Cl. 209—3.

Reddick, Leonard L., R. M. Fort, E. J. Baldi, D. K. Harmon, and H. F. Ziegelbein, to Producers Creamery Co., Inc. Spray cleaning. 3,113,046, 12–3–63, Cl. 134—24.

Redding, Edward M.: *See*—
Rainer, William C., Redding, Hitov, Sloan, and Stewart. 3,097,150.

Reddy, Robert R., to Hi-Shear Rivet Tool Co. Separable fastener. 3,080,633, 3–12–63, Cl. 24—221.

Reddy, Virgin C.: *See*—
Chaplin, Albin, and Reddy. 3,096,849.

Redenbaugh, William A., ¼ to G. W. Arnold. Method and mechanism for separation of solutes from solvents. 3,096,255, 7–2–63, Cl. 202—51.

Reder, Milton: *See*—
Ruskin, Simon L., Farbi, Ruskin, and Reder. 3,104,203.
Ruskin, Simon L., Farbi, Ruskin, and Reder. 3,104,216.

Reder, Rodney W.: *See*—
Haydon, Arthur W., Kavanaugh, and Reder. 3,113,281.

Redfarn, Cyril A.: *See*—
Quelle, Gerrit, Redfarn, and Thompson. 3,077,458.

Redfern, Bernard, to The Plessey Co. Ltd. Bodies and shapes of carbonaceous materials and processes for their production. 3,109,712, 11–5–63, Cl. 23—209.2.

Redfern, John T. Silicon controlled rectifier D.C. to A.C. inverter utilizing bridge type arrangement with single commutating capacitor. 3,109,977, 11–5–63, Cl. 321—44.

Redfield, Paul H., Jr. Combination bale hook and twine cutter. 3,115,648, 12–31–63, Cl. 7—14.3.

Redhead, Paul A., to National Research Council. Ionization gauge for the measurement of low pressures. Re. 25,369, 4–16–63, Cl. 324—33.

Redi-Knot Inc.: *See*—
Caparosa, Ralph J. 3,085,725.

Redi-Knot Tie Clip Corp.: *See*—
Phillips, Robert, Levine, Centrella, and Underwood. 3,071,776.

Redin, Gunnar S.: *See*—
Shepherd, Robert G., and Redin. 3,116,312.

Reding, Frederick P.: *See*—
Sullivan, Edward M., Wise, and Reding. 3,110,705.

Reding, Frederick P., and C. W. McGary, Jr., to Union Carbide Corp. Olefinic copolymers. 3,091,601, 5–28–63, Cl. 260—80.5.

Redi Truss International, Inc.: *See*—
Fellman, Morton R. 3,070,923.

Red Jacket Mfg. Co.: *See*—
Lane, Carra L., Jr. 3,075,469.
Patterson, Glenn A., and Deters. 3,081,915.

Redman, Lawrence E., to Garbage Service Co., Inc. Grapple device for material handling apparatus. 3,080,988, 3–12–63, Cl. 214—656.

Redmayne, Leonard, A. J. Wilson, and L. W. Kings, to Girling Ltd. Disc brakes. 3,077,246, 2–12–63, Cl. 188—73.

Redmon, Paul C., 66⅔% to Novel Ideas Inc. Dispenser for lawn treating materials. 3,100,371, 8–13–63, Cl. 56—25.4.

Redmond, Eugene R., to Brian Jackson Associates, Inc. Process for refining blister copper. 3,114,628, 12–17–63, Cl. 75—75.

Redmond, James A.: *See*—
Parsons, William J., Holloway, and Redmond. 3,080,565.

Redner, Salomon, to The Budd Co. Photoelastic strain gauges. 3,074,271, 1–22–63, Cl. 73—88.

Redner, Salomon, to The Budd Co. Photoelastic strain gauges. 3,101,609, 8–27–63, Cl. 73—88.

Redpath, John R., and L. S. Wysocki, to Chicago Carton Co. Carton. 3,099,383, 7–30–63, Cl. 229—52.

Red Point Corp.: *See*—
Craig, Ralph P. 3,076,577.

Redrow, Allan R. Windshield cleaner mechanism. 3,108,307, 10–29–63, Cl. 15—250.28.

Red Wing Shoe Co., Inc.: *See*—
Smith, Roy A. 3,101,559.

Reeber, Rudolf, and R. Dobner, to G. M. Pfaff, A.G. Feed mechanism for sewing machines. 3,089,445, 5–14–63, Cl. 112—203.

Reeber, Nicholas J., to Hazeltine Research, Inc. Subcarrier detector. 3,076,147, 1–29–63, Cl. 329—140.

Reeber, Rudolf, to G. M. Pfaff, A.G. Sewing machine with feed wheel feeding. 3,071,089, 1–1–63, Cl. 112—214.

Reeber, Rudolf, to G. M. Pfaff, AG. Wheel feed differential control for sewing machines. 3,104,639, 9–24–63, Cl. 112—214.

Reeber, Rudolf, and H. Wenz, to G. M. Pfaff, AG. Arrangement for group stitch sewing machines for feeding material to be stitched in sections. 3,073,267, 1–15–63, Cl. 112—2.

Reeber, Rudolf, and E. Schenkengel, to G. M. Pfaff, AG. Electromagnetic cutting knife and the like actuating mechanism. 3,094,031, 6–18–63, Cl. 83—571.

Reebs, Hans-Jürgen, to Siemens & Halske Aktiengesellschaft. Stabilized bridge oscillation generator. 3,114,116, 12–10–63, Cl. 331—139.

Reece, Clark B., to R.I.N.C.O. Damper positioning means. 3,086,407, 4–23–63, Cl. 74—533.

Reece Corp., The: *See*—
Althens, Herbert E., French, and Reece. 3,103,905.
Christiansen, Ole F. 3,081,721.

Reece, Franklin A.: *See*—
Althens, Herbert E., French, and Reece. 3,103,905.

Reece, Franklin A., Jr.: *See*—
Althens, Herbert E., French, and Reece. 3,103,905.

Reece, John B.: *See*—
Althens, Herbert E., French, and Reece. 3,103,905.

Reece, William F., to Allied Products Corp. Spring ejector for metal punch. 3,106,120, 10–8–63, Cl. 83—128.

Reed, Albert E., & Co. Ltd.: *See*—
Sheldon-Williams, Charles. 3,104,794.

Reed, Alun J., to Metalastik Ltd. Ball joints and ball jointed universal couplings. 3,082,613, 3–26–63, Cl. 64—11.

Reed, C. W., Co., Inc.: *See*—
Reed, Clifton W. 3,116,416.

Reed, Charles M. D., to The Taylor-Reed Corp. Handle construction for utensils. 3,082,906, 3–26–63, Cl. 220—95.

Reed, Clair S., to Van Dresser Specialty Corp. Supporting spring assembly for seats. 3,091,450, 5–28–63, Cl. 267—86.

Reed, Clair S., to Van Dresser Specialty Corp. Supporting spring assembly for seats. 3,091,451, 5–28–63, Cl. 267—102.

Reed, Clair S., to Van Dresser Specialty Corp. Supporting spring cushion structure for a seat. 3,112,924, 12–3–63, Cl. 267—103.

Reed, Clifton W., to C. W. Reed Co., Inc. Radiation scanner. 3,116,416, 12–31–63, Cl. 250—53.

Reed, Denzel W. and R. L., to Gulf Research & Development Co. Low temperature reverse combustion process. 3,110,-345, 11–12–63, Cl. 166—11.

Reed, Donald E. and S. F., E. F. Deady, and E. R. Fairbanks, to Space Components Inc. Magnetic switches. 3,098,907, 7–23–63, Cl. 200—87.

Reed, Edgar, 2nd. Anti-slip handle for manually operated tools. 3,093,172, 6–11–63, Cl. 145—61.

Reed, Edwin E., to Phillips Petroleum Co. Floating suction for submersible pump. 3,101,874, 8–27–63, Cl. 222—385.

Reed, Edwin E., to Phillips Petroleum Co. Method of operating pressurized storage system. 3,105,358, 10–1–63, Cl. 61—5.

Reed, Edwin E., J. W. Hale, and F. S. Hamlin, to Phillips Petroleum Co. Safety device for use in testing relief valves on pressurized fluid containers. 3,097,516, 7–16–63, Cl. 73—4.

Reed Electromech Corp.: *See*—
Diaz, Juan. 3,114,446.
Patzer, William A. 3,096,864.

Reed, Everett C., to Albany Felt Co. Tennis ball cover cloth. 3,074,144, 1–22–63, Cl. 28—79.

Reed, Frank F.: *See*—
MacLeod, Norman A. 3,094,983.

Reed, Frank G. Palletized vehicle deck. 3,092,044, 6–4–63, Cl. 105—369.

Reed, Frederick P.: *See*—
Harvey, Earle M., and Reed. 3,114,290.

Reed, Frederick P., to United States of America, Army. Combined cartridge ejector and retainer. 3,077,044, 2–12–63, Cl. 42—25.

Reed, George A., and D. Rosen, to Gates Acoustinet, Inc. Acoustical cabinet for office business machines. 3,087,578, 4–30–63, Cl. 181—33.

Reed, Harold V., to Borg-Warner Corp. Clutches. 3,086,634, 4–23–63, Cl. 192—111.

Reed, Henry C.: *See*—
Winfree, Robert N., and Reed. 3,079,738.

Reed, Hugh W. B., to Imperial Chemical Industries Ltd. Alkylation of aromatic compounds. 3,114,781, 12–17–63, Cl. 260—671.

Reed, John C. Articulated support beam. 3,073,559, 1–15–63, Cl. 248—205.

Reed, John C., to United States of America, Air Force. Radar relay system. 3,093,823, 6–11–63, Cl. 343—11.

Reed, John J., to St. Joseph Lead Co. Tape extensometer for measuring roof sag. 3,092,912, 6–11–63, Cl. 33—147.

Reed, John W., and H. J. Halvorsen, to Farrel-Birmingham Co., Inc. Railroad wheel and axle assembly handling machine. 3,073,017, 1–15–63, Cl. 29—252.

Reed, Joseph: *See*—
Kenny, Charles R., and Reed. 3,102,225.
McKay, Michael W., and Reed. 3,077,594.

Reed, Joseph E. Method and apparatus for treating sewage. 3,077,842, 2–19–63, Cl. 110—8.

Reed, Kenneth S., to Tru-Scale, Inc. Feed mechanism. 3,111,709, 11–26–63, Cl. 18—5.

Reed, Lamar N.: *See*—
Novick, Sheldon, and Reed. 3,103,597.

Reed, Linwood L., to Union Steel Products Co. Outdoor grill. 3,113,504, 12–10–63, Cl. 99—421.

Reed, Lionel E., and R. J. Whitley, to Socony Mobil Oil Co., Inc. Tank truck delivery system air elimination. 3,081,-627, 3–19–63, Cl. 73—200.

Reed, Lloyd E. Collapsible tent and trailer. 3,095,231, 6–25–63, Cl. 296—23.

Reed, Loretta. Garment construction. 3,108,284, 10–29–63, Cl. 2—93.

Reed Mfg. Co.: *See*—
Brown, Thomas G. 3,081,812.
Jonasson, Axel V. 3,100,934.
Petersen, Thorvald. 3,098,296.

Reed, Paul E., and T. L. Flanagan, to United States Rubber Co. Combined metering and dispensing apparatus. 3,087,-650, 4–30–63, Cl. 222—14.

Reed, Philip W.: *See*—
Dew, John N., Reed, and Martin. 3,084,744.

Reed, Raymond E.: *See*—
Ryan, Edward C., and Reed. 3,079,911.
Ryan, Edward C., and Reed. 3,101,707.

Reed, Richard L.: *See*—
Haley, Kenneth M., Arntz, and Reed. 3,088,723.

Reed, Robert D.: *See*—
Zink, John S., Reed, and Godnight. 3,101,769.

Reed, Robert D., to John Zink Co. Atomizer for liquid fuel. 3,072,313, 1–8–63, Cl. 239—404.

Reed, Roland L., to The Babcock & Wilcox Co. Closure device. 3,081,900, 3–19–63, Cl. 220—39.

Reed Roller Bit Co.: *See*—
Hoza, Martin D. 3,099,187.
Kucera, Clement M., and Del'Homme. 3,099,324.
Livermont, Frank W. 3,079,785.
Livermont, Frank W. 3,102,732.
Mandrell, Clayton C. 3,115,200.
Volmert, Elmer J. 3,112,804.

Reed Ronald L.: *See*—
Reed, Denzel W. and R. L. 3,110,345.

Reed, Stanley F.: *See*—
Deady, Emmett F., Reed, and Houghton. 3,095,910.
Houghton, Daniel E., Deady, and Reed. 3,088,496.
Reed, Donald E. and S. F., Deady, and Fairbanks. 3,098,-907.

Reed, Stanley F., to American Scientific Corp. Media of exchange. 3,092,402, 6–4–63, Cl. 283—57.

Reed, Stanley F., D. E. Houghton, and E. F. Deady, to Cambridge Wire Cloth Co. Lay beam assembly. 3,103,954, 9–17–63, Cl. 139—188.

Reed, Theron J., to P. W. Sindlinger and J. R. Nichols. Variable flow feed auger for delivering from sealed storage bins. 3,107,825, 10–22–63, Cl. 222—310.

Reed, Theron J., to American Planter Co. Cattle feed distributor. 3,108,572, 10–29–63, Cl. 119—52.

Reed, Thomas B.: *See*—
Gage, Robert M., Reed, and Eschenbach. 3,077,108.

Reed, Thomas G., Jr.: *See*—
Bowman, William G., and Reed. 3,115,477.

Reed, Troy J. Sprocket for saw chain. 3,087,350, 4–30–63, Cl. 74—243.

Reed, Walden E., to Acme Visible Records, Inc. Record filing device. 3,106,208, 10–8–63, Cl. 129—31.

Reed, Warren A.: *See*—
Gowdey, Milton A. 3,106,398.

Reed, William O., to The Rauland Corp. Photosensitive radiant-energy transducers. 3,112,404, 11–26–63, Cl. 250—213.

Reed, William P. Granular material dispenser. 3,111,242, 11–19–63, Cl. 222—183.

Reed, Wilmer L.: *See*—
Gallaghan, John A., and Reed. 3,101,379.

Reeder, Charles H.: *See*—
Johnson, Edward P., and Reeder. 3,104,800.

Reeder, Claude E.: *See*—
Scott, Howard M., and Reeder. 3,115,592.

Reeder, Earl, and L. H. Sternbach, to Hoffmann-La Roche Inc. Process for preparing 5-phenyl-1,2-dihydro-3H-1,4-benzo diazepines. 3,109,843, 11–5–63, Cl. 260—239.

Reeder, Frank, to Courtaulds Ltd. Regeneration of an aqueous inorganic thiocyanate solution. 3,078,143, 2–19–63, Cl. 23—75.

Reeder, Frank, and B. Krzesinski, to Courtaulds Ltd. Production of crimped filaments. 3,100,763, 10–15–63, Cl. 28—72.

Reedy, Paul H.: *See*—
Gasaway, Jack. 3,108,283.

Reely, Walter J.: *See*—
Williams, Charles R., Morrison, Leach, and Reely. 3,100,635.

Reely, Walter J., to General Instrument Corp. Punched card to teletypewriter code converter. 3,075,043, 1–22–63, Cl. 178—26.

Reemtsma, H. F. & Ph. F.: *See*—
Muth, Frans. 3,085,580.
Warmt, Rudolf. 3,098,143.

Reen, Gerald K., and T. C. Warner, Jr., to Textron Electronics, Inc. Vibration pickup. 3,102,250, 8–27–63, Cl. 340—17.

Reen, Joel S.: *See*—
Crathern, Charles F. H., III, Brandicich, and Reen. 3,096,692.

Reerink, Engbert H.: *See*—
Rijloo, Johan K., and Reerink. 3,080,283.
Rijloo, Johan D., and Reerink. 3,080,284.

Rees, Glyn T., and R. E. Fanson, to H. H. Robertson Co. Mounting means for an electrical connector. 3,110,538, 11–12–63, Cl. 339—92.

Rees, Rees W. Inserted cutting formations for percussive rock drill bits. 3,088,535, 5–7–63, Cl. 175—410.

Rees, Thomas W.: *See*—
Allen, John G., Jr., and Rees. 3,104,758.

Rees, Vernon C., to Johns-Manville Fiber Glass Inc. Process for combining glass fibers with synthetic resin fibers and product thereof. 3,091,018, 5–28–63, Cl. 28—80.

Rees, Vernon C., to Johns-Manville Corp. Method for packaging stranded material. 3,115,312, 12–24–63, Cl. 242—18.

Rees, William W.: *See*—
Gates, John W., Jr., and Rees. 3,110,597.

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Reese, Elmer E., to General Motors Corp. Windshield wiper blade. 3,098,255, 7–23–63, Cl. 15—250.42.

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Reese, Elmer E., and T. E. Stark, to General Motors Corp. Windshield wiper blade assembly. 3,090,986, 5–28–63, Cl. 15—250.42.

Reese, Frank L.: *See*—
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Reese, Frank P., ½ to G. L. Garff. Child's convertible furniture article. 3,078,101, 2–19–63, Cl. 280—30.

Reese, Frank P., ½ to G. L. Garff. Stroller chassis child's support structure. 3,100,651, 8–13–63, Cl. 280—30.

Reese, Glenn A., to The Magnavox Co. Switch assembly. 3,086,095, 4–16–63, Cl. 200—87.

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Reese, James H., and P. J. Serlemitsos, to Hamilton Watch Co. Balance wheel for an electric watch. 3,091,914, 6–4–63, Cl. 58—28.

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Reese, Lawrence B., Jr., to National Rejectors, Inc. Bill-receiving cash boxes. 3,101,892, 8–27–63, Cl. 232—1.4.

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Reese, Richard, to Chicago Bridge & Iron Co. Resilient foam seal for floating roof. 3,075,668, 1–29–63, Cl. 220—26.

Reetz, Theodor, to Monsanto Chemical Co. Phosphorus boron compounds. 3,100,774, 8–13–63, Cl. 260—293.

Reetz, Theodor, to Monsanto Chemical Co. Phosphorus boron compounds. 3,104,253, 9–17–63, Cl. 280—461.

Reetz, Theodor, to Monsanto Chemical Co. Preparation of phosphorus boron compounds. 3,104,254, 9–17–63, Cl. 260—461.

Reeve, Edward W., to Fundamental Research, Inc. Method and composition for testing for sodium. 3,076,696, 2–5–63, Cl. 23—230.

Reeve, Edward W., to Fundamental Research, Inc. Halogenated α-methoxyphenyl acetic acids. 3,086,990, 4–23–63, Cl. 260—521.

Reeve, Lewis, to The United Steel Companies Ltd. Fluidised bed process and apparatus for use therein. 3,079,222, 2–26–63, Cl. 23—1.

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Reeves, Herbert M., to Geo. D. Roper Corp. Locking mechanism for burner control valves. 3,084,681, 4–9–63, Cl. 126—42.

Reeves, Howard F., Jr., R. W. Ingwalson, and J. L. Rose, Jr., to Tennessee Products and Chemical Corp. Polyalkylene glycol dibenzoates and resinous compositions plasticized therewith. 3,110,603, 11–12–63, Cl. 106—179.

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Reeves, Willard D., 50% to St. Elmo Cross. Poultry scalding tank with air agitating means. 3,094,740, 6–25–63, Cl. 17—11.2.

Reeves, Willard D., ½ to S. E. Cross, and ½ to S. C. Cross. Giblet wrapping machine. 3,097,464, 7–16–63, Cl. 53—209.

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Regan, John. 3,100,015.

Regan, George P., Jr.: *See*—
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Regan, Thomas J., to Consolidation Coal Co. Method of comminuting particulate material. 3,085,757, 4–16–63, Cl. 241—26.

Regel, Erik, R. Wegler, F. Grewe, and H. Kaspers, to Farbenfabriken Bayer Aktiengesellschaft. Combatting plant diseases caused by fungi. 3,097,130, 7–9–63, Cl. 167—30.

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Regenhardt, Walter F. Card tray with adjustable follower. 3,109,432, 11–5–63, Cl. 129—31.

Regenschelt, Bruno, to H. Kranty, Firma. Jet conveyors. 3,099,965, 8–6–63, Cl. 103—263.

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Reggia, Frank. Absorption modulator switch utilizing gyromagnetic rotator split by resistive sheet. 3,103,639, 9–10–63, Cl. 333—24.2.

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Rehacek, Alois, to Wiener Metallwaren- und Schnallenfabrik Schar-Smolka. Safety binding with swivel jaw. 3,105,696, 10–1–63, Cl. 280—11.35.

Rehart, Michael A., to Ram Products Co. Lathe jaw setting device. 3,104,474, 9–24–63, Cl. 33—181.

Rehberg, Charles H. Hair brush cleaner. 3,072,939, 1–15–63, Cl. 15—38.

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Rehder, Max C. Seeding apparatus. 3,077,290, 2–12–63, Cl. 222—56.

Rehman, Irving, and D. C. Gibson. Ear defender positioning and mounting apparatus. 3,108,282, 10–29–63, Cl. 2—6.

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Reich, Gunter, to E. Leybold's Nachfolger. Gauge. 3,071,-704, 1–1–63, Cl. 313—7.

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Reich, Murray H., and G. Nowlin, to FMC Corp. Cured resin from epoxidized polybutadiene, unsaturated dicarboxylic acid anhydride and polyhydric alcohol. 3,073,796, 1–15–63, Cl. 260—45.4.

Reich, Murray H., G. Nowlin, and C. A. Heiberger, to FMC Corp. Curing epoxidized polybutadiene with a dicarboxylic anhydride aromatic vinylidene monomer, and free radical polymerization initiator. 3,092,608, 6–4–63, Cl. 260—45.5.

Reich, Robert L., to Kleen Stik Products Inc. Label applying means. 3,093,528, 6–11–63, Cl. 156—285.

Reich, Robert W. Electrically operated clock with alarm device. 3,091,076, 5–28–63, Cl. 58—38.

Reich, Robert W. Electromagnetic pendulum drive. 3,100,-278, 8–6–63, Cl. 318—128.

Reich, Robert W. Power, charging and control mechanism for battery operated electrical appliances. 3,108,192, 10–22–63, Cl. 307—66.

Reich, William J., Jr., and C. Ward, to American Bosch Arma Corp. Shock sensor. 3,101,069, 8–20–63, Cl. 116—114.

Reichardt, Erich, to Siemens-Schuckertwerke A.G. High speed circuit closing device. 3,103,569, 9–10–63, Cl. 200—163.

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Reichert, Francis H. Belt sanding apparatus. 3,073,083, 1–15–63, Cl. 51—170.
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Reichle, Alfred, and E. Döifer, to Farbenfabriken Bayer Aktiengesellschaft. Washing fibers with falling liquid film. 3,102,278, 9–3–63, Cl. 8—151.2.
Reichle, Alfred D., to Phillips Petroleum Co. Ignition for in situ combustion. 3,072,190, 1–8–63, Cl. 166—39.
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Reid, John D., T. W. Fenner, and J. M. Sloan, to United States of America, Agriculture. Method for producing a puckerfree seam in a garment. 3,094,705, 6–25–63, Cl. 2—24.
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Reimann, Hans, to Schering Corp. Novel 1-methyl-1,3,5(10),9(11)-estratetraenes and methods for their manufacture. 3,082,225, 3–19–63, Cl. 260—397.45.
Reimann, Hans, and C. H. Robinson, to Schering Corp. Novel 9,11-disubstituted estratriene derivatives. 3,076,829, 2–5–63, Cl. 260—397.45.
Reimann, Hans, and E. L. Shapiro, to Schering Corp. 16β-alkoxysteroids and processes for producing the same. 3,085,088, 4–9–63, Cl. 260—239.55.
Reimann, Hans, and D. H. Gould, to Schering Corp. 17α-chloro and 17α-bromo-progesterones. 3,087,938, 4–30–63, Cl. 260—397.3.
Reimers, Ben G. Fish lure. 3,091,049, 5–28–63, Cl. 43—42.31.
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Berens, Heinrich. 3,090,246.
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Reimert, Lawrence J., to The New Jersey Zinc Co. Production of titanium. 3,082,159, 3–19–63, Cl. 204—1064.
Reinartz, Robert, to Maschinenfabrik Augsburg-Nurnberg A.G. Chain stacker gripper control. 3,109,644, 11–5–63, Cl. 271—68.
Reinecke, Adolf C. Sheet material separator and handling device. 3,101,941, 8–27–63, Cl. 271—27.
Reinders, Edward J. Dehorning chemical applicator. 3,086,526, 4–23–63, Cl. 128—260.
Reindl, Erich, to International Standard Electric Corp. Conveying system. 3,086,663, 4–23–63, Cl. 214—1.
Reindl, Harold J., and C. W. Killen, to General Motors Corp. Centrifugal distributor and electrostatic painting apparatus employing same. 3,104,185, 9–17–63, Cl. 118—627.
Reindl, Harold J., and M. V. Roode, to General Motors Corp. Opaque coated plastic sheet material. 3,108,899, 10–29–63, Cl. 117—76.
Reindl, Joseph. Muffler. 3,082,840, 3–26–63, Cl. 181—54.
Reinecke, Marvin E., to Phillips Petroleum Co. Shut off valve for chromatographic system. 3,077,766, 2–19–63, Cl. 73—23.
Reinecke, Marvin E., to Phillips Petroleum Co. Gas analyzer. 3,086,848, 4–23–63, Cl. 23—254.
Reinecke, Marvin E., and D. V. Eckert, to Phillips Petroleum Co. Fluid-actuated valve. 3,095,746, 7–2–63, Cl. 73—422.
Reinecke, Walter, to Gelenkwellenbau G.m.b.H. Universal joint. 3,074,255, 1–22–63, Cl. 64—17.
Reineman, Richard G., and G. E. Schaefer, to Brunswick Corp. Table or the like. Re. 25,414, 7–9–63, Cl. D34—5.
Reinemann, Wilfred W., to Kohler Co. Diverter spout. 3,086,748, 4–23–63, Cl. 251—119.
Reiner, Hans: *See*—
Steinbuch, Karl, and Reiner. 3,081,406.
Reiner Industries Inc.: *See*—
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Reiner, Kenneth. 3,101,725.
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Reiner, Kenneth, to Reiner Industries, Inc. Clamps. 3,106,214, 10–8–63, Cl. 132—48.
Reiner, Kenneth, to Reiner Industries Inc. Display devices and methods of using same. 3,110,119, 11–12–63, Cl. 40—18.
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Reiners, Neville M., to Cummins Engine Co., Inc. Piston construction. 3,104,594, 9–24–63, Cl. 92—227.
Reiners, Neville M., to Cummins Engine Co., Inc. Internal combustion engine. 3,110,293, 11–12–63, Cl. 123—32.
Reiners, Robert A., and R. E. Morgan, to Corn Products Co. Stabilization of carotenoid material. 3,081,171, 3–12–63, Cl. 99—2.
Reiners, Walter: *See*—
Fürst, Stefan. 3,074,659.
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Raasch, Hans. 3,110,450.
Wiggermann, Georg. 3,077,835.
Wiggermann, Georg. 3,080,854.
Reiners, Walter. Yarn coil conveying and sorting apparatus. 3,085,713, 4–16–63, Cl. 221—171.
Reiners, Walter, S. Furst, and Manfred Ruhl, deceased (Marilene Ruhl, representative); said Marilene Ruhl and S. Furst assors. to said W. Reiners. Coil winding machine with automatic coil exchanging and yarn-tying devices. 3,111,280, 11–19–63, Cl. 242—35.5.
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Reingruber, Frank, to General Thermostat Corp. Quick acting, sensitive remote control for room heating and cooling units. 3,098,140, 7–16–63, Cl. 200—137.
Reinhall, Rolf B., to Defibrator, Aktiebolaget. Cell feeder. 3,077,272, 2–12–63, Cl. 214—17.
Reinhall, Rolf B., to Defibrator Aktiebolag. Pulp refining apparatus. 3,092,338, 6–4–63, Cl. 241—34.
Reinhard, John F., to Wallace & Tierman Inc. Synergistic analgesic composition of 1-(m-aminophenyl)-2-pyridone and morphine derivatives. 3,106,513, 10–8–63, Cl. 167—65.
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Reinhard, Raymond H., to Monsanto Chemical Co. Crosslinked olefin-maleic anhydride interpolymers. 3,073,805, 1–15–63, Cl. 260—78.5.
Reinhard, Raymond H., to Monsanto Chemical Co. Crosslinked olefin-maleic anhydride interpolymers. 3,073,806, 1–15–63, Cl. 260—78.5.
Reinhard, Raymond H., to Monsanto Chemical Co. Crosslinked olefin-maleic anhydride interpolymers. 3,083,189, 3–26–63, Cl. 260—78.5.
Reinhardt, Fritz, and A. Gräfingholt, to Hesser, Fr., Maschinenfabrik-Aktiengesellschaft, Firma. Method and device for fabricating bag packages. 3,091,902, 6–4–63, Cl. 53—28.
Reinhardt, John. Foundation for buildings, roads or the like. 3,096,695, 7–9–63, Cl. 94—11.
Reinhardt, John P., to Baker-Roos, Inc. Scaffolding for dome structures. 3,095,060, 6–25–63, Cl. 182—12.
Reinhardt, John T., and A. A. Baker; said Baker assor. to said Reinhardt. Printing machine. 3,115,826, 12–31–63, Cl. 101—41.
Reinhardt, Robert M., and T. W. Fenner, to United States of America, Agriculture. Production of alkali-soluble cellulosic textile materials by the nitric acid treatment of partially etherified cottons. 3,087,775, 4–30–63, Cl. 8—116.
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Holzboog, Walter H., and Reinhart. 3,107,856.
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Reinhart, Henry F., and W. H. Smith, to General Motors Corp. Air engine improvement. 3,077,732, 2-19-63, Cl. 60—24.

Reinhart, Henry P.: *See*—
Monsees, Claude E., and Reinhart. 3,099,304.

Reinhart, William A., to Boeing Airplane Co. Noise suppression nozzles with thrust reversal provision for jet engines. 3,095,697, 7-2-63, Cl. 60—35.54.

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Reinhold, Earl R., to Amchem Products, Inc. Phosphate composition and method for coating metallic surfaces. 3,101,286, 8-20-63, Cl. 148—6.15.

Reinhold, Earl R., to Amchem Products, Inc. Method and material for applying phosphate conversions coatings on zinciferous surfaces. 3,109,757, 11-5-63, Cl. 148—6.15.

Reinhold, Gottwill. Manual calculating device. 3,102,686, 9-3-63, Cl. 235—80.

Reinhold, Jean, to Fonderie de Precision. Core elements. 3,094,422, 6-18-63, Cl. 106—38.3.

Reinhold, Richard S., to Boeing Airplane Co. Microwave antenna with adjustable reflector shape and automatically regulated focal distance spacing of radiation element. 3,076,964, 2-5-63, Cl. 343—761.

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Reinowski, Leonard E.: *See*—
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Reinsberg, Adolph. Rigid paper container. 3,108,730, 10-29-63, Cl. 229—7.

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Reinsch, Herbert, and A. Schnell, to Eugen Bauer, G.m.b.H. Camera subassembly. 3,103,152, 9-10-63, Cl. 95—64.

Reinsma, Harold L., and F. S. Dadds, to Caterpillar Tractor Co. Two-piece master track link. 3,096,661, 7-9-63, Cl. 74—258.

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Reis, Norman, and R. L. Hackman, to Union Carbide Corp. Electric arc welding apparatus. 3,089,019, 5-7-63, Cl. 219—75.

Reisberg, Joseph, to Shell Oil Co. Secondary recovery method. 3,111,984, 11-26-63, Cl. 166—9.

Reisberg, Joseph, to Shell Oil Co. Secondary recovery method. 3,111,985, 11-26-63, Cl. 166—9.

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Reiser, Sidney J. Metering control device for supplying additives to fluids. 3,100,496, 8-13-63, Cl. 137—111.

Reisfeld, Ralph A., and G. L. Tong, to Merck & Co., Inc. Process for preparing a product having enhanced lactogenic activity. 3,098,792, 7-23-63, Cl. 167—74.

Reisman, Albert, to J. Reisman & Sons, Inc. Paper carton folding apparatus. 3,083,619, 4-2-63, Cl. 93—49.

Reisman, Albert, to J. Reisman & Sons, Inc.—Carton with integral partition member. 3,093,289, 6-11-63, Cl. 229—27.

Reisman, Burton I.: *See*—
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Reiter, Thomas A., to Esso Research and Engineering Co. Nuclear reactor loop for particulate radiation outside core. 3,092,560, 6-4-63, Cl. 204—154.

Reiterer, Ferdinand, to Whitin Machine Works. Carding apparatus. 3,089,200, 5-14-63, Cl. 19—106.

Reiterer, Ferdinand, to Whitin Machine Works. Arrangement to prevent loading of main cylinder in carding machines. 3,108,331, 10-29-63, Cl. 19—98.

Reiterer, Ferdinand, to Whitin Machine Works. Carding machines for textile fibres. 3,115,683, 12-31-63, Cl. 19—105.

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Eastman, Donald R., and Reithel. 3,106,517.
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Reithel, Raymond F., to Eastman Kodak Co. Photoconductography employing molybdenum or ferrous oxide. 3,106,156, 10-8-63, Cl. 101—149.2.

Reithel, Raymond F., to Eastman Kodak Co. Photoconductolithography employing nickel salts. 3,106,157, 10-8-63, Cl. 101—149.2.

Reithel, Raymond F., to Eastman Kodak Co. Photoconductography employing spongy hydroxide images. 3,106,518, 10-8-63, Cl. 204—18.

Reitknecht, Jack. Automatic hypodermic unit. 3,101,711, 8-27-63, Cl. 128—218.

Reitman, Abraham I. Receptacle-operated supply valve. 3,112,762, 12-3-63, Cl. 137—408.

Reitman, Lester J., to Sperry Rand Corp. Servo system. 3,098,412, 7-23-63, Cl. 91—216.

Reitmeier, George F., to Birdair Structures, Inc. Flexible panel joining means. 3,103,050, 9-10-63, Cl. 24—203.

Reitter, John L., to Minnesota Mining and Mfg. Co. Copysheet and method. 3,094,620, 6-18-63, Cl. 250—65.

Rejdak, Melvin F., to Erico Products, Inc. Material for welding aluminum and other metals. 3,089,798, 5-14-63, Cl. 149—37.

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Wistreich, Hugo E., and Di Pasquale. 3,080,604.

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Rembold, Charles E., to General Motors Corp. Frostless freezer. 3,096,629, 7-9-63, Cl. 62—283.

Remelka, Joseph P., to Bell Telephone Laboratories, Inc. Growth of single crystals of corundum and gallium oxide. 3,075,831, 1-29-63, Cl. 23—305.

Remelka, Joseph P., to Bell Telephone Laboratories, Inc. Process of growing single crystals. 3,079,240, 2-26-63, Cl. 23—301.

Remelka, Joseph P., to Bell Telephone Laboratories, Inc. Piezoelectric-ferromagnetic material. 3,110,674, 11-12-63, Cl. 252—62.5.

Remer, Robert K., to Tribune Co. Apparatus for removing dust from paper webs. 3,074,086, 1-22-63, Cl. 15—1.5.

Remer, Robert K., 49% to R. W. Hannah. Press roller, and method of producing same. 3,081,206, 3-12-63, Cl. 154—43.

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McCallum, John, Johnson, Ditmars, and McGraw. 3,093,514
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Remington, Elliott L., to Draper Corp. Filling carrier for shuttleless looms. 3,081,796, 3-19-63, Cl. 139—122.

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Remke, Theodore K., and E. T. Monet, to Remke, Inc. Gun port. 3,072,079, 1-8-63, Cl. 109—58.5.

Remmen, Jorgen. Ice boat. 3,109,665, 11-5-63, Cl. 280—16.

Remp, Thomas E., Jr., to Weatherford Oil Tool Co., Inc. Casing centralizer with replaceable wings. 3,080,926, 3-12-63, Cl. 166—241.

Rempel, Robert C., and H. E. Weaver, to Varian Associates. Gyromagnetic resonance method and apparatus. 3,090,003, 5-14-63, Cl. 324—.5.

Remy, David C.: *See*—
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Remy, David C., to E. I. du Pont de Nemours and Co. 2-perfluoroalkyl-5-aryl-1,3,4-triazole and preparation thereof. 3,115,498, 12-24-63, Cl. 260—308.

Remy, E. P., et Cie: *See*—
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Dardaine, Edgar J. M., and Malibeaux. 3,107,775.

Remz, Harold S., and A. Wakshinsky, to Servo Corp. of America. Hot-box detector gating circuit. 3,079,497, 2-26-63, Cl. 240—169.

Renard, Roland E., and J. P. Davidson, to National Can Corp. Can end curling and compound lining machine. 3,083,532, 4-16-63, Cl. 113—80.

Renaud, Laurent C.: *See*—
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Renaud, Robert A., and J. Loring, Jr., to Texas Instruments Inc. Terminal resiliently secured to an insulating base. 3,114,818, 12-17-63, Cl. 200—166.

Renaud, Robert J., to United States Steel Corp. Metal desk structure. 3,104,138, 9-17-63, Cl. 312—195.

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Render, Elijah F., to The Cincinnati Milling Machine Co. Method for grinding. 3,079,741, 3-5-63, Cl. 51—289.

Render, Elijah F., to The Cincinnati Milling Machine Co. Centerless grinding machine. 3,115,729, 12-31-63, Cl. 51—103.

Rendler, John E. Hospital call signal switch. 3,104,293, 9-17-63, Cl. 200—51.

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Renick, Wendell E., to American Brake Shoe Co. Method of making an adjustable orifice. 3,093,892, 6-18-63, Cl. 29—157.1.

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Renner, Alfred, to Ciba Ltd. New halogen containing organic phosphorus derivatives. 3,081,333, 3-12-63, Cl. 260—461.

Renner, Alfred, to Ciba Ltd. Bicyclo (2.2.1) hept-5-ene-2,3-dicarboxylic acid anhydrides. 3,105,839, 10-1-63, Cl. 260—346.3.

Renner, David M., to Jersey Production Research Co. Automatic counter mechanism. 3,115,301, 12-24-63, Cl. 235—132.

Renner, Frank J., G. B., and W. M. Method for making coffee. 3,088,826, 5-7-63, Cl. 99—71.

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Renner, Frank J., G. B., and W. M. 3,088,826.

Renner, Gerard W., to Raytheon Co. Electroacoustical transducer mounted on boat hull. 3,113,287, 12-3-63, Cl. 340—8.

Renner, Gunther, to Henkel & Cie G.m.b.H. Process for the production of concentrated aqueous solutions of water-soluble polyacrylic acid amide. 3,086,950, 4-23-63, Cl. 260—29.6.

Renner, Herbert O. Methods for producing baked goods. 3,084,048, 4-2-63, Cl. 99—90.

Renner, Herbert O. Methods for oxidatively treating flour. 3,085,014, 4-9-63, Cl. 99—91.

Renner, Herbert O. Methods for treating corn flour. 3,088,828, 5-7-63, Cl. 99—91.

Renner, Hermann: *See*—
Harnau, Hans-Dieter, and Renner. 3,106,160.

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Renner, Ulrich, and D. A. Prins, to Geigy Chemical Corp. New isoquinuclidine alkaloid and the production thereof. 3,090,787, 5-21-63, Cl. 260—294.3.

Renner, Victor, to The O. M. Scott & Sons Co. Granular herbicidol composition and method. 3,083,089, 3-26-63, Cl. 71—2.4.

Renner, Victor A., to The O. M. Scott & Sons Co. Granular herbicidal composition and method. 3,076,699, 2-5-63, Cl. 71—2.4.

Renner, Victor A., to O. M. Scott and Sons Co. Fertilizer compositions and process. 3,076,700, 2-5-63, Cl. 71—29.

Renner, William M.: *See*—
Renner, Frank J., G. B., and W. M. 3,088,826.

Rennhard, Hans H.: *See*—
Blackwood, Robert K., Rennhard, Beereboom, and Stephens. 3,109,007.

Rennick, John L.: *See*—
Chandler, James F., Figlewicz, and Rennick. 3,106,658.
Heuer, Charles H., and Rennick. 3,078,421.

Rennie, Frank P., to General Time Corp. Magnetic pulse forming and counting circuit. 3,109,936, 11-5-63, Cl. 307—88.

Rennie, James W., to Johns-Manville Corp. Wall assembly. 3,084,482, 4-9-63, Cl. 50—145.

Reno Engineering & Mining Co.: *See*—
Huntington, Laurance W. 3,100,701.

Renoll, Edward G.: *See*—
Zifferer, Kenneth B., Sechrist, Renoll, and Coleman. 3,107,570.

Renoux, Pierre E., H. Hanrath, and H. Blättry, to Paul Forkardt, KG. Chuck especially for lathes. 3,081,103, 3-12-63, Cl. 279—5.

Renoux, Robert A., to Societe d'Applications Industrielles Plastiques. Method and means for stamping gramophone records. 3,094,744, 6-25-63, Cl. 18—19.

Rensch, Eugene F. Grain auger attachment. 3,080,960, 3-12-63, Cl. 198—64.

Rensch, Joseph T. Truck mounted hopper. 3,090,527, 5-21-63, Cl. 222—176.

Renshaw, Arthur K.: *See*—
Porter, Hubert T., Renshaw, and White. 3,104,957.

Renshaw, Helen M. Toilet guard. 3,071,778, 1-8-63, Cl. 4—1.

Renshaw, Richard T. Trash tray. 3,089,633, 5-14-63, Cl. 229—38.

Renstrom, Carl W., and R. C. Sherwin, to Tip-Top Products Co. Hair clip. 3,082,773, 3-26-63, Cl. 132—48.

Rentas, William: *See*—
Malesko, Joseph. 3,079,141.

Renton, Robert C., to Shaw Process Development Corp. Electric arc furnaces. 3,102,154, 8-27-63, Cl. 13—10.

Rentschler, John W. Anti-theft means for fuel delivery truck. 3,092,289, 6-4-63, Cl. 222—30.

Rentschler, Waldemar T., to Alfred Gauthier G.m.b.H. Photographic camera with automatic exposure setting. 3,071,052, 1-1-63, Cl. 95—10.

Rentschler, Waldemar T., to Alfred Gauthier G.m.b.H. Photographic camera with automatic exposure adjustment. 3,071,053, 1-1-63, Cl. 95—10.

Rentschler, Waldemar T., to Alfred Gauthier G.m.b.H. Photographic camera having automatic exposure setting means. 3,074,330, 1-22-63, Cl. 95—10.

Rentschler, Waldemar T., to Alfred Gauthier, G.m.b.H. Photographic camera provided with automatic exposure setting mechanism. 3,079,848, 3-5-63, Cl. 95—10.

Rentschler, Waldemar T., to Alfred Gauthier, G.m.b.H. Photographic camera having automatic diaphragm setting. 3,083,625, 4-2-63, Cl. 95—10.

Rentschler, Waldemar T., to Alfred Gauthier, G.m.b.H. Photographic camera having automatic diaphragm setting device. 3,086,436, 4-23-63, Cl. 95—10.

Rentschler, Waldemar T., to Alfred Gauthier, G.m.b.H. Photographic camera. 3,097,583, 7-16-63, Cl. 95—10.

Rentschler, Waldemar T., to Alfred Gauthier, G.m.b.H. Photographic camera with automatic exposure setting. 3,104,601, 9–24–63, Cl. 95—10.

Rentschler, Waldemar T., to Alfred Gauthier G.m.b.H. Photographic camera having automatic exposure setting means. 3,105,427, 10–1–63, Cl. 95—10.

Rentschler, Waldemar T., to Alfred Gauthier G.m.b.H. Photographic lens shutter. 3,108,528, 10–29–63, Cl. 95—64.

Rentz, Robert I. Cutting instrument. 3,107,425, 10–22–63, Cl. 30—123.3.

Renuzit Home Products Co.: *See*—
Jaffe, Sam. 3,089,760.

Renwick, Harry F.: *See*—
Roscovich, Frank A. 3,081,612.

Renz, Edward J., to Riglander, Hammel, & Co., Inc. Tools for inserting arbors in watch main springs. 3,106,115, 10–8–63, Cl. 81—6.

Renz, Jany, J. Bourquin, and G. Schwarb, to Sandoz, Ltd. New 3-methylsulphinyl phenothiazine derivatives. 3,084,161, 4–2–63, Cl. 260—243.

Renzoni, Louis S., W. Curlook, and I. W. Laing, to The International Nickel Co., Inc. Method for roasting sulfides. 3,094,409, 6–18–63, Cl. 75—9.

Repasky, George: *See*—
Repasky, Joseph, and G. 3,094,225.

Repasky, Joseph, and G., to Greensburg Concrete Block Co. Block handling apparatus. 3,094,225, 6–18–63, Cl. 214—16.

Repco Products Corp.: *See*—
Wisniewski, Walter S. 3,115,177.

Repenning, Klaus, to Dr. Hammel'a Chemische Werke und Handelsgesellschaft m.b.H. Process for the manufacture of dihydrostrophanthin. 3,113,128, 12–3–63, Cl. 260—210.5.

Repke, Edward P., to Clark Equipment Co. Adjustable load engaging means for lift truck. 3,075,665, 1–29–63, Cl. 214—731.

Repking, Edward F., to Crown Zellerbach Corp. Multi-wall bulk pak shipping container. 3,115,292, 12–24–63, Cl. 229—45.

Replogle, Edward H., and M. R. Simmonds, ½ to Scott Aviation Corp., and ½ to said Replogle. Source selecting pressure regulator. 3,101,734, 8–27–63, Cl. 137—114.

Reppe, Walter, K. Baur, and W. Schweter, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Catalytic hydrogenation of carbocyclic compounds having olefinic double linkages. 3,108,142, 10–22–63, Cl. 260—666.

Reppin, Gunter: *See*—
Stade, Gerhard, and Reppin. 3,080,684.

Republic Aviation Corp.: *See*—
Alfsen, Christian A. 3,083,063.
Barasch, Hans P. 3,098,933.
Branker, Hoffman E. 3,109,139.
Davenport, Earl K. 3,103,228.
Kunen, Alfred E. 3,091,079.
Pfanner, Gunther E. 3,115,857.
Sokol, Benjamin. 3,077,005.
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Republic Electric & Development Co.: *See*—
Monohan, Franklin L. 3,081,863.

Republic Fastener Products Corp.: *See*—
Smith, Randall E. 3,078,990.

Republic Foil, Inc.: *See*—
Post, James D. 3,104,073.

Republic Industries, Inc.: *See*—
Martin, Paul W. 3,089,183.
Stec, Joseph P., Gerhardt, and Lynch. 3,108,338.
Thurston, Raymond L., and Smith. 3,106,757.

Republic Steel Corp.: *See*—
Cordray, Richard A., and Crooks. 3,109,331.
Garmy, Robert J., and Perry. 3,108,151.
Harmon, William C., and Judd. 3,112,642.
Hollis, Louis, and Nolder. 3,073,690.
Traina, Vincent P. 3,106,011.
Woolley, Wayne R., and Brown. 3,083,621.

Requa, Reginald C.: *See*—
Betts, William M., and Requa. 3,081,726.

Requa, Roy. Resilient cushion unit. 3,101,217, 8–20–63, Cl. 297—397.

Research Associates, Inc.: *See*—
Starger, Samuel L., Levin, and Garshelis. 3,106,502.

Research & Aviation Development, Inc.: *See*—
Dennis, Roderick A. 3,084,250.

Research Corp.: *See*—
Benesch, Reinhold and R. E. 3,111,512.
Brasefield, Charles J. 3,091,069.
Brown, Henry C. 3,086,946.
Case, Leslie C. 3,096,344.
Garcia, Gustavo E. 3,079,574.
Hosier, William A., and Hoffman. 3,105,143.
McBee, Earl T., and Pierce. 3,114,760.
Pike, Frederick P., and Erickson. 3,092,515.
Splinter, William E. 3,093,949.

Research-Cottrell, Inc.: *See*—
Egan, Richard T. 3,095,289.
Phyl, Joseph, and Streuber. 3,074,219.
Van Hoesen, Harold E. 3,083,322.
Walker, Alan B. 3,116,348.

Research Development Co.: *See*—
Victor, Irving. 3,089,250.
Victor, Irving. 3,095,284.

Research, Inc.: *See*—
Duchene, William R., and Shook. 3,101,039.

Research Institute for Medicine and Chemistry, Inc.: *See*—
Cruickshank, Philip A., and Sheehan. 3,072,638.

Research Institute of Experimental Surgical Apparatus and Instruments: *See*—
Babkin, Svjatoslav I. 3,079,608.

Research Instrument Corp.: *See*—
Robinson, Alfred D. 3,103,481.

Research Laboratories of Australia Ltd.: *See*—
Oliphant, Keith M. 3,079,890.
Oliphant, Keith M. 3,108,893.

Research Laboratorium Dr. C. Janssen, N.V.: *See*—
Janssen, Paul A. J. 3,080,366.
Janssen, Paul A. J. 3,080,372.
Janssen, Paul A. J. 3,097,209.

Research and Mechanical Applications S.p.A.-R.A.M.A.: *See*—
Rovesti, Paolo. 3,085,038.

Reynolds Metals Co.: *See*—
Dale, Kenneth H. 3,115,419.
Zouraeff, Peter, and Forrest. 3,115,249.

Research Products Corp.: *See*—
Onstad, Ragnar E. 3,084,609.
Shoemaker, Milton J. 3,076,302.
Shoemaker, Milton J. 3,092,442.
Shoemaker, Milton J. 3,102,532.

Reserve Mining Co.: *See*—
Haley, Kenneth M., Arntz, and Reed. 3,088,723.
Woodle, Merlyn G., and Bertie. 3,075,464.

Resler, Mario, E. A. Eidebenz, and H. G. von Schuh, to Chemische Werke Albert. Diacyl derivatives of corynanthine having different acyl substituents. 3,073,828, 1–15–63, Cl. 260—287.

Resilex Laboratories, Inc.: *See*—
Martinez, Frank E. 3,103,335.

Resina Automatic Machinery Co., Inc.: *See*—
Weller, Arthur W. 3,111,798.

Resinold Engineering Corp.: *See*—
Herbst, Clarence A. 3,114,649.

Resinol, William. Doll torso with flexibly joined limbs. 3,092,930, 6–11–63, Cl. 46—161.

Resistoflex Corp.: *See*—
Chu, Edward J. 3,085,290.
Press, Irving D. 3,083,989.
St. John, Alexander N. T., and Titterton. 3,085,438
Vanderhoof, Alton S. 3,072,174.
Vanderhoof, Alton S. 3,093,182.

Resitron Laboratories, Inc.: *See*—
De Lucia, Victor E. 3,112,759.

Resnick, Arthur. Folding kite. 3,100,895, 8–13–63, Cl. 244—153.

Resnick, Joseph Y. Method of applying plastic coatings to substrates. 3,110,618, 11–12–63, Cl. 117—161.

Resnik, Frank E.: *See*—
Bayley, Abraham, and Resnik. 3,082,125.
Bayley, Abraham, and Resnik. 3,109,436.
Bayley, Abraham, Resnik, and Robb. 3,111,951.

Ressler, Homer G.: *See*—
Francisco, Herbert H., Ressler, Roberts, and Snyder. 3,082,157.

Restonic Corp.: *See*—
Tyhanic, Stephen. 3,110,043.

Reswick, James B., and H. A. Hog, to Garment Finishing Equipment Corp. Shirt ironing machine. 3,086,686, 4–23–63, Cl. 223—52.1.

Retaillian, Edmond R., to Esso Research and Engineering Co. Removing impurities from catalysts. 3,108,972, 10–29–63, Cl. 252—412.

Retallick, William B: *See*—
Gorin, Everett, and Retallick. 3,108,857.

Retallick, William B. Die for swaging indented shapes. 3,106,008, 10–8–63, Cl. 29—1.22.

Reter, George A., to American Telephone and Telegraph Co. Alarm testing device. 3,082,299, 3–19–63, Cl. 179—175.2.

Rethorst, Scott C. Aircraft. Re. 25,368, 4–9–63, Cl. 244—4.

Rethorst, Scott C. Aircraft. 3,083,936, 4–2–63, Cl. 244—49.

Retter, Eugene O. Musical instrument string divider. 3,081,662, 3–19–63, Cl. 84—298.

Retterath, Raymond G. Portable sickle and tool grinding devices. 3,097,456, 7–16–63, Cl. 51—173.

Rettig, Albert S.: *See*—
Newhouse, Vernon L., and Rettig. 3,076,181.

Rettig, Charles E.: *See*—
Kelley, Fred W., Jr., Lezan, and Rettig. 3,086,129.

Rettinger, Michael, to Radio Corp. of America. Magnetic head construction. 3,079,467, 2–26–63, Cl. 179—100.2.

Rety, Stephen P., W. H. Linnell, and H. Timmington, to Clinical Products Ltd. Medicament of polystyrene anion exchange resin having a barbiturate adsorbed thereon. 3,108,044, 10–22–63, Cl. 167—65.

Retz, William B., to The New Britain Machine Co. Spindle accelerating and braking system. 3,081,523, 3–19–63, Cl. 29—38.

Retzinger, Leo P., Jr., to Litton Systems, Inc. Logic circuits employing minority carrier storage diodes for adding booster charges to prevent input loading. 3,106,644, 10–8–63, Cl. 307—88.5.

Reuge, Guido. Safety stretcher for ski attachment. 3,080,174, 3–5–63, Cl. 280—11.35.

Reuhrwein, Robert A.: *See*—
Gruber, Bernard A., Ruehrwein, and Williams. 3,090,703.

Reukauf, William B., and R. T. Gallagher, to Carey-McFall Co. Trailer house skirt. 3,113,357, 12–10–63, Cl. 20—63.

Reuschel, Konrad: *See*—
Schweickert, Hans, Reuschel, and Gutache. 3,099,534.

Reuschel, Konrad, to Siemens-Schuckertwerke Aktiengesellschaft. Pyrolytic production of hyperpure silicon. 3,097,069, 7–9–63, Cl. 23—223.5.

Reuschel, Konrad, to Siemens-Schuckertwerke Aktiengesellschaft. Floating zone melting method for semiconductor rods. 3,113,841, 12–10–63, Cl. 23—223.5.

Reuschel, Konrad, and A. Kersting, to Siemens-Schuckertwerke Aktiengesellschaft. Method of producing hyperpure silicon, silicon carbide and germanium. 3,099,523, 7–30–63, Cl. 23—1.

Reuss, John L.: *See*—
Hasgman, Joseph F., and Reuss. 3,088,590.

Reusser, Robert E: *See*—
Hart, James L., and Reusser. 3,086,841.

Reustle, Frank A. Auxiliary air heater. 3,106,241, 10–8–63, Cl. 165—40.

Reuter, Franz, to Lemforder Metallwarengesellschaft m.b.H. Joint for universal-joint shafts. 3,079,772, 3–5–63, Cl. 64—8.

Reuter, Franz G., to Mobay Chemical Co. Apparatus for making articles of polyurethane plastics. 3,099,044, 7–30–63, Cl. 18—26.

Reuter, Franz G., and U. Nehse. Scraper. 3,079,998, 3–5–63, Cl. 166—176.

Reuter, Franz G., and J. Ulderup, to Mobay Chemical Co. Ball and socket joint. 3,102,744, 9–3–63, Cl. 287—87.

Reuter, Fritz: *See*—
Kofink, Siegfried, and Reuter. 3,089,647.

Reuter, Gilbert G.: *See*—
Snyder, William R., and Reuter. 3,098,703.

Reuter, Gilbert G., Co.: *See*—
Snyder, William R., and Reuter. 3,098,703.

Reuter, Gunther, to Telefunken G.m.b.H. Butt joint for unweldable vibratory bodies. 3,098,205, 7–16–63, Cl. 333—71.

Reuter, Martin: *See*—
Orthner, Ludwig, Reuter, and Landauer. 3,086,986.

Reuther, Daniel W.: *See*—
Bernstein, Joel H., Parrillo, Reuther, and Vadus. 3,072,902.

Reuther, Hubert G. Explosive. 3,090,306, 5–21–63, Cl. 102—22.

Reuther, John F., to Westinghouse Electric Corp. Regulator system. 3,089,998, 5–14–63, Cl. 323—22.

Reutter, Jean L. Alternating current synchronous reciprocating motor unit. 3,103,603, 9–10–63, Cl. 310—30.

Reuvers, John F., J. U. Clark, and E. W. Lockhart, to Hughes Aircraft Co. 180° H-plane bend for rectangular waveguide. 3,084,296, 4–2–63, Cl. 333—98.

Reuvers, John F., and J. U. Clark, to Hughes Aircraft Co. Variable microwave phase shifter having moveable reactive stubs. 3,108,237, 10–22–63, Cl. 333—31.

Revco, Inc.: *See*—
Crotser, Frank P. 3,108,450.
Tenniswood, Howard J. 3,080,726.
Tenniswood, Howard J., and Dunbar. 3,103,693.
Von Arb, Edward J. 3,071,887.

Revell, Alan E., to American Air Filter Co., Inc. Dust separator apparatus. 3,075,333, 1–29–63, Cl. 55—233.

Revell, Donald H., and G. A. Kraft, to Reynolds Metals Co. Frame construction. 3,106,269, 10–8–63, Cl. 189—36.

Revere Camera Co.: *See*—
Briskin, Theodore S., Moore, and Rom. 3,076,397.
Briskin, Theodore S., Moore, and Rom. 3,081,669.
Briskin, Theodore S., Moore, and Rom. 3,084,607.
Briskin, Theodore S., Moore, and Rom. 3,094,038.
Moore, Robert L., and Rom. 3,107,862.

Revere Copper and Brass Inc.: *See*—
Kennedy, James M., Jr. 3,072,771.
Kennedy, James M., Jr. 3,077,528.

Revere Corp. of America: *See*—
Propper, Eric. 3,100,290.

Revere Electric Mfg. Co.: *See*—
Winters, Alva B. 3,072,987.

Revesz, George, to Robertshaw-Fulton Controls Co. Bridge compensating circuit. 3,077,561, 2–12–63, Cl. 324—57.

Revesz, George, to Robertshaw-Fulton Controls Co. Null-balance bridge system. 3,085,194, 4–9–63, Cl. 323—75.

Revesz, George, M. Sklaroff, and E. H. Evalds, to Robertshaw-Fulton Controls Co. Multi-point null-balance bridge system. 3,077,588, 2–12–63, Cl. 340—182.

Révillon, Guy, to Compagnie Generale de Telegraphie Sans Fil. Target tracking systems. 3,098,226, 7–16–63, Cl. 343—16.

Revlon, Inc.: *See*—
Abramson, Bernard, Greif, and Silson. 3,095,355.
Cuttler, Harry A., and Jass. 3,101,511.
Silson, John E., Meshberg, and Abramson. 3,107,670.

Rex Chain-Saw Ltd.: *See*—
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Rex, Charles H., to General Electric Co. Luminaire. 3,102,693, 9–3–63, Cl. 240—25.

Rex, Donald K.: *See*—
Darwin, Daniel P., Rex, and Kellogg. 3,107,346.

Rex, John P., Jr., T. B. Arrington, and D. J. Pellegrino, to Rex Roto Corp. Furnace combustion chamber. 3,100,734, 8–13–63, Cl. 162—152.

Rex, Martin A., and G. R. Reagle, to United States of America, Army. Temperature compensated catapult. 3,102,383, 9–3–63, Cl. 60—26.1.

Rex, Raymond H.: *See*—
Adams, Elmer L., Zeigler, and Rex. 3,114,595.

Rex, Raymond H., to Owens-Illinois Glass Co. Method of and apparatus for making plastic articles. 3,093,861, 6–18–63, Cl. 18—12.

Rex, Raymond H., and E. L. Adams, to Owens-Illinois Glass Co. Injection molding method. 3,092,440, 6–4–63, Cl. 18—55.

Rex Research Corp.: *See*—
Hedensburg, Oscar F. 3,077,480.

Rex Roto Corp.: *See*—
Rex, John P., Jr., Arrington, and Pellegrino. 3,100,734.

Rexall Drug and Chemical Co.: *See*—
Rudzki, Henryk S. 3,096,248.
Tupper, Earl S. 3,081,010.

Rexford Paper Co.: *See*—
Westphal, Walter A., and Bardwell. 3,106,050.

Rexford, Willis E.: *See*—
Case, Noel L., and Rexford. 3,095,515.
Case, Noel L., and Rexford. 3,100,270.

Rexford, Willis E., to Louis Marx & Co., Inc. Toy locomotive. 3,114,217, 12–17–63, Cl. 46—241.

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Lel, Jorgen C. C. 3,072,677.

Rexroad, James O., to Westinghouse Electric Corp. Operating mechanism for enclosed circuit interrupter. 3,089,928, 5–14–63, Cl. 200—50.1.

Rexroat, Hershel. Shelter tent. 3,114,376, 12–17–63, Cl. 135—1.

Rexroth, Alfred, to Roxy Rexroth & Stadtler Kommanditgesellschaft. Method and apparatus for charging cupolas. 3,086,823, 4–23–63, Cl. 302—36.

Rexroth, Roxy, & Stadtler Kommanditgesellschaft: *See*—
Rexroth, Alfred. 3,086,823.

Rey, Hans J.: *See*—
Schlicke, Heinz M., Rey, and Weidmann. 3,093,803.

Rey, Louis P., to Centre National de la Recherche Scientifique. Preserving water-containing organic or inorganic substances. 3,078,586, 2–26–63, Cl. 34—5.

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Doebel, Karl, Rey-Bellet, Schlapfer, and Spiegelberg. 3,073,847.

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Reyerson, Lloyd H., and L. E. Peterson, to Regents of The University of Minnesota. Method of treating water-insoluble linear polyamide condensation polymers with anhydrous hydrogen halide gas and then moisture to hydrolyze the polyamide surface. 3,075,823, 1–29–63, Cl. 8—115.5.

Reyes, Zoila: *See*—
Lindquist, Robert M., and Reyes. 3,111,407.

Reymermier, Maurice J.: *See*—
Collardeau, Georges, Reymermier, and Robin. 3,102,105.

Reynaud, Francis: *See*—
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Reynaud, Samuel C. Operating and locking mechanism for casement type windows. 3,085,299, 4–16–63, Cl. 20—42.

Reynolds, Aaron G. Land smoother. 3,110,973, 11–19–63, Cl. 37—176.

Reynolds, Alfred O., R. H. Plow, and C. W. Snyder, to Willis-Reynolds Corp. Jacketed fibre transplanter pot. 3,080,680, 3–12–63, Cl. 47—37.

Reynolds, Andrew C., Jr., to International Business Machines Corp. Comparison circuits. 3,075,176, 1–22–63, Cl. 340—146.2.

Reynolds, Andrew C., Jr., to International Business Machines Corp. Automatic storage addressing apparatus. 3,089,125, 5–7–63, Cl. 340—172.5.

Reynolds, Andrew C., Jr., O. H. Chalker, Jr., J. F. Carragan, and E. J. Gutowski, to General Time Corp. Data transmission apparatus. 3,109,089, 10–29–63, Cl. 235—61.11.

Reynolds, Charles B. Convertible valve. 3,107,082, 10–15–63, Cl. 251—214.

Reynolds, Charles B., W. M. Eklund, and D. C. Burklo, to Kaiser Aluminum Chemical Corp. Method of adding a casing to a refractory article. 3,083,453, 4–2–63, Cl. 29—528.

Reynolds, Charles H.: *See*—
Morris, George F., and Reynolds. 3,084,325.

Reynolds, Clifford E., to Container Corp. of America. Container with cover flange and method of forming. 3,095,137, 6–25–63, Cl. 229—44.

Reynolds, Daniel J., and H. R. Cunningham. Cage structure. 3,086,498, 4–23–63, Cl. 119—17.

Reynolds, Daniel P.: *See*—
Dodge, Howard M., and Reynolds. 3,098,406.

Reynolds, Donald, to Rowe Mfg. Co., Inc. Single cup fresh coffee brewer. 3,085,496, 4–16–63, Cl. 99—289.

Reynolds, Donald C.: *See*—
Blakewood, Charles H., Reynolds, and Warschauer. 3,093,735.

Reynolds, Frederick N., to The F. A. Neider Co. Swivel glide for tubular furniture legs. 3,076,221, 2–5–63, Cl. 16—42.

Reynolds, George A., E. M. Robertson, and J. A. Van Allan, to Eastman Kodak Co. Optically sensitized azido polymers for photomechanical resist compositions. 3,072,485, 1–8–63, Cl. 96—115.

Reynolds, Harold C.: *See*—
Hurlbut, Gordon K., and Reynolds. 3,085,455.

Reynolds, Harold C., to Ingersoll-Rand Co. Impact tool safety device. 3,083,692, 4–2–63, Cl. 121—11.

Reynolds, Harold C., to Ingersoll-Rand Co. Impact wrench. 3,104,743, 9–24–63, Cl. 192—30.5.

Reynolds, Jack J., to Continental Oil Co. Apparatus for consolidating incompetent subterranean formations. 3,115,-932, 12–31–63, Cl. 166—55.1.

Reynolds, Jack J., and D'A. A. Shock, to Continental Oil Co. Underground disposal of radioactive liquids or slurries. 3,108,439, 10–29–63, Cl. 61—5.

Reynolds, James A., to United States Rubber Co. Increasing the particle size of synthetic rubber latices by freezing and thawing latices containing unreacted monomers. 3,081,275, 3–12–63, Cl. 260—29.7.

Reynolds, James P., to Aeroquip Corp. Method of forming a one piece tubular T member. 3,073,020, 1–15–63, Cl. 29—531.

Reynolds, James T.: *See*—
Hightower, John R. 3,108,448.
Hightower, John R., and Reynolds. 3,099,138.

Reynolds, John J. Starter switch. 3,088,010, 4–30–63, Cl. 200—104.

Reynolds, Lewis F., to The Budd Co. Vehicle ventilating means. 3,083,631, 4–2–63, Cl. 98—14.

Reynolds, Loyal B. Windshield wiper and applicator blade. 3,103,686, 9–17–63, Cl. 15—250.03.

Reynolds, Martin M., C. F. Gottzmann, O. A. Hansen, J. A. Proctor, and P. M. Riede, to Union Carbide Corp. Blasting method and apparatus. 3,082,690, 3–26–63, Cl. 102—25.

Reynolds Metals Co.: *See*—
Adkins, Frederick E., Jr. 3,080,213.
Bennett, Paul J. 3,116,140.
Bryant, Edward T. 3,093,279.
Bryant, Edward T., and McNeally. 3,096,012.
Buechele, Calvin F., and Hurst. 3,073,012.
Cage, James. 3,086,692.
Cave, Boyd D., and Reimann. 3,092,898.
Chapman, James R., and Farquhar. 3,111,221.
Chapman, James R., and Nagle. 3,086,650.
Charles, Harold H. 3,108,405.
Cheeley, William E. 3,074,594.
Cybriwsky, Alexander, and Hager. 3,099,610.
Daugherty, T. Stevens. 3,076,706.
De Ridder, Ernst J. 3,100,556.
De Ridder, Ernst J. 3,101,125.
De Ridder, Ernst J. 3,110,371.
De Ridder, Ernst J. 3,111,203.
De Ridder, Ernst J., and Early. 3,085,367.
Dewey, John L. 3,093,570.
Farquhar, Melville T. 3,096,880.
Gablinger, Clarence J. 3,013,193.
Glaser, Kurt F. 3,108,663.
Gresham, George S. 3,111,205.
Jacke, Raymond E. 3,088,646.
Jacke, Raymond E. 3,095,134.
Loehlein, Harold J., and Huber. 3,079,673.
Manning, Clarence F., Lewis, and Staley. 3,075,893.
Miller, James A. 3,110,660.
Mitchell, Randolph N., Jr., and Edwards. 3,110,208.
Neuhauser, William J. 3,091,348.
Ramirez, Ernest R., and Barkman. 3,079,308.
Revell, Donald H., and Kraft. 3,106,269.
Reynolds, William G., and Cybriwsky. 3,106,210.
Reynolds, William G., and Cybriwsky. 3,106,211.
Robson, John. 3,090,532.
Scardiglia, Frank, Ranky, and Knaggs. 3,099,646.
Schaefer, John J., and Patrick. 3,101,050.
Simonson, Lowden, Wieman, Reamey, and Kiefer. 3,076,241.
Staley John. 3,096,000.
Swenck, George F. 3,113,690.
Thomas, Jesse B. 3,082,752.
Thomas, Jesse B. 3,095,843.
Thomas, Jesse B., and Hall. 3,098,290.
Wagner, Nicholas A. 3,104,189.
Waring, James C. 3,093,931.
Watson, David R., Lippman, and Royce. 3,106,452.
Watts, Richard M., and Bryant. 3,082,930.
White, Frederick. 3,077,287.
Wilson, John B. 3,080,093.

Reynolds, Noel S. Piston cylinder assembly. 3,103,787, 9–17–63, Cl. 60—54.6.

Reynolds Oil Well Pumps, Inc.: *See*—
Adams, Elmer C. 3,109,384.

Reynolds, Otto V., ½ to L. G. Johnson. Gravity powered casing pump. 3,114,327, 12–17–63, Cl. 103—158.

Reynolds, Paul W.: *See*—
Clark, Edgar W., Jr., Reynolds, and Root. 3,095,042.

Reynolds, R. T., Tobacco Co.: *See*—
Giles, Jesse A., and Mims. 3,096,346.

Reynolds, Ralph K., to International Harvester Co. Earth working implement. 3,104,480, 9–24–63, Cl. 37—117.5.

Reynolds, Ralph K., and J. R. Clarke, to International Harvester Co. Vehicular framework. 3,092,919, 6–11–63, Cl. 37—4.

Reynolds, Robert L.: *See*—
Conrad, Joseph D., Sr., and Reynolds. 3,107,084.

Reynolds, Walter F., Jr., and N. T. Woodberry, to American Cyanamid Co. Asbestos paper manufacture. 3,076,740, 2–5–63, Cl. 162—155.

Reynolds, William B., to Phillips Petroleum Co. Reaction of polymer having terminally reactive acidic groups and an aziridinyl phosphine oxide or sulfide. 3,074,917, 1–22–63, Cl. 260—85.1.

Reynolds, William B., and J. E. Pritchard, to Phillips Petroleum Co. Solid propellent compositions. 3,104,995, 9–24–63, Cl. 149—19.

Reynolds, William G., and A. Cybriwsky, to Reynolds Metals Co. Smoking tobacco. 3,106,210, 10–8–63, Cl. 131—17.

Reynolds, William G., and A. Cybriwsky, to Reynolds Metals Co. Tobacco product. 3,106,211, 10–8–63, Cl. 131—17.

Reynolds, William W.: *See*—
Crouse, Benjamin F., and Reynolds. 3,115,519.
Low, Hans, Reynolds, and Schmulling. 3,093,585.

Reynoso, Andres S. Bichromatic fountain pen. 3,093,113, 6–11–63, Cl. 120—42.16.

Rezin, Stanley: *See*—
Onny, Edward J., and Rezin. 3,098,927.

R-Gentron: *See*—
Mandrolan, Harold, and Lewin. 3,072,557.

Rhedin, Klas G. N., to International Marine And Oil Development Corp., AB. Buoys for ship loading, unloading or bunkering. 3,082,440, 3–26–63, Cl. 9—8.

Rheem Electronics Corp.: *See*—
Floyd, George W. 3,097,777.

Rheem Mfg. Co.: *See*—
Fox, Paul L. 3,114,979.
Krist, William F., and Gerlovich. 3,110,962.
McCarthy, Joseph H., Jr. 3,080,118.
Von Berg, Richard E., and Laurent. 3,099,328.
Von Berg, Richard E., Laurent, and Pfeifer. 3,099,329.
Von Berg, Richard E., and Pfeifer. 3,099,330.

Rheinfeld, Peter: *See*—
Steinmann, Heinrich, Wienand, and Rheinfeld. 3,102,776.

Rhein-Flugzeugbau G.m.b.H.: *See*—
Fischer, Hans O. 3,078,062.

Rheinfrank, John J., to Xerox Corp. Apparatus for transferring powder images and method therefor. 3,093,039, 6–11–63, Cl. 95—1.7.

Rheinische Kalksteinwerke GmbH: *See*—
Kitzrow, Herbert. 3,077,274.

Rheinmetall G.m.b.H.: *See*—
Bartels, Erich. 3,095,781.
Bartels, Erich. 3,099,937.
Berger, Frits. 3,090,311.
Berger, Frits. 3,098,439.
Berger, Frits. 3,098,440.
Harnau, Hans-Dieter, and Renner. 3,106,160.
Klapdohr, Hans, Binder, Horn, and Peus. 3,106,866.
Ormanns, Gottfried, and Hap. 3,103,883.
Paschke, Heinrich. 3,098,358.
Schaadt, Franz. 3,112,704.
Zeidler, Willi. 3,076,529.
Zeidler, Willi. 3,083,548.
Zeidler, Willi. 3,106,075.
Zeidler, Willi. 3,108,456.
Zehfeld, Paul, and Grossschopf. 3,111,061.

Rheinstahl Eisenwerke Gelsenkirchen A.G.: *See*—
Wittmoser, Adalbert, and Trojahn. 3,074,130.

Rheinstahl Hamburg Stahlbau Eggers & Friedrich Kehrhahn G.m.b.H.: *See*—
Landschulze, Ernst A. 3,074,529.

Rheinstahl Union Bruckenbau A.G.: *See*—
Blömel, Johannes. 3,094,942.

Rheinstahl Wanheim G.m.b.H.: *See*—
Barnil, Karl, Wilkenloh, and Kuhnapfel. 3,106,825.

Rhenopack G.m.b.H.: *See*—
Coste, Peter. 3,114,172.

Rhenus Rheinische Getranke-Industrie Blenz & Blenz G.m.b.H.: *See*—
Flesch, Peter, and Hader. 3,099,566.

Rheostatic Co. Ltd., The: *See*—
Steghart, Fritz L. F., Kershaw, and Harvey. 3,083,758.

Rhicard Gerald S., and J. J. Wilson, to Westinghouse Electric Corp. Sheet stacking machines. 3,101,638, 8–27–63, Cl. 83—95.

Rhindress, Walter H. Commutator smoothing device. 3,083,-600, 4–2–63, Cl. 82—4.

Rhoad, Guy C.: *See*—
Gibson, Richard R., and Rhoad. 3,075,072.

Rhoades, Robert B.: *See*—
Faulkner, Willard J., and Rhoades. 3,072,355.

Rhoads, Ephraim H.: *See*—
Young, Robert G., and Rhoads. 3,078,001.

Rhoads, George D., and G. L. Corsi, to Federal-Mogul-Bower Bearings, Inc. Fluid seal. 3,114,558, 12–17–63, Cl. 277—37.

Rhoads, Robert L. Control system for water craft. 3,082,-727, 3–26–63, Cl. 114—152.

Rhoanglo Mine Services Ltd.: *See*—
Pyle, William M. 3,102,428.

Rhodes, Alan, and M. P. McGonagle, to Glaxo Group Ltd. Griseofulvin production. 3,095,360, 6–25–63, Cl. 195—81.

Rhodes, Allen F.: *See*—
Jackson, John G., Jr., and Rhodes. 3,086,590.
Jackson, John G., Jr., and Rhodes. 3,095,004.

Rhodes, Allen F., to McEvoy Co. Flange-connected well head apparatus. 3,095,927, 7–2–63, Cl. 166—75.

Rhodes, Carl E., Jr., to United States of America, Navy. Breakaway suspension band. 3,077,818, 2–19–63, Cl. 89—1.5.

Rhodes, Cecil E., to Sealectro Corp. Compensating means for delay lines. 3,098,985, 7–23–63, Cl. 333—30.

Rhodes, Charles J., deceased, and H. Ridgway (W. S. Rhodes and H. Ridgway, executors of said C. J. Rhodes), to Joseph Rhodes & Sons Ltd. Machines for cutting or shearing sheets or plates. 3,090,270, 5–21–63, Cl. 83—601.

Rhodes, Chester D., to Monsanto Chemical Co. Valved thermoplastic bags. 3,087,670, 4–30–63, Cl. 229—62.5.

Rhodes, Edmund O., to Curtiss-Wright Corp. Paving compositions and methods of making the same. 3,091,543, 5–28–63, Cl. 106—279.

Rhodes, Edwin C., and P. E. Gainsbury, to The International Nickel Co., Inc. Composite metal refractory. 3,083,109, 3–26–63, Cl. 106—1.

Rhodes, Frank R., to Aluminum Co. of America. Mechanical cleaning valve construction. 3,071,149, 1–1–63, Cl. 137—243.3.

Rhodes, Gerald E., to North American Aviation, Inc. Digital comparator. 3,089,121, 5–7–63, Cl. 340—146.2.

Rhodes, Glenn E.: *See*—
McMillen, Jack W., Jr., and Rhodes. 3,097,259.

Rhodes, Glenn E., and C. W. Koenig, to Westinghouse Electric Corp. Door latching mechanism. 3,076,328, 2–5–63, Cl. 70—92.

Rhodes, Harold R., to Yuba Consolidated Industries, Inc. Expansion joint and stuffing box. 3,082,012, 3–19–63, Cl. 277—69.

Rhodes, Henry J. Apparatus for washing trucks and the like. 3,104,406, 9–24–63, Cl. 15—21.

Rhodes, J. F., Co.: *See*—
Erke, August F. 3,107,935.

Rhodes, James L., and R. C. Hug, to The Clayton Corp. of Delaware. Dispensing valves having a stem by-pass for gassing. 3,081,916, 3–19–63, Cl. 222—394.

Rhodes, John E., to General Electric Co. Clothes washing machine. 3,091,107, 5–28–63, Cl. 68—4.

Rhodes, John E., to General Electric Co. Structure for facilitating selection of one of a plurality of alternatively selectable control members. 3,103,803, 9–17–63, Cl. 68—196.

Rhodes, Joseph C., and J. P. Segers, to Standard Oil Co. Positive displacement pump. 3,076,417, 2–5–63, Cl. 103—230.

Rhodes, Joseph C., and J. P. Segers, to Standard Oil Co. Viscosimeter apparatus. 3,115,768, 12–31–63, Cl. 73—55.

Rhodes, Joseph, & Sons Ltd.: *See*—
Rhodes, Charles J., and Ridgway. 3,090,270.

Rhodes, Laddie T. Positive countdown circuit with delayed pulse feedback gating clocked coincident circuit. 3,089,089, 5–7–63, Cl. 328—40.

Rhodes, M. H., Inc.: *See*—
Cairelli, Carmen P. 3,107,539.
Cairelli, Carmen P., and Shustock. 3,083,896.
Laviana, Lawrence J. 3,107,847.

Rhodes, Milton C., to Carrier Corp. Dynamoelectric machine having an air guide and method of assembling the same. 3,089,970, 5–14–63, Cl. 310—60.

Rhodes, Orville E., to Lectrolure Co. Inc. Fishing lure. 3,085,361, 4–16–63, Cl. 43—26.2.

Rhodes, Roland N., to Radio Corp. of America. Power supply circuit for television receivers. 3,098,170, 7–16–63, Cl. 315—13.

Rhodes, Stanley J. Hydraulic pump mechanism. 3,092,037, 6–4–63, Cl. 103—174.

Rhodes, Thomas J., to United States Rubber Co. Tire chain. 3,095,025, 6–25–63, Cl. 152—241.

Rhodes, Travis M., to James Lees and Co. Tufted pile fabric comprising a flat woven synthetic plastic backing. 3,110,-905, 11–19–63, Cl. 139—391.

Rhodes, William S.: *See*—
Rhodes, Charles J., and Ridgway. 3,090,270.

Rhodia, Inc.: *See*—
Dunn, Stanley A. 3,071,433.

Rhodiatoce S.p.A.: *See*—
Imperiale, Primo, and Cella. 3,082,194.

Rhone-Poulenc S.A.: *See*—
Lafont, Pierre, and Bonnet. 3,101,347.

Rhyne, Earl C., Jr., to The Warren Mfg. Co., Inc. Power rectifying apparatus. 3,084,322, 4–2–63, Cl. 321—27.

Rhyne, Johnathan L., to C. T. Stowe, Jr. Composite textile yarn. 3,082,593, 3–26–63, Cl. 57—139.

Rhyner, Paul, P. Grossmann, and R. Defago, to Ciba Ltd. Process for dyeing or printing fibrous materials of aromatic polyesters. 3,097,909, 7–16–63, Cl. 8—39.

Rhys, David W., to The International Nickel Co., Inc. Ternary brazing alloy. 3,085,320, 4–16–63, Cl. 29—104.

Riach, Kenneth A.: *See*—
Neuman, Milton C., and Raich. 3,113,591.

Rianda, Thomas A. Seed potato cutter. 3,078,891, 2–26–63, Cl. 146—78.

Rianda, Thomas A. Seed potato cutting apparatus. 3,114,-403, 12–17–63, Cl. 146—78.

Ribaudo, Andrew A.: *See*—
Sconzo, Thomas G., and Ribaudo. 3,073,639.

Ribbans, Robert C., III, to E. I. du Pont de Nemours and Co. Polymer handling. 3,104,608, 9–24–63, Cl. 100—152.

Ribchester, Eric: *See*—
Biggs, Albert J., and Ribchester. 3,073,895.
Carnt, Peter S., and Ribchester. 3,113,177.

Ribich, Thomas A., to The Weldon Tool Co. Apparatus for producing a drill point. 3,102,370, 9–3–63, Cl. 51—97.

Ribinsky, Dmitrij: *See*—
Goossak, Lev A., Evart, and Ribinsky. 3,092,088.

Ribka, Joachim: *See*—
Lohe, Konrad, and Ribka. 3,086,006.
Nakaten, Herbert, and Ribka. 3,113,937.
Nakaten, Herbert, and Ribka. 3,113,938.

Ribka, Joachim, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius und Bruning. Water-insoluble monoazo-dyestuffs. 3,096,321, 7–2–63, Cl. 260—193.

Riblet, Henry J. Microwave frequency discriminator. 3,077,-565, 2–12–63, Cl. 329—116.

Riblet, Henry J. Microwave attenuator. 3,105,210, 9–24–63, Cl. 333—81.

Riblet, Henry J. Temperature compensated microwave cavity. 3,108,240, 10–22–63, Cl. 333—83.

Riboni, Ubaldo: *See*—
Cappuccio, Vittorio, and Riboni. 3,112,159.
Cappuccio, Vittorio, Riboni, and Vigano. 3,098,697.

Ribot, Georges M. T. Method of making a slide fastener. 3,114,967, 12–24–63, Cl. 29—410.

Ric-Wil-Inc.: *See*—
Cotman, Val, Jr. 3,113,595.

Ricardo & Co., Engineers Ltd.: *See*—
Ricardo, Harry R. 3,081,933.

Ricardo & Co., Engineers (1927) Ltd.: *See*—
Holt, George A., and Hatton. 3,092,087.
Lilly, Leslie R. C. 3,074,389.

Ricardo, Harry R., to Ricardo & Co., Engineers Ltd. Reciprocating air compressors. 3,081,933, 3–19–63, Cl. 230—183.

Riccar Sewing Machine Co., Ltd.: *See*—
Kawaguchi, Shinichi. 3,085,526.

Riccardi, Samuel A., and J. R. Nichter, to Olin Mathieson Chemical Corp. Pyrolysis of diborane. 3,078,530, 2–26–63, Cl. 23—204.

Ricci, Ernest A. De-burring tool. 3,076,254, 2–5–63, Cl. 29—90.

Ricci, Henry. Chain saw spur attachment. 3,101,103, 8–20–63, Cl. 143—32.

Ricci, Marie B. Safety sadiron holder. 3,080,141, 3–5–63, Cl. 248—117.1.

Riccio, Joseph R., Jr., to Universal Brick & Supply Co. Brick cleaning machine. 3,080,860, 3–12–63, Cl. 125—26.

Ricco Producta Corp.: *See*—
Meigs, Archibald V. 3,099,634.

Rice, Albert E.: *See*—
Rice, Ford A. and A. E. 3,075,232.

Rice, Albert E. and F. A. Casters. 3,075,231, 1–29–63, Cl. 16—18.

Rice, Alvis P.: *See*—
Stealy, Arthur J., and Rice. 3,075,722.

Rice, Alvist V.: *See*—
De Fries, Myron G., Macri, Rice, Madden, and Robinson. 3,108,433.

Rice Barton Corp.: *See*—
Clem, Everett W. 3,073,198.
Finlayson, Frank S. 3,085,448.
Jodrey, Robert M. 3,072,180.
Munton, John P., and Dentch. 3,078,825.

Rice, Charles H.: *See*—
Gorin, Everett, and Rice. 3,115,394.

Rice-Chem Soluplug: *See*—
Meigs, Archibald V. 3,099,634.

Rice, Clifford M. Automatic chains. 3,111,974, 11–26–63, Cl. 152—214.

Rice, Dell E. Anchor manipulating device. 3,083,675, 4–2–63, Cl. 114—210.

Rice, Dell E. Anchor manipulating device. 3,106,180, 10–8–63, Cl. 114—210.

Rice, Edgar C.: *See*—
Noble, Jack D., Bentley, and Rice. 3,102,751.

Rice, Ernest G., to Tightpat, Inc. Combination stockings and panty. Re. 25,360, 3–26–63, Cl. 2—224.

Rice, Everett M. Putting game. 3,097,849, 7–16–63, Cl. 273—180.

Rice, Ford A.: *See*—
Rice, Albert E. and F. A. 3,075,231.

Rice, Ford A. and A. E. Caster. 3,075,232, 1–29–63, Cl. 16—18.

Rice, Gerald B., to Surface Alloys Engineering Co. Plated soldering iron tip and method of plating the same. 3,080,842, 3–12–63, Cl. 113—105.

Rice, Gordon A. Book page turner for invalids' use. 3,087,-268, 4–30–63, Cl. 40—140.

Rice, Harold B., and J. G. Aguilar, deceased (C. Aguilar, administratrix), to John Burton Machinery Corp. Fluid driven mechanism. 3,097,554, 7–16–63, Cl. 82—59.

Rice, Henry T. M., to Ohlsson & Rice, Inc. Prime mover and governor. 3,104,657, 9–24–63, Cl. 123—103.

Rice, Ira J.: *See*—
Rice, Leo H. and I. J. 3,104,887.

Rice, John C., and K. Thompson, to Lowe Paper Co. Coated paper and polyolefin and method of coating. 3,076,720, 2–5–63, Cl. 117—15.

Rice, Leo H. and I. J. Roller skate plate and truck mounting assembly. 3,104,887, 9–24–63, Cl. 280—11.2.

Rice, Leonard M.: *See*—
Grogan, Charles H., and Rice. 3,106,552.

Rice, Leonard M., to The Geschickter Fund For Medical Research, Inc. Isoindoles. 3,084,167, 4–2–63, Cl. 260—319.

Rice, Livingston L., and W. J. Rohane, to Sprague Electric Co. Capacitor sealing method. 3,100,330, 8–13–63, Cl. 29—155.55.

Rice, Livingston L., and W. J. Rohane, to Sprague Electric Co. Capacitor sealing means. 3,100,813, 8–13–63, Cl. 174—52.

Rice, Livingston L., and D. F. Dagnoli, to Sprague Electric Co. Capacitor terminal connection. 3,100,857, 8–13–63, Cl. 317—260.

Rice, Lyman A., to General Motors Corp. Latching relay. 3,114,862, 12–17–63, Cl. 317—172.

Rice, Maurice A., to North Star Dairy. Method of preparing instant dry milk containing fat and product. 3,078,167, 2–19–63, Cl. 99—56.

Rice, Millard L.: *See*—
Scurlock, Arch C., Rumble, and Rice. 3,107,186.
Webster, Roland C., Roberts, and Rice. 3,101,052.

Rice, Millard L., and T. J. O'Donnell, to Atlantic Research Corp. Rocket projectile. 3,104,613, 9–24–63, Cl. 102—49.

Rice, Nelson E., to Macomber, Inc. Tube bending apparatus. 3,083,753, 4–2–63, Cl. 153—48.

Rice, Rex., to International Business Machines Corp. Interconnected printed circuit boards. 3,082,327, 3–19–63, Cl. 250—220.

Rice, Richard E.: *See*—
Rand, William M., Jr., Rice, Shaver, and Whitney. 3,092,466.

Rice, Rip G., B. H. Gelb, L. A. Kaplan, and J. R. Hooker, to General Dynamics Corp. (Convair Division). Polymeric product of a PN ring containing polymer and a carboxylated diene polymer and articles prepared therefrom. 3,108,989, 10–29–63, Cl. 260—45.5.

Rice, Robert A.: *See*—
Lefebvre, Arthur H., and Rice. 3,085,401.

Rice, Robert C., Jr.: *See*—
Leming, John H., Jr., Kenrich, and Rice. 3,115,635.

Rice, Russell E., to International Harvester Co. Scarifier bar lock mechanism. 3,101,790, 8–27–63, Cl. 172—317.

Rice, Theodore: *See*—
Fogle, Merald C., Goldthwait, Kwolek, and Rice. 3,105,859.

Rice, Thomas C. Illuminated hockey puck. 3,102,727, 9–3–63, Cl. 273—128.

Rice, Thomas K., to Specialties Development Corp. Gelled hydrazine monopropellant. 3,077,072, 2–12–63, Cl. 60—35.4.

Rice, Virgil C.: *See*—
Harlow, Willis E., and Rice. 3,085,419.

Rice, Walter A., to Mohasco Industries, Inc. Machine for making tufted fabric with cut and uncut pile loops. 3,100,467, 8–13–63, Cl. 112—79.

Rice, Walter A., to Mohasco Industries, Inc. Apparatus for use in changing the pattern member of a tufting machine pattern attachment. 3,103,188, 9–10–63, Cl. 112—79.

Rice, Warren A., Jr., to C. E. Grebe. Propulsion system. 3,106,058, 10–8–63, Cl. 60—35.5.

Rich, Alan H., to United States of America, Navy. Multichannel logarithmic integrating computer. 3,116,472, 12–31–63, Cl. 340—5.

Rich, Charles A., Jr., to Morgan Construction Co. Seal for rolling mill. 3,093,425, 6–11–63, Cl. 308—36.1.

Rich, Elvis: *See*—
Peters, Beldon A., Carlton, Rich, and Buck. 3,083,774.

Rich Hill Drug Co., Inc.: *See*—
Ushkow, Meyer. 3,078,986.

Rich, Howard B., Inc.: *See*—
Rich, Howard B. 3,085,651.
Rich, Howard B. 3,085,652.

Rich, Howard B., to Leatherwood Mfg. Co., Inc. Ladder construction. 3,078,955, 2–26–63, Cl. 182—206.

Rich, Howard B., to Howard B. Rich, Inc. Step ladder. 3,085,651, 4–16–63, Cl. 182—222.

Rich, Howard B., to Howard B. Rich, Inc. Step ladder. 3,085,652, 4–16–63, Cl. 182—228.

Rich, John P., to Improved Machinery Inc. Apparatus for chlorinating wood pulp. 3,095,349, 6–25–63, Cl. 162—236.

Rich, John P., to Improved Machinery Inc. Groundwood discharger. 3,100,192, 8–6–63, Cl. 210—386.

Rich, John P., O. Luthi, and N. Saunders, to Improved Machinery Inc. Filter. 3,105,043, 9–24–63, Cl. 210—402.

Rich Mfg. Co. of California: *See*—
Ewing, Paul E. 3,072,980.

Rich, Phil, Fan Mfg. Co., Inc.: *See*—
White, Louis B. 3,076,319.

Rich, Scott R. Mobile garage. 3,108,820, 10–29–63, Cl. 280—63.

Rich, Stanley R., to Acoustica Associates, Inc. Electromechanical transducer system. Re. 25,433, 8–13–63. Cl. 310—8.3.

Rich, Stanley R., to Acoustica Associates, Inc. Autopolarization of electrostrictive transducers. 3,072,805, 1–8–63, Cl. 310—8.1.

Rich, Stanley R., to Acoustica Associates, Inc. Continuous level measuring apparatus. 3,080,752, 3–12–63, Cl. 73—290.

Rich, Stanley R., 20% to A. H. Rosen, 10% to W. W. Sellew, and 10% to R. E. Cohn. Method of separating differentially heated particles. 3,097,160, 7–9–63, Cl. 209—4.

Rich, Stanley R., to Acoustica Associates, Inc. Electromechanical transducer system. 3,101,419, 8–20–63, Cl. 310—26.

Rich, Theodore A., to General Electric Co. Penetrating radiation measurement by ionization of a particle bearing aerosol. 5,102,200, 8–27–63, Cl. 250—83.3.

Richard, Charles D. Device for recording the speed of shutters in photographic and the like apparatus. 3,085,-846, 4–16–63, Cl. 346—108.

Richard, Grant M. and K. L., to Delavan Electronics Corp. Sealed variable impedance device. 3,105,213, 9–24–63, Cl. 336—136.

Richard, Joseph D. Recording secure locking system. 3,093,-994, 6–18–63, Cl. 70—434.

Richard, Kenneth L.: *See*—
Richard, Grant M. and K. L. 3,105,213.

Richard, Paul P. Coupling arrangement between a half-trailer and a tractor. 3,105,705, 10–1–63, Cl. 280—461.

Richards, Albert M. Blood flow meter. 3,075,515, 1–29–63, Cl. 128—2.05.

Richards, Albert M. Respiratory devices. 3,105,488, 10–1–63, Cl. 128—29.

Richards, Arklay S., Co., Inc.: *See*—
Richards, Whitman A. 3,093,791.

Richards, Donald L., and K. R. Molt, to The Cincinnati Milling Machine Co. Grignard reagents. 3,080,324, 3–5–63, Cl. 252—182.

Richards, Dwight: *See*—
Ferguson, John E., and Richards. 3,095,988.

Richards, Edgar J.: *See*—
Crane, James E., and Richards. 3,104,125.

Richards, Edward G.: *See*—
Franklin Arthur W., Smith, and Richards. 3,094,414.

Richards, George B., to Liquid Controls Corp. Liquid transmission system. 3,083,874, 4–2–63, Cl. 222—67.

Richards, Gerald V.: *See*—
Van Dyke, Bruce E., Richards, and Kadleck.. 3,096,918.

Richards, Gerald W.: *See*—
Greenwell, Robert H., Kadleck, Richards, and Van Dyke. 3,082,931.

Richards, Glenn L., to General Dynamics Corp. Magnetic core pulse operated counter. 3,071,695, 1–1–63, Cl. 307—88.

Richards, Glenn L., to General Dynamics Corp. Single transistor glow tube trigger. 3,079,560, 2–26–63, Cl. 328—210.

Richards, Glenn L., to General Dynamics Corp. Transistor-magnetic core pulse operated counter. 3,081,071, 4–23–63, Cl. 307—88.

Richards, Harry F.: *See*—
Herbert, Stephen A., Jr., and Richards. 3,102,863.

Richards, Harry F., and S. A. Herbert, Jr., to Shell Oil Co. Lubricating compositions. 3,100,748, 8–13–63, Cl. 252—46.7.

Richards, Howard R., and A. V. Alexeff, to Industrial Ovens, Inc. Adjustable wrap web guiding apparatus. 3,100,069, 8–6–63, Cl. 226—17.

Richards, Howard R., and A. V. Alexeff, to Industrial Owens, Inc. Self-adjusting web guiding apparatus. 3,107,036, 10–15–63, Cl. 226—198.

Richards, J. Dudley: *See*—
Chrest, Roy W., Rummery, Richards, and Roseman. 3,079,269.

Richards, J. R., Co.: *See*—
Richards, John R. 3,097,821.

Richards, James A. K., to The Bendix Corp. Gated pulse radar system. 3,087,153, 4–23–63, Cl. 343—7.3.

Richards, James C.: *See*—
Terrill, James R., and Richards. 3,083,452.

Richards, James D.: *See*—
Fritts, Robert W., and Richards. 3,080,261.

Richards, John J.: *See*—
Garvey, Richard J., and Richards. 3,076,606.

Richards, John R., to J. R. Richards Co. Bracket support for electric outlet box. 3,097,821, 7–16–63, Cl. 248—216.

Richards, Lawrence E.: *See*—
Ruscetta, Ralph A., and Richards. 3,114,085.

Richards, Leslie D.: *See*—
Cullen, Roy H., Richards, and Hodgeman. 3,088,529.

Richards, Lorenzo A. Tensiometer. 3,103,117, 9–10–63, Cl. 73—73.

Richards, Oscar W., to American Optical Co. Diagnostic instruments. 3,091,235, 5–28–63, Cl. 128—6.

Richards, Oscar W., to American Optical Co. Light conducting device to transmit ultra-violet radiation for specimen fluorescence under a microscope. 3,101,411, 8–20–63, Cl. 250—83.3.

Richards, Philip. Elevating apparatus. 3,103,257, 9–10–63, Cl. 182—2.

Richards, Richard K. Cryotron logic circuit. Re. 25,403, 6–18–63, Cl. 307—88.5.

Richards, Ronald A., to Bell Telephone Laboratories, Inc. Printed circuit apparatus. 3,109,889, 11–5–63, Cl. 178—6.7.

Richards, Walter B.: *See*—
Fleysher, Maurice H., and Richards. 3,074,958.
Fleysher, Maurice H., and Richards. 3,091,618.

Richards, Whitman A., to Arklay S. Richards Co., Inc. Method and means using thermoelectric comparison for identifying conductive materials. 3,093,791, 6–11–63, Cl. 324—32.

Richards-Wilcox Mfg. Co.: *See*—
Ashmead, Lloyd R. 3,085,659.
Burmeister, Albert J. 3,072,975.
Burmeister, Albert J. 3,073,381.

Richards, William H. Adjustable implement handle assembly. 3,103,028, 9–10–63, Cl. 15—118.

Richardson, Cecil R., Jr.: *See*—
Villalon, Severo L., Jr., and Richardson. 3,083,770.

Richardson, Cloyd B., to The Mead Corp. Apparatus and process for continuously testing and controlling stock freeness. 3,086,905, 4–23–63, Cl. 162—198.

Richardson Co., The: *See*—
Gavlin, Gilbert, Boyer, and Berger. 3,104,247.
Gavlin, Gilbert, and Hattori. 3,100,789.
Ronay, Thomas E. 3,084,085.
Ronay, Thomas E., Dexheimer, and Arthur. 3,112,335.
Shank, M McConnell, and Mocas. 3,075,036.
Stone, Leslie F. 3,091,301.
Weinstein, Meir, and Primack. 3,095,112.

Richardson Corp.: *See*—
Burke, Arthur J. 3,072,301.

Richardson, David A., and F. J. Ricker, to The Foxboro Co. Alarm apparatus for industrial instrumentation systems. 3,075,187, 1–22–63, Cl. 340—213.

Richardson, Donald E., to United States of America, Navy. Mechanical time delay device. 3,088,408, 5–7–63, Cl. 102—70.2.

Richardson, Elmer L. Coat retainer. 3,098,590, 7–23–63, Cl. 223—71.

Richardson, George A.: *See*—
Birum, Gail H., and Richardson. 3,081,327.
Birum, Gail H., and Richardson. 3,113,139.

Richardson, Henry M.: *See*—
Velonis, Stamatis G., Schnitzer, and Richardson. 3,072,-914.

Richardson & Holland, Inc.: *See*—
Holland, John B., and Starner. 3,084,050.

Richardson, Ione. Flower display device. 3,108,401, 10–29–63, Cl. 47—39.

Richardson, Irwin W. Spray rigger boom. 3,090,562, 5–21–63, Cl. 239—167.

Richardson, James C.: *See*—
Principe, Michael J., and Richardson. 3,101,679.

Richardson, Jasper E.: *See*—
Orr, William R., Richardson, and Baskir. 3,116,417.

Richardson, Jasper E., and W. R. Orr, to Shell Oil Co. Photomultiplier pulse shaping circuit. 3,102,954, 9–3–63, Cl. 250—715.

Richardson, John C.: *See*—
Andersen, Carl P., Richardson, and First. 3,083,447.

Richardson, John E.: *See*—
Branch, Gerald L., Richardson, and Scapple. 3,105,869.

Richardson, Joseph W., Jr., to H. K. Porter Co., Inc. Apparatus for manufacturing transformer cores. 3,084,734, 4–9–63, Cl. 153—64.

Richardson, Joseph W., Jr., to H. K. Porter Co., Inc. Magnetic core construction. 3,104,364, 9–17–63, Cl. 336—213.

Richardson Mfg., Inc.: *See*—
Van Sickle, James D., and Brinker. 3,107,737.

Richardson-Merrell Inc.: *See*—
Banford, John A., Hill, and Dillard. 3,105,791.
Grant, John B. 3,096,903.
Palopoli, Frank P., Fell, and Benson. 3,075,014.
Tuerck, Paul A., and Carkhuff. 3,084,104.

Richardson, Morris E., to General Dynamics Corp. Method for evaporating subliming materials. 3,094,395, 6–18–63, Cl. 23—294.

Richardson, Olan, and C. W. Walter, to Southern States Inc. Silver coiler. 3,094,340, 6–18–63, Cl. 280—35.

Richardson, Philip: *See*—
Mortlock, Joseph R., Wilkinson, and Richardson. 3,099,-775.

Richardson, Ralph W. Lawn fertilizer. 3,110,583, 11–12–63, Cl. 71—61.

Richardson, Richard A., to Carrollton Mfg. Co. Self-rimming sink mounting. 3,110,040, 11–12–63, Cl. 4—187.

Richardson, Robert L., to The Torsion Balance Co. Torsion balance. 3,075,596, 1–29–63, Cl. 177—172.

Richardson, Robert L., to The Torsion Balance Co. Torsion balance having mechanically amplified indicator. 3,075,-597, 1–29–63, Cl. 177—172.

Richardson, Robert M. Remotely actuated radio frequency powered devices. 3,098,971, 7–23–63, Cl. 325—9.

Richardson, Robert O.: *See*—
Mintz, Albert E. 3,081,616.

Richardson, Rolland A.: *See*—
Pearson, Eugene W., Richardson, and Clark. 3,115,801.

Richardson, Ronald E.: *See*—
Donovan, Arthur F., Jacquot, and Richardson. 3,102,-016.

Richardson, Ronald E., to Pittsburgh Plate Glass Co. Glass bending lehr. 3,084,526, 4–9–63, Cl. 65—268.

Richardson, Roy A., and O. M. Eness, to Motorola, Inc. Single sideband receiver having squelch and phase-locked detection means. 3,100,871, 8–13–63, Cl. 325—330.

Richardson, Ryden L., to Union Oil Co. of California. Hydrodenitrogenation with high molybdenum content catalyst. 3,094,480, 6–18–63, Cl. 208—254.

Richardson, Sam. Air float buffer head. 3,072,942, 1–15–63, Cl. 15—98.

Richardson, Sid, Carbon Co.: *See*—
Claassen, Edwin J., Jr., Bulls, and Normand. 3,076,695.

Richardson, Sid W., Inc.: *See*—
McGowen, Harold E., Jr. 3,074,485.

Richardson, Wallace L., to California Research Corp. Anti-knock gasoline. 3,116,126, 12–31–63, Cl. 44—69.

Richardson, Walter L.: *See*—
Kerr, Robert A., Richardson, and Springford. 3,091,806.

Richardson, William C.: *See*—
Klein, Elias, Wise, and Richardson. 3,109,698.

Richardson, William C., to Courtaulds North America Inc. Method for making rayon filaments. 3,109,699, 11–5–63, Cl. 18—54.

Richardson, William F., to Flex-O-Lators, Inc. Expansible lift for hollow objects. 3,088,769, 5–7–63, Cl. 294—93.

Richardson, William G.: *See*—
McAulay, Robert, and Richardson. 3,109,812.

Richardson, William S., to The Falk Corp. Reversible power transmission. 3,073,175, 1–15–63, Cl. 74—377.

Richardson, William S., to The Falk Corp. Multiple reduction gear unit. 3,088,334, 5–7–63, Cl. 74—664.

Richardson, Woodrow W.: *See*—
Barry, Raymond L., and Richardson. 3,082,061.

Richardsons, Wesgarth & Co. Ltd.: *See*—
Frankel, Adolf, and Lorett. 3,107,046.
Lorett, Jezy A., and McGowan. 3,105,520.

Richdel, Inc.: *See*—
Gould, Charles D. 3,101,418.

Richelmann, Bernd H.: *See*—
Hill, John L., and Richelmann. 3,104,318.

Richert, Eberhard, to International Standard Electric Corp. Apparatus for separating flat plied articles. 3,086,770, 4–23–63, Cl. 271—27.

Richert, Eberhard, and R. Schneider, to International Standard Electric Corp. Equipment for continually charging an edgewise conveying system. 3,073,460, 1–15–63, Cl. 214—7.

Richeson, James P., to Monsanto Chemical Co. Annealing apparatus. 3,098,266, 7–23–63, Cl. 18—1.

Richey, Clarence B., to Ford Motor Co. Tire. 3,074,455, 1–22–63, Cl. 152—352.

Richey, Clarence B., and J. F. O'Donnell, to Ford Motor Co. Tractor hitches. 3,098,528, 7–23–63, Cl. 172—7.

Richey, James D., to Bell Telephone Laboratories, Inc. Bearing assembly. 3,073,654, 1–15–63, Cl. 308—26.

Richey, Pat W.: *See*—
Frazier, Henry D., and Richey. 3,080,738.

Richey, William K., to The Five Mfg. Co., Inc. Bale thrower. 3,087,600, 4–30–63, Cl. 198—128.

Richfield Oil Corp.: *See*—
Arnold, Marion L. 3,083,147.
Daigh, Harold D. 3,077,871.
Hallowell, Dennis F., Jr. 3,106,533.
Natland, Manley L. 3,079,995.
Natland, Manley L. 3,080,918.
Natland, Manley L. 3,085,957.
Natland, Manley L. 3,109,781.

Richie, Therman L.: *See*—
Greene, Oren W., Twitty, and Richie. 3,073,402.

Richins, David A. Brakelight system. 3,096,505, 7–2–63, Cl. 340—69.

Richlin, Isadore M.: *See*—
Deal, Elmer F., Richlin, and Wilson. 3,073,728.

Richman, Donald, to Hazeltine Research, Inc. Balanced phase-detection system. 3,086,173, 4–16–63, Cl. 328—134.

Richman, Donald, to Hazeltine Research, Inc. Transmitter apparatus for compensating for receiver signal distortion. 3,109,056, 10–29–63, Cl. 178—5.2.

Richman, Henry J., Jr. Drill marker lift. 3,107,734, 10–22–63, Cl. 172—128.

Richmond, Albert R. Portable earth boring machine. 3,071,-199, 1–1–63, Cl. 175—170.

Richmond, Earl B., to The Electric Storage Battery Co. Method of producing expanded fabric-like material. 3,100,-926, 8–20–63, Cl. 28—75.

Richmond, Earl B., to The Electric Storage Battery Co. Expanded fabric-like material composed of core yarns. 3,106,507, 10–8–63, Cl. 161—72.

Richmond, Henry H.: *See*—
Cawthon, Thomas M., Nee, and Richmond. 3,072,633.

Richmond, John L. Power-driven rotary toothbrush and liquid applicator. 3,108,300, 10–29–63, Cl. 15—24.

Richmond, John L., and C. E. Wells, to United States of America, Atomic Energy Commission. Neutron source. 3,073,768, 1–15–63, Cl. 204—154.2.

Richmond, Martin R., to Raytheon Co. Precision detection of radar signals. 3,082,416, 3–19–63, Cl. 343—7.4.

Richmond, Nelson R.: *See*—
Hendrickson, Harold S., and Richmond. 3,096,045.

Richmond, Ray W. Orthopedic appliance. 3,114,368, 12–17–63, Cl. 128—87.

Richmond Research Corp.: *See*—
Herman, Raymond. 3,074,662.

Richmond Screw Anchor Co., Inc.: *See*—
McRobbie, Robert M. 3,106,803.

Richmond, Wallace E., to Sylvania Electric Products Inc. Method of accurately machining semiconductor bodies. 3,097,458, 7–16–63, Cl. 51—281.

Richnow, Erick G., Jr., to Truck Accessories, Inc. Axle lift. 3,096,995, 7–9–63, Cl. 280—104.5.

Richter, Alfred G., to Lockheed Aircraft Corp. Multiple harness rack. 3,101,939, 8–27–63, Cl. 269—40.

Richter, Carl F., to Alfred Gauthier, G.m.b.H. Photographic camera having a built-in exposure meter. 3,095,791, 7–2–63, Cl. 95—10.

Richter, Erhard: *See*—
Ahrens, Erhard, Kühn, and Richter. 3,077,521.

Richter, Friedrich, to Electroacustic Gesellschaft mit beschrankter Haftung. Echo sounding apparatus. 3,076,173, 1–29–63, Cl. 340—3.

Richter, George A., Jr.: *See*—
Bibolet, Aubert H., Brown, Richter, and Fellmann. 3,078,243.

Richter, George L.: *See*—
Bibolet, Aubert H., Brown, Richter, and Fellmann. 3,078,244.

Richter, Gunther M. Launching devices. 3,077,876, 2–19–63, Cl. 124—13.

Richter, Harold G., and A. S. Gillespie, Jr., to United States of America, Atomic Energy Commission. Flexible Geiger counter. 3,110,835, 11–12–63, Cl. 313—93.

Richter, Heinz K., R. R. Heppe, and L. Celniker, to Lockheed Aircraft Corp. Automatic stability control device. 3,116,042, 12–31–63, Cl. 244—77.

Richter, Jiri, and K. Cernoch, to Svit, narodni podnik. Sole fastening unit for a conveyorized shoe making machine. 3,088,143, 5–7–63, Cl. 12—1.

Richter, Jiri, and K. Cernoch, to Svit, narodni podnik. Automatic shoe last operating device. 3,089,162, 5–14–63, Cl. 12—1.

Richter, Jiri, and K. Cernoch, to Svit, narodni podnik. Manufacturing line for shoe manufacturing. 3,113,847, 12–10–63, Cl. 34—68.

Richter, Johan C. F. C., to Kamyr Aktiebolaget. Container for washing of cellulose pulp. 3,088,306, 5–7–63, Cl. 68—181.

Richter, Johan C. F. C. and O. J., to Kamyr, Aktiebolaget. Sieve arrangement in cylindrical containers for cellulosic pulp. 3,078,703, 2–26–63, Cl. 68—181.

Richter, Melvin W.: *See*—
Franke, Edward L., Jr., Hartrauft, and Richter. 3,087,199.

Richter, Milton E. Tricycle stand. 3,076,650, 2–5–63, Cl. 272—73.

Richter, Ole J.: *See*—
Richter, Johan C. F. C. and O. J. 3,078,703.

Richter, Philip, to General American Transportation Corp. Line puller. 3,078,075, 2–19–63, Cl. 254—189.

Richter, Sidney B., to Velsicol Chemical Corp. Pesticidal compositions containing bis(O,O-dialkyl dithiophosphoro-)-alkylethers and alkylsulfides. 3,075,873, 1–29–63, Cl. 167—22.

Richter, Sidney B., to Velsicol Chemical Corp. Method of controlling undesirable plant growth. 3,088,817, 5–7–63, Cl. 71—2.3.

Richter, Sidney B., to Velsicol Chemical Corp. O,O-dialkyl-S-hydroxyphenylpropyl phosphorodithioates. 3,088,863, 5–7–63, Cl. 167—30.

Richter, Sidney B., to Velsicol Chemical Corp. (O,O-dimethylphosphorodithio) allyl phthalate pesticidal compositions. 3,092,543, 6–4–63, Cl. 167—30.

Richtzenhain, Hermann: *See*—
Ploetz, Theodor, and Richtzenhain. 3,078,280.

Rickard, Corwin: *See*—
Fortescue, Peter, Rickard, and Rose. 3,072,550.

Rickard, James A., to Jersey Production Research Co. Scintillator. 3,088,030, 4–30–63, Cl. 250—71.5.

Rickard, James A., to Jersey Production Research Co. Method of controlling well fluid circulation by radioactivation of fluid elements. 3,115,576, 12–24–63, Cl. 250—43.5.

Ricke, Donald W., to Minneapolis-Honeywell Regulator Co. Control apparatus. 3,088,060, 4–30–63, Cl. 318—19.

Rickel, Arthur M., Jr., to The Bendix Corp. Method of selective etching. 3,081,211, 3–12–63, Cl. 156—9.

Ricker, Francis J.: *See*—
Richardson, David A., and Ricker. 3,075,187.

Ricketts, James B., Jr., to General Motors Corp. Switching circuit for a ladder type digital to analog converter utilizing an alternating reference voltage. 3,092,735, 6–4–63, Cl. 307—88.5.

Ricketts, James M.: *See*—
Amann, Charles A., Collman, Haushalter, Ricketts, Turunen, and Vickers. 3,095,700.
Collman, John S., Ricketts, and Turunen. 3,077,074.
Collman, John S., Ricketts, and Turunen. 3,093,009.

Ricketts, Robert W.: *See*—
Hough, James S., and Ricketts. 3,078,166.

Rickley, Samuel S., to Morgan Construction Co. Integral bearing mounting and dismounting means. 3,080,199, 3–5–63, Cl. 308—207.

Ricks, Herbert E., to Westinghouse Electric Corp. Method of electroplating on aluminum surfaces. 3,075,894, 1–29–63, Cl. 204—33.

Riddell, John A.: *See*—
Hageman, Howard A., and Riddell. 3,081,222.
Smith, Allen E., Hubbard, and Riddell. 3,072,471.

Riddell, John A., to United States Rubber Co. Itaconimide fungicides and algaecides. 3,098,003, 7–16–63, Cl. 167—33.

Riddell, John A., and B. von Schmeling, to United States Rubber Co. Herbicidal method. 3,097,944, 7–16–63, Cl. 71—2.5.

Riddell, John A., and B. von Schmeling, to United States Rubber Co. Method of controlling fungi and algae with N-phenyl-itaconimides. 3,098,002, 7–16–63, Cl. 167—33.

Riddell, John T., Inc.: *See*—
Morgan, Gerard E. 3,103,014.
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Rappleyea, Frederick A., and Morgan. 3,082,515.

Riddell, Robert A.: *See*—
Berg, William K., Riddell, Spencer, and Tomlinson. 3,099,285.

Riddell, William, to Burgess Products Co. Ltd. Electrical switches. 3,102,177, 8–27–63, Cl. 200—67.

Ridder, Clara A. Chairs and seats. 3,081,129, 3–12–63, Cl. 297—452.

Riddick, Thomas M. Water treatment in municipal and industrial water systems. 3,075,645, 1–29–63, Cl. 210—197.

Riddick, Thomas M. Treatment of water in municipal and industrial water systems. 3,097,163, 7–9–63, Cl. 210—53.

Riddle, Merwyn D.: *See*—
Heckathorn, Eugene S., and Riddle. 3,111,384.

Riddle, Robert E., to Marvel Mfg. Co. Safety support structure for suspension balancer. 3,074,278, 1–22–63, Cl. 73—488.

Ridenour, Jack B., to General Motors Corp. Windshield wiper blade. 3,081,477, 3–19–63, Cl. 15—250.30.

Ridenour, Stewart J., and A. Picklnpaugh, to Cook Chemical Co. Hand pump for spraying liquids. 3,092,330, 6–4–63, Cl. 239—333.

Ridenour, Wayne F., to Cheshire, Inc. Machine for conveying labeled articles and sorting same. 3,072,253, 1–8–63, Cl. 209—111.5.

Ridenour, Wayne F., and E. A. Storck, to Cheshire, Inc. Addressing and imprinting machine. 3,111,084, 11–19–63, Cl. 101—47.

Rider, Paul Z., and R. A. Locke, to Sperry Rand Corp. Precedence symbol recording means. 3,072,743, 1–8–63, Cl. 178—17.

Ridge, Leonard G.: *See*—
Munson, Donald J., and Ridge. 3,074,734.

Ridge Tool Co., The: *See*—
Ruyer, Walter. 3,082,445.
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Ridgeway, John L., to Zonolite Co. Method of producing granulated fertilizer. 3,077,395, 2–12–63, Cl. 71—64.

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Rhodes, Charles J., and Ridgway. 3,090,270.

Ridgway, John A., and B. O'Connor, to Standard Oil Co. Method for preparing vapor-phase isomerization catalyst. 3,085,123, 4–9–63, Cl. 260—683.75.

Ridgway, John A., Jr., to Standard Oil Co. Aluminum chloride catalyst activation. 3,094,572, 6–18–63, Cl. 260—683.7.

Ridgway, Robert C.: *See*—
Patten, Leigh M., and Ridgway. 3,086,563.

Ridgway, Stuart L.: *See*—
Schaffer, Allan B., and Ridgway. 3,106,820.

Ridgway, Stuart L., to Thompson Ramo Wooldridge Inc. Afterburner systems. 3,086,353, 4–23–63, Cl. 60—30.

Ridgway, Stuart L., to Thompson Ramo Wooldridge Inc. Automobile engine exhaust system. 3,106,821, 10–15–63, Cl. 60—30.

Riding, Frank: *See*—
Leech, Harry R., and Riding. 3,085,949.

Riding, Frank, to Imperial Chemical Industries Ltd. Method for the production of assemblies comprising titanium. 3,074,858, 1–22–63, Cl. 204—32.

Ridinger, Phillip G.: *See*—
Cirone, Frank P., Harr, Lowry, and Ridinger. 3,114,007.
Harr, John A., Lowry, Nehama, and Ridinger. 3,116,375.

Ridings, James L., to Westinghouse Electric Corp. Circuit interrupter. 3,099,733, 7–30–63, Cl. 200—145.

Ridler, Desmond S.: *See*—
Wright, Esmond P. G., Ridler, and Bezdel. 3,081,448.

Ridley and Co., Inc.: *See*—
Ridley, Ian M. 3,072,388.

Ridley, Ian M., to Ridley and Co., Inc. Feeding and mixing apparatus for concrete guns or the like. 3,072,388, 1–8–63, Cl. 259—178.

Ridley, William C.: *See*—
McKenzie, Thomas, and Ridley. 3,075,533.

Ridsall, Newell V., to Peabody Seating Co., Inc. Foldable furniture. 3,080,834, 3–12–63, Cl. 108—112.

Riebel, Fred J.: *See*—
Riebel, William K. and F. J. 3,078,087.

Riebel, William K. and F. J. to Kay Mfg. Corp. Combination brace bar and spring element. 3,078,087, 2–19–63, Cl. 267—110.

Riebs, Richard E., to McGraw-Edison Co. Repeating circuit interrupter. 3,100,854, 8–13–63, Cl. 317—22.

Riebs, Richard E., to McGraw-Edison Co. Repeating circuit interrupter and battery charging circuit used therewith. 3,116,439, 12–31–63, Cl. 317—22.

Riebs, Richard E., and M. Rigert, to McGraw-Edison Co. Electronic voltage regulator with reversible electro-responsive operator means. 3,106,675, 10–8–63, Cl. 323—43.5.

Rieck, Russel W., to Ford Motor Co. Vehicle engine and driveline mounting. 3,089,559, 5–14–63, Cl. 180—64.

Riecke, Manfred, to Ernst Leitz Gesellschaft mit beschrankter Haftung. Slide-retaining attachment. 3,112,032, 11–26–63, Cl. 206—73.

Riecke, Wolfgang D., to Max-Planck-Gesellschaft Zur Foerderung der Wissenschaften E.V. Corpuscular radiation apparatus. 3,086,112, 4–16–63, Cl. 250—49.5.

Rieckenberg, George W., to The Anderson Co. Motion-transmitting device. 3,087,344, 4–30–63, Cl. 74—95.

Rieckenberg, George W., to The Anderson Co. Motion-transmitting mechanism. 3,087,345, 4–30–63, Cl. 74—95.

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Riegelman, Harry M., to Security Aluminum Corp. Locking device for closure members. 3,088,177, 5–7–63, Cl. 20—52.

Riegelman, Harry M., to Security Aluminum Corp. Weep hole construction for windows and the like. 3,091,008, 5–28–63, Cl. 20—70.

Riegelman, Harry M., to Security Aluminum Corp. Reversible sliding door and window construction. 3,097,401, 7–16–63, Cl. 20—19.

Riegelman, Harry M., to Security Aluminum Corp. Mounting means for sliding closure members. 3,110,935, 11–19–63, Cl. 20—19.

Riegelman, Harry M., to Security Aluminum Corp. Roller means for slidable closure member. 3,111,209, 11–19–63, Cl. 189—64.

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Rieppel, Perry J., G. E. Faulkner, J. W. Nelson, and H. C. Cook, to Esso Research and Engineering Co. Apparatus and process for welding pipelines and the like. 3,084,244, 4–2–63, Cl. 219—60.

Rieppel, Perry J., G. E. Faulkner, J. W. Nelson, and H. C. Cook, to Esso Research and Engineering Co. Process and apparatus for welding. 3,084,246, 4–2–63, Cl. 219—125.

Rieppel, Perry J., J. T. Niemann, R. P. Sopher, and F. H. Pennell, to De Laval Turbine Inc. Method and apparatus for semiautomatic welding. 3,104,313, 9–17–63, Cl. 219—124.

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Rinker, Edwin C., and R. Duva, to Sel-Rex Corp. Electroplating smooth ductile gold. 3,104,212, 9–17–63, Cl. 204—46.
Rinker, Richard, Firma: *See*—
Klostermann, Helmut, and Beerman. 3,081,702.
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Rinkewich, Isaac, to International Patent Research Corp. Adjustable oscillating lawn sprinkler. 3,073,532, 1–15–63, Cl. 239—242.
Rinkewich, Isaac, to Melnor Industries, Inc. Turret-type lawn sprinkler. 3,081,950, 3–19–63, Cl. 239—394.
Rinkewich, Isaac, to International Patent Research Corp. Oscillating lawn sprinkler. 3,115,305, 12–24–63, Cl. 239—242.
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Riopelle, Harry O., to Owens-Illinois Glass Co. Motor control apparatus for centralized lubricator. 3,094,902, 6–25–63, Cl. 92—12.
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Scott, Lyle B., and Riordan. 3,101,117.
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Boch, Robert F. E., Rios, and Lefort. 3,085,720.
Boch, Robert F. E., Rios, and Lefort. 3,104,061.
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Riparbelli, Carlo, to General Dynamics Corp. Missile shell. 3,073,494, 1–15–63, Cl. 244—119.
Ripepe, Adolph J. Simulated bowling pin assembly. 3,113,773, 12–10–63, Cl. 273—41.
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Ripley, Kenneth C., to John J. McMullen Associates, Inc. Stabilization system. 3,083,672, 4–2–63, Cl. 114—125.
Ripley, Kenneth C., to John J. McMullen Associates, Inc. Passive stabilization system. 3,083,673, 4–2–63, Cl. 114—125.
Ripley, Kenneth C., to John J. McMullen Associates, Inc. Linear-response flume stabilizer. 3,083,674, 4–2–63, Cl. 114—125.
Ripley, Kenneth C., to John J. McMullen Associates, Inc. Passive stabilization system for long period ships. 3,094,094, 6–18–63, Cl. 114—125.
Ripley, Kenneth C., to John J. McMullen Associates, Inc. Safety arrangement for stabilization system. 3,103,198, 9–10–63, Cl. 114—125.
Ripley, Kenneth C., to John J. McMullen Associates, Inc. Ship stabilizer. 3,109,403, 11–5–63, Cl. 114—125.
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Ripley, Robert L., to Union Carbide Corp. Process for producing ultrafine metal particles. 3,104,165, 9–17–63, Cl. 75—84.5.
Ripley, Robert L., to Union Carbide Corp. Purification of metal carbides and borides. 3,106,455, 10–8–63, Cl. 23—204.
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Ripling, Edward J.: *See*—
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Risley, Roger E., to Dresser Industries, Inc. Split arrester having circumferentially extending grain structure for welded pipelines having longitudinally extending grain structure. 3,096,105, 7–2–63, Cl. 285—286.
Risley, Roger E., and F. T. Newell, to Dresser Industries, Inc. Method of coupling submerged sections of pipe. 3,106,069, 10–8–63, Cl. 61—43.
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Ritchie, Virgil S., and H. F. Ogden, to United States of America, National Aeronautics and Space Administration. Check valve assembly for a probe. 3,093,000, 6–11–63, Cl. 73—384.
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Ritter, Emil C. Branched pipe joint having a tube connecting plug. 3,073,627, 1–15–63, Cl. 285—222.

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Szöts, Géza, Szetey, Kocsis, Kondor, Havasi, Ritter, Demeter, Gulyás, and Bitter.

Ritter, Fred A. Sliding swivel seat for boats. 3,113,804, 12–10–63, Cl. 297—252.

Ritter, Friedbert, to Knapsack-Griesheim Aktiengesellschaft. Process for the operation of electric furnaces by means of continuous electrodes. 3,106,595, 10–8–63, Cl. 13—9.

Ritter, Gerald L.: *See*—
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Ritter, Heinrich: *See*—
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Dottlinger, Alfred. 3,084,671.
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Ritter, Ralph K.: *See*—
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Ritz, Heinrich H. L., to C. A. Parsons & Co. Ltd. Heat exchange elements suitable for use as fuel elements for nuclear reactors. 3,116,213, 12–31–63, Cl. 176—78.

Ritz, Hugo H. L., to C. A. Parsons & Co. Ltd. Regenerative heat exchangers. 3,098,521, 7–23–63, Cl. 165—264.

Ritz, Hugo H. L., M. O. Engel, and B. Forster, to C. A. Parsons & Co. Ltd. Nuclear reactors. 3,085,964, 4–16–63, Cl. 204—193.2.

Ritz, Joseph W.: *See*—
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Ritzerfeld, Wilhelm and G. 3,096,711.
Ritzerfeld, Wilhelm and G. 3,109,355.

Ritzerfeld, Wilhelm and G. Rotary selectively printing duplicator. 3,077,829, 2–19–63, Cl. 101—91.

Ritzerfeld, Wilhelm and G. Apparatus for printing with ink requiring activation. 3,077,831, 2–19–63, Cl. 101—132.5.

Ritzerfeld, Wilhelm and G. Copy sheet controlled selective duplicator. 3,077,832, 2–19–63, Cl. 101—132.5.

Ritzerfeld, Wilhelm and G. Printing device and flat stackable elements. 3,078,795, 2–26–63, Cl. 101—369.

Ritzerfeld, Wilhelm and G. Program controlled selective duplicator. 3,083,637, 4–2–63, Cl. 101—132.5.

Ritzerfeld, Wilhelm and G. Automatic selective duplicator. 3,083,638, 4–2–63, Cl. 101—132.5.

Ritzerfeld, Wilhelm and G. Xerographic duplicating machine. 3,090,287, 5–21–63, Cl. 95—1.7.

Ritzerfeld, Wilhelm and G. Apparatus for treating printing foils. 3,093,051, 6–11–63, Cl. 95—89.

Ritzerfeld, Wilhelm and G. Method of producing copy. 3,096,711, 7–9–63, Cl. 101—149.4.

Ritzerfeld, Wilhelm and G. Xerographic duplicator. 3,109,355, 11–5–63, Cl. 95—1.7.

Riva, William, ⅔ to The Lochland Co. Sculpturing blank and method of making the same. 3,077,676, 2–19–63, Cl. 35—26.

Rivard, Donald E.: *See*—
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Rivard, Donald E., to Smith Kline & French Laboratories. Process for the preparation of 1,2,5,6-tetrahydro-1-phenethyl-2-(*p*-methoxybenzyl)-3,4-dimethyl-pyridine and intermediate. 3,073,837, 1–15–63, Cl. 260—297.

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Rivoche, Eugene J. 3,073,705.
Rivoche, Eugene J. 3,114,639.

Rively, Clair M., and W. Pechy, to Westinghouse Electric Corp. Lamp-inspection apparatus. 3,085,685, 4–16–63, Cl. 209—75.

Rively, Clair M., and W. A. Brenneck, to Westinghouse Electric Corp. Transfer conveyor. 3,088,572, 5–7–63, Cl. 198—19.

Rively, Clair M., and W. A. Brenneck, to Westinghouse Electric Corp. Article transfer apparatus. 3,088,602, 5–7–63, Cl. 214—1.

Rively, Clair M., and E. Gorski, to Westinghouse Electric Corp. Method of bending and setting elongated articles. 3,099,296, 7–30–63, Cl. 140—71.6.

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Gorton, Thomas S., Jr. 3,111,102.

Riverside Plastics Corp.: *See*—
Church, James M., and Greenberg. 3,095,336.

Rivette, Ervin J. Ceramic mud dispenser. 3,096,912, 7–9–63, Cl. 222—183.

Riviere, Maxime. Feed systems for sugar cane mills. 3,113,507, 12–10–63, Cl. 100—75.

Rivington, Herbert L., to The General Electric Co. Ltd. Processes for production of low permeability carbon. 3,102,047, 8–27–63, Cl. 117—46.

Rivkin, Leonard. Infant's seat. 3,107,942, 10–22–63, Cl. 297—254.

Rivoche, Eugene J., to Rivark Research and Development Corp. Egg food products and processes for preparing same. 3,073,704, 1–15–63, Cl. 99—196.

Rivoche, Eugene J., to Rivark Research and Development Corp. Process for the preparation of smoked meat products. 3,073,705, 1–15–63, Cl. 99—229.

Rivoche, Eugene J. Milk food compositions and method for preparing and using same. 3,075,709, 2–5–63, Cl. 99—54.

Rivoche, Eugene J., to Rivark Research and Development Corp. Method for preparing extruded food products. 3,114,639, 12–17–63, Cl. 99—100.

Rixson, Oscar C., Co., The: *See*—
Cecala, Michael L. 3,101,507.
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Ellis, David H., and Guse. 3,106,743.

Rizo-Patrón R., Alfonso. Process of froth flotation of ores. 3,094,484, 6–18–63, Cl. 209—166.

Rizzo, Harry F.: *See*—
Weber, Berthold C., and Rizzo. 3,096,187.

Rizzo, Salvatore. Advertising display-card. 3,082,877, 3–26–63, Cl. 211—57.

Rizzotto, Mary P. Snow protector. 3,083,373, 4–2–63, Cl. 2—270.

Roach, Anthony, to Ford Motor Co. Tank for forming battery elements. 3,090,823, 5–21–63, Cl. 136—82.

Roach, Floyd R. Toilet tank flush valve. 3,072,919, 1–15–63, Cl. 4—57.

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Roach, James L., Pape, Eickhoff, and W. F. Roach. 3,108,720.

Roach, James L., W. H. Pape, W. H. Eickhoff, and W. F. Roach, to J. Roach Sons, Inc. Material measuring and bag filling apparatus. 3,108,720, 10–29–63, Cl. 222—318.

Roach, Jerome C.: *See*—
Hackbart, Reuben J., and Roach. 3,073,510.

Roach, Stanley A.: *See*—
Wolff, Heinz S., and Roach. 3,092,583.

Roach, William F.: *See*—
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Robatron Corp.: *See*—
Thomsen, Theodore R. 3,086,158.

Robb, Edward J., and M. C. Langer. Shoe lace fastener. 3,103,752, 9–17–63, Cl. 24—117.

Robb, Frank B., and S. J. Kosik, Jr., to Truck and Trailer Products, Inc. Reinforced splash guard. 3,116,072, 12–31–63, Cl. 280—154.5.

Robb, Harold E., Jr., to The Powers Regulator Co. Temperature sensitive proportional circuit. 3,113,249, 12–3–63, Cl. 317—132.

Robb, James, to The British Oxygen Co. Ltd. Filter unit. 3,088,595, 5–7–63, Cl. 210—304.

Robb, James, to The British Oxygen Co. Ltd. Storage vessel for liquefied gases. 3,103,791, 9–17–63, Cl. 62—45.

Robb, Joseph, & Co., Ltd.: *See*—
Berridge, Frederick L., and Brooks. 3,080,066.

Robb, Walter L., to General Electric Co. Process for producing carbides. 3,077,385, 2–12–63, Cl. 23—208.

Robb, Walter L., to General Electric Co. Process for boron production. 3,115,393, 12–24–63, Cl. 23—209.

Robb, Walter Y., to Crompton & Knowles Corp. Pile wires for looms. 3,092,149, 6–4–63, Cl. 139—46.

Robb, Wayne L.: *See*—
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Robb, Wendell E., to Gordon & Platt, Inc. Gas burner structure. 3,076,497, 2–5–63, Cl. 158—109.

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Robbins, Albert A. Cooling envelope with breakable diaphragm. 3,095,291, 6–25–63, Cl. 62—4.

Robbins, Albert L. Handle lock for stapling devices. 3,095,574, 7–2–63, Cl. 1—49.

Robbins, Alex, to Standard Systems Corp. Electrical connectors for use with printed circuit boards. 3,086,189, 4–16–63, Cl. 339—176.

Robbins Aviation, Inc.: *See*—
Bashe, Jerome T. 3,107,893.

Robbins, Bernard: *See*—
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Keck, Harold P. 3,099,955.

Robbins, Daniel H., and R. K. Walker, to Mergenthaler Linotype Co. Film magazine for phototypographical machines. 3,078,771, 2–26–63, Cl. 95—4.5.

Robbins, Davis. Drilling apparatus. 3,089,549, 5–14–63, Cl. 175—85.

Robbins, Earl D., ⅝ to G. C. Shapley, and ⅝ to H. G. Callow. Drum type freezer for peas and the like. 3,089,316, 5–14–63, Cl. 62—346.

Robbins, Frank H., to General Motors Corp. Variable displacement pump mechanism. 3,077,118, 2–12–63, Cl. 74—60.

Robbins, Frederick P. Material moving apparatus. 3,076,570, 2–5–63, Cl. 214—110.

Robbins, Frederick P. Hinge. 3,088,162, 5–7–63, Cl. 16—180.

Robbins, Jack W.: *See*—
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Keck, Harold P. 3,099,955.

Robbins, James D.: *See*—
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Robbins, James D., and J. K. Lampe, to Coin Saving Systems, Inc. Coin operated banking machine. 3,080,036, 3–5–63, Cl. 194—10.

Robbins, James D., and R. A. Curtis, 43.4% to said Robbins, 31.6% to said Curtis, and 25% to J. De Young. Dry cleaning system. 3,089,325, 5–14–63, Cl. 68—18.

Robbins, James D., F. Kosch, and C. W. Uzarski, to Applied Arts Corp. Hanger vending machine. 3,110,415, 11–12–63, Cl. 221—77.

Robbins, John J., to Rois Mfg. Co., Inc. Drawer-pull and latch assembly. 3,107,958, 10–22–63, Cl. 312—320.

Robbins, Joseph, and F. R. Smith, to United Shoe Machinery Corp. Article handling devices. 3,106,172, 10–8–63, Cl. 104—172.

Robbins, Kenneth C., to Armour & Co. Omega hydroxylation of carboxylic acids. 3,074,854, 1–22–63, Cl. 195—30.

Robbins, Kenneth C., to Armour Pharmaceutical Co. Enzymatic omega carboxylation of fatty acids. 3,080,296, 3–5–63, Cl. 195—30.

Robbins, Leroy V., Jr.: *See*—
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Robbins, Lewis C., and L. G. Smith; said Smith assor. to said Robbins. Safety device for revolvers. 3,085,360, 4–16–63, Cl. 42—66.

Robbins & Myers, Inc.: *See*—
Bourke, John D. 3,084,631.

Robbins, Reginald: *See*—
Potapenko, Gennady. 3,105,733.
Potapenko, Gennady. 3,107,863.
Potapenko, Gennady. 3,107,974.

Robbins, Saul, and I. Heller. Toy helicopters. 3,093,929, 6–18–63, Cl. 46—243.

Robbins, William E. Machine for grinding surface on fifth wheel kingpin. 3,106,807, 10–15–63, Cl. 51—241.

Robbins, Woodrow W. to American Cyanamid Co. Compositions of a pyrazolone azo dye with polyvinylpyrrolidone. 3,086,831, 4–23–63, Cl. 8—42.

Robco Corp.: *See*—
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Eickhoff, Louis. 3,110,385.

Robel, Raymond B., to Aeronautical Radio, Inc. Frequency correcting communication system and method. 3,088,070, 4–30–63, Cl. 325—49.

Roberg, Theodore W. Tile positioner, spacer and guide. 3,081,599, 3–19–63, Cl. 61—11.

Roberson, Clelis L., N. J. Leedy, and J. D. Riley, to Owens-Corning Fiberglas Corp. Apparatus for assorting spherial bodies. 3,104,761, 9–24–63, Cl. 209—87.

Robert, Edmond: *See*—
Desnoyers, Joseph H., and Robert. 3,095,237.

Robert, Jacques G.: *See*—
Jacob, Robert M., and Robert. 3,075,976.
Jacob, Robert M., and Robert. 3,081,305.
Jacob, Robert M., Robert, and Gailliard. 3,082,210.
Tchelitcheff, Serge, Horclois, and Robert. 3,113,131.

Robert, Roger A., and P. P. Matge. Apparatus for storing and firing rocket bombs from aircraft. 3,088,373, 5–7–63, Cl. 89—1.7.

Robert, Roger A., P. P. Matge, deceased, and L. R. P. Jacquot, heir of said Matge. Casing for transporting rocket-bombs from an aircraft. 3,106,863, 10–15–63, Cl. 89—1.7.

Robertella, Joseph R.: *See*—
Curtis, Nicholas, and Robertella. 3,108,156.

Roberti, Michael A., to The Bendix Corp. Magnetic amplifier regulator for a motor generator system. 3,074,001, 1–15–63, Cl. 322—16.

Roberts, Alfred H. Loudspeaker enclosures. 3,112,006, 11–26–63, Cl. 181—31.

Roberts, Allen W., to Bell Telephone Laboratories, Inc. Logic circuitry. 3,084,861, 4–9–63, Cl. 235—175.

Roberts, Bob R., and D. W. Irwin, to Fisher Governor Co. Small high pressure regulator. 3,075,546, 1–29–63, Cl. 137—505.25.

Roberts, Bob R., and W. A. Etter, to Fisher Governor Co. Valve actuator. 3,087,468, 4–30–63, Cl. 121—41.

Roberts, Carleton W., and D. H. Haigh, to The Dow Chemical Co. Oxyesters of 1,2,3,4,9,9-hexachloro-1,4*a*,5,6,7,8,8*a*-octahydro-1,4-methanonaphthylene-6,7-dicarboxylic acid. 3,105,087, 9–24–63, Cl. 260—468.

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Roberts, Cecil P., and J. C. Runco, to Anchor Hocking Glass Corp. Means for sealing threaded-type containers. 3,073,090, 1–15–63, Cl. 53—331.5.

Roberts, Cecil P., and F. V. Hildebrandt, to Anchor Hocking Glass Corp. Cap aligning mechanism. 3,095,957, 7–2–63, Cl. 193—43.

Roberts, Cecil P., and G. J. Foss, to Anchor Hocking Glass Corp. Replaceable sealing machine plunger cover. 3,107,468, 10–22–63, Cl. 53—341.

Roberts, Charles E. Carrier system for transport and delivery along a trackway. 3,102,607, 9–3–63, Cl. 186—1.

Roberts, Charles G. Vibrato device for harvesting earthworms. 3,073,284, 1–15–63, Cl. 116—137.

Roberts, Charles K., to Diebold, Inc. Capacity alarm system. 3,103,003, 9–3–63, Cl. 340—258.

Roberts, Charles K., and C. N. Smith, to Diebold, Inc. Bolt construction for safes, vaults and the like. 3,104,538, 9–24–63, Cl. 70—1.5.

Roberts Dairy Co.: *See*—
Jones, Eynon, Tracy, and Deffenbaugh. 3,093,487.

Roberts Dental Mfg. Co., Inc.: *See*—
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Roberts, Dewey B., to Westinghouse Electric Corp. Controls for refrigeration systems having air cooled condensers. 3,111,815, 11–26–63, Cl. 62—209.

Roberts, Donald E.: *See*—
Mandelkern, Leo, and Roberts. 3,090,735.

Roberts, Douglas, to Witco Chemical Co. Ltd. Process and apparatus for impregnating fibrous materials. 3,084,661, 4–9–63, Cl. 118—50.

Roberts, Eugene, to United States Rubber Co. Anti-mitotic chemotherapeutic compounds. 3,105,009, 9–24–63, Cl. 167—65.

Roberts, Eugene A., to The Armstrong Rubber Co. Tire tread. 3,115,919, 12–31–63, Cl. 152—209.

Roberts, Francis P., to United States of America, Atomic Energy Commission. Adsorption of cerium values from aqueous solutions. 3,100,683, 8–13–63, Cl. 23—23.

Roberts, Frank A. Shade pulls. 3,087,219, 4–30–63, Cl. 24—243.

Roberts, Frank B., and W. F. Genett, to National Co., Inc. Extended bandspread tuning for a communications receiver. 3,089,088, 5–7–63, Cl. 325—455.

Roberts, Franklin B., to Package Machinery Co. Web feeding system. 3,116,032, 12–31–63, Cl. 242—75.43.

Roberts, Fred T. and R. E., to Fred T. Roberts & Co. Corrugated hose with reinforcement in alternate inner corrugations. 3,083,736, 4–2–63, Cl. 138—122.

Roberts, Fred T. and R. E., to Fred T. Roberts & Co. Method of making a reinforced molded flexible hose. 3,084,086, 4–2–63, Cl. 156—143.

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Roberts, Fred T. and R. E. 3,083,736.
Roberts, Fred T. and R. E. 3,084,086.
Roberts, Robert E. 3,076,737.

Roberts, Frederick A.: *See*—
Schoellhorn, Sidney W., and Roberts. 3,087,120.

Roberts, Frederick W. System for operating the motor in a dictating machine and the like. 3,094,882, 6–25–63, Cl. 74—472.

Roberts, Geoffrey: *See*—
Cook, William W., Gibson, Roberts, and Scott. 3,072,999.

Roberts, Glaness B., L. J. Gunyou, and H. H. Schulze, to Avco Corp. Corn saver mechanism for a corn harvester. 3,110,314, 11–12–63, Cl. 130—5.

Roberts, Graham E., to Decca Ltd. Chart position display apparatus. 3,113,313, 12–3–63, Cl. 343—105.

Roberts, Harold P., to The Goodyear Tire & Rubber Co. Process for the manufacture of 2,6-dimethylol-3,5-dimethyl-4-chlorophenol. 3,086,061, 4–16–63, Cl. 260—623.

Roberts, Henry E., to Ross-Tacony Crucible Co. Stopper rod assemblies. 3,103,720, 9–17–63, Cl. 22—85.

Roberts, Howard C.: *See*—
Appel, Theodore B., Jr., and Roberts. 3,085,641.

Roberts, Hugh J., and J. T. Saatkamp, to Corn Products Co. Process for sizing cellulose sheets with a starch derivative bearing vicinal-glycol groups. 3,112,214, 11–26–63, Cl. 117—60.

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Case, John R., Pass, and Roberts. 3,111,537.
Ray, Neil H., and Roberts. 3,086,048.

Roberts, James A.: *See*—
La Vigne, Paul G., Roberts, and Stahl. 3,093,058.

Roberts, James E.: *See*—
Butterworth, Arnold W., and Roberts. 3,095,640.

Roberts, James G.: *See*—
Bush, John J., Mattson, and Roberts. 3,073,022.

Roberts, James M. Reflex fiducial marker in a framing camera. 3,111,879, 11–26–63, Cl. 88—16.

Roberts, James S.: *See*—
Welch, Elmer S., and Roberts. 3,101,435.

Roberts, Jennings B., to Marvel Oil Co., Inc. Upper cylinder lubricator. 3,115,874, 12–31–63, Cl. 123—196.

Roberts, John A., to General Electric Co. Leak detector. 3,071,722, 1–1–63, Cl. 324—33.

Roberts, John A., to General Electric Co. Leak detector. 3,076,139, 1–29–63, Cl. 324—33.

Roberts, John R. Cigarette package. 3,083,820, 4–2–63, Cl. 206—41.

Roberts, Kenneth L. F., to Wade Engineering Ltd. Blowers and motors with cooperating rotors. 3,112,867, 12–3–63, Cl. 230—141.

Roberts, Leslie N., to The Buckeye Steel Castings Co. Hydraulic cushioning device for railway vehicles. 3,110,367, 11–12–63, Cl. 188—96.

Roberts, Lewis S. Drapery support. 3,093,877, 6–18–63, Cl. 24—255.

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Curtis, Charles R., and Roberts. 3,112,974.

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Roberts, Louis W., to Microwave Associates, Inc. Gaseous discharge device. 3,072,866, 1–8–63, Cl. 333—13.

Roberts, Oswald R. Apparatus for determining soil moisture content. 3,091,115, 5–28–63, Cl. 73—73.

Roberts, Paul L. Rotary shower brush. 3,091,776, 6–4–63, Cl. 4—158.

Roberts, Paul T. Peeling machine. 3,112,779, 12–3–63, Cl. 146—43.

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Crawford, George D., Fontaine, and Roberts. 3,076,039
Wychorski, Henry J., and Roberts. 3,082,547.
Wychorski, Henry J., and Roberts. 3,092,808.

Roberts, Ralph L., to Granite Machine Co. Textile picker machine with clutch-controlled driving mechanism. 3,079,098, 2–26–63, Cl. 242—55.1.

Roberts, Ralph R. Portable step attachment for ladders. 3,115,214, 12–24–63, Cl. 182—228.

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Roberts, Fred T. and R. E. 3,084,086.

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Roberts, Roland W., J. Rosa, V. R. Algazi, and H. J. Abrams, to Westinghouse Electric Corp. Bistable amplifier circuit. 3,080,486, 3–5–63, Cl. 307—88.

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Bond, Robert W., Ladd, Roberts, Keller, and Markey. 3,094,299.

Roberts, Sylvia V., and R. D. Bassett. Water temperature selector valve. 3,115,896, 12–31–63, Cl. 137—625.41.

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Webster, Roland C., Roberts, and Rice. 3,101,052.

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Rollins, Gordon C. and Roberts. 3,076,235.

Roberts, Webster C., to Harris-Intertype Corp. Dampening mechanism for lithographic printing press. 3,094,065, 6–18–63, Cl. 101—148.

Roberts, William B., to United States of America, Army. Supplemental seal for garment sealing flap. 3,092,840, 6–11–63, Cl. 2—128.

Roberts, William J. Garden edging tool. 3,093,195, 6–11–63, Cl. 172—16.

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Crafts, Cecil A. 3,111,625.
Good, Arthur L. 3,109,902.
Hild, Henry F., and Manecke. 3,110,789.
McFarlane, Maynard D., and Crafts. 3,112,448.
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Puster, Louis M., and Wagner. 3,107,693.
Rast, Frederick Q. 3,110,777.

Robertshaw-Fulton Controls Co.: *See*—
Bauer, Werner R. Re. 25,351.
Caparone, Michael J., and Dykzeul. 3,087,612.
Coles, Ralph V. 3,091,919.
Crafts, Cecil A., and Goodwin. 3,078,344.
Crossley, Harry E., Jr. 3,101,031.
Daugherty, Robert L. 3,077,542.
Evalds, Egils H. 3,104,385.
Evans, James R., and Jones. 3,076,454.
Good, Arthur L. 3,088,412.
Hild, Henry F., and Manecke. 3,091,838.
Houser, Roy W. 3,090,235.
Morgan, David L. 3,097,604.
Mueller, Klaus P. 3,115,147.
Perkins, Charles H. 3,082,626.
Puster, Louis M. 3,075,537.
Puster, Louis M. 3,080,853.
Revesz, George. 3,077,561.
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Roe, Clarence D. 3,085,140.
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Robertson, Anthony E., and J. T. Hamrick, to Thompson Ramo Wooldridge Inc. Closed power generating system. 3,101,592, 8–27–63, Cl. 60—39.46.

Robertson, Earl J., to Wyandotte Chemicals Corp. Process for spraying a polyether-based polyurethane foam. 3,091,551, 5–28–63, Cl. 117—105.5.

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Rauner, Frederick J., Rosati, and Robertson. 3,100,702.
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Robertson, Elmer W., to Elrick Rim Co., Inc. Tire mount and gauging means for buffing machine. 3,080,899, 3–12–63, Cl. 144—288.

Robertson, Elmer W., to Elrick Industries, Inc. Combined rasp and brush mount. 3,098,282, 7–23–63, Cl. 29—78.

Robertson, Ernest E. Combustion products condenser. 3,115,852, 12–31–63, Cl. 110—56.

Robertson, H. H., Co.: *See*—
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Clay, Richard H. 3,092,218.
Curran, Bernard E. 3,089,649.
Fork, Frank W. 3,082,470.
Fork, Frank W. 3,084,480.
Fork, Frank W. 3,104,737.
Harris, Robert E. 3,081,657.
Hubbell, Dean S., and Weaver. 3,079,265.
Jentoft, Arthur P. 3,078,781.
Mote, Roy F. 3,080,022.
Mote, Roy F. 3,102,611.
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Shelby, Wallace A., Jr. 3,102,610.
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Robertson, Haney M., and J. E. Ingle, to Maxon Construction Co., Inc. Dump truck. 3,101,974, 8–27–63, Cl. 298—17.6.

Robertson, James A., to FMC Corp. Production of cyanuric acid. 3,107,244, 10–15–63, Cl. 260—248.

Robertson, James B. Shell holder. 3,082,660, 3–26–63, Cl. 86—44.

Robertson, Jerry E., to Lakeside Laboratories, Inc. Aminoalkylbiguanides. 3,111,514, 11–19–63, Cl. 260—239.

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Robertson, John D., to Mount Hope Machinery Co. Table roll. 3,094,769, 6–25–63, Cl. 29—116.

Robertson, John D., to Mount Hope Machinery Co. Table roll with means for removing longitudinal curvature. 3,094,771, 6–25–63, Cl. 29—116.

Robertson, John D., and R. H. Foster, to Mount Hope Machinery Co. Sensing device for web guiding mechanisms. 3,071,157, 1–1–63, Cl. 137—625.24.

Robertson, John D., and R. H. Foster, to Mount Hope Machinery Co. Web guiding method and apparatus. 3,095,131, 6–25–63, Cl. 226—190.

Robertson, John D., and G. P. Knapp, to Mount Hope Machinery Co. Table roll with means for removing longitudinal curvature. 3,099,072, 7–30–63, Cl. 29—116.

Robertson, Joseph F. Scaffold. 3,084,761, 4–9–63, Cl. 182—178.

Robertson Paper Box Co., Inc.: *See*—
Tyrseck, Walter J., and Hackenberg. 3,089,631.
Tyrseck, Walter J., and Hackenberg. 3,108,733.
Tyrseck, Walter J., and Hackenberg. 3,116,004.

Robertson Photo-Mechanix, Inc.: *See*—
Keller, Daniel F., and Beck. 3,083,622.
Keller, Daniel F., and Beck. 3,098,765.
Wanlelista, Walter. 3,089,385.
Wanlelista, Walter, and Sippel. 3,077,141.
Wanlelista, Walter, and Sippel. 3,110,491.

Robertson, Richard C.: *See*—
Wells, Edward C., and Robertson. 3,077,316.

Robertson, Russell R. Practice apparatus for developing a correct golf stroke. 3,104,108, 9–17–63, Cl. 273—192.

Robertson, Thomas: *See*—
Blackhall, Douglas J. W., and Robertson. 3,088,705.

Robertson, Thomas A., to The Firestone Tire & Rubber Co. Tire tread construction. 3,095,024, 6–25–63, Cl. 152—209.

Robertson, William A., and J. J. Costello. Compound zinc plate. 3,075,291, 1–29–63, Cl. 33—174.

Robeson, Charles D., to Eastman Kodak Co. Sterol and piperazine complexes and process for the preparation thereof. 3,092,624, 6–4–63, Cl. 260—239.5.

Robeson, Charles D., to Eastman Kodak Co. Water-dispersible vitamin preparations. 3,102,078, 8–27–63, Cl. 167—81.

Robichaux, Roy P., to Lakeville Creameries, Inc. Butter churning apparatus and method. 3,109,740, 11–5–63, Cl. 99—119.

Robillard, Jean J. A., to Motorola, Inc. Electrophotographic system. 3,088,883, 5–7–63, Cl. 204—18.

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Nodwell, William B. 3,090,510.
Nodwell, William B. 3,113,805.
Van Dijk, Willem L. M. 3,081,472.

Robinette, Chester W., to Getz Exterminators, Inc. Powder distributors. 3,100,362, 8–13–63, Cl. 43—146.

Robinette, Hillary, Jr., to Robinette Research Laboratories, Inc. Low viscosity quaternary ammonium ethosulfate compositions and methods. 3,113,956, 12–10–63, Cl. 260—459.

Robinette Research Laboratories, Inc.: *See*—
Robinette, Hillary, Jr. 3,113,956.

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Parker, Humphrey F., and Robins. 3,094,943.
Parker, Humphrey F., Robins, and Church. 3,074,356.

Robins, Erford E., and F. H. Heyden, Jr., to Columbus McKinnon Corp. Hoist brake. 3,090,601, 5–21–63, Cl. 254—169.

Robins, John S., 4th, to E. K. Erskine. Styptic bandage. 3,113,568, 12–10–63, Cl. 128—156.

Robins, John W., to Worthington Corp. Pneumatic servopositioner unit. 3,100,399, 8–13–63, Cl. 73—391.

Robins, Milton, to M. F. Steward. Method and apparatus for pressure testing aerosol containers. 3,091,958, 6–4–63, Cl. 73—45.2.

Robinsky, Ell L., and H. A. Holland, to Raymond Concrete Pile Co. Ltd. Earth boring auger and sampler. 3,095,051, 6–25–63, Cl. 175—270.

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Robinson, Alfred J., and W. L. Haden, to Minerals & Chemicals Philipp Corp. Method for producing rounded contact masses. 3,078,518, 2–26–63, Cl. 18—47.5.

Robinson, Alvin E. Bow holder. 3,103,213, 9–10–63, Cl. 124—30.

Robinson, Bert N., to W. E. Stone & Co., Inc. Process for controlling warehouse atmosphere. 3,107,171, 10–15–63, Cl. 99—154.

Robinson, Brian. Flashlight mounting bracket. 3,106,348, 10–8–63, Cl. 240—6.41.

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Robinson, Cecil H.: *See*—
Reimann, Hans, and Robinson. 3,076,829.

Robinson, Cecil H., and E. P. Oliveto, to Schering Corp. Novel 5,9-cyclo-1,11-oxidosteroids and methods for their manufacture. 3,081,299, 3–12–63, Cl. 260—239.55.

Robinson, Charles E., to Anaconda American Brass Co. Spring contact element. 3,111,568, 11–19–63, Cl. 200—130.

Robinson, Charles F.: *See*—
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Robinson, Charles F., to Consolidated Electrodynamics Corp. Refractometry apparatus. 3,075,426, 1–29–63, Cl. 88—14.

Robinson, Charles G.: *See*—
Dillon, Paul W., Stewart, Bosco, and Robinson. 3,078,325.

Robinson, Charles G., to Northwestern Steel and Wire Co. Electric arc control. 3,097,252, 7–9–63, Cl. 13—13.

Robinson, Charles G., to Northwestern Steel and Wire Co. Method and means for electric melting. 3,101,385, 8–20–63, Cl. 13—33.

Robinson, Charles G., to Northwestern Steel and Wire Co. Means of increasing arc power and efficiency of heat transfer. 3,105,864, 10–1–63, Cl. 13—9.

Robinson, Charles K., to Ferry-Morse Seed Co. Combined seed planter box, packet, and container. 3,078,985, 2–26–63, Cl. 206—47.

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Gray, Frank, Robinson, and Collins. 3,073,518.

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Robinson, David A., to Airpax Electronics Inc. Electromechanical chopper. 3,115,562, 12–24–63, Cl. 200—90.

Robinson, David B., to Diamond National Corp. Molded pulp article denesting machine. 3,091,362, 5–28–63, Cl. 221—36.

Robinson, David E., to Time, Inc. Flow distributor. 3,076,502, 2–5–63, Cl. 162—339.

Robinson, Donald B., to Joy Mfg. Co. Wiring device. 3,087,135, 4–23–63, Cl. 339—184.

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Margraf, Harry J., Robinson, and Berglund. 3,078,803.

Robinson, Earl H. Cloth reel. 3,087,607, 4–30–63, Cl. 206—50.

Robinson, Edward L., and R. H. Shimwell, to Simms Motor Units Ltd. Generator control system. 3,108,217, 10–22–63, Cl. 322—28.

Robinson, Ernest Y.: *See*—
Godsil, Edward C., and Robinson. 3,097,543.

Robinson, Frank N. H. Nuclear resonance absorption apparatus. 3,112,441, 11–26–63, Cl. 324—.5.

Robinson, Franklin P.: *See*—
Russell, Lee E., and Robinson. 3,095,100.

Robinson, Glen: *See*—
Curtis, Gerald R., Robinon, and Bahgh. 3,077,571.

Robinson, Glen P., Jr.: *See*—
Langan, John F., and Robinson. 3,103,756.

Robinson, Harry A., to Robble, Inc. Traffic directing flashlight. 3,114,143, 12–10–63, Cl. 340—321.

Robinson, Harry A. Weed cutter and chopper attachment. 3,115,741, 12–31–63, Cl. 56—503.

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Chambers, John M., and Robinson. 3,075,890.

Robinson, Harry F.: *See*—
Niekamp, Richard A., and Robinson. 3,112,079.

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Robinson, Herman L. Drainage receiver. 3,074,404, 1–22–63, Cl. 128—283.

Robinson, Ivan M.: *See*—
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Robinson, John A., to A.E.I.-John Thompson Nuclear Energy Co. Ltd. Temperature measurement apparatus for a nuclear reactor fuel element. 3,087,886, 4–30–63, Cl. 204—193.2.

Robinson, John L., to Philco Corp. Method and system for encoding a signal into binary code groups. 3,089,134, 5–7–63, Cl. 340—347.

Robinson, John L., to Philco Corp. Pattern suppressed ring counters. 3,108,227, 10–22–63, Cl. 328—43.

Robinson, John L., to Philco Corp. Switching system for current-switching transistor multivibrator. 3,114,053, 12–10–63, Cl. 307—88.5.

Robinson, John L., and A. K. Rapp, to Philco Corp. High-speed transistor multivibrator circuit having constant-current biasing to prevent complete cut-off of emitter current. 3,076,105, 1–29–63, Cl. 307—88.5.

Robinson, John W., Jr., to E. I. du Pont de Nemours and Co. Process of after tanning with chromium Werner type complex. 3,102,772, 9–3–63, Cl. 8—94.27.

Robinson, Joseph V.: *See*—
Sosoka, John R., and Robinson. 3,100,832.

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Robinson, Kenneth A., to Lancashire Dynamo Electronic Products Ltd. Electromechanical signalling apparatus. 3,079,548, 2–26–63, Cl. 323—109.

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Robinson, La Roy E., to Continental Machines, Inc. Combination saw guide and coolant applicator for band sawing machines. 3,104,576, 9–24–63, Cl. 83—169.

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Robinson, Mayes R. Cultivator tool holder. 3,101,122, 8–20–63, Cl. 172—556.

Robinson, Mott L. Apparatus and method for forming monolithic pipe. 3,091,013, 5–28–63, Cl. 25—32.

Robinson, Norland W. Door frame. 3,086,628, 4–23–63, Cl. 189—46.

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Robinson, Preston, and R. J. Millard, to Sprague Electric Co. Electrolytic capacitors. 3,082,360, 3–19–63, Cl. 317—230.

Robinson, Ralph C.: *See*—
Ring, Thomas F., and Robinson. 3,109,280.

Robinson, Ralph L., to Imperial Chemical Industries Ltd. Catalysts and process for the selective hydrogenation of acetylenes. 3,113,980, 12–10–63, Cl. 260—683.

Robinson, Ralph L., and W. R. Smith, to Imperial Chemical Industries Ltd. Two-stage selective hydrogenation of acetylenes. 3,116,342, 12–31–63, Cl. 260—677.

Robinson, Ralph M.: *See*—
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Robinson, Ralph M., and L. McKeage, to Abbott Laboratories. High temperature regeneration of rhodium catalyst. 3,071,551, 1–1–63, Cl. 252—411.

Robinson, Ralph O., Jr., to United States of America, Navy. Radome structure. 3,081,051, 3–12–63, Cl. 244—14.

Robinson, Ralph O., Jr., to United States of America, Navy. Toroidal coil influence oscillator. 3,089,421, 5–14–63, Cl. 102—70.2.

Robinson, Ralph O., Jr., to United States of America, Navy. Oscillator. 3,092,028, 6–4–63, Cl. 102—70.2.

Robinson, Ralph O., Jr., and T. W. Sheppard, to United States of America, Navy. Protective cover for an aerial missile. 3,080,817, 3–12–63, Cl. 102—92.5.

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Conger, Joseph C., Sr., Robinson, and Kelly. 3,114,726.

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Nobis, John F., Mador, and Robinson. 3,111,545.

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Davis, Charles R. 3,073,557.

Robinson, Thomas R., Jr., to The Marlin Firearms Co. Rifled gun barrel. 3,100,358, 8–13–63, Cl. 42—78.

Robinson, Walter H., Jr., to The Stanley Works. Utility knife. 3,107,426, 10–22–63, Cl. 30—162.

Robinson, Warn D., to Monsanto Chemical Co. Catalytic production of maleic and phthalic anhydride. 3,106,569, 10–8–63, Cl. 260—346.4.

Robinson, Wayne W., to Edcliff Instruments. Hard backing bar for adjustable wire wound systems. 3,116,470, 12–31–63, Cl. 338—180.

Robinson, William H. Molding apparatus. 3,103,039, 9–10–63, Cl. 18—30.

Robinson, William H., and C. R. Scheuring, to Buckeye Molding Co. Container. 3,080,964, 3–12–63, Cl. 206—46.

Robinson, William J., and R. W. Guyer, Jr., to Waldorf Paper Products Co. Carrying container. 3,078,032, 2–19–63, Cl. 229—52.

Robinson, William T. Outlet box supports. 3,082,987, 3–26–63, Cl. 248—205.

Robisch, Norman G.: *See*—
Wolfe, Gene R., and Robisch. 3,106,524.

Robischung, Philip J., and D. E. Sutton, to Hammond Machinery Builders, Inc. Electrolytic grinding machine. 3,115,454, 12–24–63, Cl. 204—224.

Robison, Michael M., H. B. MacPhillamy, and R. A. Lucas, to Ciba Corp. 18β-desoxy-18-oxo- and 18-oximino-reserpates. 3,093,648, 6–11–63, Cl. 260—287.

Robison, Paul C.: *See*—
Samulon, Henry A., and Robison. 3,076,861.

Robison, Samuel B.: *See*—
Fusco, James V., Robison, and Miller. 3,093,613.
Gardner, Irwin J., Robison, and Gleason. 3,081,332.

Robledano, Pablo: *See*—
Roxas, Pedro G. 3,083,365.

Roblee, Leland H. S., Jr., to Esso Research and Engineering Co. Temperature measuring instrument. 3,100,996, 8–20–63, Cl. 73—362.

Roblee, Leland H. S., Jr., and S. C. Sperling, to Esso Research and Engineering Co. Apparatus for and method of sampling intermediate products of chemical reactions. 3,075,391, 1–29–63, Cl. 73—421.5.

Roblee, Leland H. S., Jr., J. V. Clarke, Jr., and C. W. Foust, to Esso Research and Engineering Co. Process for improving diffusion electrodes. 3,098,762, 7–23–63, Cl. 117—228.

Robot-Foto G.m.b.H. & Co.: *See*—
Tredopp, Karl. 3,088,388.

Robot Foto und Elektronik G.m.b.H., & Co., KG: *See*—
Berning, Hans-Heinrich, Tredopp, and Stoff. 3,111,886.

Robotron Corp.: *See*—
Archer, George R. 3,094,608.
Rockafellow, Stuart C. 3,075,094.
Rockafellow, Stuart C. 3,087,047.
Rockafellow, Stuart C. 3,106,682.
Rockafellow, Stuart C. 3,112,437.

Robra, Helmut: *See*—
Schiffers, Josef, Robra, and Driesel. 3,102,672.

Robson, Anthony E.: *See*—
Thonemann, Peter C., Robson, and Hall. 3,105,031.

Robson, Aubrey H., to American Air Filter Co., Inc. Control system for air heater. 3,076,604, 2–5–63, Cl. 236—10.

Robson, John, to Reynolds Metals Co. Metering dispensing carton. 3,090,532, 5–21–63, Cl. 222—456.

Robson, Norman S., to Trabon Engineering Corp. Cyclic lubricating means. 3,074,509, 1–22–63, Cl. 184—7.

Robson, Walter A.: *See*—
Peck, Merrill V., and Robson. 3,104,578.

Roby, Frank H.: *See*—
Cole, Thomas M., Roby, and Norden. 3,097,326.

Roby, Robert L., to Accurate Products Co. Inc. Pressure tube for traffic indicator. 3,090,404, 5–21–63, Cl. 138—119.

Rocard, Yves A., to Hupp Corp. Infra-red radiant energy devices. 3,111,587, 11–19–63, Cl. 250—199.

Rocchini, Albert G., and C. E. Trautman, to Gulf Research & Development Co. Non-corrosive vanadium-containing fuels. 3,078,662, 2–26–63, Cl. 60—39.02.

Rocchini, Albert G., and C. E. Trautman, to Gulf Research & Development Co. Residual fuels containing alkali metal and calcium, barium or strontium compounds. 3,078,663, 2–26–63, Cl. 60—39.02.

Rocchini, Albert G., and C. E. Trautman, to Gulf Research & Development Co. Residual fuels containing alkali metal compounds as corrosion retarders. 3,078,664, 2–26–63, Cl. 60—39.02.

Rocchini, Albert G., and C. E. Trautman, to Gulf Research & Development Co. Vanadium containing residual fuels modified with iron, cobalt or nickel and alkali metal compounds. 3,078,665, 2–26–63, Cl. 60—39.02.

Rocco, Joseph. Illuminated dancing shoe. 3,070,907, 1–1–63, Cl. 36—8.3.

Roch, Josef, and G. Beisenherz, to Dr. Karl Thomae G.m.b.H. Basic-substituted pyrimido-[5,4-D]-purimidines. 3,074,928, 1–22–63, Cl. 260—210.

Rochar Electronique: *See*—
Charbonnier, Roger. 3,080,501.

Roche, Andre, P. Grancher, J. Gajac, and R. Becanne, to French State, Minister of Armies (Powder Department). Process for the recovery of pentaerythrite. 3,096,377, 7–2–63, Cl. 260—637.

Roche, Arthur F.: *See*—
Lang, John L., Jones, and Roche. 3,080,348.

Roche, Edouard: *See*—
Barth, Jacques, and Roche. 3,072,555.

Roche, Irvan D., to E. I. du Pont de Nemours and Co. Process for coating porous material with a microporous elastomeric polymer dissolved in a volatile mixture of a ketone and a volatile aliphatic hydrocarbon. 3,109,750, 11–5–63, Cl. 117—98.

Roche, James L.: *See*—
Mennle, Cecil A. 3,073,605.

Roche, Melvin E., to The Harvard Mfg. Co. Arm or headboard support for divans and the like. 3,098,243, 7–23–63, Cl. 5—52.

Roche, Melvin E., to The Harvard Mfg. Co. Bedframe having snap-in leg means. 3,105,976, 10–8–63, Cl. 5—285.

Roche, Roland: *See*—
Aubert, Michel, Foglia, and Roche. 3,100,743.
Aubert, Michel, and Roche. 3,085,965.
Vrillon, Bernard, and Roche. 3,108,053.

Rochen, Leo K. Alkyl acid phosphate salts. 3,107,262, 10–15–63, Cl. 260—461.

Rochester Button Co.: *See*—
Young, Darcy A., Jr. 3,098,584.

Rochester Institute of Technology: *See*—
Archer, Harold B. 3,085,878.

Rochester, John C. O., to The Plessey Co. Ltd. Circuit for producing output signal as a function of plural, varied-sloped inputs. 3,089,093, 5–7–63, Cl. 328—178.

Rochester Mfg. Co., Inc.: *See*—
Huston, William D., and Belsheim. 3,091,966.

Rochester, Nathaniel: *See*—
Meyers, Norman H., Rochester, and Schlig. 3,086,130.

Rochester Ropes, Inc.: *See*—
Stein, John E., and Ingram. 3,103,704.

Rocheville, Charles F., to Microseal Products, Inc. Device for treating the surface of a workpiece. 3,100,724, 8–13–63, Cl. 118—308.

Rochla, Kurt, to Windmoller & Holscher. Machine for winding continuous sheet material. 3,112,085, 11–26–63, Cl. 242—56.

Rochlitz, Fritz: *See*—
Heuck, Claus, Rochlitz, Mauz, Winter, and Schulde. 3,100,197.
Heuck, Claus, Rochlitz, Schmidt, Vilcsek, and Winter. 3,097,184.

Rochow, Eugene G., to General Electric Co. Polymeric silazanes. 3,098,830, 7–23–63, Cl. 260—2.

Rock, Harvey R., to United States of America, Atomic Energy Commission. Composite control rod. 3,115,452, 12–24–63, Cl. 204—193.2.

Röck, Heinrich, to Suddeutsche Kalkstickstoff-Werke A.G. Process for decreasing the oxide content of commercial calcium carbide. 3,092,460, 6–4–63, Cl. 23—208.

Rock, Jerome R., and K. Sameshima, to Burroughs Corp. Tape guiding means for magnetic tape transports. 3,097,779, 7–16–63, Cl. 226—97.

Rock, Raymond H. Decorative mirror. 3,104,830, 9–24–63, Cl. 240—4.2.

Rockabrand, Claude S. (deceased), H. E. Higginbotham, and A. M. Rockabrand (executrix of said C. S. Rockabrand). Floor pad. 3,114,940, 12–24–63, Cl. 20—6.

Rockafellow, Stuart C., to Robotron Corp. Pulse generation from a three-phase source. 3,075,094, 1–22–63, Cl. 307—106.

Rockafellow, Stuart C., to Robotron Corp. Precharging capacitor for pulse power. 3,087,047, 4–23–63, Cl. 219—114.

Rockafellow, Stuart C., to Robotron Corp. Current peaked pulse generator providing switched D.C. potential of a charged capacitor through an RLC circuit. 3,106,682, 10–8–63, Cl. 328—76.

Rockafellow, Stuart C., to Robotron Corp. Pulse generating circuit. 3,112,437, 11–26–63, Cl. 323—24.

Rockborn, Gunnar, to Behringwerke Aktiengesellschaft. Process for producing a vaccine against distemper. 3,098,011, 7–16–63, Cl. 167—78.

Rocke, William. Hydrotherapy apparatus. 3,085,576, 4–16–63, Cl. 128—369.

Rocker, Elmer, to The J. B. Coggins Mfg. Co. Toilet seat and lid assembly. 3,075,204, 1–29–63, Cl. 4—236.

Rocker, Paula B. Combination garter supporter and back and abdomen supporting means. 3,101,718, 8–27–63, Cl. 128—520.

Rocket Pogo Stick Co.: *See*—
Taylor, Robert B. 3,074,715.

Rocket Power, Inc.: *See*—
Fritz, Stewart J. 3,109,615.
Fritz, Stewart J. 3,118,808.
Hirt, Gerald E. 3,115,320.
Strickland, Royce M., Jr. 3,077,324.

Rocket Research Corp.: *See*—
Bridgforth, Robert M., Jr. 3,112,608.
Bridgforth, Robert M., Jr. 3,112,609.

Rockford Sewing Machine Co.: *See*—
Miller, Lawrence E. 3,083,656.

Rock Island Oil & Refining Co., Inc.: *See*—
Michael, Vesta F. 3,080,700.

Rocklin, Albert L.: *See*—
Morris, Rupert C., Rocklin, and Sax. 3,116,305.

Rocklin, Albert L., to Shell Oil Co. Bisphenol preparation. 3,091,645, 5–28–63, Cl. 260—619.

Rockmont Envelope Co.: *See*—
Tucker, Carl L., and Hopkin. 3,086,694.

Rock of Ages Corp.: *See*—
Ferris, Cyrus Y., Jr. Re. 25,496.

Rockola, David C., to Rock-Ola Mfg. Corp. Automatic phonograph. 3,074,725, 1–22–63, Cl. 274—10.

Rockola, David C., to Rock-Ola Mfg. Corp. Selectively operable control mechanism for automatic phonographs. 3,085,228, 4–9–63, Cl. 340—147.

Rockola, David C., R. Petri, and H. Sifferle, to Rock-Ola Mfg. Corp. Automatic phonograph with coin controlled mechanism. 3,082,853, 3–26–63, Cl. 194—15.

Rock-Ola Mfg. Corp.: *See*—
Murphy, Francis T. 3,100,035.
Rockola, David C. 3,074,725.
Rockola, David C. 3,085,228.
Rockola, David C., Petri, and Sifferle. 3,082,853.
Tobias, Arthur A. 3,095,114.
Totten, John A. 3,086,446.

Rockova, Eva: *See*—
Semonsky, Miroslav, Rockova, and Jelinek. 3,105,850.

Rockovits, John F., 25% to J. J. McGlew and 37½% to G. Tomosy. Self-seal balloon. 3,088,242, 5–7–63, Cl. 46—90.

Rocks, Hugh N., and G. M. Snyder, to Landis Tool Co. Control wheel motor interlock with loading and ejecting mechanism. 3,081,582, 3–19–63, Cl. 51—103.

Rockstrom, Leonard, to Cameron Machine Co. Anti-deflecting rewind shaft assembly for winding machines. 3,079,101, 2–26–63, Cl. 242—66.

Rocksvold, Alvin N.: *See*—
Matteoli, Albert J., and Rocksvold. 3,091,297.

Rockwell, Adelbert W., Jr., to United Shoe Machinery Corp. Heel and shank lasting machines. 3,082,448, 3–26–63, Cl. 12—10.2.

Rockwell, Adelbert W., Jr., to United Shoe Machinery Corp. Heel end assembling and backpart molding machine. 3,096,531, 7–9–63, Cl. 12—10.2.

Rockwell, Albert M., to United Aircraft Corp. Compressor rotor construction. 3,104,092, 9–17–63, Cl. 253—38.

Rockwell, Edward A. Hydraulic system. 3,091,931, 6–4–63, Cl. 60—54.5.

Rockwell, Frank H.: *See*—
Bottum, Edward W., and Rockwell. 3,084,523.

Rockwell, Harvey W., to Allis-Chalmers Mfg. Co. Cutting blade for excavator. 3,103,752, 9–17–63, Cl. 37—144.

Rockwell Mfg. Co.: *See*—
Allen, Herbert. 3,071,842.
Born, Lester R., Jr., and Weikart. 3,095,678.
Farrell, Thomas C., and Rittenhouse. 3,078,875.
Farrell, Thomas C., and Rittenhouse. 3,109,882.
Hague, Robert Z., Kariby, and Newbury. 3,093,807.
Hill, Max L. 3,088,706.
Jaxbutis, Anatolijus, and Crommelin. 3,108,884.
Lofink, Raymond P. 3,115,068.
Manor, Paul A. 3,099,287.
Manor, Paul A., and Staller. 3,115,151.
McGay, John B., and Stoops. 3,082,596.
Morris, William A. 3,088,812.
Pierce, Gilbert L. 3,106,116.
Pierce, Gilbert L. 3,109,319.
Rosenberger, Albert J. 3,110,320.
Scherer, George F. 3,107,219.
Scherer, George F., and Bierwagen. 3,090,751.
Smoot, Charles H., Berger, Adams, and Swanson. 3,115,778.
Wolfensperger, Adolph. 3,096,070.
Wolfensperger, Adolph. 3,101,191.

Rockwell, Robert G.: *See*—
Fiedor, Adolph J., and Rockwell. 3,104,341.

Rockwell, Ross R. Foam type surface cleaner and method of cleaning surfaces. 3,079,285, 2–26–63, Cl. 134—10.

Rockwell-Standard Corp.: *See*—
Bixby, Leo A. 3,093,417.
Bixby, Leo A. 3,095,758.
Brown, Raymond W. 3,087,718.
Gonia, August T., Fante, and Shepard. 3,104,685.
Greene, Robert R., and Rowland. 3,079,139.
Hanley, William G. 3,076,683.
Hanley, William G., and Fisher. 3,076,531.
Herider, Elmer A., and Tabor. 3,114,576.
House, Bryan E. 3,071,979.
House, Bryan E. 3,114,437.
House, Bryan E., and Cumming. 3,101,133.
James, Jimmie, and Herider. 3,104,911.
Kateley, Francis W. 3,112,959.
Mather, Glenn E. 3,080,177.
Mathews, George P., and Nehr. 3,081,844.
Pitts, Kennard, and Stiebel. 3,103,630.
Scheel, Walther F. 3,095,950.
Schou, Carl E. 3,099,166.
Sobeck, Harold R. 3,085,381.
Stiebel, Ariel I. 3,079,595.
Walton, George M. 3,070,986.

Rockwood, Albert M., and D. M. Cowan, to Ten Council of the United States of America, Inc. Valve assembly including actuating mechanism therefor. 3,088,490, 5–7–63, Cl. 137—637.

Rockwood & Co.: *See*—
Hazen, Gretzolon L. 3,075,657.

Rock Wool Engineering and Equipment Co., Inc.: *See*—
Overman, Earl R. 3,076,369.

Roda, Dominick A., to Talon, Inc. Shoe construction. 3,078,600, 2–26–63, Cl. 36—50.

Rodale Mfg. Co., Inc.: *See*—
Schmier, Jacob. 3,094,867.
Schmier, Jacob, and Lewis. 3,073,933.

Rodbard, Simon. Surgical clamp. 3,111,124, 11–19–63, Cl. 128—346.

Rodd, Peter T.: *See*—
Stevens, Richard W., and Rodd. 3,111,276.

Roddy, John J., to Skinner Precision Industries, Inc. Indexing chuck. 3,096,097, 7–2–63, Cl. 279—5.

Rode, Heinz, to W. R. Grace & Co. Method of prolonging the shelf life of cottage cheese. 3,111,410, 11–19–63, Cl. 99—116.

Rodek, Victor, to General Dynamics Corp. Adjustable piezoelectric wave filter having two resonance peaks. 3,109,153, 10–29–63, Cl. 333—72.

Roden, William F.: *See*—
Selle, Bernard G. 3,092,301.

Rodenacker, Wolf, to Farbenfabriken Bayer Aktiengesellschaft. Process for stretching filaments. 3,084,393, 4–9–63, Cl. 18—48.

Rodenbeck, Donald: *See*—
Mehki, Alvin L., and Rodenbeck. 3,078,937.

Rodenbeck, Lorence: *See*—
Mehki, Alvin L., and Rodenbeck. 3,078,937.

Roder, Georg: *See*—
Neander, Erich, and Roder. 3,073,962.

Roder, Karl, to Goebel G.m.b.H., Maschinenfabrik. Roll slitting and rewinding machines. 3,090,576, 5–21–63, Cl. 242—67.1

Roderick, George J.: *See*—
Way, David G. 3,107,433.

Roderick, Miriam Y.: *See*—
Yates, Charles G., Jr., and Roderick. 3,072,370.

Rodes, John A.: *See*—
Peterson, Evald O., Rodes, and Perry. 3,090,055.

Rodewald, Arnold, to Emil Haefely & Cie. A.G. Circuit arrangements for the damping of excess voltages in shock potential generators. 3,073,973, 1–15–63, Cl. 307—110.

Rodgers, Arthur: *See*—
Newmiller, Milford E., Rodgers, and Selan. 3,101,188.

Rodgers, Arthur, C. E. Fallis, and H. W. Huthsing, to The Fire Guard Corp. Pressurized gas valve unit. 3,086,547, 4–23–63, Cl. 137—466.

Rodgers, Arthur, and C. E. Fallis, to Fire Guard Corp. Pressurized fluid coupling means. 3,093,357, 6–11–63, Cl. 251—149.4.

Rodgers, Felix C., to Chemetron Corp. Method and apparatus for preserving an adequate supply of CO_2 for fire protection. 3,097,499, 7–16–63, Cl. 62—55.

Rodgers, Frank J. Drafting instrument. 3,111,765, 11–26–63, Cl. 33—108.

Rodgers Hydraulic Inc.: *See*—
Pahl, James H. 3,099,130.
Quarve, Vernon K. 3,108,507.
Quarve, Vernon K., and Rodgers. 3,075,346.
Rodgers, James S. 3,097,477.

Rodgers, James S., to Rodgers Hydraulics Inc. Track press and track assembly tool therefor. 3,097,477, 7–16–63, Cl. 59—7.

Rodgers, John L., Jr.: *See*—
Quarve, Vernon K., and Rodgers. 3,075,346.

Rodgers, Marion E., Jr., to North American Aviation, Inc. Fastener. 3,078,002, 2–19–63, Cl. 218—29.

Rodgers, Otis N., W. F. Olson, and W. R. Wheeler, Jr., to American Iron & Machine Works Co., Inc. Valve with means for controlling and indicating wear. 3,092,139, 6–4–63, Cl. 137—533.29.

Rodi & Wienenberger A.G.: *See*—
Benaglio, Osvaldo. 3,102,401.
Weiss, Erwin. 3,112,606.
Wolf, Willy. 3,084,503.
Wolfinger, Kurt. 3,099,908.

Rodier, Robert W.: *See*—
Martin, John O., and Rodier. 3,093,092.

Rodin, Walter H. Overheated journal box detection system comprising radioactive source and detector. 3,090,859, 5–21–63, Cl. 246—169.

Rodis, Franz: *See*—
Beltz, Klaus, and Rodis. 3,086,844.
Beltz, Klaus, Rodis, and Thomas. 3,081,150.
Bielenberg, Waldemar, Rodis, Ziegler, Dronsek, and Hins. 3,100,106.

Rodis, Franz, and J. Cremer, to Knapsack-Griesheim Aktiengesellschaft. Process for the manufacture of active silicic acid from a high-percent silicate slag. 3,110,564, 11–12–63, Cl. 23—182.

Rodish, John: *See*—
Brickner, William H., and Rodish. 3,093,286.

Rodish, John, to The Mead Corp. Fibrous cylindrical containers having reinforced end structures. 3,107,037, 10–15–63, Cl. 229—5.6.

Rodloff, Günther: *See*—
Krüger, Fritz, Mainz, and Rodloff. 3,103,429.

Rodmaker, Gerald M., and W. R. Wedding, to Joseph H. Spaulding. Lighting fixture mounting means. 3,108,751, 10–29–63, Cl. 240—51.11.

Rodman, James P. Sausage cooker. 3,090,294, 5–21–63, Cl. 99—427.

Rodney, Longin: *See*—
Belicka, Michael E., Kenny, and Rodney. 3,101,505.

Rodrigues, Anthony F., and E. R. Anderson, to Filper Corp. Orienting apparatus and method for orienting whole fruit having depressions at their stem and blossom ends. 3,101,-533, 8–27–63, Cl. 198—33.

Rodriguez, Emil, to Jacoby-Bender, Inc. Structure for releasable attachment of bracelet sections. 3,084,412, 4–9–63, Cl. 24—265.

Rodriguez, Enos S. Battery carriers. 3,084,968, 4–9–63, Cl. 294—92.

Rodriguez, Jose, and R. Rodriguez; said R. Rodriguez assor. to said J. Rodriguez. Stem splitter and grader for cherries. 3,115,169, 12–24–63, Cl. 146—1.

Rodriguez, Jose, and R. Rodriguez; said R. Rodriguez assor. to said J. Rodriguez. Cherry cluster cutting machine. 3,115,170, 12–24–63, Cl. 146—1.

Rodriguez, Rudolph: *See*—
Rodriguez, Jose and R. 3,115,169.
Rodriguez, Jose and R. 3,115,170.

Rodway, John: *See*—
Packer, Mervyn R., Prestidge, Rodway, and Parnell 3,093,422.

Rodwell, William: *See*—
Fawcett, Sydney, and Rodwell. 3,093,398.

Rodwell, William, to United Kingdom Atomic Energy Authority. Nuclear reactor moderator structures. 3,105,-805, 10–1–63, Cl. 204—193.2.

Rodwick, Frank P., and N. T. Thome, to The Silex Co. Coffee brewer. 3,093,061, 6–11–63, Cl. 99—281.

Roe, Charles A. and R. R. Trailer light support. 3,083,292, 3–26–63, Cl. 240—8.3.

Roe, Clarence D., to Robertshaw-Fulton Controls Co. Encapsulated switch. 3,085,140, 4–9–63, Cl. 200—168.

Roe, Elverton O., and R. C. Carneck, to General Industries Co. Electric motors. 3,075,109, 1–22–63, Cl. 310—239.

Roe, Justus, and Sons, Inc.: *See*—
Roe, Justus G. 3,078,058.
Roe, Justus G. 3,084,622.

Roe, Justus G., to Justus Roe and Sons, Inc. Tape measure. 3,078,058, 2–19–63, Cl. 242—84.8.

Roe, Justus G., to Justus Roe and Sons, Inc. Printing machines. 3,084,622, 4–9–63, Cl. 101—228.

Roe, Paul S., to The Bendix Corp. Automatic adjuster. 3,075,620, 1–29–63, Cl. 188—71.

Roe, Ralph C., to Burns and Roe, Inc. Combined gas and steam power cycle. 3,097,486, 7–16–63, Cl. 60—39.18.

Roe, Ralph C., J. Lichtenstein, and T. Y. Mullen, to Burns and Roe, Inc. Heat storage and steam generating unit. 3,108,577, 10–29–63, Cl. 122—33.

Roe, Robert R.: *See*—
Roe, Charles A and R. R. 3,083,292.

Roe, Thorndyke, Jr.: *See*—
Hochman, Harry, Roe, and Vind. 3,111,456.

Roeber, William H.: *See*—
Gustafson, Carl L. 3,107,475.

Roebuck, Alan K., and B. L. Evering, to Standard Oil Co. Paraffin alkylation process. 3,075,028, 1–22–63, Cl. 260—683.53.

Roeder, George K., to Roeder Hydraulics, Inc. Well pumps. 3,096,717, 7–9–63, Cl. 103—46.

Roeder Hydraulics, Inc.: *See*—
Roeder, George K. 3,096,717.

Roeder, John, Jr.: *See*—
Phillips, Benjamin A., and Roeder. 3,078,690.

Roeder, Joseph A.: *See*—
Campbell, Hobart T., Monahan, and Roeder. 3,104,765.

Roediger, Charles L., and B. T. Groome, to Star Paper Tube, Inc. Apparatus for making convolute paper tubes and method. 3,073,218, 1–15–63, Cl. 93—81.

Roehl, Edward J., to Pittsburgh Steel Co. Strip and method for manufacturing Bundy tubing and method of making the same. 3,078,560, 2–5–63, Cl. 29—476.5.

Roehl, Ernest O., to Baron Industries. Degreasing apparatus. 3,111,952, 11–26–63, Cl. 134—105.

Roehr, Zbislaw M., to Brunswick Corp. Medicinal vial and needle assembly. 3,074,541, 1–22–63, Cl. 206—43.

Roehr, Zbislaw M., to Brunswick Corp. Needle with molded hub. 3,093,134, 6–11–63, Cl. 128—221.

Roehr, Zbislaw M., to Brunswick Corp. Surgical apparatus. 3,097,647, 7–16–63, Cl. 128—221.

Roehr, Zbislaw M., to Brunswick Corp. Syringe-container structure. 3,107,785, 10–22–63, Cl. 206—63.2.

Roehrig, Phillip J., to The Wurlitzer Co. Piano action. 3,100,416, 8–13–63, Cl. 84—240.

Roehrig, Phillip J., to The Wurlitzer Co. Piano action and materials for making the same. 3,106,861, 10–15–63, Cl. 84—240.

Roelen, Otto, K. Büchner, and J. Meis, to Ruhrchemie Aktiengesellschaft. Catalytic addition of carbon monoxide and hydrogen to olefinic compounds. 3,095,451, 6–25–63, Cl. 260—598.

Roelli, Conrad H., to North American Aviation, Inc. Balanced current series transistor regulator. 3,094,654, 6–18–63, Cl. 323—22.

Roelofs, Henry M.: *See*—
Pearson, Vincent P., McFarland, and Roelofs. 3,074,154.

Roemer, Irving C., to Crown Zellerbach Corp. Two-roll paper dispenser. 3,084,006, 4–2–63, Cl. 312—39.

Roes, Carl W. Fishing lure. 3,079,723, 3–5–63, Cl. 43—42.26.

Roesel, John F., Jr., to Westinghouse Electric Corp. Circuit arrangement for energizing discharge devices. 3,089,981, 5–14–63, Cl. 315—98.

Roeser, Gerald P., to Mobil Finishes Co., Inc. Dimethyl sulfoxide-aromatic hydrocarbon solvent system for vinyl chloride copolymers. 3,109,828, 11–5–63, Cl. 260—30.8.

Roeser, John O., to Illinois Tool Works Inc. Control mechanism. 3,072,769, 1–8–63, Cl. 200—160.

Roeser, John O., to Illinois Tool Works Inc. Snap switch. 3,099,723, 7–30–63, Cl. 200—67.

Roeser, John O. Adjustable switch block assembly. 3,099,-735, 7–30–63, Cl. 200—166.

Roeser, John O., to Illinois Tool Works Inc. Snap switch mechanism. 3,105,885, 10–1–63, Cl. 200—67.

Roethler, Babe H. Magnetic toy for simulating earth working operations. 3,106,042, 10–8–63, Cl. 46—240.

Rogal, Edward, to Universal Controls, Inc. Remote controlled adder/subtracter using coded frequency inputs. 3,072,333, 1–8–63, Cl. 235—168.

Rogal, Edward, to Universal Controls, Inc. Remote controlled arithmetic unit using coded frequency inputs. 3,072,334, 1–8–63, Cl. 235—179.

Rogal, Edward, to Universal Controls, Inc. Information recording apparatus. 3,080,551, 3–5–63, Cl. 340—174.1.

Rogal, Edward, to Universal Controls, Inc. Automatic data sorting devices. 3,081,445, 3–12–63, Cl. 340—172.5.

Rogantti, Henry P. Miniature reflex copy-reproducing device. 3,073,234, 1–15–63, Cl. 95—75.

Rogers, Albert W. J.: *See*—
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Rogers, Arthur O., to E. I. du Pont de Nemours and Co. Production of 5(4-aminobutyl)-hydantoin and of intermediates therefor. 3,078,274, 2–19–63, Cl. 260—309.5.

Rogers, Austin S., to Houston Oil Field Material Co., Inc. Stuck pipe locator. 3,095,736, 7–2–63, Cl. 73—151.

Rogers, Bobo B. Ring rail latch for spinning frames and the like. 3,095,684, 7–2–63, Cl. 57—54.

Rogers, Bobo B. Traveler cleaner. 3,095,685, 7–2–63, Cl. 57—57.

Rogers, Brian H.: *See*—
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Rogers Brothers Corp.: *See*—
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Rogers, Cecil B. Balancer for a rotating shaft. 3,109,321, 11–5–63, Cl. 74—573.

Rogers, Chester E., Jr., to United Shoe Machinery Corp. Heel attaching machines. 3,101,480, 8–27–63, Cl. 1—335.

Rogers, Cyril B., to Clark Equipment Co. Truck carrier with tilting turntable. 3,086,669, 4–23–63, Cl. 214—505.

Rogers, Dale R., and R. K. Lemon. Liner for spouts and the like. 3,110,521, 11–12–63, Cl. 302—64.

Rogers, Dilworth T.: *See*—
Munday, John C., Rogers, and Morway. 3,095,314.

Rogers, Dilworth T., and J. P. McDermott, to Esso Research and Engineering Co. Additives to improve the electrical properties of combustible organic liquids. 3,084,035, 4–2–63, Cl. 44—66.

Rogers, Edward A., and N. G. Bennett, to Graviner Mfg. Co. Ltd. Temperature sensitive devices. 3,089,339, 5–14–63, Cl. 73—362.

Rogers, Edward F.: *See*—
Shen, Tsung Y., Rogers, and Sarett. 3,089,876.

Rogers, Edward F., and R. L. Clark, to Merck & Co., Inc. Compositions for the control of coccidiosis. 3,088,867, 5–7–63, Cl. 167—53.1.

Rogers, Edward S., Jr., to Radio Corp. of America. Electrical devices. 3,107,277, 10–15–63, Cl. 179—1.

Rogers, Elwood C., Jr., to Fotomatic Corp. Combined light meter and sighting device. 3,087,379, 4–30–63, Cl. 88—23.

Rogers, Emrie E. Control valve. 3,115,160, 12–24–63, Cl. 137—625.23.

Rogers, Francis R.: *See*—
Williams, Howard J., Rogers, and Ryder. 3,103,785.

Rogers, Francis R., and R. R. Riggs, to The Bendix Corp. Integrating and proportional flow control apparatus. 3,106,934, 10–15–63, Cl. 137—117.

Rogers, Gail C., and A. Williams, to Submerged Combustion, Inc. Process and apparatus for converting non-potable water to potable water. 3,080,302, 3–5–63, Cl. 202—66.

Rogers, Herbert M., to The Hoover Co. Coupling device. 3,113,795, 12–10–63, Cl. 287—119.

Rogers, Howard G.: *See*—
Blout, Elkan R., Green, Rogers, and Simon. 3,076,820.
Green, Milton, and Rogers. 3,081,339.

Rogers, Howard G., to Polaroid Corp. Process and product for forming color images from complete dyes. 3,087,817, 4–30–63, Cl. 96—29.

Rogers, Howard G., and H. W. Lutes, to Polaroid Corp. Color diffusion transfer using gelatin-silver halide emulsions containing cellulose ethers. 3,077,400, 2–12–63, Cl. 96—3.

Rogers, Howard H., to Allis-Chalmers Mfg. Co. Method of fusion bonding with a nitrogen trifluoride flame. 3,071,852, 1–8–63, Cl. 29—470.

Rogers Iron Works Co.: *See*—
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Rogers, Jack: *See*—
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Rogers, John F., to M. S. Bowne, as trustee. Vacuum transfer device for material in a plastic state. 3,076,561, 2–5–63, Cl. 214—1.

Roger, Jose M. C. Parlor game. 3,104,878, 9–24–63, Cl. 273—130.

Rogers, Joseph, Inc.: *See*—
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Rogers, Louis J.: *See*—
Helmaster, John W., Jenkins, and Rogers. 3,108,798.
Thompson, Wilmer R., and Rogers. 3,098,957.

Rogers, Robert W., and J. V. Cardoz, to Scott Testers, Inc. Force measuring apparatus. 3,077,772, 2–19–63, Cl. 73—141.

Rogers, Thomas H., G. F. Bavor, and B. Magnusson, to The Machlett Laboratories, Inc. Radiographic systems and method. 3,103,591, 9–10–63, Cl. 250—102.

Rogers, Thomas H., Jr., to The Goodyear Tire & Rubber Co. Latex foam rubber reinforced with a film of starch derivative and method of making same. 3,107,225, 10–15–63, Cl. 260—2.5.

Rogers, Thomas H., Jr., and H. H. Heineman, to The Goodyear Tire & Rubber Co. Treatment of polyurethane cellular products. 3,102,825, 9–3–63, Cl. 117—98.

Rogers, Thomas H., Jr., H. H. Heineman, and C. L. Howard, to The Goodyear Tire & Rubber Co. Combustion resistant rubber latex foam containing a hydrocarbon mineral oil and a reinforcing styrene polymer. 3,107,224, 10–15–63, Cl. 260—2.5.

Rogers, Thomas W. Pogo pony. 3,079,161, 2–26–63, Cl. 280—1.191.

Rogers, Walter C., and N. W. Miselle, to General Steel Products, Inc. Reclining chair. 3,100,668, 8–13–63, Cl. 297—89.

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Rogers, William A., Jr., C. A. Latta, L. R. Knodel, and A. E. Gurgiolo, to The Dow Chemical Co. Polyurethane stabilisation. 3,072,605, 1–8–63, Cl. 260—45.95.

Rogers, William I., to General Foods Corp. Preparation of heat-congulable protein. 3,099,562, 7–30–63, Cl. 99—18.

Rogerson, John, to Laird, Cammell, & Co. (Shipbuilders & Engineers) Ltd. Lubricating systems. 3,106,262, 10–8–63, Cl. 184—6.

Rogg, Otto, to C. Hurth. Gear shaving machine. 3,115,064. 12–24–63, Cl. 90—1.6.

Rogge, Bernhard. Munition cleaning equipment. 3,088,473, 5–7–63, Cl. 134—58.

Roggenstein, Edwin O., to Sperry Rand Corp. Power action for typewriter. 3,103,272, 9–10–63, Cl. 197—17.

Rogier, Edgar R., to General Mills, Inc. Amino hydroxy nitriles. 3,081,304, 3–12–63, Cl. 260—247.7.

Rogillio, Archie E., to Esso Research and Engineering Co. Alcohol dehydration process. 3,100,741, 8–13–63, Cl. 202—42.

Rogneby, Olaf R. Self-propelled endless-track vehicle for traversing wooded rough terrain. 3,106,980, 10–15–63, Cl. 180—9.22.

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Rogowski, Frank J. Safety face shield and mask. 3,103,-667, 9–17–63, Cl. 2—9.

Roguin, Andre: *See*—
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Roha, Max E., and W. L. Beears, to Goodrich-Gulf Chemicals, Inc. Process for producing telomer alcohols. 3,100,231, 8–6–63, Cl. 260—632.

Rohane, Walter J.: *See*—
Rice, Livingston L., and Rohane. 3,100,330.
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Rohats, Nicholas, and B. V. Bhimani, to General Electric Co. Method and apparatus for testing electrical insulation. 3,071,724, 1–1–63, Cl. 324—54.

Rohde, Carl T. Spinning toy. 3,104,495, 9–24–63, Cl. 46—59.

Rohde, Robert P.: *See*—
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Rohdenburg, John H. Apparatus for instruction in rope splicing. 3,097,474, 7–16–63, Cl. 57—23.

Rohdin, Howard A. Method of sealing blister type packages. 3,104,506, 9–24–63, Cl. 53—22.

Rohe, Frederick W., to Shur-Lok Corp. Barrel nut. 3,081,-809, 3–19–63, Cl. 151—41.76.

Röhl, Georg. Stripping device for bobbins. 3,095,631, 7–2–63, Cl. 28—20.

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Assalini, Giuseppe. 3,074,819.
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Assalini, Giuseppe. 3,097,114.
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Bibolet, Aubert H., Brown, Richter, and Fellmann. 3,078,244.
Boettner, Fred E., and Dupré. 3,079,348.
Bortnick, Newman M. 3,077,477.
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Drennen, Thomas J., and Kelley. 3,081,219.
Dupré, Jean, and Boettner. 3,079,416.
Emmons, William D., and White. 3,087,972.
Exner, Lawrence J. 3,079,399.
Falgiatore, Dominic R., and Levantin. 3,082,184.
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Fang, Fabian T., and Murdoch. 3,111,362.
Fellman, Robert P., Goode, and Owens. 3,100,761.
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Greenwald, Harold L. 3,102,100.
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Hopkins, Robert P., and Scudder. 3,094,494.
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Smythe, Carl Y., and Kraskin. 3,087,859.
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Wilson, Harold F., and McRae. 3,080,225.
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Rohner, Thomas G., to Electric Machinery Mfg. Co. Control system for controlling the operation of synchronous motors. 3,100,279, 8–6–63, Cl. 318—167.

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Rohr, Fred H. Method and apparatus for fabricating honeycomb core. 3,079,487, 2–26–63, Cl. 219—83.

Rohr, Fred H., and E. M. Lacey, Jr., to Rohr Aircraft Corp. Novel framework for honeycomb core machine. 3,077,533, 2-12-63, Cl. 219—82.

Rohr, Hans, to Siemens-Schuckertwerke Aktiengesellschaft. Electric devices for performing logic functions. 3,111,589, 11-19-63, Cl. 307—88.

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Rolle, Edward W., to United States of America, Navy. Thermit reaction underwater flare. 3,107,614, 10-22-63, Cl. 102—37.8.

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Bauer, Stefan G. 3,090,264.
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Roman, Michael. Milk sampling and testing apparatus. 3,085,425, 4-16-63, Cl. 73—61.

Roman, Pierre A., to Eastman Kodak Co. Apparatus and method for treating photographic products in a single bath. 3,110,595, 11-12-63, Cl. 96—48.

Roman, Robert J., to Eastman Kodak Co. Cam and follower. 3,110,194, 11-12-63, Cl. 74—567.

Romanchuk, Steve, and C. R. Mills, to Shemitt Gordon Mines Ltd. Powder metal sampling device. 3,091,969, 6-4-63, Cl. 73—425.2.

Romanek, Gerald A.: *See*—
George, William L., and Romanek. 3,101,520.

Roman-Garcia, Carlos. Universal grill press. 3,088,341, 5-7-63, Cl. 77—28.

Romanin, Bruno. Web-like continuous textile structure. 3,095,338, 6-25-63, Cl. 154—46.

Romano, John E., to E. I. du Pont de Nemours and Co. Process for preparing spandex filaments. 3,111,368, 11-19-63, Cl. 18—54.

Romano, Joseph J.: *See*—
Yelpo, Joseph P., and Romano. 3,104,503.

Romano, Thomas, Jr.: *See*—
Berdan, David, and Romano. 3,107,093.

Romans, Isabella B., 15% to A. C. Nolte. Oligodynamic silver compositions and uses. 3,092,552, 6-4-63, Cl. 167—72.

Rombau, Paul A.: *See*—
Peltier, Maurice L., and Rombau. 3,102,783.

Romboid, Harry A. Multi-use work head for grinding operations. 3,087,287, 4-30-63, Cl. 51—225.

Rombouts, Victor, to Koffie F. Rombouts N.V. in het Frans Cafes F. Rombouts S.A. Filtering device for the preparation of infusions, to be used only once. 3,094,917, 6-25-63, Cl. 99—287.

Rome Cable Corp.: *See*—
Seidel, Henry. 3,074,208.

Romei, Ezio. Pneumatically operated table game. 3,113,776, 12-10-63, Cl. 273—85.

Romeo, Albert J., and E. E. Masterson, to Sperry Rand Corp. Card feeding system. 3,073,590, 1-15-63, Cl. 271—51.

Romeo, Alfa, S.p.A.: *See*—
Orlando, Luigi E., and Corradi. 3,099,983.

Romeo, Neil M., to Holley Carburetor Co. Nozzle bleed. 3,110,750, 11-12-63, Cl. 261—72.

Romeo, Philip L.: *See*—
Andersen, Holger C., Romeo, and Green. 3,098,712.

Romeo, Philip L., Sr.: *See*—
Andersen, Holger C., Romeo, and Steel. 3,084,023.

Römer, Wilhelm: *See*—
Neuendorf, Günther, Schmist, Rell, and Römer. 3,089,298.

Romesberg, Floyd E., and R. M. Karlinski, to The Dow Chemical Co. Process for incorporating additives into polymeric products. 3,108,984, 10-29-63, Cl. 260—34.2.

Romeu Saez, Fernando. Process for the fabrication of sparkling wines. 3,112,201, 11-26-63, Cl. 99—41.

Romi, Giordano. Method and mechanism for generating gears, racks and the like. 3,089,392, 5-14-63, Cl. 90—7.

Romig, John R.: *See*—
Herz, Joseph H., and Romig. 3,091,443.

Romig, John R., and J. H. Herz, to California Portland Cement Co. Kiln control method and apparatus. 3,091,442, 5-28-63, Cl. 263—32.

Romiguiere, Claude E. G.: *See*—
Favalier, Jean, and Romiguiere. 3,076,917.

Romine, Charles F.: *See*—
Kohrn, Robert C., Kleibert, and Romine. 3,070,817.

Romine, Glenn N.: *See*—
Sylvester, Rowland L., and Romine. 3,075,659.

Romine, Gordon L.: *See*—
Egnor, William D., and Romine. 3,090,480.

Romine, Roy T.: *See*—
Smith, Jack C., Etterman, and Romine. 3,100,191.

Romine, Roy T., J. B. Jacobsen, and N. Grasel, to Detrex Chemical Industries, Inc. Traveling guard conveyorized degreaser. 3,107,077, 10-22-63, Cl. 134—127.

Romito, Vincent A.: *See*—
Huyck, Willard M., and Romito. 3,093,242.
Huyck, Willard M., and Romito. 3,098,751.

Romling, Kurt: *See*—
Zygan, Hieronymus, Koch, Schnell, Prietzschk, and Romling. 3,114,929.

Rommel, Howard E. Transfer machine. 3,108,676, 10-29-63, Cl. 198—19.

Rommel, Richard H.: *See*—
Kelly, Thomas J., and Rommel. 3,084,033.

Romney, Russell H. Valved mechanism. 3,078,068, 2-19-63, Cl. 251—149.2.

Rompel, Walter: *See*—
Haberkorn, Otto, Rompel, and Roth. 3,110,440.

Ronan and Kunzl, Inc.: *See*—
Millard, George R., Bidelman, and Martin. 3,078,500.
Millard, George R., Bidelman, and Nobbs. 3,079,629.

Ronay, Bela. Portable furnace. 3,074,704, 1-22-63, Cl. 263—4.

Ronay, Thomas E., to The Richardson Co. Impact resistant laminate. 3,084,085, 4-2-63, Cl. 154—43.

Ronay, Thomas E., R. D. Dexheimer, and R. P. Arthur, to The Richardson Co. Phosphoric acid sytrene oxide ester. 3,112,335, 11-26-63, Cl. 260—461.

Roncl, Fernando M. Reinforcing dowel for high heels. 3,087,263, 4-30-63, Cl. 36—34.

Roudash, John T., to General Dynamics Corp. Tool for use with rigid cards. 3,110,960, 11-19-63, Cl. 29—278.

Roney, Ellis L., to Sylvania Electric Products Inc. Chassis construction. 3,072,874, 1-8-63, Cl. 339—17.

Ronga, Anthony J.: *See*—
MacLellan, William J. 3,074,515.

Rongved, Leif: *See*—
Nellsen, Robert J., Paola, and Rongved. 3,116,434.
Nielsen, Robert J., and Rongved. 3,116,171.

Ronick, Murray, to Baldwin-Lima-Hamilton Corp. Shear for cutting billets, beams, and the like. 3,077,134, 2-12-63, Cl. 83—559.

Ronkese, Bruno J.: *See*—
Radovsky, David A., and Ronkese. 3,099,608.

Ronnell, Eva E., to My Double Co., Inc. Adjustable dress form. 3,096,916, 7-9-63, Cl. 223—68.

Renner, Otto, and K. Aebi, to Starrfraesmaschinenn A.G. Copying machine tool. 3,114,295, 12-17-63, Cl. 90—62.

Ronnerström, Sven-Erik. Brake for airplane-arresting devices. 3,092,210, 6-4-63, Cl. 188—1.

Rönning, Jacob A. Rotary lawn tool. 3,112,593, 12-3-63, Cl. 56—24.

Rönnsäter, Per V., and A. G. Storm. Equipment for the transportation of goods in railway systems. 3,087,635, 4-30-63, Cl. 214—75.

Ronsheim, Nelson, to Peters & Russell, Inc. Cleat. 3,090,343, 5-21-63, Cl. 114—218.

Ronson Corp.: *See*—
Cruz, Paul L. 3,072,360.
Freedman, Lawrence I., and Tone. 3,084,446.
Fuller, Richard E. 3,072,301.
Goddard, John A. 3,093,990.
Smith, James D. 3,081,611.
Smith, James D. 3,111,015.
Zellweger, Conrad. 3,085,601.

Rood, Alvin A., to General Motors Corp. High-low speed hoist valve. 3,093,116, 6-11-63, Cl. 121—38.

Rood, Alvin A., to General Motors Corp. Power steering for articulated vehicles. 3,097,719, 7-16-63, Cl. 180—79.2.

Rood, Robert E.: *See*—
Book, Herbert W., and Rood. 3,106,842.

Rood, Robert E., to Westinghouse Electric Corp. Thermal indicator for electrical apparatus. 3,077,776, 2-19-63, Cl. 73—350.

Rood, Robert M., and P. Villers, to General Electric Co. Article and method for joining dissimilar materials. 3,095,951, 7-2-63, Cl. 189—36.

Roode, Melvin V.: *See*—
Reindl, Harold J., and Roode. 3,108,899.

Roof, Lewis B., to Phillips Petroleum Co. Gas separation system. 3,076,301, 2-5-63, Cl. 55—18.

Roof, Lewis B., to Phillips Petroleum Co. Programmer for chromatography. 3,101,606, 8-27-63, Cl. 73—23.

Roof, Robert A.: *See*—
Shaw, Fred B., Long, and Roof. 3,108,881.

Rooks, Howard B., and A. F. Mayer, to Collins Radio Co. Method of mechanical addition. 3,109,587, 11-5-63, Cl. 235—61.

Rookus, James E., 5% to E. H. Daverman. Film projector. 3,089,628, 5-14-63, Cl. 226—83.

Rooney, Hugh J.: *See*—
Aronoff, Eli J., Del Franco, and Rooney. 3,083,171.

Rooney, Michael: *See*—
Worley, Norman G., and Rooney. 3,108,704.

Rooney, William J. Inked typing ribbon with clean replacement means. 3,108,675, 10-29-63, Cl. 197—172.

Roop, Robert E., to Continental Can Co., Inc. Temporary sealing means for bags. 3,079,066, 2-26-63, Cl. 229—62.

Roos, Ernst: *See*—
Lober, Friedrich, Roos, and Pohle. 3,111,504.
Malz, Hugo, Roos, and Göbel. 3,107,231.

Roos, Henry W.: *See*—
Neher, Harry P., Jr., Roos, and Naylor. 3,087,676.

Roos, John T., to Bird Machine Co. Valve for filter. 3,072,136, 1-8-63, Cl. 137—197.

Roosa, Vernon D. Filter assembly. 3,105,042, 9-24-63, Cl. 210—94.

Root, A. I., Co., The: *See*—
Root, John A. 3,105,977.

Root, Bernard H.: *See*—
Martin, Joseph F., Niertit, and Root. 3,071,732.

Root, Clinton H., to The Bath, Cyril Co. Combined stretch and wipe forming machine with automatic traverse control of the wipe shoe. 3,096,806, 7-9-63, Cl. 153—40.

Root, Elihu, III. Counting devices. 3,087,347, 4-30-63, Cl. 74—128.

Root, Frank B., to United States of America, Agriculture. Compatible tung oil-unsaturated alkyd resin compositions and method for producing the same. 3,092,596, 6-4-63, Cl. 260—22.

Root, George R., to Root Mfg. Co., Inc. Rotating disk mower with vertically adjustable rotating blade. 3,093,948, 6-18-63, Cl. 56—25.4.

Root, John A., to The A. I. Root Co. Beehive having a slidable brood frame assembly. 3,105,977, 10-8-63, Cl. 6—2.

Root-Lowell Mfg. Co.: *See*—
Tidd, Victor S. 3,091,372.

Root Mfg. Co., Inc.: *See*—
Root, George R. 3,093,948.

Root Spring Scraper Co.: *See*—
Weeks, Warren D. 3,086,303.

Root, William F.: *See*—
Clark, Edgar W., Reynolds, and Root. 3,095,042.

Roper, Dean W., C. L. Davis, and C. H. Wingrove. Apparatus for treating and sealing reloaded shot shells. 3,091,153, 5-28-63, Cl. 86—17.

Roper, Geo. D., Corp.: *See*—
Mathis, John B. 3,081,695.
Reeves, Herbert M. 3,084,681.

Roper Hydraulics, Inc.: *See*—
Albright, John R. 3,105,268.
Fulton, John J. 3,113,524.
Fulton, John J., and Albright. 3,103,891.
Holmes, John D., Jr. 3,109,445.
Mosbacher, Bruce H. 3,106,163.

Roper, John, and Co., Inc.: *See*—
Roper, John H. 3,072,112.

Roper, John H., to John Roper and Co., Inc. System for capturing crankcase gas and solids. 3,072,112, 1-8-63, Cl. 123—119.

Ropes, George F.: *See*—
Stromeyer, Charles F. 3,092,471.

Ropiequet, Richard L., to Tetronix, Inc. Bistable multivibrator which changes states in response to a single limited range, variable input signal. 3,074,020, 1-15-63, Cl. 328—194.

Ropp, Richard C., to Sylvania Electric Products Inc. Ultraviolet emitting phosphor compositions. 3,109,820, 11-5-63, Cl. 252—301.6.

Ropp, Richard C., to Sylvania Electric Products Inc. Cadmium bromophosphate phosphors. 3,111,493, 11-19-63, Cl. 252—301.6.

Roppel, Clarence L. Vertical take off aircraft. 3,096,952, 7-9-63, Cl. 244—12.

Roquemore, Troy L. Garage door handle. 3,082,472, 3-26-63, Cl. 16—112.

Rorden, Robert J., and A. A. Ginsling, to Varian Associates. Thermocouple measuring circuit. 3,073,164, 1–15–63, Cl. 73—361.

Rorig, Kurt J.: *See*—
Kalm, Max J., and Rorig. 3,074,944.

Rorig, Kurt J., to G. D. Searle & Co. Certain heterocyclic acid esters of α-phenylpyridinemethanol. 3,071,588, 1–1–63, Cl. 260—294.8.

Rorig, Kurt J., to G. D. Searle Co. 1-acyl-α,α-diphenyl-4-piperidinemethanols. 3,073,835, 1–15–63, Cl. 260—294.7.

Rorig, Kurt J., to G. D. Searle & Co. 1-aminoalkyl-α,α-diphenylpiperidinemethanols. 3,081,303, 3–12–63, Cl. 260—247.5.

Rorig, Kurt J., to G. D. Searle & Co. Bis(aminoalkylcarbamates). 3,081,310, 3–12–63, Cl. 260—294.3.

Rorig, Kurt J., to G. D. Searle & Co. α-phenyl-4-pyridinemethyl 2,2-dimethyl-3-(2-methylpropenyl) cyclopropylcarboxylate. 3,098,857, 7–23–63, Cl. 260—295.

Rorig, Kurt J., to G. D. Searle & Co. 4-phenyl(pyridyl or piperidyl) alkyl esters of (chloro or lower alkoxy)-benzoic acids and congeners. 3,100,775, 8–13–63, Cl. 260—295.

Rorig, Kurt J., to G. D. Searle & Co. 4-tertiary-butyl-, 4-diphenylmethyl, and 4-diphenylhydroxymethyl-, piperidinopropionitriles. 3,101,340, 8–20–63, Cl. 260—293.

Rorig, Kurt J., to G. D. Searle & Co. 2,3-bis(p-methoxyphenyl-N-dialkylaminoalkylpentanamides. 3,101,371, 8–20–63, Cl. 260—559.

Rorig, Kurt J., to G. D. Searle & Co. α-dialkylamino-N-[2,3-bis(p-methoxyphenyl)pentyl] alkanamides and intermediates. 3,101,372, 8–20–63, Cl. 260—562.

Rorvig, Hjalmer. Gas torch lighter. 3,090,856, 5–21–63, Cl. 219—32.

Rosa, Esau da Silva. Pumping system or apparatus for deep wells. 3,072,057, 1–8–63, Cl. 103—5.

Rosa, John: *See*—
Roberts, Roland W., Rosa, Algazi, and Abrams. 3,080,486.

Rosa, Richard J., to Avco Corp. Hall current generator. 3,091,709, 5–28–63, Cl. 310—11.

Rosa, Richard J., to Avco Mfg. Corp. Power generation system for propulsion and method of operating same. 3,099,131, 7–30–63, Cl. 60—35.3.

Rosa, Umberto: *See*—
Douis, Michel, and Rosa. 3,114,608.

Rosaen Filter Co., The: *See*—
Rosaen, Nils O. 3,076,335.
Rosaen, Nils O. 3,077,267.
Rosaen, Nils O. 3,113,925.
Rosaen, Nils O. and O. E. 3,076,336.
Rosaen, Oscar E. 3,074,556.
Rosaen, Oscar E. 3,080,058.

Rosaen, Nils O., to The Rosaen Filter Co. Means for checking hydraulic installations. 3,076,335, 2–5–63, Cl. 73—198.

Rosaen, Nils O., to The Rosaen Filter Co. Oil filter outlet. 3,077,267, 2–12–63, Cl. 210—90.

Rosaen, Nils O., to The Rosaen Filter Co. Fluid filters. 3,113,925, 12–10–63, Cl. 210—315.

Rosaen, Nils O. and O. E., to The Rosaen Filter Co. Flow meter for checking the efficiency of hydraulic installations. 3,076,336, 2–5–63, Cl. 73—198.

Rosaen, Oscar E.: *See*—
Rosaen, Nils O. and O. E. 3,076,336.

Rosaen, Oscar E., to The Rosaen Filter Co. Fluid filtering mechanism. 3,074,556, 1–22–63, Cl. 210—195.

Rosaen, Oscar E., to The Rosaen Filter Co. Pressure filter. 3,080,058, 3–5–63, Cl. 210—90.

Rosaen, Oscar E. Variable delivery pumps. 3,086,475, 4–23–63, Cl. 103—136.

Rosahl, Dietrich, and H. Esser, to Farbenfabriken Bayer Aktiengesellschaft. Process for production of polychloroprene latices using a paraffin sulfonate emulsifier. 3,074,899, 1–22–63, Cl. 260—29.7.

Rosamilia, Peter L.: *See*—
Harvey, Mortimer T., and Rosamilia. 3,074,972.

Rosan Engineering Corp.: *See*—
Rosan, Jose, and La Torre. 3,081,808.

Rosan, Jose, and A. J. La Torre, to Rosan Engineering Corp. Thin-walled inserts and method of making same. 3,081,808, 3–19–63, Cl. 151—41.73.

Rosander, Axel E. Infusion type coffee maker. 3,085,494, 4–16–63, Cl. 99—283.

Rosander, Axel E. Automatic pressurized coffee maker. 3,085,495, 4–16–63, Cl. 99—283.

Rosander, Russell B., to The Budd Co. High speed universal setting testing machine. 3,101,610, 8–27–63, Cl. 73—93.

Rosano, Henri L. Evaporation-retardant. 3,082,058, 3–19–63, Cl. 21—60.5.

Rosard, Daniel D.: *See*—
Meyer, Charles A., and Rosard. 3,073,563.

Rosati, Isadore F.: *See*—
Rauner, Frederick J., Rosati, and Robertson. 3,100,702.

Rosato, Frank J., and G. A. Biernson, to Sylvania Electric Products Inc. Inertial sensor. 3,083,578, 4–2–63, Cl. 73—504.

Roscelli, Gertrude A., to National Industrial Products Co. Starch product. 3,097,969, 7–16–63, Cl. 127—33.

Roscelli, Gertrude A., and R. L. High, to National Industrial Products Co. Blended carbohydrate textile size compositions. 3,081,183, 3–12–63, Cl. 106—197.

Roschen, John: *See*—
Bradley, William E., and Roschen. 3,075,902.

Roschke, Erwin M.: *See*—
Loughlin, Bernard D., and Roschke. 3,081,376.

Roschke, Erwin M., to Zenith Radio Corp. Subscription television. 3,107,274, 10–15–63, Cl. 178—5.1.

Roschuk, John I. Cartridge relay contact. 3,076,072, 1–29–63, Cl. 200—87.

Roscoe, Samuel, to Hayeshaw Ltd. Irregularly operating control motions. 3,073,169, 1–15–63, Cl. 74—1.

Roscovich, Frank A., to H. F. Renwick. Artificial candle. 3,081,612, 3–19–63, Cl. 67—55.

Rose, A. J., Mfg. Co.: *See*—
Sweeney, Francis R. 3,088,150.

Rose, Alan, and J. E. Parton, to International Business Machines Corp. Decision element circuits. 3,105,923, 10–1–63, Cl. 317—134.

Rose, Alan C. Compound error correction system. 3,078,443, 2–19–63, Cl. 340—146.1.

Rose Brothers (Gainsborough) Ltd.: *See*—
Bailey, Arthur R. 3,106,315.
Barr, Walter L. 3,070,930.
Kay, James A. 3,093,036.

Rose, Charles H., and A. Miller, to United States of America, Army. Electro-hydraulic system for converting a lathe to automatic threading operation. 3,087,365, 4–30–63, Cl. 82—5.

Rose, Clarence W., to Rose Mfg. Co. Safety and supporting belt constructions. 3,099,331, 7–30–63, Cl. 182—3.

Rose, Darrell E.: *See*—
Brutten, Eugene J., Gray, and Rose. 3,083,682.

Rose, David: *See*—
Fortescue, Peter, Rickard, and Rose. 3,072,550.

Rose, Donald, ½ to R. D. Baker. Water softening apparatus and system. 3,080,974, 3–12–63, Cl. 210—126.

Rose, Donald, ½ to R. D. Baker. Water treating apparatus and system with time and automatic brine refill control. 3,080,975, 3–12–63, Cl. 210—134.

Rose, Donald, ½ to R. D. Baker. Process of treating water. 3,101,316, 8–20–63, Cl. 210—35.

Rose, Donald, ½ to R. D. Baker. Fluid pressure actuator for valve. 3,103,339, 9–10–63, Cl. 251—61.

Rose, Downs & Thompson, Ltd.: *See*—
Smart, Stanley G. 3,100,725.

Rose, Edward: *See*—
Talbot, Richard C., Bahr, and Rose 3,105,418.

Rose, Ewald: *See*—
Hofmann, Walter K. 3,107,672.

Rose, Frank L., and M. H. Subillia, to Avco Corp. Surgical instrument. 3,075,199, 1–29–63, Cl. 1—349.

Rose, Frederick M., J. W. Hurst, R. L. Latham, C. D. Moore, and J. B. Platner, to Chrysler Corp. Multicylinder inline overhead valve engine. 3,109,416, 11–5–63, Cl. 123—59.

Rose, Henry. Leather finishing process and apparatus. 3,114,254, 12–17–63, Cl. 69—21.

Rose, Herbert: *See*—
Spingies, Erwin, and Rose. 3,088,662.

Rose, Jay. Device for holding hypodermic needles. 3,103,688, 9–17–63, Cl. 15—268.

Rose, John F.: *See*—
Mullin, Clayton D., and Rose. 3,105,876.

Rose, John L., Jr.: *See*—
Reeves, Howard F., Jr., Ingwalson, and Rose. 3,110,603.

Rose, John S. Cabinet door spacing. 3,104,473, 9–24–63, Cl. 33—180.

Rose, Joseph K. Cabinet with light shield. 3,087,014, 4–23–63, Cl. 178—7.82.

Rose, Julian K.: *See*—
Leech, Robert E., and Rose. 3,092,597.

Rose, Leslie C.: *See*—
Hamrick, Joseph T., and Rose. 3,101,589.

Rose, Leslie C., to Thompson Ramo Wooldridge Inc. Rocket propulsion method employing catalytic decomposition of hydrazine. 3,081,595, 3–19–63, Cl. 60—35.4.

Rose, Lloyd R., to General Electric Co. X-ray diffraction apparatus. 3,073,952, 1–15–63, Cl. 250—51.5.

Rose Mfg. Co.: *See*—
Rose, Clarence W. 3,099,331.

Rose, Morton J. Structural edge rails. 3,113,401, 12–10–63, Cl. 50—194.

Rose, Peter H., to High Voltage Engineering Corp. Charged particle beam-viewing arrangement. 3,094,615, 6–18–63, Cl. 250—49.5.

Rose, Robert G.: *See*—
Wiands, Clarence L., Cline, and Rose. 3,096,102.

Rose, Robert H. Luminated dip stick wiper. 3,098,254, 7–23–63, Cl. 15—210.

Rose, Robert L. Fluid flow control valve. 3,096,069, 7–2–63, Cl. 251—205.

Rose, Robert M., and F. O. Wright. Hip prosthesis. 3,102,536, 9–3–63, Cl. 128—92.

Rose, Willis E., to Dresser Industries, Inc. Impellers for fluid handling apparatus of the rotary positive displacement type. 3,089,638, 5–14–63, Cl. 230—141.

Ro-Search, Inc.: *See*—
Liebscher, Anton, Rollman, and Szerenyi. 3,098,308.

Roseberry, Thomas J., to Western Gear Corp. Method of applying internal metallic linings to tubes and the like. 3,101,531, 8–27–63, Cl. 29—474.4.

Rosebrook, Mrs. Lois W.: *See*—
Ames, Robert G. 3,070,827.

Roseburg Lumber Co.: *See*—
Pearson, Clifford H. 3,081,217.

Rosecrans, Stanley A.: *See*—
Carlson, Charles L., and Rosecrans. 3,096,577.

Rosekrans, David de L., and H. C. McDaniel, to The Procter & Gamble Co. Tablet retainer cage. 3,088,634, 5–7–63, Cl. 222—158.

Roseler, Rudolf: *See*—
Vierling, Oskar, Peuser, Roseler, and Schulz. 3,083,897.

Roselius, Charles F., to Otis Elevator Co. Sliding door hangers and door. 3,089,203, 5–14–63, Cl. 20—19.

Roseman, Leo. Combined garment and covered stay, and method of making the latter. 3,092,113, 6–4–63, Cl. 128—567.

Roseman, Leo and R. J. Sewing machine attachment for sewing hook fastener tape on garments. 3,085,525, 4–16–63, Cl. 112—2.

Roseman Mower Corp.: *See*—
Hoffman, James E. 3,070,943.

Roseman, Reuben: *See*—
Chrest, Roy W., Rummery, Richards, and Roseman. 3,079,269.

Roseman, Richard J.: *See*—
Roseman, Leo and R. J. 3,085,525.

Rosemond, Leland E., W. Greenbaum, and K. Hellekjaer, to Otarion, Inc. Multiphase eyeglass-hearing aid unit. 3,104,290, 9–17–63, Cl. 179—107.

Rosemount Engineering Co.: *See*—
Kleven, Lowell A. 3,107,950.
Koolman, Robert R. 3,079,576.
Koolman, Robert R., and Werner. 3,111,847.
Lode, Tenny. 3,092,739.
Werner, Frank D., and De Leo. 3,099,160.
Werner, Frank D., Koolman, and Novak. 3,114,125.

Rosen, Alfred H.: *See*—
Rich, Stanley R. 3,097,160.

Rosen, Charles: *See*—
Weidknecht, Charles J., and Rosen. 3,105,205.
Weidknecht, Charles J., and Rosen. 3,110,863.

Rosen, Dexter: *See*—
Reed, George A., and Rosen. 3,087,578.

Rosen, Fillmore C.: *See*—
Wick, Edward J., and Day. 3,100,464.

Rosen, George, to United Aircraft Corp. Marine propeller. 3,082,827, 3–26–63, Cl. 170—135.24.

Rosen, Harold A., to Raytheon Co. Ferrite modulators for deviating magnetrons. 3,084,295, 4–2–63, Cl. 332—51.

Rosen, Irving, to Diamond Alkali Co. Addition-halogenated cyclohexyl esters. 3,080,417, 3–5–63, Cl. 260—487.

Rosen, Irving, to Diamond Alkali Co. Xylene dithiocyanates. 3,109,015, 10–29–63, Cl. 260—454.

Rosen, Jack R., to Automatic Record, Inc. Apparatus for forming a phonograph record. 3,113,905, 12–10–63, Cl. 156—581.

Rosen, Joseph L., to Super Whip Valve Co. Tamper-proof caps or closures for containers. 3,102,658, 9–3–63, Cl. 220—27.

Rosen, Karl I. J. Device for guided feeding of yarn to knitting machines. 3,090,215, 5–21–63, Cl. 66—132.

Rosen, Leo, to Anelex Corp. Deep diving submarine. 3,112,724, 12–3–63, Cl. 114—16.

Rosen, Leonard J.: *See*—
Davies, Richard E., and Rosen. 3,078,253.

Rosen, Marc. Tiltable tapered slat canopy. 3,075,257, 1–29–63, Cl. 20—57.5.

Rosen, Milton J., and I. A. Kaye. Water-soluble non-ionic surface-active agents of mono and polysaccharides. 3,092,618, 6–4–63, Cl. 260—209.

Rosen, Samuel R., and E. T. Nord, to Nordson Corp. Paint spray gun. 3,116,020, 12–31–63, Cl. 239—578.

Rosen, Sidney. Fluid filler recycling control circuit. 3,074,445, 1–22–63, Cl. 141—361.

Rosen, Sidney. Automatic scale filler apparatus. 3,090,453, 5–21–63, Cl. 177—120.

Rosenbaum, Charles H., to Eastern Products Corp. Window shade roller. 3,099,916, 8–6–63, Cl. 64—5.

Rosenbaum, Chester K.: *See*—
Brooks, Richard E., Cogdell, and Rosenbaum. 3,080,845.

Rosenbaum, Felix, to Comfort Slipper Corp. Method of securing a rubber sole to a shoe upper. 3,085,294, 4–16–63, Cl. 18—59.

Rosenbaum, Kurt, to Alweg-Forschung G.m.b.H. Switches for monobeam type railways. 3,093,090, 6–11–63, Cl. 104—130.

Rosenbaum, Peter: *See*—
Gafford, Robert D., and Rosenbaum. 3,114,610.
Schultze, Martin, Severin, Holscher, and Rosenbaum. 3,112,175.

Rosenberg Bros. & Co.: *See*—
Rosenberg, Ross. 3,080,900.

Rosenberg, David S., to Hooker Chemical Corp. Purification of acetylene tetrachloride containing chlorine impurity. 3,100,233, 8–6–63, Cl. 260—654.

Rosenberg, Edgar N., and S. F. Moran. Non-magnetic sea-cycle for scuba diving. 3,084,654, 4–9–63, Cl. 114—16.

Rosenberg, Harold J.: *See*—
Brown, Robert G., and Rosenberg. 3,091,324.
Chow, Chao K., and Rosenberg. 3,096,506.
Rabinow, Jacob, and Rosenberg. 3,080,072.
Rabinow, Jacob, and Rosenberg. 3,085,534.
Rabinow, Jacob, and Rosenberg. 3,103,999.

Rosenberg, Harry: *See*—
Linke, Horst, and Rosenberg. 3,113,661.

Rosenberg, Harry, and H. Linke, to Gewerkschaft Eisenhütte Westfalia. Apparatus for displacing a longitudinal mining conveyor. 3,072,241, 1–8–63, Cl. 198—126.

Rosenberg, Joseph, to General Electric Co. Composition comprising epoxy resin polyvinyl acetal, silica and a BF_3-amine complex. 3,098,054, 7–16–63, Cl. 260—41.

Rosenberg, Milton, and W. R. Johnston, to Ampex Corp. Magnetic-core counter. 3,096,509, 7–2–63, Cl. 340—174.

Rosenberg, Norman: *See*—
Wadsworth, Daniel V., Rosenberg, and Marino. 3,085,914.

Rosenberg, Norman W.: *See*—
McNally, Paul H., and Rosenberg. 3,113,112.

Rosenberg, Paul, to Simpla Research and Mfg. Co. Rotary file with photoelectric switch selector. 3,104,351, 9–17–63, Cl. 318—467.

Rosenberg, Richard H., and P. A. Chipouras, to General Electric Co. Torque and power sensing and control system for gas turbine engines. 3,106,062, 10–8–63, Cl. 60—39.16.

Rosenberg, Ross, to Rosenberg Bros. & Co. Ratchet screwdriver. 3,080,900, 3–12–63, Cl. 145—75.

Rosenberg, Sheldon, to Alles & Fisher, Inc. Process of treating tobacco and the resultant product. 3,085,581, 4–16–63, Cl. 131—144.

Rosenberg, Simon. Massaging device. 3,081,768, 3–19–63, Cl. 128—57.

Rosenberg, Stig E. Women's garment made partly or wholly of deposited latex surfaced with flock. 3,076,464, 2–5–63, Cl. 128—521.

Rosenberger, Albert J., to Rockwell Mfg. Co. Liquid flow control valve. 3,110,320, 11–12–63, Cl. 137—563.

Rosenberger, Thomas R., to Banner Welder, Inc. Arc welder back-up wheel. 3,098,147, 7–16–63, Cl. 219—60.

Rosenberry, George M., Jr., to General Electric Co. Starting circuit for a synchronous motor. 3,098,959, 7–23–63, Cl. 318—181.

Rosenberry, W. H.: *See*—
Tarczy-Hornoch, Zoltan. 3,105,195.

Rosenbladś Patenter, Aktiebolaget: *See*—
Jenssen, Sverre K., and Egenwall. 3,106,242.

Rosenblatt, David H., and G. H. Broome. Preparation of dichloroacetamide from malonitrile. 3,092,661, 6–4–63, Cl. 260—561.

Rosenblatt, Joseph: *See*—
Schwartz, Daniel M., Hackett, and Rosenblatt. 3,085,643.

Rosenblatt, Theodore M.: *See*—
Long, Robert B., and Rosenblatt. 3,081,312.

Rosenblum, Philip: *See*—
Wilhelm, John H., and Rosenblum. 3,072,963.

Rosenblum, Robert A., and E. W. Johnson, to United States of America, Army. Charger for a gun. 3,103,851, 9–17–63, Cl. 89—1.

Rosenbrock, Earl H.: *See*—
Hebert, Norman T., Rosenbrock, and Doedens. 3,075,929.

Rosenburg, Dale W.: *See*—
Hazen, George G., and Rosenburg. 3,094,543.

Rosendahl, Gottfried R., to Ball Bros. Research Corp. Projectors. 3,080,791, 3–12–63, Cl. 88—24.

Rosendahl, Gottfried R., to Ball Bros. Research Corp. Image converter and amplifier. 3,100,817, 8–13–63, Cl. 178—7.87.

Rosendall, Henry J.: *See*—
Yonkers, Robert A., Rosendall, and Lathrop. 3,085,284.

Rosene, Victor E., to Bell Telephone Laboratories, Inc. Relay pulsing circuit. 3,090,874, 5–21–63, Cl. 307—132.

Rosener, Wolfgang, to Vereinigte Glanzstoff-Fabriken A.G. Black dyeing of polymer textiles. 3,073,663, 1–15–63, Cl. 8—55.

Rösener, Wolfgang, to Verninigte Glanzstoff-Fabriken AG. Method for dyeing polypropylene textile material and product. 3,100,133, 8–6–63, Cl. 8—55.

Rosenfeld, Aaron, and K. Kupferberg, to Forbro Design Inc. Circuit means for preventing spike or surges at the output of a power supply. 3,092,757, 6–4–63, Cl. 317—16.

Rosenfeld, Alexander. Combined optical reproducer and projector. 3,101,025, 8–20–63, Cl. 88—24.

Rosenfeld, Eliasar B., T. N. Miagkich, M. N. Villam-Vilmont, E. M. Josse, and A. V. Plotnikov. Optical bronchoscope. 3,096,756, 7–9–63, Cl. 128—6.

Rosenfeld, Esriel. Removable tab. 3,106,719, 10–15–63, Cl. 2—141.

Rosenfeld, Klaus, and G. Mickley, to Escher Wyss G.m.b.H. Process for the preparation of fibre suspensions. 3,076,610, 2–5–63, Cl. 241—28.

Rosenfeld, Maurice S.: *See*—
Friedman, Richard, Rudnick, and Rosenfeld. 3,103,118.

Rosenfeld, Morton M. Toilet. 3,078,470, 2–26–63, Cl. 4—134.

Rosenfeld, Morton M. Toilet device. 3,092,842, 6–11–63, Cl. 4—90.

Rosenfeld, Morton M. Generator device for bombshelters. 3,093,054, 6–11–63, Cl. 98—1.

Rosenfeld, Morton M. Ventilation system. 3,093,056, 6–11–63, Cl. 98—33.

Rosenfeld, Morton M. Bombshelter ventilation means. 3,093,057, 6–11–63, Cl. 98—39.

Rosenfeld, Morton M. Bomb shelter. 3,093,097, 6–11–63, Cl. 109—1.

Rosenfeld, Morton M. Door structure for bomb shelter. 3,093,098, 6–11–63, Cl. 109—1.

Rosenfeld, Morton M. Bomb shelter ventilation apparatus. 3,103,154, 9–10–63, Cl. 98—1.

Rosenfeld, Morton M. Wall structure. 3,112,578, 12–3–63, Cl. 50—190.

Rosenheim, Donald E.: *See*—
Axelrod, Martin S., and Rosenheim. 3,096,450.

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Ringold, Howard J., Bowers, Mancera, and Rosenkranz. 3,084,157.
Ringold, Howard J., Bowers, and Rosenkranz. 3,084,173.
Ringold, Howard J., Mancera, Rosenkranz, and Edwards. 3,101,352.
Ringold, Howard J., and Rosenkranz. 3,080,399.
Ringold, Howard J., and Rosenkranz. 3,080,402.
Ringold, Howard J., and Rosenkranz. 3,082,221.
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Ringold, Howard J., and Rosenkranz. 3,088,950.
Ringold, Howard J., and Rosenkranz. 3,096,351.
Ringold, Howard J., and Rosenkranz. 3,103,521.
Ringold, Howard J., and Rosenkranz. 3,107,240.
Ringold, Howard J., Sondheimer, and Rosenkranz. 3,087,939.

Rosenkranz, George, and A. Bowers, to Syntex Corp. 4,4-dimethyl pregnanes. 3,105,843, 10–1–63, Cl. 260—397.45.

Rosenleaf, John R., to The Ehrsam & Sons Mfg. Co. Board inverter. 3,074,530, 1–22–63, Cl. 198—33.

Rosenleaf, John R., to The J. B. Ehrsam & Sons Mfg. Co. Blender belt. 3,096,212, 7–2–63, Cl. 118—111.

Rosenleaf, John R., to The J. B. Ehrsam & Sons Mfg. Co. Live bottom hopper feeder. 3,109,560, 11–5–63, Cl. 222—63.

Rosenqvist, Nils K. G., to Svenska Aeroplan Aktiebolaget. Device for lubricating crankshaft and connecting rod bearings by means of a forced-feed lubricator. 3,096,850, 7–9–60, Cl. 184—6.

Rosenstein, Abraham J. and N., and T. F. Suggs, to Spunize Co. of America, Inc. Method of producing crimped continuous filament yarn. 3,101,521, 8–27–63, Cl. 28—72.

Rosenstein, Ludwig, and M. H. Gorin. Removal of water from aqueous solutions and recovery of fresh water. 3,098,733, 7–23–63, Cl. 62—58.

Rosenstein, Nathan: *See*—
Rosenstein, Abraham J., and N. and Suggs. 3,101,521.

Rosenstock, David: *See*—
Gardner, Frederick H., Kohn, and Rosenstock. 3,077,773.

Rosenstock, H., & Sons, Inc.: *See*—
Lober, George M. 3,108,557.

Rosenthal, Adolph H., to Fairchild Camera and Instrument Corp. Correlation system for radar and the like. 3,088,113, 4–30–63, Cl. 343—17.1.

Rosenthal, Arnold J., to Celanese Corp. of America. Wet spinning column and process. 3,071,806, 1–8–63, Cl. 18—8.

Rosenthal, Arnold J., to Celanese Corp. of America. Conditioning of activated carbon. 3,088,983, 5–7–63, Cl. 260—652.

Rosenthal, Harry. Electric driving apparatus for a wheel chair. 3,100,547, 8–13–63, Cl. 180—6.5.

Rosenthal, Harry. Motor drive control for wheelchair. 3,100,860, 8–13–63, Cl. 318—35.

Rosenthal, Harry. Rigid display container. 3,108,686, 10–29–63, Cl. 206—45.34.

Rosenthal, Harry. Wire braced rigid display package. 3,114,453, 12–17–63, Cl. 206—45.33.

Rosenthal, Henry. Anti-pillaring smoke shell. 3,103,888, 9–17–63, Cl. 102—66.

Rosenthal, Norman A.: *See*—
Berenbaum, Morris B., Rosenthal, and Lecher. 3,099,643.

Rosenthal, Herbert, and J. Weisberg. Electrical connecting apparatus. 3,105,729, 10–1–63, Cl. 339—18.

Rosenthal, Manuel G. Means for installing lamp shade covers. 3,108,415, 10–29–63, Cl. 53—381.

Rosenthal, Salli A., to The Loewy Engineering Co. Ltd. Extrusion press with multiple-station billet container unit. 3,083,827, 4–2–63, Cl. 207—15.

Rosenthal, Salli, and F. S. Salter, to The Loewy Engineering Co. Ltd. Pressing tools. 3,085,812, 4–16–63, Cl. 279—4.

Rosenthal, Sol R. Package for transcutaneous injection. 3,072,122, 1–8–63, Cl. 128—253.

Rosenthal, Walter. Television receiver with picture selector device. 3,079,462, 2–26–63, Cl. 178—5.8.

Rosenzweig, Philip. Drapery pleater hook. 3,103,247, 9–10–63, Cl. 160—348.

Roshal, Joseph: *See*—
Sherr, Allan E., and Roshal. 3,072,494.

Rosier, Gerardus: *See*—
Verstraelen, Marie M. A. A. G., Volkers, and Rosier. 3,084,291.

Rosier, Gerardus, and J. van der Poel, to North American Philips Co., Inc. Detector circuit arrangement. 3,084,290, 4–2–63, Cl. 329—101.

Rosier, Raymond, to Societe d'Optique et de Mecanique de Haute Precision. Afocal optical system focal length changer. 3,094,580, 6–18–63, Cl. 88—57.

Rosin, Arthur, to Forbro Design Inc. Flux oscillator transformer with variable shunt. 3,112,439, 11–26–63, Cl. 323—56.

Rosin, Seymour, and E. B. Miller, to Technicon Instruments Corp. Flow cells. 3,080,789, 3–12–63, Cl. 88—14.

Rosing, Theodore F.: *See*—
Koertge, Nobel H., and Rosing. 3,109,904.

Rosing, Theodore F., to Cutler-Hammer, Inc. Shockproof electromagnetic contactor. 3,091,677, 5–28–63, Cl. 200—103.

Rosinski, Jan, and D. K. Werle, to United States of America, Atomic Energy Commission. Scavenging of radioactive aerosols. 3,113,007, 12–3–63, Cl. 55—84.

Rosinski, William B.: *See*—
Packer, Charles S., Keller, and Rosinski. 3,084,248.

Roske, Milton H., to United Shoe Machinery Corp. Inseam trimming machines. 3,101,494, 8–27–63, Cl. 12—4.4.

Rosky, Frederick: *See*—
Freers, Sidney L., and Rosky. 3,075,786.
Wenzel, Carl P., and Rosky. 3,111,308.

Rosky, Frederick, and C. P. Wenzel, to Ford Motor Co. Vehicle suspension system. 3,099,458, 7–30–63, Cl. 280—96.2.

Rösler, Wulff, to Gewerkschaft Eisenhutte Westfalia. Excess pressure valve. 3,079,946, 3–5–63, Cl. 137—525.

Rosmarin, Philip F. End wrap impregnated with pantothenyl alcohol. 3,087,501, 4–30–63, Cl. 132—43.

Rosmarin, Philip F. End wrap impregnated with hydrolyzed polyacrylic resins. 3,087,502, 4–30–63, Cl. 132—43.

Rosmarin, Philip F. End wrap impregnated with pantothenyl alcohol and hydrolyzed polyacrylic resins. 3,087,503, 4–30–63, Cl. 132—43.

Rosner, David: *See*—
Burton, George, Jr., Rosner, Landkrohn, and Machett. 3,093,726.

Rosner, Edward. Snuffer for cigarettes and the like. 3,108,602, 10–29–63, Cl. 131—237.

Rosner, Frances L. Package for ground meat. 3,079,028, 2–26–63, Cl. 220—22.

Rosner, Lawrence, and R. O. Foster, to Weston Laboratories, Inc. Method for detecting the presence of glucose in cerical mucus. 3,116,223, 12–31–63, Cl. 195—103.5.

Ross, Alan: *See*—
Jaffe, David L., and Ross. 3,080,483.
Jaffe, David L., Ross, and Sonnenschein. 3,100,264.

Ross, Alan, to Polarad Electronics Corp. Phase indicating spectrum analyzer. 3,074,014, 1–15–63, Cl. 324—77.

Ross, Anthony J. Float valve. 3,095,896, 7–2–63, Cl. 137—448.

Ross, Anthony J. Method and apparatus for freezing liquids. 3,101,598, 8–27–63, Cl. 62—71.

Ross, Arnold L.: *See*—
Cunningham, William E., and Ross. 3,088,210.

Ross, Bernard. Illumination device for wrist watches. 3,114,236, 12–17–63, Cl. 58—50.

Ross, Bernd, to Hoffman Electronics Corp. Variable delay pulse stretcher using adjustable bias. 3,089,037, 5–7–63, Cl. 307—88.5.

Ross, Clarence J., to Lockheed Aircraft Corp. Continuous flow displacement pump. 3,090,325, 5–21–63, Cl. 103—238.

Ross, David K., to National Distillers and Chemical Corp. Apparatus for refining metal chlorides in molten salts. 3,114,611, 12–17–63, Cl. 23—264.

Ross, Don H.: *See*—
Rubin, Eugene S., and Ross. 3,086,357.

Ross, Donald, to Bolt, Berneck and Newman, Inc. Damping structure. 3,087,573, 4–30–63, Cl. 181—33.

Ross, Donald S., to Itek Corp. Data processing system. 3,090,290, 5–21–63, Cl. 95—89.

Ross, Edward J., to Mine Safety Appliances Co. Transistorized low-frequency modulator system. 3,080,535, 3–5–63, Cl. 332—29.

Ross, Edward J., to Mine Safety Appliances Co. Hot wire gas detector and indicator. 3,087,795, 4–30–63, Cl. 23—255.

Ross, Eugene G.: *See*—
Holswarth, James C., and Ross. 3,077,659.

Ross Gear and Tool Co., Inc.: *See*—
Dettlof, Lee A., and Hudgens. 3,087,436.

Ross, Gerald F.: *See*—
Ball, Joseph L., Edmonds, and Ross. 3,096,491.

Ross, Gerhard: *See*—
Söder, Alfons, Lämmler, Ross, and Kempe. 3,098,006.

Ross, Henry S.: *See*—
Wolverton, Marcine P., and Ross. 3,089,703.

Ross, Ian M., to Bell Telephone Laboratories, Inc. Semiconductive switch. 3,078,196, 2–19–63, Cl. 148—33.

Ross, Irving I.: *See*—
Hoffman, Jess H., Ross, and Conover. 3,084,320.

Ross, James A., to Ling-Temco-Vought, Inc. Multiplane electromechanical control system. 3,087,328, 4–30–63, Cl. 73—71.6.

Ross, James A., to Ling-Temco-Vought, Inc. Pulse former using gas tube with substantially grounded suppressor and negative pulse for rapid deionization. 3,088,074, 4–30–63, Cl. 328—67.

Ross, James A., and J. W. Harter III, to Ling-Temco-Vought, Inc. High power synthetic waveform generator. 3,100,851, 8–13–63, Cl. 307—107.

Ross, James F., to Esso Research and Engineering Co. Method for drying wet solid polymeric material. 3,073,810, 1–15–63, Cl. 260—93.7.

Ross, James F., and B. R. Tegge, to Esso Research and Engineering Co. Dehydration of polymerization diluent. 3,085,998, 4–16–63, Cl. 260—93.7.

Ross, John S., to United States of America, Navy. Sectional torsionally rigid mast. 3,110,368, 11–12–63, Cl. 189—26.

Ross, John W.: *See*—
Runyan, Walter R., Ross, and Fischer. 3,093,456.

Ross, John W., and R. F. Turbitt, to Union Carbide Canada Ltd. Consumable electrode arc welding process and apparatus. 3,088,018, 4–30–63, Cl. 219—60.

Ross, Joseph I. Non-reversing hermaphroditic cable connectors. 3,086,188, 4–16–63, Cl. 339—49.

Ross, Karl F. Wide-angle catoptric system. 3,112,355, 11–26–63, Cl. 88—57.

Ross, Lee W.: *See*—
Martin, Lynn P., Thompson, Brannon, and Ross. 3,073,286.

Ross, Lon, to Maurice Duchin Creations, Inc. Furniture construction. 3,097,615, 7–16–63, Cl. 108—155.

Ross, Marvin O., to General Motors Corp. Drive mechanism for domestic appliance. 3,087,351, 4–30–63, Cl. 74—368.

Ross, Marvin O., to General Motors Corp. Dry cleaning appliance. 3,102,093, 8–27–63, Cl. 210—382.

Ross, Milton E., to Aerol Co., Inc. Shear tread wheel. 3,114,408, 12–17–63, Cl. 152—323.

Ross Operating Valve Co.: *See*—
Brinkel, Edwin P. 3,080,888.
Brinkel, Edwin P. 3,092,145.

Ross Radio Corp.: *See*—
Aiken, William R. 3,089,120.

Ross, Richard W. Room ventilating apparatus. 3,085,491, 4–16–63, Cl. 98—119.

Ross, Robert S.: *See*—
Bain, Bruce K., Blair, Burger, Ross, Vorachek, and Wolcott. 3,106,373.

Ross, Sidney: *See*—
Wilkerson, Kenneth R. 3,080,902.

Ross, Sidney. Gun launched, terminal guided projectile. 3,072,055, 1–8–63, Cl. 102—50.

Ross, Stanley E., to Allied Chemical Corp. Process for treating synthetic continuous filament yarns and resulting product. 3,103,448, 9–10–63, Cl. 117—139.5.

Ross, Stuart T., and H. M. Luehmann, to Chrysler Corp. Process and composition for metallising aluminum with another metal. 3,096,567, 7–9–63, Cl. 29—155.5.

Ross-Tacony Crucible Co.: *See*—
Roberts, Henry E. 3,103,720.

Ross, Thaddeus C., to A. Kimball Co. Tag marking machines with error checks. 3,098,606, 7–23–63, Cl. 234—33.

Ross, Walter C. J., and W. Davis, to National Research Development Corp. P-N,N-di(2-chloroethyl)-aminophenoxyalkanoic acids and alkyl esters thereof. 3,105,847, 10–1–63, Cl. 260—471.

Ross, Wilfred T., C. H. Bloomster, and R. E. Bardsley, to United States of America, Atomic Energy Commission. Method of preparing a ceramic fuel element. 3,102,850, 9–3–63, Cl. 204—154.2.

Ross, William A., and G. E. Swick, Jr., to Dura Corp. Automatic safety leg. 3,088,546, 5–7–63, Cl. 187—8.49.

Ross, William H., to Texas Instruments Inc. Apparatus for making semiconductor units. 3,077,754, 2–19–63, Cl. 65—153.

Ross, William L.: *See*—
Griggs, John O., Ross, and Fraser. 3,086,876.

Rossbach, Paul F., to Eaton Mfg. Co. Method of manufacturing brake shoes. 3,101,533, 8–27–63, Cl. 29—552.

Rosseau, Leon B., to Ajax Electric Co. Electric salt bath furnace and electrode. 3,105,865, 10–1–63, Cl. 13—23.

Rosselet, Claude E., to Sarmi S.A., Societe d'Applications de Recherches Minieres et Industrielles. Fixing gun using cartridge for driving nails, pins and the like into hard compact materials. 3,075,195, 1–29–63, Cl. 1—44.5.

Rosselet, Claude E., to Sarmi S.A., Societe d'Applications de Recherches Minieres et Industrielles. Means for attachment by fastening-clip. 3,107,076, 10–15–63, Cl. 248—71.

Rosselet, Jean, to Etablissement Valerca. Safety device for the fuse of a gyrating missile during flight. 3,073,241, 1–15–63, Cl. 102—79.

Rossen, Hans A. Cheese mould and insert for such cheese mould. 3,095,647, 7–2–63, Cl. 31—45.

Rosser, Charles M., and R. A. Glinski, to American Viscose Corp. Oxidation resistant cellulosic pellicle and process for the manufacture thereof. 3,091,554, 5–28–63, Cl. 117—144.

Rossetto, Louis, G. F. Squassoni, E. F. Coleman, and W. S. Gorrill, to Mergenthaler Linotype Co. Photocomposing machine. Re. 25,354, 3–19–63, Cl. 95—4.5.

Rossetto, Louis, and G. F. Squassoni, to Mergenthaler Linotype Co. Photocomposing machine. 3,074,328, 1–22–63, Cl. 95—4.5.

Rossetto, Louis, and W. B. Abbott, to Mergenthaler Linotype Co. Line casting machine. 3,077,260, 2–12–63, Cl. 199—56.

Rossetto, Louis, G. F. Squassoni, and W. O. Grube, to Mergenthaler Linotype Co. Typographical photocomposing machine. 3,106,880, 10–15–63, Cl. 95—4.5.

Rossi, Alfred J., H. R. Van Goey, and F. C. Gilmore, to United States of America, Navy. Retrievable apparatus. 3,076,982, 2–12–63, Cl. 9—8.

Rossi, Angelo J., to G. B. Rossi & Figli (Africa) (Proprietary) Ltd. Device for entraining materials in a flow of liquid. 3,095,243, 6–25–63, Cl. 302—14.

Rossi, Dominick J., to Automatic Timing and Controls, Inc. Timers. 3,081,384, 3–12–63, Cl. 200—38.

Rossi, Emil R. Egg top remover. 3,090,413, 5–21–63, Cl. 146—2.

Rossi, G. B., & Figli (Africa) (Proprietary) Ltd.: *See*—
Rossi, Angelo J. 3,095,243.

Rossi, Giorgio: *See*—
Peri, Cesare A., Rossi, and Michieli. 3,080,277.

Rossi, William F., and P. O. Huston, to Specialties Development Corp. Container. 3,079,038, 2–26–63, Cl. 220—83.

Rossing, Thomas D., A. V. Pohm, and S. M. Rubens, to Sperry Rand Corp. Non-destructive sensing of thin film magnetic cores. 3,092,812, 6–4–63, Cl. 340—174.

Rossmann, Helmut, to Gebruder Netsch Maschinenfabrik. Vacuum gypsum mixers. 3,098,640, 7–23–63, Cl. 259—122.

Rossmy, Gerd, and J. Wassermeyer, to Th. Goldschmidt A.-G. Method of producing organo-silicon compounds and products therefrom. 3,109,012, 10–29–63, Cl. 260—448.2.

Rossmy, Gerd, and J. Wassermeyer, to Th. Goldschmidt, A.G. Process for the production of polyalkyl silicic acid esters. 3,115,512, 12–24–63, Cl. 260—448.8.

Rössner, Wolfgang, to Siemens-Schuckertwerke Aktiengesellschaft. Hard-soldering method, particularly for joining nuclear-reactor components. 3,085,141, 4–9–63, Cl. 219—9.5.

Rost, Richard L.: *See*—
Hardy, Maurice E., Polley, and Rost. 3,107,835.

Rost, Richard L., to Zenith Radio Corp. Tape recorder. 3,105,645, 10–1–63, Cl. 242—55.13.

Rost, Thomas E., to Hills-McCanna Co. Safety cutoff valve. 3,096,786, 7–9–63, Cl. 137—596.2.

Rostad, Irven O. Open end ratchet wrench. 3,077,801, 2–19–63, Cl. 81—61.

Rostal, Alfred, to Young Brothers Co. Conveyor belt control device. 3,088,581, 5–7–63, Cl. 198—202.

Rosttas, Ernest, to Thomson-Houston Compagnie Francaise. Ion pumps. 3,081,020, 3–12–63, Cl. 230—69.

Rostz Richard L.: *See*—
Polley, Eugene J., and Rostz. 3,105,646.

Roszkowski, Adolph P.: *See*—
Hopkins, Thomas R., Rea, and Roszkowski. 3,100,223.

Rotark Engineering Co. Ltd.: *See*—
Hore, Donald L. 3,111,958.

Rotary Hospital Equipment Corp.: *See*—
De Besino, Henry G., and Weiss. 3,094,118.

Rotax Ltd.: *See*—
Bunzl, Thomas F. 3,103,089.
Guy, Kenneth T., and Chandler. 3,092,132.
Hayter, Charles E. 3,108,208.
Horvath, Gyula. 3,080,032.

Roters, Herbert C., W. A. Kropp, and G. W. Harasym, to General Time Corp. Rotary solenoid. 3,092,762, 6–4–63, Cl. 317—197.

Rote-Stalls Corp.: *See*—
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Rotgart, Albert, to Visionade Mfg. Co., Inc. Coin holder. 3,080,963, 3–12–63, Cl. 206—84.

Roth, Anton. Vehicle parking installation. 3,091,349, 5–28–63, Cl. 214—16.1.

Roth, Anton. Parking garage system. 3,102,645, 9–3–63, Cl. 214—16.1.

Roth, Artur, to Lanston Industries, Inc. Pump mechanism and control therefor. 3,093,237, 6–11–63, Cl. 199—52.

Roth, Artur, to Lanston Industries, Inc. Matrix case. 3,109,536, 11–5–63, Cl. 199—79.

Roth, Artur, to Lanston Industries, Inc. Method and structure for assembling flexible tubing within a bore, and joint produced thereby. 3,114,969, 12–24–63, Cl. 29—450.

Roth, Arthur, and N. Thomas, to Lanston Industries, Inc. Type composing machine. 3,105,635, 10–1–63, Cl. 234—5.

Roth, Curt B.: *See*—
Horwitz, Lester, and Roth. 3,080,363.

Roth, Curt B., and F. W. H. Mueller, to General Aniline & Film Corp. Method of incorporating metal salts of color couplers in photographic emulsions. 3,080,233, 3–5–63, Cl. 96—100.

Roth, David C., and K. H. Florenz. Arcuate brush arrangement. 3,079,621, 3–5–63, Cl. 15—160.

Roth, Douglas J.: *See*—
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Roth, Emanuel F. Self-unloading vehicle. 3,110,406, 11–12–63, Cl. 214—510.

Roth, Emil, and G. Michael, to Riedel & Co. Acid copper plating bath. 3,101,305, 8–20–63, Cl. 204—52.

Roth, Heinz, to Brown, Boveri & Cie, Aktiengesellschaft. Electrical resistance for heavy duty switch. 3,072,766, 1–8–63, Cl. 200—146.

Roth, Herbert, and M. Geller, to Power Designs, Inc. Transistor power supply. 3,083,330, 3–26–63, Cl. 323—22.

Roth, Karl: *See*—
Wasserrab, Theodor, and Roth. 3,083,329.

Roth, Karl M., and F. K. Floden. Fowl defeathering method. 3,074,103, 1–22–63, Cl. 17—45.

Roth, Laurence W., and F. Keller, to Riker Laboratories, Inc. Dichrostachys glomerata hypotensive agent. 3,089,817, 5–14–63, Cl. 167—65.

Roth, Lester H. Bone and tissue repair. 3,075,880, 1–29–63, Cl. 167—65.

Roth, Norman G.: *See*—
Freier, Gerald H., and Roth. 3,080,252.

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Roth, Philip B., and L. B. Hallows, to American Cyanamid Co. Durable antibacterial textile finish for cellulosic fibers. 3,072,534, 1–8–63, Cl. 167—84.

Roth, Szymon: *See*—
Cohen, Elie, and Roth. 3,076,109.

Roth, Walter: *See*—
Sollberger, Hans, and Roth. 3,089,411.

Roth, Wilfred: *See*—
Henderson, Paul D. 3,108,475.

Roth, Wilfred. Gyroscopic mass flowmeters. 3,087,325, 4–30–63, Cl. 73—3.

Roth, William B.: *See*—
Wohlrabe, Frank C., Mark, Roth, and Mehltretter. 3,116,351.

Roth, Willy: *See*—
Trebox, Jules and Roth. 3,073,706.

Rothbart, Arthur, to International Telephone and Telegraph Corp. Signal storage system. 3,115,618, 12–24–63, Cl. 340—173.

Rothbauer, Louis J., Jr., to Modern Sleep Products Co. Support frame for furniture. 3,098,244, 7–23–63, Cl. 5—247.

Rothberg, Jack L., and A. R. Melcher, to Scoremaster, Inc. Bowling scorekeeping machine. 3,093,374, 6–11–63, Cl. 273—43.

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Mueller, Fritz K., W. H. and H. C. Rothe, Martin, and Loughead. 3,105,857.

Rothe, Wilhelm E.: *See*—
Mueller, Fritz K., W. E. and H. C. Rothe, Martin, and Loughead. 3,105,657.

Rothe, Wilhelm E., to Astro-Space Laboratories, Inc. Diagnostic aid. 3,076,452, 2–5–63, Cl. 128—2.05.

Rothen, Franz: *See*—
Wicki, Werner, Rothen, and Krebs. 3,110,104.

Rothenberger, Jakob. Method of treating materials in a washing machine. 3,073,668, 1–15–63, Cl. 8—159.

Rothenborg, Kai M. Sorting shelving. 3,107,012, 10–15–63, Cl. 211—11.

Rothenborg Specialmaskiner for Sy-Industrien A/S af Kobenhavn: *See*—
Hedegaard, Kristen. 3,114,340.

Rothermel, Edward M., to Dayco Corp. Flexible hose. 3,115,898, 12–31–63, Cl. 138—122.

Rothfuchs, Paul, 51% to Specialized Patents Sales and Developments Ltd. Portable stamping device. 3,071,067, 1–1–63, Cl. 101—21.

Rothfuss, George A. Device for labeling and holding tape on reel. 3,112,030, 11–26–63, Cl. 206—53.

Rothkrans, Leonardus J., to Stamicarbon N.V. Process and apparatus for preparing urea from NH_3 and CO_2. 3,105,-093, 9–24–63, Cl. 260—555.

Rothman, Henry, and A. Raskin; said Raskin assor. to said Rothman. Automatic product remover for paper cutting machine. 3,106,119, 10–8–63, Cl. 83—82.

Rothmann, Harry E., to General Foods Corp. Easy to open carton. 3,075,684, 1–29–63, Cl. 229—51.

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Rothweiler, Alfred Fr., to Daimler-Benz Aktiengesellschaft. Front axle auxiliary frame suspension. 3,093,391, 6–11–63, Cl. 280—106.5.

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Rotor Maskiner Aktiebolag, Svenska: *See*—
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Rototone, Inc.: *See*—
Santi, Harris H. 3,095,940.

Rotron Mfg. Co., Inc.: *See*—
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Rotta Research Laboratorium S.p.A.: *See*—
Rovati, Luigi. 3,098,868.

Rotter, Lutwin C., to The McNeil Machine & Engineering Co. Dispensing apparatus. 3,081,913, 3–19–63, Cl. 222—250.

Rottig, Walter, to Ruhrchemie Aktiengesellschaft. Method and apparatus for production of porous bodies from plastics. 3,102,300, 9–3–63, Cl. 18—5.

Rottmayr, Friedrich, to Gesellschaft fuer Linde's Eismaschinen Aktiengesellschaft. Process for the production of acetylene-free ethylene. 3,087,310, 4–30–63, Cl. 62—17.

Rottmayr, Friedrich, to Gesellschaft fur Linde's Eismaschinen Aktiengesellschaft. Method and apparatus for avoiding nitric oxide-containing deposits in gas decomposing plants. 3,101,262, 8–20–63, Cl. 62—23.

Rouban, Basile, to Les Successeurs de B. Trayvou. Automatic weighing machines for grannlar products. 3,076,516, 2–5–63, Cl. 177—81.

Roudabush, Ned W., to H. K. Porter Co., Inc. Refractory bricks. 3,086,330, 4–23–63, Cl. 50—396.

Rouge, Leon J. D.: *See*—
Gaule, Gerhart K., Kedeedy, and Rouge. 3,096,158.

Rouge, Pierre, to Commissariat a l'Energie Atomique. Gauge for measuring the displacement of a body. 3,084,541, 4–9–63, Cl. 73—141.

Rough, Charles L. Folding boat. 3,097,371, 7–16–63, Cl. 9—1.

Roulina, Jean-Claude H., to Compagnie Nationale Air France. Device for distributing trays of food. 3,104,141, 9–17–63, Cl. 312—306.

Rounds, Gerald L., and J. F. Hoefferle, to Kaiser Steel Corp. Device for aspirating and heating a liquid fumigant. 3,095,-264, 6–25–63, Cl. 21—111.

Rounds, Kenneth S., and C. F. Hofmeier; said Rounds assor. to said Hofmeier. Check protectors. 3,105,436, 10–1–63, Cl. 101—20.

Rountree, Clarence O., Jr., to United States Steel Corp. Conveyor. 3,101,836, 8–27–63, Cl. 198—162.

Rountree, Fred H., to Moran Shoe Co. Counter display rack. 3,092,257, 6–4–63, Cl. 211—49.

Rouse, Calvin. Rotating seesaw. 3,107,913, 10–22–63, Cl. 272—30.

Rouse, Robert L.: *See*—
Newman, Ronald C., Wakefield, and Rouse. 3,074,146.

Rouse, Warren B. Hold down clamp. 3,090,612, 5–21–63, Cl. 269—91.

Rouser, Richard F.: *See*—
Paper, Meyer, Knudtson, Olson, and Rouser. 3,076,358.

Roush, Paul A.: *See*—
Daggett, Frederick K., Hall, and Roush. 3,107,697.

Roussan, Wilford J., Jr., and M. Osterman, to Industrial Engineering & Equipment Co. Bushing construction in air heating device. 3,092,705, 6–4–63, Cl. 219—19.

Rousseau, Jean L. I., to The Garrett Corp. Container for liquefied gas. 3,087,311, 4–30–63, Cl. 62—54.

Rousseau, Maurice. Tool for obtaining lining or packing for a brassiere. 3,082,653, 3–26–63, Cl. 82—12.

Rousseau, William P. C., to The Badger Co., Inc. Production of phthalic anhydride. 3,080,382, 3–5–63, Cl. 260—346.4.

Roussel, Louis J., to Universal Drilling Co., Inc. Signal attachment for offshore barge jacks. 3,109,289, 11–5–63, Cl. 61—46.5.

Roussel-UCLAF, S.A.: *See*—
Amiard, Gaston, Gofflnet, and Velluz. 3,109,008.
Amiard, Gaston, Heymes, and Van Thuong. 3,081,300.
Amiard, Gaston, Torelli, and Cerede. 3,104,246.
Bellet, Paul, and Velluz. 3,090,729.
Bertin, Daniel. 3,114,675.
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Bertin, Daniel, Fritel, and Nedelec. 3,094,524.
Bertin, Daniel, and Nedelec. 3,079,385.
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Nomine, Gerard, Bucourt, and Pierdet. 3,115,507.
Nominé, Gerard, Bucourt, and Snozzi. 3,075,970.
Nomine, Gerard, Bucourt, and Tessier. 3,102,145.
Nomine, Gerard, Bucourt, and Tessier. 3,109,009.
Nomine, Gerard, Bucourt, and Vignau. 3,085,098.
Nomine, Gerard, Bucourt, and Vignau. 3,085,099.
Nomine, Gerard, Vignau, and Pennasse. 3,109,857.
Velluz, Leon, Amiard, and Heymes. 3,076,797.

Roussillon, Gaston, and M. Riou, to Pechiney Compagnie de Produits Chimiques et Electrometallurgiques. Process for improving the properties of vinyl chloride polymers. 3,111,-506, 11–19–63, Cl. 260—87.5.

Rousson, Georges, to Anstalt fur Technische Entwicklung und Verwertung. Casing for the production of a shrinkage funnel inhibitor coating in an ingot or like mold. 3,095,618, 7–2–63, Cl. 22—9.

Rout, Eric R., to Marconi's Wireless Telegraph Co. Ltd. Oscillator synchronisation circuits utilising directly applied sync pulses and control voltage. 3,074,027, 1–15–63, Cl. 331—2.

Routson, Willis G., and T. C. Spence, to The Dow Chemical Co. Method of making high-shrink textile fibers. 3,097,-054, 7–9–63, Cl. 18—54.

Routson, Willis G., and T. C. Spence, to The Dow Chemical Co. Method of making high-shrink textile fibers. 3,097,-055, 7–9–63, Cl. 18—54.

Rouviere, Roger F.: *See*—
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Rouy, Auguste L. M. A., to Daystrom, Inc. Method for polarimetric analysis. 3,113,171, 12–3–63, Cl. 88—14.

Rovati, Luigi, to Rotta Research Laboratorium S.p.A. Amine salts of glycuronic acid. 3,098,868, 7–23–63, Cl. 260—501.

Rove, Gene: *See*—
Glaser, Henry, and Rove. 3,098,448.

Rover Co. Ltd., The: *See*—
Penny, Robert N., and King. 3,085,619.

Rovesti, Paolo, to Research and Mechanical Applications S.p.A.-R.A.M.A. Production of cellulose furfural and fodder from agricultural waste. 3,085,038, 4–9–63, Cl. 162—16.

Rovin, Herman, to United States of America, Navy. Omnidirectional inertia actuated switch. 3,089,007, 5–7–63, Cl. 200—61.48.

Row, Ronald H. P., to Foster Wheeler Corp. Vapour generators. 3,098,469, 7–23–63, Cl. 122—478.

Rowan Controller Co.: *See*—
Cinibulk, Walter M. 3,108,165.

Rowan Drilling Co., Inc.: *See*—
Liem, Jack H., Rowe, Yancey, and Wysick. 3,104,094.

Rowan, Hartley D., and J. M. Coughlin, to General Electric Co. Electric lamp mount making method. 3,073,356, 1–15–63, Cl. 140—71.6.

Rowan, Henry A., and D. H. Shiffner, to Magnus Chemical Co., Inc. Apparatus for cleaning industrial parts. 3,083,-716, 4–2–63, Cl. 134—46.

Rowan, Preston D.: *See*—
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Rowan, Robert L. Surgical packing. 3,095,877, 7–2–63, Cl. 128—260.

Rowbottom, Jack, to E. I. du Pont de Nemours and Co. Acrylonitrile synthesis from acetylene and hydrogen cyanide in non-aqueous promoted cuprous chloride catalyst solution. 3,114,764, 12–17–63, Cl. 260—465.3.

Rowe, Brian H., to General Electric Co. Gas coupling duct system for fluid supported vehicle. 3,095,165, 6–25–63, Cl. 244—12.

Rowe, Charles L.: *See*—
Franck, George E., and Rowe. 3,077,221.

Rowe, Dale H., and R. R. Jackwig, to Rowe Mfg. Co. Combined hinge and track roller supporting structure. 3,102,-583, 9–3–63, Cl. 160—209.

Rowe, David E., Sr. Fish lure. 3,070,917, 1–1–63, Cl. 43—42.24.

Rowe, Edgar R.: *See*—
Coker, Richard G., Rowe, and Dunlap. 3,111,285.

Rowe, Frank E., Jr.: *See*—
Klein, Norman E., and Rowe. 3,081,510.

Rowe, Harry C., to Radio Corea, Inc. Relay. 3,080,509, 3–5–63, Cl. 317—149.

Rowe, Henry H. G., and U. M. Geissler. Ultra-high-speed pneumatically driven machine tools, such as drills and the like. 3,101,014, 8–20–63, Cl. 77—33.5.

Rowe, Lester M., and M. C. Totman. Exhaust pipe attachment for filtering exhaust gases. 3,114,617, 12–17–63, Cl. 55—267.

Rowe, Mfg. Co.: *See*—
Rowe, Dale H., and Jackwig. 3,102,583.

Rowe Mfg. Co., Inc.: *See*—
Krakauer, Merrill, and Katz. 3,074,593.
Krakauer, Merrill, and Koch. 3,093,918.
Krakauer, Merrill, and Verbeke. 3,107,000.
Leonard, Raymon R., and Krakauer. 3,087,649.
Reynolds, Donald. 3,085,496.

Rowe, Marcus G.: *See*—
Liem, Jack H., Rowe, Yancey, and Wysick. 3,104,094.

Rowe, Paul H., to Maas-Rowe Carillons. Programmer. 3,095,485, 6–23–63, Cl. 200—35.

Rowe, Raymond N., to General Electric Co. Electricity distributing conduit apparatus. 3,099,504, 7–30–63, Cl. 339—22.

Rowe, Robert S. Method for establishing, determining and checking tension in guy wires, suspension cables and the like. 3,073,156, 1–15–63, Cl. 73—143.

Rowe, William, to Bonafide Mills, Inc. Method of and apparatus for making decorative surface covering sheets. 3,078,510 2–26–63, Cl. 18—11.

Rowe, William D., to Westinghouse Electric Corp. Motor control apparatus. 3,082,368, 3–19–63, Cl. 318—467.

Rowe, William D., to Westinghouse Electric Corp. Memory circuit using NOR elements. 3,104,327, 9–17–63, Cl. 307—88.5.

Rowe, William D., to Westinghouse Electric Corp. NOR logic switching circuit having substantially constant output voltage characteristics. 3,114,052, 12–10–63, Cl. 307—88.5.

Rowe, William D., and T. A. Jeeves, to Westinghouse Electric Corp. Electrical binary computer apparatus. 3,078,040, 2–19–63, Cl. 235—164.

Rowe, William E.: *See*—
Johnson, James R., and Rowe. 3,087,779.
Perry, Lindsey R., and Rowe. 3,080,231.

Rowe, William E. Semiconductor devices and method of manufacture. 3,074,145, 1–22–63, Cl. 29—25.3.

Rowe, William E., 25% to G. W. Crowley. Photographic fabrication of semiconductor devices. 3,079,254, 2–26–63, Cl. 96—36.

Rowekamp, Edward F., to The Lodge & Shipley Co. Internally gripping article transferring apparatus. 3,075,800, 1–29–63, Cl. 294—88.

Rowekamp, Edward F., to The Lodge & Shipley Co. Externally gripping article transferring apparatus. 3,108,835, 10–29–63, Cl. 294—88.

Rowell, Douglas C., A. C. Klaczynski, and W. R. Flinn, to Anaconda American Brass Co. Tube leakage testing apparatus. 3,070,993, 1–1–63, Cl. 73—49.5.

Rowell, William G. Method of and apparatus for temperature-stabilizing semi-conductor relays and the like. 3,092,-730, 6–4–63, Cl. 307—88.5.

Rowell, William G., to Scully Signal Co. Fluid level detector and method. 3,109,415, 11–5–63, Cl. 122—504.

Rowen, John H., to Bell Telephone Laboratories, Inc. Electromagnetic wave generation utilizing electron spins in magnetic materials. 3,087,122, 4–23–63, Cl. 331—94.

Rowlan, Albert M.: *See*—
Lobas, John J., and Rowlan. 3,094,923.

Rowland, Ben W., to Georgia Kaolin Co. Paper coating pigments. 3,085,894, 4–16–63, Cl. 106—306.

Rowland, David L. Compactly stackable chair. 3,080,194, 3–5–63, Cl. 297—239.

Rowland, Eugene R. Grate inlet. 3,089,396, 5–14–63, Cl. 94—31.1.

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Rowland, George P., Jr., and J. J. Wolski, to The Firestone Tire & Rubber Co. Metal salts of alkyl betta-amino dipropionic acids. 3,078,289, 2–19–63, Cl. 260—429.7.

Rowland, Howard J., to Electronic Specialty Co. Dual polarized horn. 3,089,102, 5–7–63, Cl. 333—6.

Rowland, Milton E., to Pacific Valves Inc. Internal stop means for valves. 3,107,546, 10–22–63, Cl. 74—526.

Rowland Products, Inc.: *See*—
Rowland, William P. 3,096,545.

Rowland, William P., to Rowland Products, Inc. Resilient spacer for press-finishing of plastic sheet. 3,096,545, 7–9–63, Cl. 18—17.

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Miller, Norman B., Pigott, Whitmarsh, and Rowlands. 3,113,286.

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Rowlett, Beb H., and A. Silver, to The Garrett Corp. Temperature responsive variable means for controlling flow in turbo-machines. 3,079,127, 2–26–63, Cl. 253—52.

Rowlett, Willard A. Idler arm repair kit. 3,073,655, 1–15–63, Cl. 308—135.

Rowley, David S., to Jersey Production Research Co. Gas turbine drive drilling apparatus. 3,083,779, 4–2–63, Cl. 175—107.

Rowley, David S., to Jersey Production Research Co. Diamond drill bit. 3,112,803, 12–3–63, Cl. 175—329.

Rowley, Martin E.: *See*—
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Hiatt, Gordon D., and Rowley. 3,075,963.
Malm, Carl J., and Rowley. 3,075,964.

Rowley, Martin E., to Eastman Kodak Co. Method for making water-soluble sheet film. 3,091,541, 5–28–63, Cl. 106—187.

Rowley, Richard B.: *See*—
Ingham, William E., and Rowley. 3,110,802.

Rowlinson, Hugh C., to Canadian Industries Ltd. Melt-spinning of polymers. 3,097,056, 7–9–63, Cl. 18—54.

Rowse, James A. Production of sauces and purees from fruits and vegetables. 3,103,438, 9–10–63, Cl. 99—100.

Rowse, Robert A., to Norton Co. Grinding wheels having unsaturated organic polymeric bonds and the like. 3,098,-730, 7–23–63, Cl. 51—298.

Roxas, Pedro G., to P. Robledano. Process of recovering oils from oleaginous meats of nuts, beans and seeds. 3,083,365, 3–26–63, Cl. 260—412.2.

Roxburgh, Albert, A. Leigh, and J. J. Fellerman, to Associated Electrical Industries Ltd. Air or gas blast electric circuit breakers. 3,079,534, 2–26–63, Cl. 317—59.

Roxstrom, Erie B. Apparatus for determining the orientation of drill cores. 3,115,196, 12–24–63, Cl. 175—44.

Roy, Gerald L.: *See*—
Miller, Charles M., Jr., and Roy. 3,100,577.

Roy, Grover D.: *See*—
Overholt, Donald C., Roy, and Warren. 3,084,118.

Roy, Henry A., Sr. Height gage. 3,115,708, 12–31–63, Cl. 33—143.

Roy, Jacques P. J., to J. I. Case Co. Supplementary feed arm for a pickup baler. 3,106,814, 10–15–63, Cl. 56—341.

Roy, Leo T., to Craft, Inc. Corner hinge construction. 3,100,-073, 8–6–63, Cl. 229—44.

Roy, Milton, Co.: *See*—
Williams, William A. 3,075,613.
Williams, William A. 3,107,624.

Roy, Richard. Cleaning implement having a swivelly mounted handle. 3,108,304, 10–29–63, Cl. 15—144.

Roy, Rustum, to Bausch & Lomb Inc. Densification of glass, germanium oxide, silica or boric acid. 3,098,699, 7–23–63, Cl. 18—59.2.

Royal Industries, Inc.: *See*—
Koelsch, Emery F. 3,084,830.

Royal Jet: *See*—
Koelsch, Emery F. 3,084,830.

Royal Master Grinders, Inc.: *See*—
Hughes, Daniel C. 3,108,407.
Hughes, Daniel C. 3,113,563.

Royal McBee Corp.: *See*—
Gryk, Leon. 3,088,103.
Hebert, Donald G. 3,100,599.
Kloski, John F. 3,087,593.
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Ryan, William P. 3,098,398.
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Spalla, Joseph R. 3,080,038.

Royalmetal Corp.: *See*—
Benoit, Roland A. 3,098,686.

Royce, Damon V., Jr.: *See*—
Watson, David R., Lippman, and Royce. 3,106,452.

Royce, John H. Tissue macerator. 3,082,805, 3–26–63, Cl. 146—68.

Royce, Mark B., to Continental Can Co., Inc. Container for fruits, vegetables and the like. 3,108,731, 10–29–63, Cl. 229—14.

Royer, Herman G., Sr. Gun rest. 3,077,678, 2–19–63, Cl. 36—1.

Royer, Leslie W., and R. H. Wainwright, to Koppers Pittsburgh Co. Vanadium pentoxide catalyst and method of preparation thereof. 3,107,223, 10–15–63, Cl. 252—428.

Royle, Joseph K.: *See*—
Bowden, Bertram V., Koenigsberger, and Royle. 3,090,-896.

Royle, Joseph K., to National Research Development Corp. Hydraulic control valve. 3,093,159, 6–11–63, Cl. 138—46.

Royse, David: *See*—
Shoultes, Donald P., and Royse. 3,085,230.

Royster, Robert H. Fluid pressure actuator and locking means. 3,107,582, 10–22–63, Cl. 92—24.

Royster, Robert H. Extensible and retractable device having manually releasable positive locking means. 3,107,933, 10–22–63, Cl. 287—58.

Rozalsky, Irving: *See*—
Early, Curtis L., and Rozalsky. 3,112,232.
Wittner, Eugene, and Rozalsky. 3,100,749.

Rozanski, Anthony J. Tire anti-skid device. 3,085,614, 4–16–63, Cl. 152—229.

Rozentals, Alfreds, to Universal Bearing Corp. Method and apparatus for assembling rolling elements in antifriction bearings. 3,103,059, 9–10–63, Cl. 29—148.4.

Rozmus, Walter J., to Kelsey-Hayes Co. Apparatus for multiple upset welding. 3,093,018, 6–11–63, Cl. 78—82.

Rozmus, Walter J., to Kelsey-Hayes Co. Method of pressure welding metals. 3,106,013, 10–8–63, Cl. 29—470.1.

Rozner, Felix, to Ferguson Radio Corp. Transistor circuits. 3,076,150, 1–29–63, Cl. 330—11.

Rozsa, John T., O. W. Uguccini, and L. E. Zeeb, to National Spectrographic Laboratories, Inc. Method and apparatus for analysis of particles in a gaseous stream. 3,088,364, 5–7–63, Cl. 88—14.

Rozsa, Tibor A., A. B. Ward, and R. Gracza, to The Pillsbury Co. Process of reducing and surface treating cereal endosperm particles and production of new products through attendant separations. 3,077,308, 2–12–63, Cl. 241—11.

Rozsa, Tibor A., C. G. Harrel, and W. T. Manning, to The Pillsbury Co. Wheat flour fractionation processes. 3,077,407, 2–12–63, Cl. 99—93.

Rozsa, Tibor A., C. G. Harrel, W. T. Manning, A. B. Ward, and R. Gracza, to The Pillsbury Co. Cereal flour fractionation processes. 3,077,408, 2–12–63, Cl. 99—93.

Rozum, John. Multiple tool holder for lathes or like machines. 3,109,336, 11–5–63, Cl. 82—36.

Rozzi, Arthur, to Tri-State Mfg. Co., Inc. Pyrotechnic apparatus. 3,084,628, 4–9–63, Cl. 102—37.5.

Ruane, George W. Removable track and tire assembly for a vehicle. 3,107,128, 10–15–63, Cl. 305—35.

Ruano, William J.: *See*—
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Vecenie, Ethel A. 3,096,526.

Rub, Johann J., to Maschinenfabrik Ad. Schulthess & Co. AG. Automatic washing machine, more particularly for self-service laundries. 3,110,384, 11–12–63, Cl. 194—9.

Rubbermaid Inc.: *See*—
Brenemun, Joseph C. 3,096,900.
Cusick, Leo P. 3,094,350.
Moore, Charles G. 3,085,678.

Rubber and Plastics Research Association of Great Britain: *See*—
Watson, William F., Izod, and Hughes. 3,072,968.

Rubber Products, Inc.: *See*—
Koplar, Solomon E., and Quiroz. 3,113,639.

Ruben, Paul L., to Bausch & Lomb Inc. Microscope objective. 3,102,158, 8–27–63, Cl. 88—57.

Ruben, Paul L., and G. F. Ziegler, to Bausch & Lomb Inc. Microscope objective. 3,115,538, 12–24–63, Cl. 88—57.

Ruben, Samuel. Electric current producing cell. 3,088,991, 5–7–63, Cl. 136—106.

Rubens, George J. Tiltable bowl. 3,100,054, 8–6–63, Cl. 215—1.

Rubens, Harry E.: *See*—
Ahrens, Gerhard W. 3,078,192.

Rubens, Harry E. Rotatable heel. 3,085,359, 4–16–63, Cl. 36—39.

Rubens, Harry S., to Engelhard Hanovia, Inc. Instrument for inspecting locks. 3,087,050, 4–23–63, Cl. 240—6.4.

Rubens, Louis C., to The Dow Chemical Co. Composition comprising expandable thermoplastic material and powdered iron and method for molding same. 3,086,247, 4–23–63, Cl. 18—48.

Rubens, Sidney M.: *See*—
Rossing, Thomas D., Pohm, and Rubens. 3,092,812.

Rubens, Sidney M., to Sperry Rand Corp. Magnetic cores. 3,080,549, 3–5–63, Cl. 340—174.

Rubenstein, David. Packaged laminated constructions. 3,111,569, 11–19–63, Cl. 219—19.

Rubenstein, Herbert, and A. G. Samusenko, to Radio Corp. of America. Negative resistance diode multivibrators. 3,087,123, 4–23–63, Cl. 331—107.

Rubenstein, Jacob H. Starter and circuit for electric discharge device. 3,086,141, 4–16–63, Cl. 315—100.

Rubenstein, Julia: *See*—
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Rubenstein, Lester S., and F. L. Shubert, to Westinghouse Electric Corp. Zirconium alloys. 3,097,094, 7–9–63, Cl. 75—177.

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Rubico, Jerome A.: *See*—
Batchelder, Charles F., and Rubico. 3,110,915.

Rubico, Jerome A., to Batchelder-Rubico, Inc. Plastic welt. 3,113,388, 12–10–63, Cl. 36—78.

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Harding, Jonathan, Mellon, and Rubilotta. 3,103,022.
Mellon, John J., Jr., and Rubilotta. 3,107,373.
Ondrush, John, and Rubilotta. 3,103,674.

Rubin, Arthur I., and J. P. Landauer, to Electronic Associates, Inc. Circuit for separately indicating voltage magnitude and polarity of analog input signal. 3,076,901, 2–5–63, Cl. 307—88.5.

Rubin, Eugene S., and D. H. Ross, to Mithras, Inc. Supersonic flow control device. 3,086,357, 4–23–63, Cl. 60—35.6.

Rubin, Herbert: *See*—
Hesketh, James A., and Rubin. 3,090,634.

Rubin, James M. and R. W. Orthodontic device. 3,091,857, 6–4–63, Cl. 32—14.

Rubin, Kenneth: *See*—
Bederson, Benjamin, Elsinger, and Rubin. 3,113,207.

Rubin, Martin. Detergent composition. 3,075,924, 1–29–63, Cl. 252—152.

Rubin, Martin, to Advance Growth Capital Corp. 19-methyl pregnene derivatives. 3,087,940, 4–30–63, Cl. 260—397.4.

Rubin, Martin, to Advance Growth Capital Corp. 19-methyl-19-acyloxy strophanthidin derivatives. 3,087,944, 4–30–63, Cl. 260—397.45.

Rubin, Martin. Neutral composition for removal of rust. 3,110,679, 11–12–63, Cl. 252—152.

Rubin, Ronald W.: *See*—
Rubin, James M. and R. W. 3,091,857.

Rubin, Saul H., and G. Zbinden, to Hoffmann-La Roche Inc. Therapeutic composition comprising 3,3-diethyl-5-methyl-2,4-piperidinedione and 7-chloro-2-methylamino-5-phenyl-3H-1,4-benzodiazepine-4-oxide. 3,085,932, 4–16–63, Cl. 167—52.

Rubinstein, Harry, and R. T. Schenck, to Keystone Chemurgic Corp. Production of 1-carbethoxy-2,6,6-trimethyl-2-cyclohexen-4-one. 3,093,678, 6–11–63, Cl. 260—468.

Rubinstein, Harry W., and S. B. Williams, to Sprague Electric Co. Method and means for assembling capacitors. 3,073,007, 1–15–63, Cl. 29—5.42.

Rubinstein, Joseph, to General Slicing Machine Co., Inc. Swivelled cranks. 3,091,978, 6–4–63, Cl. 74—547.

Rubinstein, Joseph, to General Slicing Machine Co., Inc. Scrapers for slicing machines. 3,092,161, 6–4–63, Cl. 146—102.

Rubinstein, Leon: *See*—
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Rubio, Abdon, and C. R. Ernest, Jr., to General Electric Co. Compensating device for turbomachine bucket wheel. 3,084,343, 4–2–63, Cl. 253—77.

Rubio, Carlos. Pin collar stays. 3,075,202, 1–29–63, Cl. 2—132.

Rubissow, George A. Fountain pen. 3,087,465, 4–30–63, Cl. 120—46.

Ruble, Ernest R.: *See*—
Platt, Clark L., and Ruble. 3,103,113.
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Ruble, Theodore A.: *See*—
Latham, Burton F., Jr., and Ruble. 3,075,829.
Latham, Burton F., Jr., and Ruble. 3,087,796.

Rubrecht, Charles J.: *See*—
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Rubrecht, Charles J., and A. J. Minnotte, to Metaline Corp. Coil support for annealing furnace. 3,100,634, 8–13–63, Cl. 263—47.

Ruby, Charles, to Lusine a Idees, Societe Anonyme dite: Ratchet and pawl drive magnetic motor. 3,098,940, 7–23–63, Cl. 310—22.

Ruby, Elmer H. Automatic mop and cloth cleaning machine. 3,072,935, 1–15–63, Cl. 15—4.

Ruby, Elmer H. Paper towel dispenser. 3,087,646, 4–30–63, Cl. 221—44.

Ruby, Stanley L., K. H. Sun, and T. Fahrner, to Westinghouse Electric Corp. Thermionic radiation counter. 3,101,410, 8–20–63, Cl. 250—83.1.

Ruchin, Zan. Window replacement unit. 3,087,194, 4–30–63, Cl. 16—197.

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Ruck, Vincent J., Jr., and S. J. Woolley, to General Electric Co. Adjustable door stop. 3,103,692, 9–17–63, Cl. 16—82.

Ruckelshaus, John G. Mass production of resistors. 3,095,636, 7–2–63, Cl. 29—155.62.

Ruckert, Horst, to International Standard Electric Corp. Detection of stamps on documents. 3,090,870, 5–21–63, Cl. 250—219.

Ruckstuhl, Jakob E., to Terlinden & Co. Method of making synthetic velvet-like knitted fabric. 3,090,097, 5–21–63, Cl. 28—72.

Ruckwardt, Kurt F., B. T. McDonald, and J. F. Mahoney, to The Anaconda Co. Calcination of zinc sulfide concentrates. 3,095,363 6–25–63, Cl. 204—119.

Ruda, Ernest V.: *See*—
Borowiec, Richard A., Ruda, and Rusiniak. 3,091,722.

Rudacille, Arthur G.: *See*—
Coffey, Ralph J., and Rudacille. 3,104,008.

Rudd, Edward H., to Flo-Tork, Inc. Hydraulic control. 3,104,589, 9–24–63, Cl. 91—172.

Rudden, James B.: *See*—
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Rudder, Elbert. High pressure-low temperature gasket. 3,107,100, 10–15–63, Cl. 277—198.

Rudder, Walter H., to Goodyear Tire & Rubber Co. Tire bead grommet. 3,106,952, 10–15–63, Cl. 152—362.

Ruddock, Kenneth A., to Varian Associates. Electromagnetic method and apparatus for geophysical prospecting including means for generating an auxiliary flux field to cancel direct coupling between the primary and pick-up coils. 3,108,220, 10–22–63, Cl. 324—6.

Rude, Raymond C. Movable fulcrum for springboards. 3,072,401, 1–8–63, Cl. 272—66.

Rudel, Harry W., and A. J. Morway, to Esso Research and Engineering Co. Rust preventive compositions of paraffinic mineral oil thickened with polyethylene and microcrystalline wax. 3,080,330, 3–5–63, Cl. 260—18.

Rudel, Harry W., and W. Selts, to Esso Research and Engineering Co. Corrosion inhibitors. 3,088,910, 5–7–63, Cl. 252—32.5.

Rudelick, John, to Bruner Corp. Water softening apparatus. 3,073,674, 1–15–63, Cl. 23—112.

Rudelick, John, to Bruner Corp. Rotatable spindle valve. 3,090,396, 5–21–63, Cl. 137—375.

Rudelick, John, to Bruner Corp. Float valve particularly for water softener brine vessels. 3,095,008, 6–25–63, Cl. 137—391.

Rudelick, John, to Bruner Corp. Pressure vessel. 3,098,578, 7–23–63, Cl. 220—5.

Rudelick, John, to Bruner Corp. Method of making pressure vessels. 3,114,968, 12–24–63, Cl. 29—421.

Rudenberg, Hermann G., to Transitron Electronic Corp. Photoelectric semiconductor device. 3,112,230, 11–26–63, Cl. 136—89.

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Ruderfer, Martin, to Dimensions, Inc. Typewriting apparatus with constantly rotating type disc. 3,077,256, 2–12–63, Cl. 197—18.

Rudner, Bernard, to Koppers Co., Inc. Preparation of alcohols. 3,091,627, 5–28–63, Cl. 260—462.

Rudner, Bernard, and J. J. Harris, to Koppers Co., Inc. 2-borabenzoxazoloboralines and a method for their preparation. 3,100,791, 8–13–63, Cl. 260—462.

Rudner, Bernard, and C. W. Wieneke, to W. R. Grace & Co. Polyarylmethane hydrazinium compounds. 3,112,326, 11–26–63, Cl. 260—391.

Rudner, Merritt A., to Garlock Inc. Fluorocarbon resin mixtures and metal to plastic bonding. 3,094,585, 6–18–63, Cl. 174—77.

Rudness, Robert G.: *See*—
Yenni, Donald M., and Rudness. 3,075,066.

Rudness, Robert G., to Union Carbide Corp. Fabrication of metal shapes. 3,082,516, 3–26–63, Cl. 29—423.

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Rudnick, Jack, to himself and B. Rudnick. Folding door structure. 3,102,582, 9–3–63, Cl. 160—206.

Rudnick, Joseph: *See*—
Friedman, Richard, Rudnick, and Rosenfeld. 3,103,118.

Rudnitzki, Alexis J.: *See*—
Hanna, Delbert L., and Rudnitzki. 3,073,869.

Rudolf, Paul, to G. Stirnemann. Mechanical toy. 3,099,104, 7–30–63, Cl. 46—240.

Rudolph, Bud, and J. P. Freer, to Saftronics, Inc. Passenger safety indicating systems. 3,074,055, 1–15–63, Cl. 340—278.

Rudolph, Eugene A. Cap screws with replaceable inserts. 3,073,206, 1–15–63, Cl. 85—45.

Rudolph, Hans, and A. Schelling, to Siemens & Halske Aktiengesellschaft. Synchronous communication systems. 3,080,452, 3–5–63, Cl. 178—69.5.

Rudolph, Martin, to Purex Corp., Ltd. Method and apparatus for blow molding plastic objects. 3,115,673, 12–31–63, Cl. 18—5.

Rudolph, Nathan H., and R. H. Crutchett, to All-Steel Equipment Inc. Electrical outlet box cable clamp. 3,082,023, 3–19–63 Cl. 285—128.

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Rudomanski, Andrew C., R. D. De Waard, and E. M. Wormser, to Barnes Engineering Co. Selective radiation detector and free-air thermometer. 3,091,693, 5–28–63, Cl. 250—83.3.

Rudow, Harold R.: *See*—
Vechiarelli, Francis, and Rudow. 3,088,347.

Rudszinat, Willy, and H. Berlin, to Hauni-Werke Korber & Co., K.G. Means for wrapping connecting leaves around the abutment regions of assemblies comprising cigarettes and filter plugs. 3,091,245, 5–28–63, Cl. 131—94.

Rudszinat, Willy, and H. Berlin, to Hauni-Werke Korber & Co. K.G. Device for wrapping a connecting band around axially aligned rod-shaped articles. 3,093,143, 6–11–63, Cl. 131—94.

Rudszinat, Willy, and H. Berlin, to Hauni-Werke Korber & Co. K.G. Method for supplying connector sheets to groups of filter plugs and cigarettes. 3,099,989, 8–6–63, Cl. 131—94.

Rudszinat, Willy, and B. Schubert, to Hauni-Werke Korber & Co. K.G. Apparatus for making filter plugs for filter tip cigarettes. 3,104,752, 9–24–63, Cl. 198—22.

Rudy, Emil, to Loren Cook Co. Centrifugal impeller units. 3,102,679, 9–3–63, Cl. 230—117.

Rudy, Emil, to Loren Cook Co. Compact roof ventilators. 3,107,598, 10–22–63, Cl. 98—42.

Rudy, Marion F. Split ball spherical bearing. 3,107,954, 10–22–63, Cl. 308—72.

Rudy, Hermann, J. Rauch, K. R. Dietrich, and C. Constabel, to Joh. A. Benckiser G.m.b.H. Chemische Fabrik. Process for producing vitamin B_{12} and antibiotics. 3,085,049, 4–9–63, Cl. 195—80.

Rudy, John F.: *See*—
Nolen, Robert K., Schwartzbart, and Rudy. 3,113,202.

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Rudzinski, Stanley P. Screening and comminuting device. 3,074,555, 1–22–63, Cl. 210—152.

Rudzki, Henryk S., to Rexall Drug & Chemical Co. Method of making an encapsulated tablet. 3,096,248, 7–2–63, Cl. 167—82.

Rue, Howard M., to Sun Oil Co. Emulsifiable mixtures of mineral oil and esters. 3,071,544, 1–1–63, Cl. 252—33.3.

Rue, Howard M., to Sun Oil Co. Soluble oil for treating filters. 3,081,176, 3–12–63, Cl. 106—15.

Rue, Howard M., and S. E. Jolly, to Sun Oil Co. Foam-inhibited emulsifiable mineral oil composition. 3,082,168, 3–19–63, Cl. 252—33.3.

Ruebel, Joseph B., to Rimfoot Co. Infant's shoe. 3,110,117, 11–12–63, Cl. 36—2.5.

Ruediger, Bernt A., to General Electric Co. Heat treating malleablized white iron to control growth. 3,109,759, 11–5–63, Cl. 148—138.

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Isler, Otto, Lindlar, Montavon, Ruegg, Schwieter, and Saucy. 3,091,631.
Kofler, Max, Langemann, and Ruegg. 3,080,384.

Ruegsegger, Donald R., to M. M. Mebus. Anti-back draft damper. 3,111,301, 11–19–63, Cl. 251—356.

Ruegsegger, Frank E., to Raymond International Inc. Self-cleaning and retractable troweling device. 3,113,365, 12–10–63, Cl. 25—38.

Ruehl, Harold. Expansible and contractible work piece holder. 3,111,327, 11–19–63, Cl. 279—2.

Ruehle, Harry P. Game device. 3,108,807, 10–29–63, Cl. 273—96.

Ruehrwein, Robert A.: *See*—
Stone, Bobbie D., and Ruehrwein. 3,073,679.

Ruehrwein, Robert A., to United States of America, Army. Process for making ozone. 3,113,914, 12–10–63, Cl. 204—176.

Ruekberg, Herbert S., to Continental Can Co., Inc. Dispenser. 3,090,987, 5–28–63, Cl. 15—575.

Ruelle, Roland L., to The Standard Rivet Co. Trip device. 3,087,161, 4–30–63, Cl. 1—106.

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Ruetschi, Paul, to The Electric Storage Battery Co. Silver-zinc battery and method for obtaining a substantially flat voltage discharge curve. 3,085,186, 4–9–63, Cl. 320—13.

Ruetschi, Paul, and B. D. Cahan, to The Electric Storage Battery Co. Storage battery. 3,080,440, 3–5–63, Cl. 136—3.

Ruetz, Karl. Container with closing device. 3,099,361, 7–30–63, Cl. 215—73.

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Ruff, Charles F., deceased; Girard Trust Corn Exchange Bank and J. K. Ruff, executors. Meter for registering selected-rate flow volume. 3,107,528, 10–22–63, Cl. 73—272.

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Ruff, Richard J., and W. C. Verner, to Universal Oil Products Co. Direct flame incinerator. 3,090,675, 5–21–63, Cl. 23—277.

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Ruffin, Robert H., to Ruffin-Hoebel Corp. Swimming pool water purifier. 3,079,498, 2–26–63, Cl. 250—.45.

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Rugenstein, Robert W. Adjustable cutting die. 3,111,877, 11–26–63, Cl. 83—657.

Rugg, Frederick D., to Inertia-Matic, Inc. Fifth-wheel assembly. 3,077,357, 2–12–63, Cl. 280—438.

Rugg, Frederick D., to Inertia-Matic, Inc. Fifth-wheel assembly. 3,082,021, 3–19–63, Cl. 280—438.

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Henning, James C., and Ruhl. 3,103,893.
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McAfee, Kyle E., Jr., and Ruhl. 3,106,135.
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Reiners, Walter, Furst, and Ruhl. 3,111,280.
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Reiners, Walter, Furst, and Ruhl. 3,111,280.
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Ruhlman, Jon R., to Preformed Line Products Co., Inc. Corona suppressing ends for appliances for electrical conductors. 3,087,008, 4–23–63, Cl. 174—135.
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Ruhman, Smil, to Raytheon Co. Magnetic computing. 3,079,592, 2–26–63, Cl. 340—174.
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Ruhnke, Edward J., to Hill-Shaw Co. Brewing apparatus for coffee maker. 3,092,012, 6–4–63, Cl. 99—307.
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Rottig, Walter. 3,102,300.
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Schaub, Franz, Kolling, Notthoff, Stiebling, and Ruggeberg. 3,100,694.
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Breuing, Wilhelm, Franke, and Spolders. 3,099,699.
Ruidisch, Louis E., and R. Y. Heisler, to Texaco Inc. Ester recovery process. 3,072,714, 1–8–63, Cl. 260—499.
Ruisinger, Laurence J., to Texas Instruments Inc. Radar receiver system. 3,097,356, 7–9–63, Cl. 343—100.
Ruiz, William B. Self-closing door hinge. 3,098,258, 7–23–63, Cl. 16—50.
Ruland, Edward J., Jr.: *See*—
Lobosco, Roscoe R., and Ruland. 3,079,489.
Rule, Edwin L.: *See*—
Steele, Roger C., and Rule. 3,082,141.
Rule, Eric, to Lockheed Aircraft Corp. Transducer devices employing a fluid film for improvement of sensitivity and frequency response characteristics. 3,089,343, 5–14–63, Cl. 73—516.
Rule, Kenneth C.: *See*—
Bauer, William C., McCue, and Rule. 3,072,466.
Rule, Wilbur E., and E. D. Smith, to Kamar, Inc. Method and device for detecting period of heat in cows. 3,076,431, 2–5–63, Cl. 119—1.
Rullman, Robert G., to General Electronic Laboratories, Inc. Crystal discriminator. 3,074,021, 1–15–63, Cl. 329—117.
Rulon, Richard M., to Sylvania Electric Products Inc. Electroluminescent lamp with ceramic dielectric. 3,103,607, 9–10–63, Cl. 313—108.
Rulseh, Roger D.: *See*—
Everard, Joseph J., and Rulseh. 3,089,926.
Rumbel, Keith E.: *See*—
Scurlock, Arch C., Rumbel, and Friedman. 3,092,959.
Scurlock, Arch C., Rumbel, and Friedman. 3,092,968.
Scurlock, Arch C., Rumbel, and Rice. 3,107,186.
Rumbel, Keith E., J. M. Burton, and E. P. Sullivan, Jr., to Atlantic Research Corp. Loading device. 3,082,659, 3–26–63, Cl. 86—20.
Rumbel, Keith E., A. C. Scurlock, and R. Friedman, to Atlantic Research Corp. Propellant compositions. 3,107,187, 10–15–63, Cl. 149—22.
Rumbel, Keith E., and M. Cohen, to Atlantic Research Corp. Propellent grains. 3,109,374, 11–5–63, Cl. 102—98.
Rumbel, Keith E., and A. C. Scurlock, to Atlantic Research Corp. Propellent grains. 3,109,375, 11–5–63, Cl. 102—98.
Rumbell, Henry F., to Flexible Tubing Corp. Connecting means for flexible and rigid tubing. 3,087,745, 4–30–63, Cl. 285—149.
Rumble, Roy W. Electrical plug. 3,079,475, 2–26–63, Cl. 200—51.
Rumble, Roy W. Electrical outlet. 3,082,302, 3–19–63, Cl. 200—51.03.
Rumble, Roy W. Combustion-engine exhaust systems. 3,095,696, 7–2–63, Cl. 60—35.6.
Rummery, Frank O.: *See*—
Chreat, Roy W., Rummery, Richards, and Roseman. 3,079,269.
Rumpelein, Fritz, to Agfa Aktiengesellschaft. Cameras with coupled light meters. 3,102,460, 9–3–63, Cl. 95—10.
Rumpf, Paul, and G. Thuillier, to Centre National de la Recherche Scientifique. Para-halogenphenyl ethylsulfones: central nervous system depressants. 3,084,101, 4–2–63, Cl. 167—65.
Rumscheidt, Gottfried E., and P. Bruin, to Shell Oil Co. Process for curing polyepoxides with anhydrides and organic sulfur compounds. 3,114,731, 12–17–63, Cl. 260—47.
Rumsey, Herbert, Jr. Method for pressure-packing of meat products. 3,095,308, 6–25–63, Cl. 99—174.
Rumsey, Herbert, Jr. Package for food product and method of making the same. 3,116,154, 12–31–63, Cl. 99—175.
Rumsey, Rollin D., to Houdaille Industries, Inc. Torsional vibration damper. 3,105,392, 10–1–63, Cl. 74—574.
Rumsey, Rollin D., and G. M. Magrum, to Houdaille Industries, Inc. Rotary actuator unit mount for booms and the like. 3,103,281, 9–10–63, Cl. 212—66.
Runco, Joseph C.: *See*—
Roberts, Cecil P., and Runco. 3,073,090.
Runco, Joseph C., to Anchor Hocking Glass Corp. Rotary jar washer. 3,097,658, 7–16–63, Cl. 134—81.
Runde, Bonita E.: *See*—
Tinkey, Otto G. 3,108,453.
Runde, Byron, and I. W. Borutzke, to Burroughs Corp. Control apparatus for accounting machines. 3,083,900, 4–2–63, Cl. 235—60.49.
Runde, Byron A.: *See*—
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Rundel, Morton S.: *See*—
Zweifel, Charles H., Rundel, and Van Schaack. 3,078,406.
Rundle, George W. Combination cigarette mouthpiece and shield. 3,100,493, 8–13–63, Cl. 131—175.
Rundle, George W., to H. L. Johnson. Combination handleable fluid dispenser and tool head holder. 3,113,703, 12–10–63, Cl. 222—191.
Rundman, Sven J.: *See*—
Wruble, Milton, Rundman, and Koning. 3,085,939.
Runft, Arthur J.: *See*—
Malone, James D., and Runft. 3,077,577.
Rung, Robert D., and E. J. Barakauskas, to United States of America, Navy. Adapter for missile launcher. 3,087,386, 4–30–63, Cl. 89—1.1.
Runge, Frank E.: *See*—
Lyon, William H., and Runge. 3,078,350.
Lyon, William H., and Runge. 3,078,464.
Runge, W. L.: *See*—
Parks, Noble L. 3,073,467.
Runken, Gerd, to ACF Industries, Inc. Lading bracing arrangement. 3,095,830, 7–2–63, Cl. 105—369.
Runknagel, Rolf K. H. Lubricator pad and wicking unit therefor. 3,086,828, 4–23–63, Cl. 308—243.
Running, Clayton D.: *See*—
Weiss, Bernhardt B., and Running. 3,090,599.
Runswick, Wallace D.: *See*—
Jones, Preston A. 3,087,053.
Jones, Preston A. 3,087,054.
Runton, Leslie A., to J. P. Stevens & Co., Inc. Method and apparatus for imparting stretch to wool fabric. 3,077,655, 2–19–63, Cl. 26—18.5.
Runyan, Charles E.: *See*—
Kelley, John L., and Runyan. 3,113,517.
Runyan, Kenneth R.: *See*—
Lloyd, Allen H., and Runyan. 3,102,374.
Runyan, Walter R.: *See*—
Anderson, Robert E., and Runyan. 3,079,287.
Runyan, Walter R., to Texas Instruments Inc. Compensated grown junction transistor. 3,082,130, 3–19–63, Cl. 148—33.
Runyan, Walter R., J. W. Ross, and J. L. Fischer, to Texas Instruments Inc. Method for recovery and reuse of quartz containers. 3,093,456, 6–11–63, Cl. 23—301.
Runyon, David M., to Ford Motor Co. Ball joint. 3,086,800, 4–23–63, Cl. 287—90.
Runyon, John P.: *See*—
James, Dennis B., Malthaner, and Runyon. 3,096,403.
Runyon, John P., to Bell Telephone Laboratories, Inc. Digital phase equalizer, automatically operative, in accordance with time-inverted impulse response of the transmission circuit. 3,071,739, 1–1–63, Cl. 333—18.
Ruoff, George M., to A. B. Chance Co. Insulator tester. 3,090,912, 5–21–63, Cl. 324—54.
Ruosch, Samuel, and L. Joris, to Lonza Ltd. Preparation of catalytically active coatings. 3,112,215, 11–26–63, Cl. 117—62.

Ruotl, Vincenzo: *See*—
Muench, Werner, Ruotl, and Notarbartolo. 3,108,096.
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Cole, Charles O., Eng, Rupar, Shipley, and Lukk. 3,107,213.
Rupe, Ernest S. Pipe beveling device. 3,115,054, 12–24–63, Cl. 82—1.
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Ament, Alphons L., and Rupp. 3,075,776.
Rupp, William C., to The Chandler & Price Co. Automatic gauge for paper cutting machines and the like. 3,111,876, 11–26–63, Cl. 83—207.
Ruppe, Peter P. Walking beam conveyor. 3,075,635, 1–29–63, Cl. 198—219.
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Johnson, Curtis R. A., Garvin, Ruppenthal, Morris, and Binder. 3,071,772.
Ruppersberg, Hans-Klaus, to Telefunken G.m.b.H. Doppler frequency speed measuring apparatus. 3,072,901, 1–8–63, Cl. 343—8.
Ruppert, Heinrich, H. Schnell, and L. Goerden, to Farbenfabriken Bayer Aktiengesellschaft. Flame-resistant unsaturated polyester-vinylidene monomer reaction product containing the dimethyl ester of 2-hydroxylsopropyl-phosphonic acid. 3,092,606, 6–4–63, Cl. 260—45.4.
Ruppert, Robert G. Pump construction. 3,105,447, 10–1–63, Cl. 103—149.
Rupprecht, Emil G.: *See*—
Mallery, Paul, and Rupprecht. 3,083,328.
Rusack, Karl-Heinz: *See*—
Plock, Karl, Quest, and Rusack. 3,090,293.
Ruscetta, Ralph A., and L. E. Richards, to General Electric Co. Sealed electrolytic device. 3,114,085, 12–10–63, Cl. 317—230.
Rusch, Helmuth R. Water bags. 3,099,308, 7–30–63, Cl. 150—2.1.
Rusche, Fredric. Hose plug. 3,077,904, 2–19–63, Cl. 138—89.
Rusche, Georg, and G. Grunwaldt, to North American Philips Co., Inc. Circuit arrangement for use in phase-sensitive control amplifiers. 3,092,777, 6–4–63, Cl. 328—13.
Ruschig, Heinrich: *See*—
Aumuller, Walter, Korger, Ruschig, and Wagner. 3,097,240.
Hasck, Erich, Hagedorn, Adolf, Ruschig, and Korger. 3,100,208.
Korger, Gerhard, Wagner, Aumuller, and Ruschig. 3,097,241.
Ruschman, Frederick J., Jr. Paper bag storage receptacle. 3,111,295, 11–19–63, Cl. 248—101.
Rusconi, Fausto. Aeromotor. 3,093,194, 6–11–63, Cl. 170—33.
Rush, Derek A.: *See*—
Treadwell, Richard J., and Rush. 3,095,168.
Rush, Elton E., to Phillips Petroleum Co. Method and apparatus for crystal purification. 3,092,673, 6–4–63, Cl. 260—674.
Rush, George E., to Houston Oil Field Material Co., Inc. Apparatus for recovering objects in a well. 3,095,926, 7–2–63, Cl. 166—55.
Rush, Hugh M., ½ to S. K. Clements. Folding personnel lift. 3,072,215, 1–8–63, Cl. 182—2
Rush, Robert L., to Phillips Petroleum Co. Method for producing textile yarn from a monofilament of a blend of olefin polymers. 3,112,160, 11–26–63, Cl. 18—54.
Rushing, George, Jr. Mirror view game. 3,106,402, 10–8–63, Cl. 273—144.
Rushton, James C., to Owens-Corning Fiberglas Corp. Apparatus for melting heat softenable materials. 3,111,550, 11–19–63, Cl. 13—6.
Rushton, John H.: *See*—
Nerheim, Arvie G., and Rushton. 3,082,619.
Rusle, Albert E., and F. Newman, to Aetna Products Co., Inc. Eradicable carbon paper. 3,104,173, 9–17–63, Cl. 117—2.
Rusignuolo, Vincenzo, and L. Lucchetti, to Montecatini Societa Generale per l'Industria Mineraria e Chimica. Photographic films comprising a synthetic resin support. 3,091,536, 5–28–63, Cl. 96—87.
Rusiniak, Edward S.: *See*—
Borowiec, Richard A., Ruda, and Rusiniak. 3,091,722.
Ruske, Manfred: *See*—
Braun, Willy, Ruske, and Maier. 3,086,024.
Ruskin, Dan B.: *See*—
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Ruskin, Simon L., Farhi, Ruskin, and Reder. 3,104,216.
Ruskin Development & Mfg. Corp.: *See*—
Ruskin, Henry. 3,108,373.
Ruskin, Henry. 3,114,030.
Ruskin, Henry: *See*—
Kohen, Sheldon I., and Ruskin. 3,103,012.
Ruskin, Henry, to Ace Fastener Corp. Stapling device. 3,083,367, 4–2–63, Cl. 1—3.
Ruskin, Henry, to Ruskin Development & Mfg. Corp. Cable cutter. 3,108,373, 10–29–63, Cl. 30—90.5.
Ruskin, Henry, to Ruskin Development & Mfg. Corp. Resistance welding. 3,114,030, 12–10–63, Cl. 219—93.
Ruskin, Simon L., deceased (by C. Farhi), D. B. Ruskin, and M. Reder, to Union Carbide Corp. Composition of matter containing procaine adenylate. 3,104,203, 9–17–63, Cl. 167—65.
Ruskin, Simon L., deceased (by C. Farhi), D. B. Ruskin, and M. Reder, to Union Carbide Corp. Irradiation of metal oxides. 3,104,216, 9–17–63, Cl. 204—157.
Rusoff, Louis L., to Commercial Solvents Corp. Process for the control of bloat in ruminants with tris(hydroxy-methyl) aminomethane. 3,096,240, 7–2–63, Cl. 167—53.
Russbach, Walter G., and S. A. Teiser, to E. I. du Pont de Nemours and Co. Paper insulated conductor. 3,103,549, 9–10–63, Cl. 174—124.
Russell, Alexander H., to Spectra-Cast Corp. Monolithic cast objects and method. 3,078,249, 2–19–63, Cl. 260—40.
Russell, Allan M. Face mask. 3,097,642, 7–16–63, Cl. 128—146.
Russell, Arthur O. Golf cart. 3,083,029, 3–26–63, Cl. 280—36.
Russell, Charles D.: *See*—
Meadors, Victor G., and Russell. 3,076,504.
Russell, Charles R.: *See*—
Rankin, John C., Russell, and Samalik. 3,073,724.
Russell, Charles R., to General Motors Corp. Nuclear reactor safety device. 3,085,060, 4–9–63, Cl. 204—193.2.
Russell, Donald G.: *See*—
Prats, Michael, and Russell. 3,105,545.
Russell, Donald H., and A. M. Karrash, to The Atlantic Refining Co. Urethane polymer compositions. 3,108,092, 10–22–63, Cl. 260—75.
Russell, Edgar F., to General Electric Co. Water-cooled eddy current coupling. 3,103,605, 9–10–63, Cl. 310—105.
Russell, Edward J., and R. J. Ruhf, to Trojan Powder Co. Process for the preparation of trimethylolalkane. 3,097,245, 7–9–63, Cl. 260—635.
Russell, Edward J., Jr.: *See*—
Hovekamp, John C., and Russell. 3,111,896.
Russell, F. L., Corp.: *See*—
Wiands, Clarence L., Cline, and Rose. 3,096,102.
Russell, Felix A. Paperboard shopping bag. 3,087,669, 4–30–63, Cl. 229—54.
Russell, Felix A. Paperboard shopping bag. 3,100,076, 8–6–63, Cl. 229—54.
Russell, Fred J. Tailpiece protector. 3,078,706, 2–26–63, Cl. 70—419.
Russell, Fred J. Hold back retractor. 3,097,872, 7–16–63, Cl. 292—169.
Russell, Fred J., and G. B. Solovieff; said Solovieff assor. to said Russell. Dual driver torsion spring mechanism. 3,075,706, 1–29–63, Cl. 292—336.3.
Russell, Fred J., and G. B. Solovieff, said Solovieff assor. to said Russell. Release of rotated locking button by push action. 3,079,189, 2–26–63, Cl. 292—359.
Russell, George F. Impregnation by implosion. 3,092,536, 6–4–63, Cl. 162—50.
Russell, George F. Cigarette dispenser. 3,101,157, 8–20–63, Cl. 221—227.
Russell, Henry R., to Waldorf Paper Products Co. Frozen poultry containers. 3,079,058, 2–26–63, Cl. 229—6.
Russell, Ira B.: *See*—
Russell, Lee E., and Robinson. 3,095,100.
Russell, Jack J. Foldable support means. 3,079,167, 2–26–63, Cl. 280—41.
Russell, James P.: *See*—
Leeds, Morton W., Russell, and Vitcha. 3,108,140.
Tedeschi, Robert J., Casey, and Russell. 3,082,260.
Vitcha, James F., and Russell. 3,089,898.
Russell, James R., to Pittsburgh Plate Glass Co. Method of preparing an alkali metal zirconate. 3,107,143, 10–15–63, Cl. 23—51.
Russell, James S., to Steel Heddle Mfg. Co. Balloon control ring. 3,095,688, 7–2–63, Cl. 57—106.
Russell, John D., to Microdot Inc. Strain gages and methods of installing the same. 3,092,993, 6–11–63, Cl. 73—88.5.
Russell, John D., to Microdot Inc. Strain gages and installation of the same. 3,105,139, 9–24–63, Cl. 219—117.
Russell, John S.: *See*—
Cianchette, Kenneth L., and Russell. 3,101,968.
Russell, Lawrence E., to The Forward Slant Sole Co. Slant cell shoe sole. 3,087,261, 4–30–63, Cl. 36—28.
Russell, Lawrence E., to The Forward Slant Sole Co. Resilient shoe sole. 3,087,262, 4–30–63, Cl. 36—28.
Russell, Lee E., and F. P. Robinson, ½ to I. B. Russell. Can handling process. 3,095,100, 6–25–63, Cl. 214—152.
Russell, Linus E., to Peters & Russell, Inc. Fastening device. 3,079,637, 3–5–63, Cl. 24—73.
Russell, Linus E., to Peters & Russell, Inc. Fume eliminator. 3,096,704, 7–9–63, Cl. 98—115.
Russell, Louis A., to International Business Machines Corp. Magnetic core flux steering device. 3,077,583, 2–12–63, Cl. 340—174.
Russell, Peter B.: *See*—
Baltzly, Richard, Russell, and Mehta. 3,098,076.
Russell, Phillip W. Sudden pressure relay testing device. 3,106,833, 10–15–63, Cl. 73—4.
Russell, Reuben E., Jr.: *See*—
Smith, George A., Gaddy, and Russell. 3,079,573.
Russell, Richard E., K. L. De Penti, and D. J. Wyrough, to National Castings Co. Material handling equipment. 3,086,807, 4–23–63, Cl. 294—67.
Russell, Richard W., to Stauffer Chemical Co. Method of preparing titanium or zirconium bis (dioxy alkylene) compounds. 3,098,861, 7–23–63, Cl. 260—429.3.
Russell, Robert A., and J. J. McCarthy, to The Connecticut Hard Rubber Co. Fuel-resistant pressure-sensitive composition. 3,108,086, 10–22–63, Cl. 260—31.6.

Russell, Robert C., to Eaton Mfg. Co. Friction device. 3,073,424, 1–15–63, Cl. 192—113.
Russell, Robert G.: *See*—
Slayter, Games, Russell, and Morgan. 3,109,511.
Russell, Robert J., and H. Hardinge, to Hardinge Co., Inc. Means and methods of supplying heat to grinding mills. 3,078,048, 2–19–63, Cl. 241—17.
Russell, Theron W., to Weyerhaeuser Co. Carton Sealing machine. 3,077,064, 2–12–63, Cl. 53—375.
Russell, Warren O. Cooking apparatus. 3,081,696, 3–19–63, Cl. 99—427.
Russell, Warren O. Cooking apparatus. 3,085,500, 4–16–63, Cl. 99—427.
Russell, William J., to Robertshaw-Fulton Controls Co. Thermostatic valve control. 3,072,338, 1–8–63, Cl. 236—48.
Russell, William L. Method and apparatus for measuring the pressures of fluids in subsurface rocks. 3,115,775, 12–31–63, Cl. 73—152.
Russell, William M., 50% to P. J. Hamm. Spinal massage apparatus. 3,113,567, 12–10–663, Cl. 128—33.
Russell, William S.: *See*—
Halversen, Roy A., and Russell. 3,082,116.
Russo, Albert T., to The Truson Corp. Protective device for doors. 3,071,958, 1–8–63, Cl. 70—93.
Russo, Carl J., A. L. Trifunovic, and H. A. Sinski, to Joseph Bancroft & Sons Co. Apparatus for treating fibers. 3,090,-579, 5–21–63, Cl. 242—128.
Russo, Carl J., A. L. Trifunovic, and H. A. Sinski, to Joseph Bancroft & Sons Co. Method of treating fibers. 3,096,562, 7–9–63, Cl. 28—75.
Russo, Michael T., to Mr. Porto, Inc. Bottle carriers. 3,114,-472, 12–17–63, Cl. 220—104.
Russo, Philip J. Selector and ejector for bowling balls and pins. 3,093,373, 6–11–63, Cl. 273—43.
Rust, Edgar C., Jr., to Crompton & Knowles Corp. Loom needle penetration counter. 3,108,353, 10–29–63, Cl. 28—4.
Rust, John L., to Chrysler Corp. Pressure compensating valve. 3,083,733, 4–2–63, Cl. 137—625.33.
Rust, Karl G. K., S. Mullner, and A. G. M. Gumboldt, to Hercules Powder Co., Inc. Process for preparing polymers and copolymers of vinyl chloride. 3,111,505, 11–19–63, Cl. 260—87.5.
Rust, Noel B., to Marconi's Wireless Telegraph Co. Ltd. Range radar using sawtooth frequency modulation. 3,080,558, 3–5–63, Cl. 343—14.
Rust-Oleum Corp.: *See*—
Mayer, Carl H., Jr., and Fergusson. 3,078,630.
Rutenberg, Morton W., and W. Jarowenko, to National Starch and Chemical Corp. Amylose sponges and gauze. 3,081,-181, 3–12–63, Cl. 106—122.
Rüter, Hermann, F. Weingärtner, and E. Cherdron, to Gebrüder Giulini G.m.b.H. Process for the decomposition of titanium ores. 3,076,692, 2–5–63, Cl. 23—202.
Ruterbusch, Milton J., to Sperry Rand Corp. Pocket for micro-film jackets. 3,071,881, 1–8–63, Cl. 40—158.
Rutgerswerke-Aktiengesellschaft: *See*—
Sauer, Hubert, and Kob. 3,113,933.
Ruth, Arthur H.: *See*—
Biszantz, Fred, and Ruth. 3,094,359.
Ruth, Byron, to Symons Mfg. Co. Quick-release temporary articulated I-beam hanger. 3,084,893, 4–9–63, Cl. 248—228.
Ruth, Byron, to Symons Mfg. Co. Column brace and clamp assembly. 3,084,964, 4–9–63, Cl. 287—53.5.
Ruth, Byron, and R. Kort, to Symons Mfg. Co. Concrete wall form with interlocking tie rod connection therefor. 3,086,-272, 4–23–63, Cl. 25—131.
Ruth, Byron E.: *See*—
Bowden, George F., and Ruth. 3,074,141.
Ruth, George J. Headlamps. 3,071,684, 1–1–63, Cl. 240—46.3.
Ruthen, Milton, and A. Bisberg. Electric drill to locate marking notches in ply fabrics. 3,098,430, 7–23–63, Cl. 101—26.
Rutherford, Sherman L., A. B. Francis, and W. A. Lloyd, to Varian Associates. Cathodes for magnetically-confined glow discharge devices. 3,091,717, 5–28–63, Cl. 313—181.
Ruthner, Othmar: *See*—
Hake, Andreas. 3,084,996.
Ruthrauff, William E., Jr. Tool for fasteners. 3,071,995, 1–8–63, Cl. 81—90.
Ruthruff, Robert F. Isomerization of aromatic polycarboxylic acids. 3,102,906, 9–3–63, Cl. 260—515.
Ruti Machinery Works Ltd.: *See*—
Egli, Gerhard. 3,115,900.
Gebhardt, Eugen. 3,106,229.
Kohler, Lothar. 3,108,619.
Zollinger, Hans. 3,101,748.
Rutishauser, Donald E., to American Hardware Corp. Self-service refrigerated display case. 3,115,019, 12–24–63, Cl. 62—256.
Rutishauser, Edgar. Duplicating machine. 3,097,599, 7–16–63, Cl. 101—416.
Rutkove, Edward. Folding bicycle. 3,074,741, 1–22–63, Cl. 280—278.
Rutkowski, Alfred J.: *See*—
Brois, Stanley J., and Rutkowski. 3,101,376.
Rutkowski, Alfred J., to Esso Research and Engineering Co. Boron compounds. 3,103,537, 9–10–63, Cl. 260—606.5.
Rutkowski, Eugene V.: *See*—
Aitken, Adrien J., and Rutkowski. 3,093,157.
Rutkowski, Roman V., to South Bend Toy Mfg. Co., Inc. Doll stroller. 3,090,636, 5–21–63, Cl. 280—47.38.
Rutkus, John, Jr.: *See*—
Eichler, Rolf W., Elchorn, and Rutkus. 3,090,616.
Eichler, Rolf W., Elchorn, and Rutkus. 3,112,819.
Rutledge, Ben T., ½ to J. M. Sansi. Chiropractor's table 3,113,770, 12–10–63, Cl. 269—325.
Rutledge, Fred C.: *See*—
Vitkuske, John F., and Rutledge. 3,072,588.
Rutledge, George E., to Munsingwear, Inc. Method for knitting panty panels for body molding garments. 3,093,988, 6–18–63, Cl. 66—177.
Rutledge, Wyman C., to The Mead Corp. Paper strength tester. 3,099,153, 7–30–63, Cl. 73—100.
Rütsche, Karl, to Oehler A.G. Thread control switch. 3,090,-845, 5–21–63, Cl. 200—61.18.
Rutz, Richard F.: *See*—
Marinace, John C., and Rutz. 3,100,166.
Rutz, Richard F., to International Business Machines Corp. Semiconductor devices comprising an Esaki diode and conventional diode in a unitary structure. 3,079,512, 2–26–63, Cl. 307—88.5.
Rutz, Richard F., to International Business Machines Corp. Negative resistance semiconductor device. 3,083,302, 3–26–63, Cl. 307—88.5.
Rutz, Richard F., to International Business Machines Corp. Semiconductor device. 3,085,310, 4–16–63, Cl. 29—25.3.
Rutz, Richard F., to International Business Machines Corp Impedance means including tunneling device for performing logic operations. 3,089,038, 5–7–63, Cl. 307—88.5.
Ruud Mfg. Co.: *See*—
Lintvedt, Halvard. 3,096,021.
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Rusa, Frederick, to Continental Can Co., Inc. Method and apparatus for cooling and curling edges of polyethylene coated paper cups. 3,087,390, 4–30–63, Cl. 93—36.5.
Ruzicka, Jerome E., to Barry Wright Corp. Damped structures. 3,088,561, 5–7–63, Cl. 189—37.
Ruzicka, Jerome E., to Barry Wright Corp. Self-damped laminar structure. 3,110,369, 11–12–63, Cl. 189—34.
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Harriman, Raymond E. 3,097,314.
Hurtt, Leon E. 3,086,704.
Ludlam, Richard H. 3,074,175.
Mellinger, Ernest F. 3,087,0046.
Phottnos, Harry R. 3,101,437.
Poirier, Jules H. 3,083,336.
Wagner, Fred G. 3,085,740.
Wagner, Fred G. 3,093,349.
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Ryan, Alfred J., and F. J. Rink; said Rink assor. to said Ryan. Magnetic linking mechanism for measuring instruments. 3,094,002, 6–18–63, Cl. 73—432.
Ryan, Arthur H.: *See*—
Downs, William T., and Ryan. 3,080,720.
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Ryan, Edmund C., and J. J. Taylor, to The Ohio Brass Co. Suspension insulator having a pin provided with a shield sleeve. 3,076,868, 2–5–63, Cl. 174—182.
Ryan, Edmund C., and L. R. Wendland, to The Ohio Brass Co. Insulator pins and method of manufacture. 3,114,000, 12–10–63, Cl. 174—194.
Ryan, Edward C., and R. E. Reed. Heating device. 3,079,-911, 3–5–63, Cl. 126—263.
Ryan, Edward C., and R. E. Reed. Food heating devices. 3,101,707, 8–27–63, Cl. 126—263.
Ryan, Eric J.: *See*—
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Ryan, Francis B. 3,111,007.
Ryan, Francis B., to F. B. Ryan Mfg. Co. Separable cable tube for ditching and cable laying blades. 3,111,007, 11–19–63, Cl. 61—72.1.
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Ryan, Harry H. Linoleum cutter. 3,079,688, 3–5–63, Cl. 30—294.
Ryan, Herbert A., to Westminster Laboratories Ltd. Synergistic anthelmintic containing piperazines and sennosides. 3,077,434, 2–12–63, Cl. 167—55.
Ryan, Herl J. Line marker. 3,098,588, 7–23–63, Cl. 222—177.
Ryan, James F., Jr., and R. L. Tichenor, to E. I. du Pont de Nemours and Co. Composite filament. 3,092,892, 6–11–63, Cl. 28—82.
Ryan, James J., to The Regents of the University of Minnesota. Safety seat belt. 3,074,761, 1–22–63, Cl. 297—388.
Ryan, James J., and K. E. Neumeier, to General Mills, Inc. Coding apparatus for flight recorders and the like. 3,075,-192, 1–22–63, Cl. 346—23.
Ryan, John C. Control device for brake-holding mechanism. Re. 25,498, 12–17–63, Cl. 200—82.

Ryan, John F.: *See*—
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Ryan, John W. Lever action toy gun. 3,075,511, 1–29–63, Cl. 124—2.
Ryan, John W. Phonograph tone arm and speaker. 3,082,-006, 3–19–63, Cl. 274—9.
Ryan, John W., to Dow Corning Corp. 2-phenylpropyl organosiloxanes. 3,088,964, 5–7–63, Cl. 260—448.2.
Ryan, John W. Multiple-stage projectile. 3,091,052, 5–28–63, Cl. 46—74.
Ryan, John W., to Mattel, Inc. Vibrator toy gun. 3,094,-110, 6–18–63, Cl. 124—2.
Ryan, John W., to Mattel, Inc. Multiple speech phonograph with improved tone arm mounting. 3,095,201, 6–25–63, Cl. 274—26.
Ryan, John W. Lever action toy gun with selective trigger actuator. 3,101,703, 8–27–63, Cl. 124—2.
Ryan, John W., to Dow Corning Corp. Alkaline rearrangement of hydrocarbon-substituted silanes. 3,105,086, 9–24–63, Cl. 260—448.8.
Ryan, Matthew G., R. C. Webb, R. E. Sturm, and J. E. Lindsay, Jr., to Carrier Corp. Air conditioning system for aircraft. 3,082,609, 3–26–63, Cl. 62—89.
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Ryan, Robert F., F. R. Thomasson, and J. H. Hicks, to United States of America, Atomic Energy Commission Gaseous disposal process. 3,074,776, 1–22–63, Cl. 23—2.
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Ryan, Wayne L., to Dundee Laboratories, Inc. Process and device for determining the sensitivity of bacteria to antibiotics. 3,083,145, 3–26–63, Cl. 195—103.5.
Ryan, William H., and E. L. Yankowski, to Polaroid Corp. Photographic diffusion transfer process. 3,087,815, 4–30–63, Cl. 96—3.
Ryan, William P., to Royal McBee Corp. Drive means. 3,098,398, 7–23–63, Cl. 74—321.
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Ryck, Francis M., to General Motors Corp. Windshield wiper arm attachment. 3,085,821, 4–16–63, Cl. 287—53.
Ryck, Frank M., and E. R. Ziegler, to General Motors Corp. Windshield cleaning system. 3,078,493, 2–26–63, Cl. 15—250.02.
Ryckebosch, Frans K., to Bekaert Steel Card, S.A. Cut steel reinforcing wire. 3,070,871, 1–1–63, Cl. 28—80.
Rydberg, John A., to Gustavsbergs Fabriker, Aktiebolaget. Device for intermittent combustion. 3,091,224, 5–28–63, Cl. 122—24.
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Ryffel, Carl: *See*—
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Evans, Dewey M., Arnold, and Rylance. 3,109,439.
Ryland, Lloyd B.: *See*—
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Rylander, John G. Beverage can holder and cover. 3,107,-029, 10–15–63, Cl. 220—85.
Rylander, Rolf E., and L. J. Ebert, to Erico Products, Inc. Welding composition. 3,116,141, 12–31–63, Cl. 75—27.
Rylander, Rolf E., L. Gelfand, and L. J. Ebert, to Erico Products, Inc. Welding material. 3,116,142, 12–31–63, Cl. 75—27.
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Rymland, Murray J. Spring assembly and method of manufacture. 3,078,480, 2–26–63, Cl. 5—252.
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Hegedus, Balthasar, Isler, Ruegg, and Ryser. 3,090,805.
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Rywak, John, to Northern Electric Co. Ltd. Detector of pulses exceeding a predetermined length. 3,093,756, 6–11–63, Cl. 307—88.5.
Rywak, John, to Northern Electric Co. Ltd. RC-coupled monostable transistor circuit with diode shunt to provide fast recovery time. 3,097,313, 7–9–63, Cl. 307—88.5.
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Boles, David B., Crowther, and Ryzner. 3,081,146.
Rzewinski, Leonard, and W. G. Meschino, to United States of America, Navy. Demolition timing device. 3,078,801, 2–26–63, Cl. 102—70.2.
S.A.S. Lavorazione Materie Plastiche (L.M.P.) di M. I. Colombo & C.: *See*—
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Chabala, Leonard V. 3,098,915.
Goldbach, William R., and Schockelt. 3,077,527.
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Lindell, Sigurd I., and Chabala. 3,116,391.
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Bradbury, Wilburn F. 3,096,015.
Canny, Floyd H. 3,101,141.
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S.I. Handling Systems, Inc.: *See*—
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Bradt, Lynn, and Dorrance. 3,094,944.
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McCloskey, Albert R. 3,109,223.
SKF Kugellagerfabriken Gesellschaft mit beschrankter Haftung: *See*—
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Steichele, Joseph. 3,098,346.
SKSM Products, Inc.: *See*—
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Tice, Arthur J., and Wallace. 3,098,249.
S & M Products Co., Inc.: *See*—
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SNIA Viscosa Societa Nazionale Industria Applicazioni: *See*—
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S. & S. Industries, Inc.: *See*—
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S. S. S. Gears Ltd.: *See*—
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Clements, Herbert A. 3,106,276.
SVIT: *See*—
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SWF-Spezialfabrik fur Autozubehoer Gustar Rau G.m.b.H.: *See*—
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Sabatino, Anthony, and E. J. Jackson, to Globe-Union Inc. Active material for storage batteries and method of making same. 3,100,162, 8–6–63, Cl. 136—26.
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Sabol, Albert R., H. D. Cook, and R. E. Karll, to Standard Oil Co. Lubricant additive and composition containing same. 3,073,780, 1–15–63, Cl. 252—32.7.
Sabol, Albert R., and E. W. Blaha, to Standard Oil Co. Lubricant addition agents and lubricants containing same. 3,086,940, 4–23–63, Cl. 252—32.7.
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Safety Electrical Equipment Corp.: *See*—
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Saffer, Alfred, and R. S. Barker, to Mid-Century Corp. Oxidation chemical process. 3,089,906, 5–14–63, Cl. 260—524.
Saffer, Alfred, and R. S. Barker, to Mid-Century Corp. Pressure controlled liquid phase oxidation process for aromatic acid production. 3,089,907, 5–14–63, Cl. 260—524.
Saffer, Bernard A.: *See*—
Feldman, Julian, Saffer, and Allgeier. 3,088,982.
Saffer, Bernard A., and J. Feldman, to National Distillers and Chemical Corp. Glycol separation. 3,098,880, 7–23–63, Cl. 260—637.
Saffer, Charles M., Jr., to Thiokol Chemical Corp. **Explosive perforator for use on underwater bodies and structures.** 3,109,373, 11–5–63, Cl. 102—54.
Saffian, Marvin M., to OPTO Mechanism Inc. **Processing head for photographic mechanism.** 3,115,079, 12–24–63, Cl. 95—12.
Saffir, Jacob A., to The Dentists Supply Co. of New York. **Dental instruments.** 3,071,861, 1–8–63, Cl. 32—27.
Saffir, Jacob A. Dental engine. 3,108,781, 10–29–63, Cl. 253—3.
Saffire, Victor N., to General Electric Co. **Cathode ray tube screening.** 3,095,317, 6–25–63, Cl. 117—33.5.
Safford, Moyer M., and R. L. Myers, to General Electric Co. Curable composition comprising cured filler, polymerized butadiene and di-α-cumyl peroxide and cured products thereof. 3,083,175, 3–26–63, Cl. 260—45.5.
Safford, Spencer, Loadcraft, Inc.: *See*—
Johnson, Velmo S. 3,099,489.
Safford, Thomas W. Tow bar assembly. 3,072,419, 1–8–63, Cl. 280—406.
Safford, Thomas W., to Arcoa, Inc. **Bumper hitch assembly.** 3,113,789, 12–10–63, Cl. 280—502.
Safianoff, Albert: *See*—
Mitchell, Dennis M., and Safianoff. 3,105,502.
Safianoff, Albert, to The Gillette Co. **Indicating dispenser.** 3,078,011, 2–19–63, Cl. 222—41.
Safianoff, Albert, to The Gillette Co. **Hair curling device.** 3,105,503, 10–1–63, Cl. 132—40.
Safranek, Leland: *See*—
Herrmann, Fred L., and Safranek. 3,111,148.
Safranek, William H., to United States of America, Army. **Electroforming of gun liners.** 3,112,553, 12–3–63, Cl. 29—1.1.
Safranek, William H., Jr., J. G. Beach, and C. L. Faust, to The Battelle Development Corp. Electrodeposition of chromium and chromium alloys. 3,111,464, 11–19–63, Cl. 204—43.
Safranski, Leo W.: *See*—
De Jong, Jan I., and Safranski. 3,072,630.
Saftig, Ernest T.: *See*—
McCarthy, Patrick B. 3,114,417.
Saftronics, Inc.: *See*—
Rudolph, Bud, and Freer. 3,074,055.
Safway Steel Products, Inc.: *See*—
Forsythe, Edwin C., and Vandekieft. 3,077,642.
Sagar, Brian F.: *See*—
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Sagarin, Philip H., and W. R. O'Donnell, to VCA Inc. Cap construction for aerosol devices. 3,104,034, 9–17–63, Cl. 222—182.
Sage Electronics Corp.: *See*—
Nelson, Robert H. 3,085,316.
Sage, Frederick & Co. Ltd.: *See*—
Crisp, Douglas R. 3,074,679.
Sage Laboratories, Inc.: *See*—
Sand, Theodore S., and Hadge. 3,109,151.
Sage, Richard N., to International Business Machines Corp. **Looping device.** 3,100,512, 8–13–63, Cl. 140—102.
Sage, Samuel: *See*—
Trask, Russell L., Sage, and Nadel. 3,086,896.
Sager, Hans: *See*—
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Sager, Hans, to Hoffmann-La Roche Inc. Apparatus for the preparation of clear solutions. 3,098,819, 7–23–63, Cl. 210—97.
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Johnson, Charles G. R., and Sager. 3,113,890.
Saginaw Products Corp.: *See*—
Moore, Ronald D. 3,097,863.
Morlik, Andrew L. 3,085,285.
Saginaw Wire Products, Inc.: *See*—
Strout, Raymond D., and Staples. 3,081,076.
Saginomiya Seisakusho Co., Ltd.: *See*—
Mamiya, Shigeo, and Odashima. 3,097,274.
Sagura, John J., and J. A. Van Allan, to Eastman Kodak Co. Heat developable diazo sulfones. 3,11,3865, 12–10–63, Cl. 96—49.
Sah, Chih-Tang, to Fairchild Camera and Instrument Corp. Semiconductor with multi-regions of one conductivity-type and a common region of opposite conductivity-type forming district tunnel-diode junctions. 3,114,864, 12–17–63, Cl. 317—234.
Sahagian, Edward H. Resilient wheels. 3,090,415, 5–21–63, Cl. 152—41.
Sahler, Wilhelm, to Kalle Aktiengesellschaft. Heat sensitive reproduction material. 3,097,297, 7–9–63, Cl. 250—65.
Sahlertz, Ebbe H. Windows. 3,091,006, 5–28–63, Cl. 20—53.
Sahlin, Eric A., to Otis Elevator Co. Twist resistant elevator guide linkage. 3,077,953, 2–19–63, Cl. 187—95.
Sahlmann, Louis H., and J. J. Kane, to Zurn Industries, Inc. Seal and flexible gear type coupling. 3,095,713, 7–2–63, Cl. 64—9.
Saholt, Orville J.: *See*—
Bartling, James T., Saholt, and Smith. 3,088,403.
Sahyun Laboratories: *See*—
Faust, John A., and Sahyun. 3,094,561.
Sahyun, Melville, and Faust. 3,089,826.
Sahyun, Melville: *See*—
Faust, John A., and Sahyun. 3,094,561.
Sahyun, Melville, and J. A. Faust; said Faust assor. to M. Sahyun, d.b.a. Sahyun Laboratories. Production of bronchodilator effects with O-halo-N,N-dimethylphenethylamine acid addition salts. 3,089,826, 5–14–63, Cl. 167—84.5.
Saidel, William R., and J. M. Heigl, to Swift & Co. Bacon carton. 3,100,597, 8–13–63, Cl. 229—87.
Saidel, William R., and J. M. Heigl. Bacon carton. 3,100,598, 8–13–63, Cl. 229—87.
Saifuku, James F. Pineapple planter. 3,103,186, 9–10–63, Cl. 111—2.
Saifuku, James F. Pineapple planter. 3,107,637, 10–22–63, Cl. 111—3.
Saijo, Shigeyu: *See*—
Matsui, Masanao, Saijo, Ohizumi, Nishida, and Okano. 3,086,981.
Sailer, Norris H.: *See*—
Happe, Reynold, Sailer, and Lubas. 3,109,164.
Sailors, Howard R., to Phillips Petroleum Co. **Catalytic alkylation process.** 3,080,438, 3–5–63, Cl. 260—683.48.
Sain, Harold L., and W. J. Hogg, to Patchogue Plymouth Corp. Apparatus for manufacturing paper yarn. 3,111,000, 11–19–63, Cl. 57—32.
Sain, William H.: *See*—
Chamberlin, Richard H., Noble, and Sain. 3,104,960.
Sainio, Rainer L. Cleaning machine for shuttering boards used for concrete formwork. 3,110,050, 11–12–63, Cl. 15—93.
Saint, David, to Graco Metal Products, Inc. Doll swings. 3,071,339, 1–1–63, Cl. 248—165.
Saint, T. Ralph, to Jabez Burns & Sons, Inc. Extracting apparatus. 3,080,810, 3–12–63, Cl. 99—306.
St. Barnabas Free Home, Inc.: *See*—
Hopkinson, Paul O. W. 3,111,091.
St. Barnabas Hospital For Chronic Diseases: *See*—
Steen, Stephen N., and Grisaman. 3,101,082.
Saint-Bobain, Compagnie de: *See*—
Bigot, Bernard. 3,094,382.
St. Clair, Byron W., to Adler Electronics, Inc. Monitoring device. 3,074,018, 1–15–63, Cl. 325—134.
St. Clair, Giles: *See*—
Caldas, Jose M., and St. Clair. 3,085,936.
St. Clair, Theodore A., to The Bastian-Blessing Co. Gas regulator. 3,090,402, 5–21–63, Cl. 137—791.
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Saint-Frison, Louis H. N.: *See*—
Boussu, Gabriel X. R., Neuville, and Saint-Frison. 3,090,189.
Boussu, Gabriel X. R., Neuville, and Saint-Frison. 3,090,190.
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Acloque, Paul. 3,107,196.
Acloque, Paul H. 3,082,664.
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Arnaud, Robert. 3,108,380.
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Bognar, Etienne, and Maistre. 3,085,626.
Bourgeaux, Maurice, and Naudin. 3,085,473.
Bourgeaux, Maurice, and Naudin. 3,085,474.
Branchereau, Maurice, and Navez. 3,086,385.
Chan, Andre D. H., and Lambert. 3,081,209.
Charpentier, Maurice, and Mabru. 3,078,691.
Colombet, Robert, and André. 3,085,305.
Crauland, Marc J. 3,108,126.
Dammers, August. 3,077,753.
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Godron, Yves G. 3,110,399.
Henri, Jean. 3,091,599.
Jobard, Michel A. 3,102,087.
Levecque, Marcel, and Charpentier. 3,084,381.
Levecque, Marcel, and Charpentier. 3,084,525.
Levecque, Marcel, and Mabru. 3,084,380.
Levecque, Marcel, Mabru, and Charpentier. 3,114,618.
Mabru, Marcel, and Piot. 3,080,736.
Macquere, Eugene V. A. E. 3,114,218.
Marty, Jean. 3,081,151.
Oostland, Alfred N. 3,085,368.
Perraut, Jean M., and Michel. 3,075,714.
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Philibert, Georges. 3,075,642.
Piot, Paul, and Barassin. 3,098,148.
Touvay, Robert. 3,085,464.
Wippler, Constant G. 3,101,306.
St. Jacques, Francis J. Manually removable and replaceable bottle cap. 3,102,652, 9–3–63, Cl. 215—46.
St. Jacques, Francis J. One-piece manually removable bottle cap. 3,102,653, 9–3–63, Cl. 215—46.
St. Jean, Robert R., to Worcester Automatic Machine Co. **Apparatus for coating wire.** 3,112,226, 11–26–63, Cl. 118—68.

St. John, Alexander N. T., and W. E. Titterton, to Resistoflex Corp. Dip pipe assembly. 3,085,438, 4-16-63, Cl. 73—421.

St. John & Co.: *See*—
Kopp, Ernest A. 3,111,706.

St. John, Donald A.: *See*—
Davis, Curtis W., Jr., Ottens, and St. John. 3,103,085.

St. John, John M.; *See*—
Petersen, Conrad W., Wittenberger, and St. John. 3,101,475.

St. John, Stuart B., to The Heald Machine Co. Grinding machine. 3,077,061, 2-12-63, Cl. 51—237.

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St. Joseph Lead Co.: *See*—
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Sears, Howard V. 3,084,673.

Saint Paul, Jean R.: *See*—
Pouilloux, Jacques, and Saint Paul. 3,111,445.

St. Pierre, Eugene, to The Bentley Knitting Machinery Organization, Inc. Yarn clamping and severing mechanism for knitting machines. 3,075,374, 1-29-63, Cl. 66—145.

St. Pierre, Henry. Poultry-house automatic cleaner. 3,071,-109, 1-1-63, Cl. 119—22.

St. Pierre, Paul L., to Hemphill Co. Knitting machine mechanism and method. 3,071,949, 1-8-63, Cl. 66—150.

St. Pierre, Philippe D. S., to General Electric Co. Casting metal powders. 3,115,698, 12-31-63, Cl. 29—182.

St. Pierre, Richard E.: *See*—
Mahoney, William R., St. Pierre, and Dunlap. 3,103,-220.

St. Regis Paper Co.: *See*—
Browning, Randolph M. 3,092,513.
Hamilton, Russell W. Re. 25,335.
Heise, Howard L., and McAllister. 3,089,634.
Johnson, Edward P., and Reeder. 3,104,800.
Knudson, Melvin R., and Bowen. 3,070,896.
Palst, Charles, Sibal, and Clay. 3,088,381.
Sisson, James B. 3,094,449.
Smith, Maurice D. 3,092,502.
Swanson, Elmer G., and Hyland. 3,094,268.
Titchenal, Oliver R. 3,092,233.
Titchenal, Oliver R., and Dyker. 3,072,208.
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Vredenburg, Edric W. 3,095,056.

St. Vrain, Wallace E., and C. A. Locke, to Mosley Electronics, Inc. Multiple frequency antenna system. 3,098,231, 7-16-63, Cl. 343—745.

Saito, Eiichi, to Commissariat a l'Energie Atomique. Separation of the isotopes of lithium. 3,105,737, 10-1-63, Cl. 23—89.

Saito, Shigeru: *See*—
Haga, Atsushi, and Saito. 3,108,130.

Saito, Tadashi: *See*—
Kubota, Ryonei, Saito, Kondo, and Odomari. 3,112,361.

Saito, Takao: *See*—
Fujii, Kozo, Iwasaki, Saito, and Matsumoto. 3,105,065.

Saito, Takeo: *See*—
Oda, Kenichi, Yamawaki, and Saito. 3,111,472.

Saito, Yoshihiko: *See*—
Ueno, Ryuzo, Saito, and Matsuda. 3,097,131.

Sajdak, Martin J.: *See*—
Greenberg, Jerome S., and Sajdak. 3,072,451.

Saji, Yasuo: *See*—
Kusunose, Masatomo, Saji, and Koyasu. 3,107,970.

Sakaguchi, Kinichiro, M. Kibi, and A. Kuninaka, to Yamasa Shoyo Kabushiki Kaisha (d.b.a. Yamasa Shoyu Co. Ltd.). Process for improving the flavor of foods by the addition of 5'-nucleotides. 3,104,171, 9-17-63, Cl. 99—140.

Sakai, Hideo: *See*—
Uchiyama, Yasuhiro, and Sakai. 3,112,162.

Sakaki, Yoshinobu. Device for threading leading portion of a cinefilm in cineprojector. 3,089,629, 5-14-63, Cl. 226—91.

Sakakibara, Kyoichi, M. Sawai, and I. Chuman, to Teikoku Zoki Seiyaku Kabushiki Kaisha. 17-substituted 1,3,5(10)-estratrienes and compositions containing the same. 3,081,-316, 3-12-63, Cl. 260—397.3.

Sakakibara, Seiichi: *See*—
Tanimura, Katsuo, Kawamura, Suzmura, Sakakibara, and Nagano. 3,080,249.

Sakamoto, Yoshizo. Furnace construction for drying garlic. 3,082,810, 3-19-63, Cl. 219—19.

Sakatani, Harumi. Lawn mower catcher hood. 3,099,122, 7-30-63, Cl. 56—199.

Sakatos, Michael J.: *See*—
Oakman, Albert S., and Sakatos. 3,073,934.

Sakieki, Ikuo, to Takeda Pharmaceutical Industries, Ltd. Water-soluble methylhesperidins and their production. 3,084,154, 4-2-63, Cl. 260—210.

Sakieki, Ikuo, and H. Nomura, to Takeda Pharmaceutical Industries, Ltd. Purification of water-soluble methylhesperidins containing chalcone type impurities. 3,086,970, 4-23-63, Cl. 260—210.

Sakurada, Yutaka: *See*—
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Sala, Giovanni: *See*—
Camerino, Bruno, Sciaky, and Sala. 3,083,141.
Camerino, Bruno, Sciaky, and Sala. 3,103,522.

Salassi, Hugh C. Method of forming concrete piles in situ. 3,097,492, 7-16-63, Cl. 61—36.

Salat, Joseph A. Combined transportation and display container. 3,093,261, 6-11-63, Cl. 220—19.

Salat, Robert F., to Vactronic Lab. Equipment, Inc. Jet assembly for diffusion pump. 3,115,298, 12-24-63, Cl. 230—101.

Salazar, Jules, to E. Artinian. Snap ring tool. 3,075,284, 1-29-63, Cl. 29—229.

Saldi, Ideal T., to General Electric Co. Energy conversion device and methods of making. 3,079,515, 2-26-63, Cl. 310—4.

Sale, Anthony J. H., to Lever Brothers Co. Wave guide apparatus and its use. 3,110,794, 11-12-63, Cl. 219—10.55.

Salem, Alexander N.: *See*—
Christenson, Roger M., Hart, and Salem. 3,079,434.

Salem-Brosius, Inc.: *See*—
Stevens, William F., and Bauer. 3,112,918.

Salem, Joshua: *See*—
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Salem Tool Co., The: *See*—
Adams, George L. 3,114,425.
Adams, George L., and Govin. 3,074,703.
Adams, George L., and Govin. 3,091,439.
Adams, George L., and Govin. 3,107,741.
Govin, Charles T. 3,072,205.
Govin, Charles T. 3,077,235.

Salera, Edmond A. Fluid flow rate detection apparatus. 3,081,628, 3-19-63, Cl. 73—204.

Salerno, Paul G., to Vapor Heating Corp. Modulating in-line valve. 3,076,471, 2-5-63, Cl. 137—219.

Salfishberg, Charles M., to Ivers-Lee Co. Apparatus for feeding tablets. 3,105,609, 10-1-63, Cl. 221—176.

Salgado, Alvaro: *See*—
Forster, Wolfgang C., and Salgado. 3,077,463.

Salgado, Don E. Watch parts handling apparatus. 3,074,-773, 1-22-63, Cl. 312—213.

Salger, Werner, to Lumoprint Zindler K.G. Apparatus for printing an original onto a copying paper. 3,101,034, 8-20-63, Cl. 95—77.5.

Saliba, Francois G., and N. G. Satel. Alarm system for motor vehicles. 3,074,049, 1-15-63, Cl. 340—65.

Salick, Ralph A. Processing of strips of fur or pile fabrics. 3,081,614, 3-19-63, Cl. 69—22.

Salick, Ralph A. Polishing disc and method of making same. 3,100,905, 8-20-63, Cl. 15—235.

Salihi, Jalal T., to Lenkurt Electric Co., Inc. Voltage regulator. 3,074,000, 1-15-63, Cl. 321—16.

Salihi, Jalal T., to Lenkurt Electric Co., Inc. Selective frequency detector. 3,104,373, 9-17-63, Cl. 340—147.

Salisbury, Dale C. P.: *See*—
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Salisbury, Frederick L., to Varian Associates. Tuning device for flexible wall klystron. 3,097,323, 7-9-63, Cl. 315—5.23.

Salisbury, Frederick L., to Varian Associates. Cavity resonator structure for klystrons. 3,097,324, 7-9-63, Cl. 315—5.39.

Salisbury, Lynn: *See*—
Ault, Lawrence H., and Salisbury. 3,076,726.

Salisbury, Mack L. Swimming pool. 3,078,472, 2-26-63, Cl. 4—171.

Salisbury, Maurice B., and L. L. Ellis. Combined rock and core drill. 3,113,626, 12-10-63, Cl. 173—27.

Salisbury, Peter F., and T. F. Wichmann. Blood pressure measurement. 3,090,377, 5-21-63, Cl. 128—2.05.

Salkin, Ralph, to S. B. Penick & Co. Extraction of raunitidine. 3,072,664, 1-8-63, Cl. 260—294.3.

Salkind, Alvin J., to The Electric Storage Battery Co. Storage battery electrodes and methods for making them. 3,075,033, 1-22-63, Cl. 136—24.

Salkovitz, Edward I.: *See*—
Schindler, Albert I., and Salkovitz. 3,113,055.

Sallee, Aaron D., to Seymour Mfg. Co. Automatic header control means. 3,088,264, 5-7-63, Cl. 56—210.

Saller, Erik, R. Timmerman, and C. J. Wenske, to FMC Corp. Production of carbon tetrachloride from carbon bisulfide. 3,081,359, 3-12-63, Cl. 260—664.

Saller, Erik, R. W. Timmerman, J. L. Bennetts, and P. E. Armstrong, to FMC Corp. Chlorination of carbon bisulfide-containing mixtures to produce carbon tetrachloride. 3,109,-866, 11-5-63. Cl. 260—664.

Sallie, Stanley H., to Bird & Son, Inc. Self-sealing shingle. 3,080,683, 3-12-63, Cl. 50—103.

Salmassy, Sherwood: *See*—
Melill, Joseph, and Salmassy. 3,082,132.

Salmen, Hubert. Stopcock. 3,103,948 9-17-63, Cl. 137—375.

Salminen, Paavo V. L. Turbine-driven irrigation device. 3,093,313, 6-11-63, Cl. 239—236.

Salmivuori, Erkki, to Fishing Tackle Co. of America. Spinning type fishing reel. 3,085,766, 4-16-63, Cl. 242—84.21.

Salmon, Benjamin J. M.: *See*—
Bertin, Jean H., and Salmon. 3,105,388.

Salmon, Clarence P., to Flexonics Corp. Transducer. 3,096,-691, 7-9-63, Cl. 92—101.

Salmon, David F., and J. T. Zinn, to Avco Corp. Blueprint folding machine. 3,083,010, 3-26-63, Cl. 270—62.

Salmon, Donald B.: *See*—
Salmon, Douglas A. and D. B. 3,088,486.

Salmon, Douglas A. and D. B., to Hoke Inc. Loading arrangement for a regulator. 3,088,486, 5-7-63, Cl. 137—505.

Salmon, John F.: *See*—
Smith, Robert R., Mann, and Salmon. 3,081,242.

Salmon, Warren A.: *See*—
Gordon, William E., and Salmon. 3,080,724.
Gordon, William E., and Salmon. 3,081,157.

Salna, Karl, to The Frank G. Hough Co. Articulated motor vehicle. 3,101,806, 8-27-63, Cl. 180—52.

Salo, Eric A. Mooring device. 3,101,491, 8-27-63 Cl. 9—8.

Salo, William G. Marine speedometers. 3,095,738, 7-2-63, Cl. 73—181.

Salomon, Phil M.: *See*—
Birnbaum, Morris M., and Salomon. 3,114,831.

Salomon, Salomon M.: *See*—
Cannon, Madison M., Dick, and Salomon. 3,092,578.

Salomone, Rynold A.: *See*—
Hammerly, Herman J., and Salomone. 3,111,354.

Salomonson, Conrad. Handy extending grip. 3,112,135, 11-26-63, Cl. 294—16.

Saloum, Edward E., to Snap-Tite, Inc. Coupling. 3,097,867, 7-16-63, Cl. 285—86.

Salsbury, Jason M.: *See*—
Van Loo, William J., Jr., and Salsbury. 3,087,837.

Salsinger, Frank R. Baseball bat comprising a square cross sectional striking area. 3,104,876, 9-24-63, Cl. 273—72.

Salter, Frank S.: *See*—
Rosenthal, Salli, and Salter. 3,085,812.

Salter, George, & Co. Ltd.: *See*—
Bache, John K. 3,073,403.

Saltman, Paul D., and P. J. Charley. Metallic complexes of non-reducing sugars. 3,074,927, 1-22-63, Cl. 260—209.

Salton, Lewis L. Temperature control systems. 3,075,063, 1-22-63, Cl. 219—20.

Salton, Lewis L., and F. J. Burg; said Burg assor. to said Salton. Electrically heated covered warming tray. 3,098,-924, 7-23-63, Cl. 219—35.

Saltz, Fred: *See*—
Daly, George F., and Saltz. 3,088,398.
Daly, George F., and Saltz. 3,107,292.

Saltzman, George. Portable dental outfit. 3,077,665, 2-19-63, Cl. 32—22.

Salvatore, Joseph, to Goodstein Bros. & Co., Inc. Combined coat liner and bathrobe. 3,077,605, 2-19-63, Cl. 2—97.

Salvatori, Vincent L., to HRB-Singer, Inc. Cubic function generator. 3,086,166, 4-16-63, Cl. 323—79.

Salvi, Alessandro: *See*—
Perrone, Arrigo, and Salvi. 3,107,272.

Salvin, Victor S., B. S. Sprague, and F. Fortess, to Celanese Corp. of America. Textile treating. 3,101,236, 8-20-63. Cl. 8—59.

Salvin, Victor S., and T. W. Westarp, to Celanese Corp. of America. Discharge printing. 3,103,404, 9-10-63, Cl. 8—64.

Salvo, Louis: *See*—
Salvo, Raymond C., L., and N. L. 3,099,448.

Salvo, Norman L.: *See*—
Salvo, Raymond C., L., and N. L. 3,099,448.

Salvo, Raymond C., L., and N. L. Arm control appliance. 3,099,448, 7-30-63, Cl. 273—54.

Salwasser, Leslie F.: *See*—
Salwasser, Melvin and L. F. 3,097,577.

Salwasser, Melvin and L. F. Casing machine. 3,097,577, 7-16-63, Cl. 93—53.

Salway-Waller, Malcolm: *See*—
Gibbard, Thomas, Sharp, and Salway-Waller. 3,105,891.

Salyer, Howard C., and C. A. Fletcher, to Eastman Kodak Co. Textile apparatus for bulking yarns and process. 3,103,731, 9-17-63, Cl. 28—1.

Salyer, Ival O.: *See*—
Herbig, James A., and Salyer. 3,092,607.
Herbig, James A., and Salyer. 3,114,728.

Salyer, Ival O., to Monsanto Chemical Co. Polymer vinyl and ethylene/vinyl chloride polymer compositions and processes. 3,112,290, 11-26-63, Cl. 260—45.5.

Salzberg, Emmett R., and D. M. Goodman; said Goodman, assor., to said E. R. Salzberg. Motor control system adapted for telephone answering and message recording. 3,115,597, 12-24-63, Cl. 318—466.

Salzberg, Paul L., to E. I. du Pont de Nemours and Co. Herbicidal method. 3,092,484, 6-4-63, Cl. 71—2.56.

Salzer, Alexander. Water power conversion system. 3,084,-905, 4-9-63, Cl. 253—18.

Salzgitter Maschinen Aktiengesellschaft: *See*—
Holtermann, Clemens. 3,111,235.

Salzman, Paul. Ski boot holder. 3,074,085, 1-22-63, Cl. 12—120.5.

Salzman, Samuel: *See*—
Goulet, Fernand, and Salzman. 3,112,523.

Salzman, Samuel, to Allied Record Mfg. Co. Method of making phonograph record blanks from composite material. 3,072,519, 1-8-63, Cl. 156—200.

Salzmann, Ferdinand F.: *See*—
Graber, Joseph V., and Salzmann. Re. 25,399.

Salzmann, Ferdinand F., to Graber Mfg. Co., Inc. Adjustable support bracket for curtain rods and the like. 3,104,086, 9-17-63, Cl. 248—262.

Salzmann, Gerhard, to Ernst Leitz, Gesellschaft mit beschrankter Haftung. Film pressure guide for motion picture cameras. 3,075,427, 1-29-63, Cl. 88—17.

Salzmann, Helmut, to International Standard Electric Corp. Arrangement for leading flat dispatch articles round corners in conveying systems. 3,080,956, 3-12-63, Cl. 198—33.

Salzmann, Willi E. Differential gear with locking means. 3,105,394, 10-1-63, Cl. 74—710.5.

Sam, Joney. Sounding game mat. 3,091,454, 5-28-63, Cl. 273—1.

Samalik, John H., Sr.: *See*—
Rankin, John C., Russell, and Samalik. 3,073,724.

Samans, Walter, to Sun Oil Co. Emergency pressure relief device. 3,109,555, 11-5-63, Cl. 220—89.

Samara, Ferris A. Foldable bag and the like. 3,073,367, 1-15-63, Cl. 150—2.1.

Samburoff, Serge N., and A. H. Miller, to United States of America, Navy. Missile electrical plug connector. 3,111,-355, 11-19-63, Cl. 339—75.

Samcoe Holding Corp.: *See*—
Cohn, Eugene and J., and Catallo. 3,088,224.
Cohn, Samuel and E., and Catallo. 3,102,006.

Samejima, Hirotoshi: *See*—
Kinoshita, Shukuo, Samejima, Fujita, and Nara. 3,099,-604.

Sameshima, Kenji: *See*—
Rock, Jerome R., and Sameshima. 3,097,779.

Sameshima, Kenji J., to Burroughs Corp. Tape guide apparatus for magnetic tape transports. 3,109,573, 11-5-63, Cl. 226—199.

Sami, S. A. Societa d'Applications de Recherches Minieres et Industrielles: *See*—
Bumiller, Jacques. 3,072,911.

Samiran, David. Self-locking threaded fastener having a resilient wire locking member. 3,091,271, 5-28-63, Cl. 151—25.

Sammarco, Peter, to International Harvester Co. Frameless grain wagon. 3,093,254, 6-11-63, Cl. 214—83.32.

Samo, Harvey W., to Margon Corp. Doll eye. 3,092,931, 6-11-63, Cl. 46—169.

Sampietro, Achilles C. Internal combustion engines. 3,085,-392, 4-16-63, Cl. 60—19.

Sampietro, Achilles C., to Thompson Ramo Wooldridge Inc. Variable ratio hydraulic vehicle drive. 3,092,970, 6-11-63, Cl. 60—53.

Sampietro, Achilles C. Cylinder head assemblies for spark ignition internal combustion engines. 3,094,977, 6-25-63, Cl. 123—191.

Sampietro, Achilles C., to Willys Motors, Inc. Steering linkage. 3,109,668, 11-5-63, Cl. 280—89.

Sampietro, Achilles C., to Thompson Ramo Wooldridge, Inc. Valve rocker arm with cylindrical support. 3,112,740, 12-3-63, Cl. 123—90.

Sampietro, Achilles C., and J. D. Grigsby, to Thompson Ramo Wooldridge Inc. Alternator drive. 3,084,324, 4-2-63, Cl. 322—32.

Sample, Basil S., to Duff-Norton Co. Method of casting brake shoe to lining. 3,096,578, 7-9-63, Cl. 29—527.

Sampoll, Emilio: *See*—
Sampoll, Gabriel, Sampoll, and Sampoll. 3,105,571.

Sampoll, Gabriel, J. A., and E. Uniflow exhaust muffler. 3,105,571, 10-1-63, Cl. 181—59.

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Sampoll, Gabriel, J. A., and E. 3,105,571.

Sampson, Frederick S., to United-Carr Fastener Corp. Hole closures and the like. 3,072,287, 1-8-63, Cl. 220—59.

Sampson, Frederick W. English muffin splitter. 3,091,270, 5-28-63, Cl. 146—203.

Sampson, Howard J.: *See*—
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Sampson, Merritt B., to The S-P Mfg. Corp. Quick change chuck. 3,085,813, 4-16-63, Cl. 279—119.

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Chace, Arthur F., Jr. 3,078,755.

Samson, Georges, Jr. Cleaning device for bowling balls. 3,077,623, 2-19-63, Cl. 15—21.

Samson, Joseph: *See*—
Klopstock, Frederick W., and Samson. 3,092,850.

Samson, Ralph L.: *See*—
Zahner, Charles F., and Samson. 3,071,873.

Samson, Rene, to Behler, Gebruder. Apparatus for drying macaroni products. 3,094,398, 6-18-63, Cl. 34—212.

Samuel, Arthur J., to Gulf Research & Development Co. Combination dispensing and excess pressure relief valve. 3,081,919, 3-19-63, Cl. 222—396.

Samuel, Claude, to Societe Indatom. Stabilizing system for nuclear reactors, particularly those operating with boiling water. 3,080,309, 3-5-63, Cl. 204—193.2.

Samuel, Donald G., F. G. Heck, and H. N. Hall, to E. J. Lavino and Co. Refractory unit for furnace-lining construction. 3,086,327, 4-23-63, Cl. 50—162.

Samuel, Sergiu, to Machines Bull (Société Anonyme) Compagnie des. Monostable trigger circuits. 3,109,105, 10-29-63, Cl. 307—88.5.

Samuel, William Y., to T. & H. Smith, Ltd. Denatured alcohol. 3,080,326, 3-5-63, Cl. 252—366.

Samuelsen, Eirik. Method for trinitrotoluene manufacture. 3,087,971, 4-30-63, Cl. 260—645.

Samuelsen, Eirik, to Aktiebolaget Chematur and Norsk Spraengstofindustrie A/S. Continuous trinitrotoluene manufacture. 3,087,973, 4-30-63, Cl. 260—645.

Samuelson, Gilbert J., and K. J. Lissant, to Petrolite Corp. Non-aqueous deinking process. 3,072,521, 1-8-63, Cl. 162—5.

Samuelson, Gilbert J., and A. D. Franse, to Petrolite Corp. Recovery of values from ores by use of electric fields. 3,089,750, 5-14-63, Cl. 23—14.5.

Samulon, Henry A., and P. C. Robison, to Space Technology Laboratories, Inc. Electromagnetic radiation converter. 3,076,861, 2–5–63, Cl. 136—89.

Samusenko, Anatol G.: *See*—
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Samways, Alfred J., and B. L. Ertsgaard, to Toro Mfg. Corp. Suspension mounting for rotary mowers. 3,077,065, 2–12–63, Cl. 56—25.4.

Samwel, Johannes A., to North American Philips Co., Inc. Transistor common-emitter gate circuit with inductive load. 3,098,216, 7–16–63, Cl. 340—166.

San Antonio Chemicals, Inc.: *See*—
Berthold, Cornelius E., and Kane. 3,112,169.

Sanbe, Yukio. Device for sewing designs on zigzag sewing machines. 3,082,720, 3–26–63, Cl. 112—102.

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Schurr, Charles A., and Sanborn. 3,076,126.

Sanborn, Calvin B., Jr., to Square D Co. Limit control for motors. 3,105,181, 9–24–63, Cl. 318—203.

Sanborn, Daniel S., and J. L. Byrne, to McCulloch Corp. Reentry rotary fluid pump. 3,095,820, 7–2–63, Cl. 103—96.

Sanborn, Malcolm A., to United States of America, Air Force. Apparatus for assembling electrical circuitry. 3,088,728, 5–7–63, Cl. 269—40.

Sanborn, Phillip D. Acrosol cap and button. 3,107,033, 10–15–63, Cl. 222—41.

Sanchez, John G., to Baker Perkins Ltd. Spacer and transfer apparatus. 3,108,681, 10–29–63, Cl. 198—34.

Sanchez, Joseph: *See*—
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Sanchez, Joseph C., to Micro-Systems, Inc. Semiconductor strain gauge. 3,084,300, 4–2–63, Cl. 338—2.

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Sanchis, Jose. Pouring device. 3,104,786, 9–24–63, Cl. 222—481.

Sand, Robert T., Sr. Vehicle traction device. 3,115,920, 12–31–63, Cl. 152—218.

Sand, William C.: *See*—
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Sandall Precision Co. Ltd., The: *See*—
Brazier, Horace J. 3,082,620.

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Sandberg, Carl L., and J. M. Mullins, to Minnesota Mining and Mfg. Co. Low molecular weight vulcanizable polymers. 3,080,347, 3–5–63, Cl. 260—80.5.

Sandberg, Harry L.: *See*—
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Sandberg, Irgin W., to Bell Telephone Laboratories, Inc. Multibranch circuits for translating frequency characteristics. 3,081,434, 3–12–63, Cl. 328—22.

Sandberg, John W., and R. Balzer. Locking mechanism for telescoping members. 3,095,825, 7–2–63, Cl. 103—153.

Sandberg, Ove H., to Elektrokemisk A/S. Process of producing carbon electrodes. 3,102,041, 8–27–63, Cl. 106—284.

Sandberg, Robert N.: *See*—
Hidden, William P., Stelmen, and Sandberg. 3,103,142.

Sandberg, Sara F.: *See*—
Hidden, William P., Stelmen, and Sandberg. 3,103,142.

Sanden, Grant E.: *See*—
Pierce, William J., and Sanden. 3,110,372.

Sander, Howard H., M. Cowan, Jr., and S. C. Hight, to United States of America, Atomic Energy Commission. Blast yield meter. 3,108,466, 10–29–63, Cl. 73—35.

Sander, Nils B., to Svenska Bromsregulator, Aktiebolaget. Automatically single-acting slack adjusters for vehicles. 3,091,311, 5–28–63, Cl. 188—196.

Sanders, Albert M. and M. A. Method for treating die castings. 3,102,811, 9–17–62, Cl. 83—27.

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Ayer, Donald R., Butler, and Williston. 3,095,544.
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Mercer, William R. 3,092,831.
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Sanders, Guy J., to Koppers Co., Inc. Noise attennating apparatus of circular cross-section. 3,114,431, 12–17–63, Cl. 181—50.

Sanders, Hiram R., Jr., J. R. Kennedy, and H. F. Schroeder, to Esso Research and Engineering Co. Liquid fuel injection in blast furnaces. 3,110,584, 11–12–63, Cl. 75—42.

Sanders, James W., to Electronic Associates Inc. Analog accumulator. 3,074,642, 1–22–63, Cl. 235—193.

Sanders, Joseph A., to Goddard & Goddard Co. Magnetic chuck adapter plate. 3,078,565, 2–26–63, Cl. 29—529.

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Nelson, Gordon A., Sanders, and Casey. 3,080,826.

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Sanders, Norman T., to Needle Industries Ltd. Shape-forming structures. 3,081,922, 3–19–63, Cl. 223—68.

Sanders, Paul. Package for ties and the like. 3,081,012, 3–12–63, Cl. 224—45.

Sanders, Richard B., to L & B Welding Equipment, Inc. Means for speed control of a direct current motor operating from an alternating current supply source. 3,082,366, 3–19–63, Cl. 318—331.

Sanders, Robert G., and B. D. Church, to Warner-Lambert Pharmaceutical Co. Therapeutic composition of a 5-aminohexahydropyrimidine and selected chelating agents. 3,072,529, 1–8–63, Cl. 167—65.

Sanders, Robert W., and L. J. Vironda, to Dymo Industries Inc. Tape marking tool and cut-off mechanism. 3,091,319, 5–28–63, Cl. 197—6.7.

Sanders, Vernon W., E. J. Georgia, and E. F. Mayeau. Aircraft tire tread. 3,111,975, 11–26–63, Cl. 152—361.

Sanders, W. H. (Electronics) Ltd.: *See*—
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Sanders, Walter C. Drive-yourself motor vehicle contract and key recovery device. 3,101,987, 8–27–63, Cl. 346—20.

Sanders, Wilfred E., to Houston Oil Field Material Co., Inc. Tubing rotary swivel assembly. 3,100,538, 8–13–63, Cl. 166—237.

Sanderson, George H., to Creative Advisers, Inc. Furniture upholstery. 3,082,038, 3–19–63, Cl. 297—461.

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Sandnes, Gottfred. Rope and cable vise lock or stopper. 3,073,087, 1–15–63, Cl. 53—38.

Sandnes, Gottfred. Rope and cable stopper for derricks. 3,115,216, 12–24–63, Cl. 188—65.2.

Sandor, William C. Bed spring construction. 3,085,259, 4–16–63, Cl. 5—247.

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Sands, Asa D. Safety cut-off valve requiring reset by pressure equalization. 3,106,937, 10–15–63, Cl. 137—613.

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Sands, Robert G., to Carrier-Ross Engineering Co. Ltd. Extracting apparatus. 3,103,030, 9–10–63, Cl. 15—306.

Sandström, George F. and M. Suction pick-up apparatus. 3,102,750, 9–3–63, Cl. 294—64.

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Sanford, Arthur C. to Sanford Industries, Inc. Corrugated toothed connector plate. 3,094,748, 6–25–63, Cl. 20—92.

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Sanford, Robert A., H. D. Ballard, and A. D. Anderson, to Sinclair Research, Inc. Non-catalytic process for the recovery of alkyl-naphthalenes in the presence of hydrogen. 3,083,244, 3–26–63, Cl. 260—674.

Sanford, Robert E., to Erie Foundry Co. Work handling device. 3,079,817, 3–5–63, Cl. 78—99.

Sanford, Robert F., to Radio Corp. of America. Magnetic recording. 3,084,224, 4–2–63, Cl. 179—100.2.

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Sanner, Medford D., and R. O. Cox, to General Dynamics Corp. Stepper angle-measuring device. 3,091,755, 5–28–63, Cl. 340—187.

Sannes, Elmer G. Meat brushing apparatus. 3,102,290, 9–3–63, Cl. 15—3.17.

Sano, Karel M., to Gevaert Photo-Producten N.V. Apparatus for the removal of a film sheet from its folded wrapper. 3,074,713, 1–22–63, Cl. 271—64.

Sano, Karel M., to Gevaert Photo-Producten N.V. Cassette loader. 3,075,080, 1–22–63, Cl. 250—66.

Sano, Karel M., and F. J. Van Landeghem, to Gevaert Photo-Producten N.V. Apparatus for unloading film sheet cassettes. 3,105,903, 10–1–63, Cl. 250—66.

Sano, Karel M., and F. J. Van Landeghem, to Gevaert Photo-Production N.V. Apparatus for unloading film sheet casettes. 3,111,585, 11–19–63, Cl. 250—66.

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Schleifer, Carlo. 3,084,400.
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Sante, Daniel P., to Sylvania Electric Products Inc. Semiconductor harmonic generators. 3,085,205, 4–9–63, Cl. 328—16.

Santeler, Donald J., to General Electric Co. Shielded thermal gradient member. 3,103,108, 9–10–63, Cl. 62—268.

Santelli, Thomas R., to Owens-Illinois Glass Co. Method for preparing graft copolymers of polyolefin and silanes and a graft copolymer thereof. 3,075,948, 1–29–63, Cl. 260—45.5.

Santelli, Thomas R., and R. T. Wallace, to Owens-Illinois Glass Co. Organic isocyanate-lignin reaction products and process. 3,072,634, 1–8–63, Cl. 260—124.

Santesso, Virgilio. Safety device in passenger cars, planes, or the like. 3,077,355, 2–12–63, Cl. 280—150.

Santhany, Leland W., to Ferro Corp. Sanitary ware setter, 3,099,063, 7–30–63, Cl. 25—153.

Santi, Harris H., to Rototone, Inc. Acoustical vibrato apparatus. 3,095,940, 7–2–63, Cl. 181—27.

Santi, John D., to Briggs & Stratton Corp. Inductance device, particularly for internal combustion engine ignition. 3,114,851, 12–17–63, Cl. 310—153.

Santi, Louis. Ear-plugs. 3,097,643, 7–16–63, Cl. 128—152.

Santiago, Florencio: *See*—
Young, Robert R., Ludwig, and Santiago. 3,107,795.

Santing, Hendrik: *See*—
Almer, Friedrich H. R., Fennema, Kuiper, Santing, and van Veldhuizen. 3,086,136.

Santisi, Harry C.: *See*—
Williams, John R., and Santisi. 3,076,498.

Santos, Frederico R. Tuning fork tone generator. 3,096,489, 7–2–63, Cl. 331—51.

Santow, Seymour: *See*—
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Sanymetal Products Co., Inc., The: *See*—
Benham, Kent W. 3,085,665.
Benham, Kent W. 3,104,428.
Benham, Kent W. 3,104,738.
Benham, Kent W. 3,107,758.
Domsic, Paul M., and Dielman. 3,095,225.

Sanzen Seishi Kabushiki Kaisha: *See*—
Matsumoto, Tsunetaka, Kato, and Sumitani. 3,091,553.

Sanzo, Sonny C. Hair bleaching appliance. 3,103,933, 9–17–63, Cl. 132—9.

Saper, Lawrence, to Bogue Electric Mfg. Co. Measuring systems. 3,115,615, 12–24–63, Cl. 340—3.

Sapers, Ira, and A. A. Cook, to Arkansas Co., Inc. Discharge printing pastes and methods of application involving same. 3,074,774, 1–22–63, Cl. 8—69.

Saperstein, Henry G.: *See*—
Goldfarb, Adolph E., and Saperstein. 3,084,680.

Saperstein, Rose B., and W. K. Stiefel. Therapeutic method for the abrasion of the human skin. 3,092,111, 6–4–63, Cl. 128—355.

Saperstein, Sol, to The Perkin-Elmer Corp. Alignment theodolite. 3,079,835, 3–5–63, Cl. 88—14.

Saplevsky, Piotr F., O. A. Filimoshina, A. F. Klimkova, L. V. Zilpert, and I. S. Garkavi, to Moscovsky Experimentalny Zavod Iskoostvennoi Kozhi e mekha. Apparatus for continuous finishing of yarn. 3,087,224, 4-30-63, Cl. 28—39.5.

Saplevsky, Piotr F., I. S. Garkavi, V. V. Mikhailov, O. A. Filimoshina, T. V. Vlasova, and A. J. Czerbin, to Moscovsky Experimentalny Zavod Iskoostvennoi Kozhi e mekha. Machine for curling chenille. 3,087,225, 4-30-63, Cl. 28—62.

Sapino, Theodore, to Minneapolis-Honeywell Regulator Co. Electrical monitoring and control apparatus. 3,081,940, 3-19-63, Cl. 235—61.11.

Sapoff, Meyer, and J. Gecsey, to Victory Engineering Corp. Bead type thermistor and method. 3,110,875, 11-12-63, Cl. 338—22.

Sapos S.A.: *See*—
Gold-Aubert, Philippe. 3,075,983.

Sapp, Bobby L.: *See*—
Hollingsworth, Clinton A., and Sapp. 3,086,654.

Saraceno, Anthony J., to Gulf Research & Development Co. Determination of vanadium content of hydrocarbon oils by electron paramagnetic resonance spectrometry. 3,087,-888, 4-30-63, Cl. 208—251.

Sarafinas, Bruno A., to United-Carr Fastener Corp. Mounting foot member. 3,092,364, 6-4-63, Cl. 248—350.

Saraga, Wolja, to Associated Electrical Industries Ltd. Active electrical one-ports. 3,112,463, 11-26-63, Cl. 333—80.

Sarah, Thomas F., to The Enterprise Mfg. Co. Ratchet pawl silencer for fishing reel. 3,075,721, 1-29-63, Cl. 242—84.2.

Sarah, Thomas F., to The Enterprise Mfg. Co. Starwheel drag brake assembly. 3,083,929, 4-2-63, Cl. 242—84.45.

Sarah, Thomas F., to The Enterprise Mfg. Co. Drag adjustment for spinning reel. 3,097,814, 7-16-63, Cl. 242—84.54.

Sarakauskas, Raymond V., M. C. Cox, and N. R. Thielke, to Union Carbide Corp. Ferri-magnetic spinel bodies. 3,096,288, 7-2-63, Cl. 252—62.5.

Sarazin & Cie, Societe Anonyme: *See*—
Molina, Claude. 3,076,088.

Sarbacher, Robert I. System for airfield ground traffic control. 3,099,834, 7-30-63, Cl. 343—101.

Sarco Co., Inc.: *See*—
Ritter, John W., and Cusi. 3,099,431.
Ritter, John W., and Cusi. 3,103,232.

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Forster, Robert. 3,089,505.

Sardeson, Robert, to Pako Corp. Processing apparatus for processing flexible sheet material requiring chemical treatment. 3,078,024, 2-19-63, Cl. 226—119.

Sardo, William: *See*—
Kuhnapfel, Robert H., and Sardo. 3,109,054.

Sarett, Lewis H.: *See*—
Brown, Horace D., Matzuk, and Sarett. 3,107,251.
Brown, Horace D., and Sarett. 3,083,197.
Oberster, Arthur E., Beyler, and Sarett. 3,092,628.
Oberster, Arthur E., Beyler, and Sarett. 3,100,204.
Oberster, Arthur E., and Sarett. 3,088,951.
Poos, George I., and Sarett. 3,074,979.
Shen, Tsung Y., Rogers, and Sarett. 3,089,876.

Sarett, Lewis H., R. E. Beyler, and F. G. Hoffman, to Merck & Co., Inc. 16-trihalomethyl steroids. 3,079,407, 2-26-63, Cl. 260—397.4.

Sargeant, Ralph G. Method of producing high density low viscosity citrus juice concentrate. 3,072,490, 1-8-63, Cl. 99—205.

Sargeant, Walter E., and J. E. Wilson, to General Motors Corp. Accessory drive mechanism. 3,090,548, 5-21-63, Cl. 230—271.

Sargeant, Walter E., J. M. Farrell, and E. F. Weller, Jr., to General Motors Corp. Printed circuit motor. 3,093,763, 6-11-63, Cl. 310—154.

Sargent, David O., to Johnson & Johnson. Tampon applicator. 3,101,713, 8-27-63, Cl. 128—263.

Sargent, E. H., & Co.: *See*—
Dawe, Garfield A., Ewen, and Sherrick. 3,087,115.

Sargent Engineering Corp., The: *See*—
Nyman, Hugo, and Devendorf. 3,081,708.

Sargent, Herbert B.: *See*—
Portzer, Harry J., Sargent, Kasbohm, and Bohner. 3,108,445.

Sargent, Jack, to ISI, Inc. Variable monitoring system. 3,082,412, 3-19-63, Cl. 340—181.

Sargent, Norman D.: *See*—
Pursycki, Alfred Z., and Sargent. 3,103,279.

Sargent, Norman L.: *See*—
Fetovich, Michael J., and Sargent. 3,077,929.

Sargent, Raymond F., to Bristol Siddeley Engines Ltd. Control of supersonic fluid flow in ducts. 3,078,658, 2-26-63, Cl. 60—35.6.

Sargent, Raymond F., and R. J. Lane, to Bristol Siddeley Engines Ltd. Propulsion power plants for aircraft. 3,103,-102, 9-10-63, Cl. 60—35.6.

Sarian, Suren, to Union Carbide Corp. Pressure-differential type apparatus useful in density and volume measurements. 3,085,441, 4-16-63, Cl. 73—450.

Sariotti, Victor A.: *See*—
Tonna, Arthur J., and Sariotti. 3,115,149.

Sariotti, Victor A., and A. J. Tonna, to Burgermeister Brewing Corp. Tapping valve for beer kegs. 3,115,150, 12-24-63, Cl. 137—240.

Sariti, Anthony A., to Radio Corp. of America. Magnetic field structure for transducers and method of constructing same. 3,079,472, 2-26-63, Cl. 179—119.

Sariti, Anthony A., and D. E. Laux, to Radio Corp. of America. Dual stylus phonograph pickup. 3,085,806, 4-16-63, Cl. 274—36.

Sark, Astra. Manual pattern transfer device. 3,090,301, 5-21-63, Cl. 101—134.

Sarkar, Asim K.: *See*—
Adams, Dennis A. W., and Sarkar. 3,101,333.

Sarkar, Asim K., to Hickson & Welch Ltd. Nitro-stilbene-hydroxyalkyl sulfones and process of preparing same. 3,086,057, 4-16-63, Cl. 260—607.

Sarkes Tarzian, Inc.: *See*—
Finn, George B., Jr. 3,082,136.

Sarko, Anatole, B. R. Zeitlin, and F. J. Germino, to General Foods Corp. Cold water soluble amylose. 3,086,890, 4-23-63, Cl. 127—69.

Sarles, Norman H. Corner guide system. 3,104,468, 9-24-63, Cl. 33—85.

Sarmento, Frank, and L. B. Almeida. Automatic livestock feeder. 3,093,270, 6-11-63, Cl. 222—360.

Sarmi S.A., Societe d'Applications de Recherches Minieres et Industrielles: *See*—
Rosselet, Claude E. 3,075,195.
Rosselet, Claude E. 3,107,076.

Sarnoff, Stanley J. Aspirating piston and plunger coupling. 3,115,135, 12-24-63, Cl. 128—218.

Sarnoff, Stanley J. Cartridge. 3,115,136, 12-24-63, Cl. 128—218.

Sarnoff, Stanley J. Aspiration seal. 3,115,137, 12-24-63, Cl. 128—218.

Saro, Richard F.: *See*—
Kastler, Joseph G., and Saro. 3,089,946.

Sarofeen, George M. J., to Titmus Optical Co., Inc. Polishing synthetic resin lenses. 3,077,707, 2-19-63, Cl. 51—284.

Sarrafian, George P.: *See*—
Aitken, Alexander R., Gerrard, Sarrafian, and Jones. 3,075,607.
Baker, George T., Kettler, and Sarrafian. 3,074,636.
Francis, Thomas L., Kettler, and Sarrafian. 3,097,342.
Kettler, Charles L., and Sarrafian. 3,088,667.

Sarsar, Frederick B.: *See*—
Heinze, Don M., Kosin, Sarsar, and Yee. 3,087,303.

Sarto, Jorma O., to Chrysler Corp. Preheater for carburetor inlet air. 3,085,558, 4-16-63, Cl. 123—122.

Sartori, Mario F., to E. I. du Pont de Nemours and Co. Azo dyes for acrylic and polyester fibers. 3,074,926, 1-22-63, Cl. 260—191.

Sartori, Mario F., to E. I. du Pont de Nemours and Co. Azo dyes. 3,079,377, 2-26-63, Cl. 260—205.

Sartorio, Aristide L. Hand-operated implement for picking on the plant olives and similar hanging down fruits. 3,095,681, 7-2-63, Cl. 56—339.

Sartorius-Werke A.G. (und vormals Gottinger Prasisions-waagenfabrik G.m.b.H.), Fa.: *See*—
Gast, Theodor. 3,089,553.

Sarver, Emmett F. Gas detecting apparatus. 3,111,024, 11-19-63, Cl. 73—23.

Sarvis, John W., to United States of America, Army. Three-piece disintegrating and relinking ammunition belt link. 3,112,673, 12-3-63, Cl. 89—35.

Sarvis, John W., and J. R. Mayer, to United States of America, Army. Disintegrating and relinking ammunition belt link. 3,115,061, 12-24-63, Cl. 89—35.

Sasadi, John: *See*—
Vander Laan, Martin, D'Agati, and Sasadi. 3,077,270.

Sasadi, John, to Hewitt-Robins Inc. Bucket wheel barge unloader. 3,104,766, 9-24-63, Cl. 214—14.

Sasaki, Junichi, T. Soda, Y. Nakamatsu, M. Kobayashi, and O. Tochikura. Method of starting a gyrocompass. 3,077,-672, 2-19-63, Cl. 33—226.

Sasaki, Jun-ichi, and M. Watanabe. Transmitter of electromagnetic flowmeter. 3,108,474, 10-29-63, Cl. 73—194.

Sasaki, Kanso, and J. Morita, to Shionogi & Co., Ltd. Prednisolone-21-oenanthate octyldodecanol eye lotion. 3,071,511, 1-1-63, Cl. 167—59.

Sasaki, Kazuo, to Toyo Koatsu Industries, Inc. Method of producing hydrogen cyanide. 3,107,146, 10-15-63, Cl. 23—151.

Sasaki, Rentaro, to Oki Electric Industry Co., Ltd. Push button type telephone calling device. 3,078,349, 2-19-63, Cl. 179—90.

Sasaki, Rentaro, to Oki Electric Industry Co. Ltd. High speed belt printer. 3,115,092, 12-24-63, Cl. 101—93.

Sasaki, Yozo, S. Asanabe, and D. Shinoda. Thermoelectric generator. 3,072,733, 1-8-63, Cl. 136—5.

Sasin, Richard: *See*—
Swern, Daniel, and Sasin. 3,101,825.

Sasmoco S. A.: *See*—
Neukomm, Serge, and Bonnet. 3,096,773.

Sasnett, Russell M., to General Electric Co. Clothes conditioning machine. 3,116,123, 12-31-63, Cl. 34—45.

Sass, Andrew R., to Radio Corp. of America. Information storage. 3,078,445, 2-19-63, Cl. 340—173.1.

Sass, Hans G., to Industrie-Companie Kleinewefers Konstruktions- und Handelsgesellschaft m.b.H. Pipe recuperator. 3,112,793, 12-3-63, Cl. 165—175.

Sasse, Frederick H.: *See*—
Neely, John H., Zuchowski, Sharav, and Sasse. 3,071,678.

Sasse, Klaus, R. Wegler, and G. Unterstenhöfer, to Farbenfabriken Bayer Aktiengesellschaft. 2,3-dimercaptoquinoxaline derivatives. 3,091,613, 5-28-63, Cl. 260—250.

Sasse, Klaus, R. Wegler, and G. Unterstenhofer, to Farbenfabriken Bayer Aktiengesellschaft. Metallic derivatives of 2,3-dimercapto quinoxalines. 3,095,413, 6-25-63, Cl. 260—242.

Sassen, Bernard: *See*—
Sporck, Claus L., and Sassen. 3,104,640.
Sporck, Claus L., and Sassen. 3,114,342.

Sassman, Walter R.: *See*—
Telser, Sidney, and Sassman. 3,113,003.

Sata, Masami: *See*—
Katakura, Sampei, Tachiki, and Sata. 3,107,995.
Tachiki, Kenkichi, and Sata. 3,093,315.

Satake, Toshihiko. Rice hulling and polishing machine. 3,078,894, 2-26-63, Cl. 146—279.

Satchell, Fred E.: *See*—
Jolliz, William L., Satchell, and Berry. 3,104,105.

Satchwell Controls Ltd.: *See*—
Sawyer, Wilfred A., and Surgeoner. 3,113,610.

Satec Corp.: *See*—
O'Connor, Walter J. 3,100,253.
O'Connor, Walter J. 3,107,524.

Satel, Nicolas G.: *See*—
Saliba, Francois G., and Satel. 3,074,049.

Sather, Olaf P., to Duluth Filter Co. Pressure liquid filtering device. 3,092,577, 6-4-63, Cl. 210—232.

Sather, Roy O.: *See*—
Close, Patrick B., Coulter, Ditmer, Fahrenbruck, Goldammer, Goodrick, Gulden, Holloran, Jenkins, Kilheffer, Kinker, Lyons, Manor, Marvin, Miller, O'Brian, Randall, Garner, Sather, Yost and Braden. 3,112,304.

Sato, Akihiko, to Nippon Electric Co. Ltd. Semiconductor pulse counting device with graded low resistivity region sandwiched between two high resistance regions. 3,114,-847, 12-17-63, Cl. 307—88.5.

Sato, Akihiko, to Nippon Electric Co. Ltd. Transistor utilizing a longitudinally directed magnetic field. 3,072,803, 1-8-63, Cl. 307—88.5.

Sato, Akira: *See*—
Tachizawa, Hiroshi, and Sato. 3,104,359.

Sato, Ichiro, E. Okamoto, and Y. Seki, to Nippon Electric Co. Ltd. Capacitor. 3,079,537, 2-26-63, Cl. 317—258.

Sato, Goro. Non-pressure hull type transport submarine with backbone. 3,102,504, 9-3-63, Cl. 114—16.

Sato, Takayoshi, and A. Nakatani, to Kabushiki Kaisha Koparu. Automatic shutter for camera. 3,096,697, 7-9-63, Cl. 95—10.

Sato, Takeki: *See*—
Tsukumo, Zenzaburo, Izutsu, and Sato. 3,088,267.

Sato, Takeo C.: *See*—
Stebbins, Larry O., and Sato. 3,114,258.

Sato, Yasunobu: *See*—
Sunagawa, Genshun, and Sato. 3,106,559.

Sato, Yoshio, E. Mosettig, and N. Ikekawa, to United States of America, Health, Education and Welfare. Improved preparation of allopregnenolone and pregnadienolone from tomatidine and solasodine. 3,105,068, 9-24-63, Cl. 260—239.55.

Sato, Zenroku: *See*—
Kinoshita, Shukuo, Nakayama, and Suzuki. 3,102,079.

Satoda, Isao: *See*—
Takahashi, Toriso, Ogiu, Fujimura, Satoda, Fukui, and Yamamoto. 3,076,844.

Satoh, Shinzoh. Electrolytic process for the production of metallic titanium from aqueous solution of titanium compounds. 3,074,860, 1-22-63, Cl. 204—105.

Satre, Leland H.: *See*—
Spitaleri, Vernon R., and Satre. 3,078,622.

Satrum, Clarence R., to Ho-Boy Corp. Fifth wheel device. 3,091,501, 5-28-63, Cl. 308—222.

Satterfield, William T.: *See*—
Keen, William R., Harris, Morton, and Satterfield. 3,086,-347.

Satterley, Buddy L.: *See*—
Grove, Herbert D., Jr., and Satterley. 3,073,685.

Satterly, Kenneth P., to Standard Brands Inc. Method of rendering starch hydrophobic and free flowing. 3,071,492, 1-1-63, Cl. 117—100.

Sattler, Frank A., and P. A. Tierney, to Westinghouse Electric Corp. Electrical insulating coating composition, method, and coated article. 3,089,787, 5-14-63, Cl. 117—215.

Sattler, Helmut: *See*—
Kurske, Herbert, Sattler, and Stix. 3,107,140.

Sattler, Robert I., to La Salle Machine Tool, Inc. Collet chuck construction. 3,111,826, 11-19-63, Cl. 279—2.

Satzinger, Gerhard, to Warner-Lambert Pharmaceutical Co. 5-amino derivatives of 4-thiazolidinones and process therefor. 3,072,653, 1-8-63, Cl. 260—247.1.

Satzinger, Gerhard, to Warner-Lambert Pharmaceutical Co. Amides of substituted 4-thiazolidinones and process therefor. 3,072,670, 1-8-63, Cl. 260—306.7.

Satzinger, Gerhard, to Warner-Lambert Pharmaceutical Co. Substituted bis(4-thiazolidinones) and process therefor. 3,072,671, 1-8-63, Cl. 260—306.7.

Sauber, John P., and R. C. Welsbrich. Game trap. 3,085,-362, 4-16-63, Cl. 43—69.

Saucy, Gabriel: *See*—
Isler, Otto, Lindlar, Montavon, Ruegg, Schwieter, and Saucy. 3,091,631.

Saucy, Gabriel, to Hoffmann-La Roche Inc. Octahydronaphthaleneones, alcohols and their acyl derivatives. 3,072,-709, 1-8-63, Cl. 260—476.

Sauder Tank Co., Inc.: *See*—
Edmondson, Jerry M. 3,078,648.

Sauer, Charles E., to Alton Box Board Co. Boat. 3,092,851, 6-11-63, Cl. 9—6.

Sauer, Edgar: *See*—
Hahn, Johann, and Sauer. 3,074,333.

Sauer, Edgar, to Zeiss Ikon Aktiengesellschaft. Photographic camera with coupled exposure meter. 3,075,439, 1-29-63, Cl. 95—10.

Sauer, Edgar, and H. Ebertz, to Zeiss Ikon Aktiengesellschaft. Camera viewfinder with mirror arrangement for viewing lateral indicator. 3,082,662, 3-26-63, Cl. 88—1.5.

Sauer, Hans, to Comar Electric Co. Electromagnetic relay. 3,097,328, 7-9-63, Cl. 317—199.

Sauer, Hans, to Carl-Stiftung Zeiss d.b.a. Carl Zeiss. Range finder device for photographic cameras. 3,107,269, 10-15-63, Cl. 88—1.5.

Sauer, Hans, F. Köber, O. Weiss, S. Grosser, and K.-H. Wöhner, to C. Zeiss. Photographic objectives. 3,098,420, 7-23-63, Cl. 95—64.

Sauer, Harold A., and D. R. Turner, to Bell Telephone Laboratories, Inc. Low resistance contact for semiconductors. 3,071,522, 1-1-63, Cl. 204—37.

Sauer, Herman C., to United States Rubber Co. Apparatus for cutting belt-bands. 3,107,563, 10-22-63, Cl. 82—48.

Sauer, Herman C., and J. A. Flint III, to United States Rubber Co. Method of forming belt teeth in reinforced positive drive belts. 3,078,205, 2-19-63, Cl. 156—137.

Sauer, Hubert, and E. Kob, to Rutgerswerke-Aktiengesellschaft. Process for preparing unsaturated polyesters which contain an enoomethylenephthalyl alcohol as a glycol component. 3,113,933, 12-10-63, Cl. 260—45.4.

Sauer, John C., to E. I. du Pont de Nemours and Co. Process for preparing carboxylic acid halides. 3,097,237, 7-9-63, Cl. 260—544.

Sauer, Leo P., and P. P. Frisch, to Signode Steel Strapping Co. Locating device. 3,089,576, 5-14-63, Cl. 198—29.

Sauer, Richard W., to The Atlantic Refining Co. High viscosity synthetic lubricants from alpha-olefins. 3,113,167, 12-3-63, Cl. 260—683.15.

Sauer, Robert C.: *See*—
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Sauer, Robert C., and H. D. Smith, to Sperry Rand Corp. Remaining range computer. 3,088,669, 5-7-63, Cl. 235—193.

Sauerman, Ernst C., to Gaw-O'Hara Envelope Co. Latex gumming attachment for envelope folding machines. 3,077,-821, 2-19-63, Cl. 93—62.

Sauermann, Hans D.: *See*—
Kiper, Gerd, and Sauermann. 3,103,862.

Sauermann, Werner, to Standard Filterbau G.m.b.H. Gaseous current separator. 3,109,807, 11-5-63, Cl. 209—136.

Sauers, Carol K., and R. J. Cotter, to Union Carbide Corp. Process for preparing cyano-esters. 3,094,551, 6-18-63, Cl. 260—465.

Saul, August A., to Miller Printing Machinery Co. Method and apparatus for static elimination in sheet feeding presses and the like. 3,083,011, 3-26-63, Cl. 271—26.

Saul, August A., to Miller Printing Machinery Co. Dampener for printing presses. 3,106,154, 10-8-63, Cl. 101—148.

Saul & Co.: *See*—
Wiedemann, Erwin. 3,075,404.

Saul, Everett L., and A. J. Fiscella, to Bristol-Myers Co. Fluoride dentifrices containing calcined aluminum silicate abrasives. 3,105,013, 9-24-63, Cl. 167—93.

Saul, Floyd E. Land leveling implement. 3,081,567, 3-19-63, Cl. 37—152.

Saul, George A.: *See*—
Baker, Joseph W., and Saul. 3,102,067.
Baker, Charles M., and Saul. 3,094,567.

Saul, James J.: *See*—
Jugle, Leonard L., Smith, and Saul. 3,072,989.

Saulsbury, Laforest S.: *See*—
Urban Joseph. 3,084,843.

Saulson, Stanley H., to Harlan M. Buck, Inc. Anti-siphoning device. 3,107,359, 10-22-63, Cl. 4—6.

Saunders, Arnold E., and W. E. Wagner, to Pittsburgh Plate Glass Co. Method of applying an electroconductive tin oxide film and composition therefor. 3,107,177, 10-15-63, Cl. 117—211.

Saunders, Charles A. Foldable archery target matt stand. 3,109,618, 11-5-63, Cl. 248—199.

Saunders, Charles F.: *See*—
McIntyre, Robert L., Saunders, and Schmidt. 3,106,636.

Saunders, Charles W.: *See*—
Morris, George A., and Saunders. 3,085,307.

Saunders, David G.: *See*—
Jeffreys, Roy A., Davenport, and Saunders. 3,095,302.

Saunders, Edward C. Wire line stripping apparatus. 3,100,-646, 8-13-63, Cl. 277—27.

Saunders, George T., to Kewaunee Mfg. Co. Method and means for effecting entrance into germ free enclosures and the like. 3,084,684, 4-9-63, Cl. 128—1.

Saunders, George T., to Kewaunee Mfg. Co. Window sealing structure. 3,088,627, 5-7-63, Cl. 220—82.

Saunders, Herbert M.: *See*—
Benson, Gustav E., and Saunders. 3,071,301.

Saunders, Hugh E., and R. G. Kling, to Mast Development Co., Inc. Pump. 3,073,246, 1-15-63, Cl. 103—44.

Saunders, James H., J. F. Szabat, and A. S. Morecroft, to Mobay Chemical Co. Preparation of polyurethane foam. 3,076,770, 2-5-63, Cl. 260—2.5.

Saunders, John A., to Eclipse Fuel Engineering Co. Gas filter. 3,108,866, 10-29-63, Cl. 55—480.

Saunders, Kenneth W., and N. M. Bikales, to American Cyanamid Co. Cyanoethylated cellulose solutions. 3,097,956, 7–16–63, Cl. 106—169.

Saunders, Nelson: *See*—
Rich, John P., Luthi, and Saunders. 3,105,043.

Saunders, Orson V.: *See*—
Brown, Richard C., and Saunders. 3,079,770.

Saunders Valve Co. Ltd.: *See*—
Kaye, Oliver. 3,077,029.
Shand, Stanley G., and Gower. 3,102,550.

Saunders, William C. Tray set and stand. 3,102,638, 9–3–63, Cl. 211—71.

Saunders, William F., III, to General Precision, Inc. Transistor network voltage regulator. 3,072,841, 1–8–63, Cl. 323—22.

Saunderson, Jason L., to Baird-Atomic, Inc. Spectroscopic apparatus with automatic correction of misalignment. 3,080,788, 3–12–63, Cl. 88—14.

Saunderson, Jason L., to Baird-Atomic, Inc. Automatic means for aligning spectrometer components. 3,090,278, 5–21–63, Cl. 88—14.

Saur, Gail E.: *See*—
Ballentine, Richard E., and Saur. 3,081,524.

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Saurenman, Phillip E. and P. J. 3,087,162.

Saurenman, Phillip E. and P. J. Pneumatic gun for corrugated nails and the like. 3,087,162, 4–30–63, Cl. 1—343.

Saurer, Adolph, Ltd.: *See*—
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Saurer, Curt, to Thornton Products Co. Hydraulic locking differential. 3,109,323, 11–5–63, Cl. 74—711.

Sause, Robert, and W. E. Stephen, to Imperial Chemical Industries Ltd. Treatment of cellulosic materials. 3,074,814, 1–22–63, Cl. 117—135.5.

Sausele, George J. H., to American Type Founders Co., Inc. Typesetting system and apparatus. 3,082,670, 3–26–63, Cl. 95—4.5.

Sausele, George J. H., to American Type Founders Co., Inc. Photo-typographic master character plate. 3,089,402, 5–14–63, Cl. 95—85.

Sausele, George J. H., to American Type Founders Co., Inc. Carriage escapement mechanism. 3,095,076, 6–25–63, Cl. 197—84.

Sauter, Josef J.: *See*—
Eggenberger, Markus A., Troutman, and Sauter. 3,098,176.

Sauter, Walter H. Combined can opener and pouring device. 3,114,480, 12–17–63, Cl. 222—90.

Sauvage, John E.: *See*—
Hlavacek, Robert J., Sauvage, and Dillehay. 3,115,670.
Hlavacek, Robert J., Sauvage, Dillehay, and Swift. 3,112,519.

Sauvage, Joseph M. J. Drawing rolls for drawing frames. 3,074,122, 1–22–63, Cl. 19—293.

Sauve, Charles, to Commissariat a l'Energie Atomique. Process and device for extrusion. 3,072,251, 1–8–63, Cl. 207—10.

Savadelis, Ignatius C., to Bell Telephone Laboratories, Inc. Ohmic contacts to semiconductor devices. 3,087,100, 4–23–63, Cl. 317—235.

Savage Arms Corp.: *See*—
Brewer, Nicholas L. 3,103,757.
Brewer, Nicholas L. 3,106,033.

Savage, August N., and J. Piston. Internal combustion engine. 3,092,092, 6–4–63, Cl. 123—197.

Savage, Conwell, to Westinghouse Electric Corp. Elevator position indicator system. 3,103,645, 9–10–63, Cl. 340—21.

Savage, Frederick T. Vibrator. 3,096,758, 7–9–63, Cl. 128—41.

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Pearson, John, Savage, and Ball. 3,080,625.

Savage, Kerry D., and L. E. Elliott, Jr., to Texaco Inc. Acoustical velocity well logging. 3,071,203, 1–1–63, Cl. 181—.5.

Savage, Kerry D., R. P. Mazzagatti, and G. Herzog, to Texaco Inc. Simultaneous plural spacing acoustical logging. 3,102,992, 9–3–63, Cl. 340—18.

Savage, Robert H., to Knoll Associates, Inc. Novel wood bending method. 3,107,708, 10–22–63, Cl. 144—327.

Savage, Robert L., to The North American Coal Corp. Method of preparing aluminum sulfate from waste sulfate pickle liquid and aluminum ore. 3,078,146, 2–19–63, Cl. 23—123.

Savage, Vernon R. Bulldozer blade structure. 3,106,793, 10–15–63, Cl. 37—143.

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Savaria, Robert E. Dump valves for aircraft. 3,089,677, 5–14–63, Cl. 251—58.

Savi, Paolo: *See*—
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Savides, Christos, to American Cyanamid Co. 1,1'-thiobis-(6-α,α-dimethylbenzyl-2-naphthol). 3,093,616, 6–11–63, Cl. 260—45.95.

Savino, Martino F. Dialyzer chamber with capillary system. 3,074,559, 1–22–63, Cl. 210—321.

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Savioli, Giulio V., to United States of America, Army. Auxiliary firearm trigger with integral safety. 3,091,878, 6–4–63, Cl. 42—69.

Savioli, Giulio V., to United States of America, Army. Bolt stop for semiautomatic firearm. 3,098,311, 7–23–63, Cl. 42—18.

Savit, Carl H., J. T. Brustad, and J. Sider, to Western Geophysical Co. of America. Method and apparatus for seismographic exploration. 3,096,846, 7–9–63, Cl. 181—.5.

Savitsky, Daniel. Mechanical control for submerged hydrofoil systems. 3,092,062, 6–4–63, Cl. 114—66.5.

Savolainen, Jouko E.: *See*—
Helton, Dennis M., and Savolainen. 3,086,926.

Savolainen, Jouko E., to United States of America, Atomic Energy Commission. Low temperature process for the removal and recovery of chlorides and nitrates from aqueous nitrate solutions. 3,075,825, 1–29–63, Cl. 23—14.5.

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Savory, Frederick R., to Steel Construction & Engineering Co. (Notts.) Ltd. Plate bending machines. 3,103,965, 9–17–63, Cl. 153—54.

Savu, August R.: *See*—
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Sawa, Yoshiro, S. Maeda, and N. Tsuji, to Shionogi & Co., Ltd. Novel process for elimination of 4-hydroxyl group of morphinan derivatives. 3,085,091, 4–9–63, Cl. 260—285.

Sawada, Fred H., to General Electric Co. Electronic cooking appliance. 3,104,304, 9–17–63, Cl. 219—10.55.

Sawai, Masanobu: *See*—
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Sawai, Shinichi, ½ to K. Seko. End closure means for containers having tubular bodies. 3,071,281, 1–1–63, Cl. 220—4.

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Freeman, Donald C., Jr., and Sawdye. 3,093,197.

Sawicki, John G.: *See*—
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Sawtelle, Frank W., to Markem Machine Co. Rotary printing apparatus employing straight line type. 3,101,666, 8–27–63, Cl. 101—212.

Sawtelle, Frank W., to Markem Machine Co. Article feeding and printing apparatus. 3,103,166, 9–10–63, Cl. 101—37.

Sawyer, Albert K., and H. G. Kuivila, to Metals & Thermit Corp. Tetrasubstituted diacyloxyditin compounds. 3,083,217, 3–26–63, Cl. 260—414.

Sawyer, Alice C. Separable heel and counter protector for vehicles. 3,114,272, 12–17–63, Cl. 74—564.

Sawyer, Bobby G.: *See*—
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Sawyer, Bruce A., to Litton Systems, Inc. Miniaturized temperature insensitive accelerometer. 3,078,721, 2–26–63, Cl. 73—497.

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Sawyer, Charles B., to Sawyer Research Products, Inc. Method of controlling deposition of crystalline material from solution on a seed by use of a temperature profile curve. 3,101,259, 8–20–63, Cl. 23—301.

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Sawyer, Houghton, Jr., and K. T. Yoshiura, to Libby, McNeill & Libby, Pineapple processing machine. 3,073,366, 1–15–63, Cl. 146—6.

Sawyer, James T. Orbit disc toy. 3,088,739, 5–7–63, Cl. 273—109.

Sawyer, John M., to Ling-Temco-Vought, Inc. Cartridge actuated thruster. 3,109,288, 11–5–63, Cl. 60—26.1.

Sawyer, John M., and W. R. Loewen, to Ling-Temco-Vought, Inc. Ballistic-type impulse actuator. 3,104,521, 9–24–63, Cl. 60—26.11.

Sawyer, Lester T. Hair retaining comb and method of making the same. 3,095,610, 7–2–63, Cl. 18—34.

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Sawyer, Wilfred A., and D. H. Surgeoner, to Satchwell Controls Ltd. Burner control means. 3,113,610, 12–10–63, Cl. 158—28.

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Morris, Rupert C., and Sax. 3,098,841.

Sax, Karl J., to Shell Oil Co. Process for preparing bis(m-phenoxyphenyl) ether. 3,083,234, 3–26–63, Cl. 260—613.

Saxby, Richard M., to Holley Carburetor Co. Fuel filter. 3,072,258, 1–8–63, Cl. 210—94.

Saxby, Richard M., to Holley Carburetor Co. Automatic choke adjusting means. 3,088,320, 5–7–63, Cl. 73—363.5.

Saxe, Van Rensselaer P. Bar joist. 3,094,813, 6–25–63, Cl. 50—406.

Saxe, Van Rensselaer P. Column erection connector. 3,097,729, 7–16–63, Cl. 189—36.

Saxe, Walter E., to The Conveyor Co. Ice breaker. 3,089,477, 5–14–63, Cl. 125—23.

Saxe, Walter E., to The Conveyor Co. Refrigerator car icing machine. 3,089,578, 5–14–63, Cl. 198—47.

Saxenberg, Henry J. Skate wheel with changeable tires. 3,103,387, 9–10–63, Cl. 301—5.7.

Saxenmeyer, George J., to International Business Machines Corp. Data input device. 3,092,811, 6–4–63, Cl. 340—172.5.

Saxl, Karel, to Imperial Chemical Industries Ltd. Method of and apparatus for reducing the thickness of metals. 3,103,139, 9–10–63, Cl. 80—40.

Saxton, Bristowe B.: *See*—
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Saxton, James B., and J. J. Bachmayer, to National Bundle Tyer Co. Automatic feeder for a bundle tyer. 3,114,308, 12–17–63, Cl. 100—4.

Saxton, James H., to HRB-Singer Inc. Stellar orientation monitoring system. 3,080,485, 3–5–63, Cl. 250—203.

Saxton, Ralph L.: *See*—
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Saxton, William R., M. R. H. Bolton, J. R. Rainville, and A. J. Petricola. Process of manufacturing regenerated cellulose fiber. 3,083,075, 3–26–63, Cl. 18—54.

Sayco Doll Corp.: *See*—
Schwartz, Ira W. 3,071,893.

Sayer, Wayne L.: *See*—
Berryhill, Emma L., and Sayer. 3,088,469.

Sayers, James. Transmission devices. 3,084,269, 4–2–63, Cl. 310—102.

Sayers, James E., to James Howden & Co. Ltd. Dust separators. 3,083,516, 4–2–63, Cl. 55—338.

Sayles, James N., to L. F. Sayles, Sr. Stabilizer plate for screed chairs. 3,115,726, 12–31–63, Cl. 50—79.

Sayles, Leonard B. Two-way lock for sliding doors. 3,094,861, 6–25–63, Cl. 70—95.

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Saylor, Robert F., to United States Steel Corp. Sprocket for endless pallet-type conveyor. 3,090,479, 5–21–63, Cl. 198—189.

Sbrojavacca, Francesco. Insect-repelling device. 3,088,241, 5–7–63, Cl. 45—15.

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Scalf, William R., and G. G. Stoddard, to General Motors Corp. Latch mechanism. 3,110,512, 11–12–63, Cl. 292—5.

Scam Instrument Corp.: *See*—
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Sperry, Albert F. 3,107,349.

Scammon, Henry G., to Gould & Scammon, Inc. Manufacturing preformed counters. 3,100,902, 8–20–63, Cl. 12—146.

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Anderson, Andrew W. 3,103,772.
Anderson, Andrew W., and Lesszcynski. 3,107,182.

Scania-Vabis, Aktiebolaget: *See*—
Sjostrom, Sverker W. 3,095,733.

Scanlan, Thomas A., to The Eastern Co. Power connector for key operated chucks. 3,108,646, 10–29–63, Cl. 173—95.

Scanland, Granville B.: *See*—
Moses, Amaziah J., and Scanland. 3,091,303.

Scanley, Clyde S., to American Cyanamid Co. Preparation of nitrous acid. 3,115,837, 12–10–63, Cl. 23—157.

Scanley, Clyde S., F. H. Siegele, and R. L. Webb, to American Cyanamid Co. Nitrogen containing polar monomer grafted on an isobutylene-monovinylether copolymer backbone. 3,088,931, 5–7–63, Cl. 260—45.5.

Scanley, Clyde S., and F. H. Siegele, to American Cyanamid Co. Guanidino-imidazoline compositions and methods for their preparation. 3,093,654, 6–11–63, Cl. 260—309.6.

Scanlon, John J.: *See*—
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Scanlon, Robert E. Golf ball cleaner. 3,087,189, 4–30–63, Cl. 15—513.

Scanlon, Thomas A. Light sensitive unit. 3,088,051, 4–30–63, Cl. 315—77.

Scannell, John B., to Greene, Tweed & Co. Fluid pressure seals. 3,071,386, 1–1–63, Cl. 277—177.

Scan-O-Matic Co., The: *See*—
Lonaberger, Robert F. 3,082,580.

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Scantlin, John R. 3,082,402.

Scantlin, John R., to Scantlin Electronics, Inc. Securities quotation apparatus. 3,082,402, 3–19–63, Cl. 340—152.

Scantlin, John R., and R. W. Haas, to Lear-Siegler, Inc. L-C transistor oscillator having transformer feedback. 3,090,013, 5–14–63, Cl. 331—117.

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Scapple, Robert Y., and J. I. Stillman, to Hughes Aircraft Co. High temperature flexible hollow tube waveguide. 3,103,451, 9–10–63, Cl. 148—12.3.

Scaramucci, Domer. Swing check valve. 3,075,547, 1–29–63, Cl. 137—516.29.

Scaramucci, Domer. Swivel joint or coupling for pipe lines. 3,089,713, 5–14–63, Cl. 285—14.

Scaramucci, Domer. Mud valve with removable head and seat unit interlocking the bonnet. 3,107,685, 10–22–63, Cl. 137—327.

Scarber, Joseph D., to Gulf Oil Corp. Electrolytic cell. 3,116,227, 12–31–63, Cl. 204—258.

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Scarborough, Homer C., to Mead Johnson & Co. 3-pyrrolidylmethyl-4-quinazolones. 3,073,826, 1–15–63, Cl. 260—256.4.

Scarborough, William E., to Dresser Industries, Inc. Drill bit nozzle. 3,084,751, 4–9–63, Cl. 175—340.

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Scarbrough, Abb L.: *See*—
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Scarbrough, Alfred D.: *See*—
Mellott, Robert N., and Scarbrough. 3,080,487.

Scarbrough, John: *See*—
Kleist, Robert A., and Scarbrough. 3,090,042.

Scarcelli, Albert F.: *See*—
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Scarnato, Thomas J., and R. A. Johnson, to International Harvester Co. Yieldable pendulum mower mounting. 3,092,947, 6–11–63, Cl. 56—25.

Scarpa, Thomas J., to Gulton Industries, Inc. Ultrasonic device. 3,075,097, 1–22–63, Cl. 310—8.1.

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Scarpelli, August F., to General Motors Corp. Electrical stock removal apparatus. 3,109,120, 10–29–63, Cl. 314—68.

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Scarpini, Franco, to Ri-Ri Werke A.G. Slide fastener with terminal member. 3,104,438, 9–24–63, Cl. 24—205.11.

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Scerbo, Alfonso E., to United States of America, Air Force. Material dispenser. 3,081,907, 3–19–63, Cl. 221—15.

Sceusa, Peter P. Stringed musical instrument finger board. 3,091,150, 5–28–63, Cl. 84—293.

Schaab, Rudolph S., and R. E. Brandt, to Amphenol-Borg Electronics Corp. Electrifiers for the processing of fur and pile fabrics. 3,114,957, 12–24–63, Cl. 26—2.

Schaad, Theodore A.: *See*—
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Schaadt, Franz, to Rheinmetall G.m.b.H., Firma. Self-destroying fuze for a spinning projectile. 3,112,704, 12–3–63, Cl. 102—71.

Schaaf, Edward J.: *See*—
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Schaafsma, Willem, to Aerojet-General Corp. Rocket motor. 3,107,487, 10–22–63, Cl. 60—35.6.

Schaafsma, Ype, to Shell Oil Co. Heating fluids by a spinning body. 3,090,674, 5–21–63, Cl. 23—277.

Schaal, George H., to Schaal Industries Corp. Ore pulverizer. 3,103,316, 9–10–63, Cl. 241—258.

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Schaar, Charles H., to The Kendall Co. Perforated adhesive tapes. 3,073,303, 1–15–63, Cl. 128—156.

Schaar, Charles H., to The Kendall Co. Perforated adhesive tape and bandage formed therewith. 3,073,304, 1–15–63, Cl. 128—156.

Schaar, Charles H., to The Kendall Co. Method of perforating. 3,088,843, 5–7–63, Cl. 117—10.

Schaar, Charles H., to The Kendall Co. Baby nipple. 3,092,276, 6–4–63, Cl. 215—11.

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Schacht, Gunter H., and L. A. Wilson, to International Business Machines Corp. Incremental drive mechanism. 3,078,732, 2–26–63, Cl. 74—125.

Schacht, Kenneth N., and F. S. Panetta, to The Garrett Corp. Escape slide. 3,102,623, 9–3–63, Cl. 193—25.

Schacht, Roy A. Credit card punching and printing apparatus. 3,108,742, 10–29–63, Cl. 234—35.

Schachter, Ozjasz, and A. Baniel, to M. Israel. Production of ethylene dibromide. 3,095,459, 6–25–63, Cl. 260—660.

Schachter, Ozjasz, and A. Baniel, to M. Israel. Process for the production of elementary bromine from aqueous briner. 3,107,154, 10–15–63, Cl. 23—217.

Schade, Frank S., to National Blank Book Co. Fastener for expandable loose leaf binder. 3,073,315, 1–15–63, Cl. 129—41.

Schade, Frank S., to National Blank Book Co. Masking device for "program teaching" use in ring binder assemblies. 3,111,774, 11–26–63, Cl. 35—9.

Schade, Frank S., to National Blank Book Co. Masking flap structure for removable attachment to notebook covers. 3,111,775, 11–26–63, Cl. 35—9.

Schade, Frank S., to National Blank Book Co. Masking apparatus for program teaching. 3,111,776, 11–26–63, Cl. 35—9.

Schade, Otto H., Sr., to Radio Corp. of America. Wire guide for grid making machine. 3,100,005, 8–6–63, Cl. 140—71.5.

Schaeder, Johann A., and R. Schmidt, to Franz Morat K.G., Firma. Pattern control arrangement for a circular knitting machine. 3,079,775, 3–5–63, Cl. 66—50.

Schaeder, Johann A., and B. Streu, to Fritz Hellige & Co. G.m.b.H. Recording apparatus with spaced pigment carrier. 3,090,663, 5–21–63, Cl. 346—105.

Schaedler, Alwin A. Hair vacuum line and induction nozzle for hair clippers. 3,073,026, 1–15–63, Cl. 30—133.

Schaefer, Charles F Coating applying apparatus. 3,097,-968, 7–16–63, Cl. 118—259.

Schaefer, Daniel F.: *See*—
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Schaefer, Edward E. Support for display rack or the like. 3,100,099, 8–6–63, Cl. 248—194.

Schaefer, Edward J. Shaft coupling. 3,073,635, 1–15–63, Cl. 287—108.

Schaefer, Edward J. Reversible motor drive mechanism. 3,078,407, 2–19–63, Cl. 318—475.

Schaefer, F. & M., Brewing Co., The: *See*—
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Schaefer, Fred C., and M. E. Castellion, to American Cyanamid Co. Certain 3-alkenyl-1,2,4-oxadiazoles. 3,074,957, 1–22–63, Cl. 260—307.

Schaefer, George E.: *See*—
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Schaefer, George E., to Brunswick Corp. Wall hung spectator seating. 3,072,434, 1–8–63, Cl. 297—248.

Schaefer, Hans F., Jr., and F. B. Jennings, to United Shoe Machinery Corp. Power transmission. 3,091,979, 6–4–63, Cl. 74—640.

Schaefer, John J., and H. B. Patrick, to Reynolds Metals Co. Flat plate printing apparatus having accurate register. 3,101,050, 8–20–63, Cl. 101—232.

Schaefer, John W., to A. O. Smith and Harvestore Products, Inc. Bottom unloader for storage structures. 3,084,814, 4–9–63, Cl. 214—17.

Schaefer, John W., to A. O. Smith Harvestore Products, Inc. Sweep arm unloader shield means. 3,088,606, 5–7–63, Cl. 214—17.

Schaefer, John W., to A. O. Smith Corp. Tension control apparatus. 3,098,397, 7–23–63, Cl. 74—242.14.

Schaefer, Knut. Shutter stopping means in motion picture cameras. 3,079,836, 3–5–63, Cl. 88—16.

Schaefer, Reuben W. Jack assembly. 3,093,362, 6–11–63, Cl. 254—86.

Schaefer, Robert H.: *See*—
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Schaefer, Stephen, to McPhilben Mfg. Co., Inc. Pivotal support means for pendant lighting fixtures including globe attaching means. 3,090,589, 5–21–63, Cl. 248—318.

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Schaefer, Werner, and W. Siebert, to Hartmann & Braun Aktiengesellschaft. Apparatus for the analysis of gas mixtures by absorption of radiation. 3,116,413, 12–31–63, Cl. 250—43.5.

Schaeffer, Benjamin B., and M. C. Blaich, to Olin Mathieson Chemical Corp. Controlling the growth of aquatic weeds. 3,107,993, 10–22–63, Cl. 71—2.3.

Schaeffer, Hans A.: *See*—
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Schaeffer, Marvin G., to General Motors Corp. Voltage regulator for generators. 3,074,004, 1–15–63, Cl. 322—77.

Schaeffer, Paul F., and D. D. Perry, to Thiokol Chemical Corp. Solid composite propellant containing acetylenic polyurethane and process of making. 3,086,895, 4–23–63, Cl. 149—19.

Schaeffer, Robert O.: *See*—
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Schaeffer, Thomas C. Rotary saw blade. 3,082,524, 3–26–63, Cl. 30—347.

Schaeffer, William D., to Union Oil Co. of California. Resolution of β- and γ-picoline mixtures. 3,095,420, 6–25–63, Cl. 260—290.

Schaeffler, Georg, to Industriewerk Schaeffler oHG. Cage for cylindrical rolling elements, more particularly needle cage. 3,110,529, 11–12–63, Cl. 308—217.

Schaer, Glenn R., to General Development Corp. Power supply for chromium plating. 3,111,479, 11–19–63, Cl. 204—228.

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Schaevitz Engineering: *See*—
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Friedman, Milton, and Magasiny. 3,078,356.

Schafer, Earl J.: *See*—
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Schäfer, Fridolin, and K. Wick, to Robert Bosch, G.m.b.H. Commutator and process and apparatus for manufacturing the same. 3,079,520, 2–26–63, Cl. 310—235.

Schafer, Kugelfischer Georg, & Co.: *See*—
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Schafer, Richard V., and E. S. Hill, to Shell Oil Co. Disintegrating freshly polymerized olefins with polymerization inhibitor. 3,096,944, 7–9–63, Cl. 241—15.

Schafer, Robert J., and M. Quatinetz. Size reduction of metal particles. 3,090,567, 5–21–63, Cl. 241—22.

Schäfer, Wilhelm, to Ernst Leitz G.m.b.H. Optische Werke. Objective mounting in cameras. 3,074,334, 1–22–63, Cl. 95—45.

Schaffel, Gerson S.: *See*—
Colton, John W., Lidov, and Schaffel. 3,115,531.

Schaffer, Allan B., and S. L. Ridgway, to Thompson Ramo Wooldridge Inc. Afterburner control method and apparatus. 3,106,820, 10–15–63, Cl. 60—30.

Schaffer, Robert H.: *See*—
Garten, Herbert, and Schaffer. 3,099,141.

Schaffernak, Friedrich: *See*—
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Schaffert, Justin C., and J. N. Libby, to United States of America, National Aeronautics and Space Administration. Ultra-long monostable multivibrator employing bistable semiconductor switch to allow charging of timing circuit. 3,085,165, 4–9–63, Cl. 307—88.5.

Schaffert, Roland M., to International Business Machines Corp. Apparatus for reproducing images. 3,077,150, 2–12–63, Cl. 95—1.7.

Schaffert, Roland M., to International Business Machines Corp. Method for developing latent field images with liquid inks. 3,096,198, 7–2–63, Cl. 117—37.

Schaffer, Georg, and K. Fichtl, to Keller & Knappich G.m.b.H. Garbage disposal means. 3,104,022, 9–17–63, Cl. 214—507.

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Schafroth, Werner. Flap lifter. 3,070,801, 1–1–63. Cl. 1—260.

Schaftener, Stuart P., and L. W. Anderson. Car top tent. 3,093,150, 6–11–63, Cl. 135—1.

Schaich, Wilbur A., to Owens-Illinois Glass Co. Dispensing and applicating device. 3,088,161, 5–7–63, Cl. 15—572.

Schaill, William S., to The Reading Laboratory, Inc. Tachistoscopic device. 3,105,310, 10–1–63, Cl. 35—35.

Schaler, Rudolf, to Vereinigte Österreichische Eisen- und Stahlwerke Aktiengesellschaft. Brake means for a cable railway car assembly. 3,097,723, 7–16–63, Cl. 188—42.

Schalkwijk, Jan, to North American Philips Co., Inc. Signal transition detector. 3,088,037, 4–30–63, Cl. 317—138.

Schall, Louis H., to Raytheon Co. Microwave heating apparatus. 3,106,629, 10–8–63, Cl. 219—10.55.

Schall, Myron R. Device to aid in the stringing of an archery bow. 3,082,756, 3–26–63, Cl. 124—23.

Schallenberg, Elmer E.: *See*—
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Schalm, Oscar W., and D. O. Noorlander, to The Regents of the University of California. Method for testing for polymorphonuclear leukocytes. 3,102,418, 9–3–63, Cl. 73—53.

Schamel, Clyde H.: *See*—
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Schanne, Lothar, to Saarbergwerke Aktiengesellschaft. Apparatus for use in coal washing tanks. 3,073,450, 1–15–63, Cl. 209—455.

Schantz, Spencer C. Fire extinguisher. 3,093,193, 6–11–63, Cl. 169—1.

Schanz, Hans, to Alfred Teves Maschinen- und Armaturenfabrik KG. Fluid pressure servomotor. 3,083,694, 4–2–63, Cl. 121—38.

Schanz, Joseph L., to General Electric Co. Nuclear reactor containment apparatus. 3,115,450, 12–24–63, Cl. 204—193.2.

Schaob, Fred O.: *See*—
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Scharfenberger, Friedrich, to Obermaier & Cie. Apparatus for the liquid treatment of skeins of yarn. 3,093,991, 6–18–63, Cl. 68—188.

Scharff, Leon, to International Business Machines Corp. Wire printer. 3,110,884, 11–12–63, Cl. 340—146.1.

Scharfman, Howard, to Raytheon Co. Electrical phase shifters. 3,090,015, 5–14–63, Cl. 333—24.1.

Scharfman, Howard, and F. J. O'Hara, to Raytheon Co. Electrical shifters utilizing variable delay imparted to circularly polarized electric waves by variably magnetized ferrite material. 3,100,287, 8–6–63, Cl. 333—24.1.

Scharmer, Edward H., Jr., to Minneapolis Sewing Machine, Inc. Bag closing and thread cutting device. 3,082,718, 3–26–63, Cl. 112—11.

Scharmer, Herman P., and W. H. Jackson, to The Udylite Corp. Plating barrels. 3,084,816, 4–9–63, Cl. 259—89.

Scharrer, Erich, and G. Kossow, to North American Philips Co., Inc. Electric discharge tube. 3,108,906, 10–29–63, Cl. 117—226.

Scharres Harry J. Damper assembly and blade construction. 3,084,715, 4–9–63, Cl. 137—601.

Schaschl, Edward: *See*—
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Schaschl, Edward, to The Pure Oil Co. Apparatus for detecting hydrogen embrittlement. 3,102,419, 9–3–63, Cl. 73—86.

Schaschl, Edward, to The Pure Oil Co. Apparatus for measuring corrosion having probe with cathodically protected, temperature compensating element. 3,102,979, 9–3–63, Cl. 324—71.

Schaschl, Edward, and G. A. Marsh, to The Pure Oil Co. Corrosion and fluid-velocity test probe and method. 3,073,-154, 1–15–63, Cl. 73—86.

Schaschl, Edward, and R. L. Littler, to The Pure Oil Co. Corrosion test probe and method. 3,101,413, 8–20–63, Cl. 250—106.

Schat, Martinus L. Ships' gravity davits for launching lifeboats from stowed positions between decks. 3,086,227, 4–23–63, Cl. 9—36.

Schatz, Karl, and J. Baxrainer. Device for transporting granular material. 3,099,369, 7–30–63, Cl. 222—238.

Schaub, Benton H. Automatic transmission and improved braking systems. 3,076,530, 2–5–63, Cl. 188—181.

Schaub, Benton H. Automatic transmission control. 3,077,-121, 2–12–63, Cl. 74—472.

Schaub, Franz, to Ruhrchemie Aktiengesellschaft. Apparatus for treating solids in a gas stream. 3,075,298, 1–29–63, Cl. 34—166.

Schaub, Franz, H. Kolling, T. Notthoff, E. Stiebling, and H. R. Ruggeberg, to Ruhrchemie Aktiengesellschaft. Treatment of solids with liquids. 3,100,694, 8–13–63, Cl. 23—270.

Schaub, Robert E., and M. J. Weiss, to American Cyanamid Co. 7-substituted thio steroids. 3,074,932, 1–22–63, Cl. 260—239.5.

Schaub, Robert E., and M. J. Weiss, to American Cyanamid Co. New 16-substituted 1,3,5,(10)-estratrienes. 3,091,609, 5–28–63, Cl. 260—239.5.

Schauer, George W., Jr., to General Motors Corp. Domestic appliance. 3,077,529, 2–12–63, Cl. 219—20.

Schauer, George W., Jr., to General Motors Corp. Domestic heating appliance. 3,093,722, 6–11–63, Cl. 219—20.

Schauer, Paul J., and R. N. Weston, to Monsanto Chemical Co. Process of preparing dry granular compositions. 3,096,291, 7–2–63, Cl. 252—99.

Schauer, Siegfried, to Pfeiffer Barbarossawerke A.G., Gebr. Grinding mill. 3,083,920, 4–2–63, Cl. 241—114.

Schauer, Wilbert E. Pivotally and vertically movable shelf structure. 3,078,133, 2–19–63, Cl. 312—223.

Schauffler, Ulrich. Device for steplessly varying the speed of rotation of tools and other rotating elements. 3,115,045, 12–24–63, Cl. 74—230.17.

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Schaurer, Gustav, and A. Heinzel, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Production of heavy hydrogen. 3,100,138, 8–6–63, Cl. 23—210.

Schaus, Bernard J., to Beed Co. Easy opening carton. 3,097,-784, 7–16–63, Cl. 229—51.

Schauss, Otto, to Nederlandse Organisatie voor Toegepast-Natuurwetenschappelijk onderzoek ten Behoeve van de Volksgezondheid. Aeration apparatus. 3,115,334, 12–24–63, Cl. 259—110.

Schauwecker, Harry E., to Valor Electronics Inc. Transistorized electronically regulated power supply. 3,105,187, 9–24–63, Cl. 323—22.

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Schechter, Alfred, to Phillips Petroleum Co. Container provided with cover seal and tray-closure. 3,079,037, 2–26–63, Cl. 220—60.

Schechter, Alfred, to Phillips Petroleum Co. Formed container with paper label. 3,115,245, 12–24–63, Cl. 206—56.

Schechter, Bernard, to North American Aviation, Inc. Thermal wire stripper. 3,107,287, 10–15–63, Cl. 219—29.

Schechter, William H., to Callery Chemical Co. Method of preparing dialkoxyorgonoboranes, diaryloxyorganoboranes and dihydroxyorganoboranes. 3,093,674, 6–11–63, Cl. 260—462.

Schechter, William H., to Callery Chemical Co. Purification of sodium borohydride. 3,105,746, 10–1–63, Cl. 23—312.

Schechter, William H., to Callery Chemical Co. Cyclic process for preparation of diborane. 3,109,709, 11–5–63, Cl. 23—204.

Scheck, Ronald W.: *See*—
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Schecter, Aaron F. Headlamp having an adjustable switch. 3,087,049, 4–23–63, Cl. 240—6.4.

Scheel, Ernst J.: *See*—
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Scheel, Henry A., to A. Wimpfheimer & Bro, Inc. Resin molded fabric. Re. 25,429, 7–30–63, Cl. 28—80.

Scheel, Jerold W.: *See*—
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Scheel, Walther F., to Rockwell-Standard Corp. Flat, tapered horseshoe type return spring and brake shoe assembly. 3,095,950, 7–2–63, Cl. 188—78.

Scheel, Wolfgang, to Deutsche Solvay-Werke Gesellschaft m.b.H. Filter cake washing device. 3,108,951, 10–29–63, Cl. 210—199.

Scheer, C. F., & Cie: *See*—
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Scheer, Charles L., to Foote Mineral Co. Stripping cathodes of electrodeposits. 3,094,437, 6–18–63, Cl. 134—16.

Scheer, Dean D.: *See*—
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Scheerbarth, Maximilian, to North American Philips Co., Inc. Scanning arm for scanning records having stereophonically associated signals recorded in one groove. 3,108,811, 10–29–63, Cl. 274—23.

Scheerer, Wolfgang: *See*—
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Schefer, Eli I., to Sylvania Electric Products Inc. Swage plate. 3,074,299, 1–22–63, Cl. 80—1.

Scheffel, John W., and P. W. Fischer, to Union Oil Co. of California. Processing of bituminous sands. 3,075,913, 1–29–63, Cl. 208—11.

Scheffel, Kurt, to International Standard Electric Corp. Line-at-a-time printer. 3,110,251, 11–12–63, Cl. 101—93.

Scheffler, Heinz, and R. Engelhorn, to Dr. Karl Thomae, G.m.b.H. Choleretic compositions and methods of using same. 3,084,100, 4–2–63, Cl. 167—55.

Scheffner, Lothar: *See*—
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Scheflow, Oliver W., to Pneumo Dynamics Corp. Hydraulic pump. 3,074,345, 1–22–63, Cl. 103—37.

Scheib, John, Jr., to Ward Leonard Electric Co. Mechanical interlock for electric switches. 3,098,909, 7–23–63, Cl. 200—98.

Scheib, John, Jr., to Ward Leonard Electric Co. Electrical multipole control relays. 3,099,728, 7–30–63, Cl. 200—104.

Scheib, John, Jr., to Ward Leonard Electric Co. Electrical relay. 3,099,734, 7–30–63, Cl. 200—166.

Scheib, John, Jr., to Ward Leonard Electric Co. Mounting means for time delay contact member. 3,114,810, 12–17–63, Cl. 200—97.

Scheibe, Walter H. Open mesh warp knitted fabric. 3,084,-529, 4–9–63, Cl. 66—193.

Scheiber, Robert E., Jr., to Schieber Mfg. Co. Folding stage. 3,086,256, 4–23–63, Cl. 20—1.123.

Scheid, Alfred R., to Boyne Products, Inc. Turn signal indicator switch. 3,106,619, 10–8–63, Cl. 200—16.

Scheidenhelm, Earl L., to H. D. Hume. Tomato harvester. 3,071,196, 1–1–63, Cl. 171—62.

Scheidenhelm, Earl L., to H. D. Hume. Box handling apparatus. 3,093,229, 6–11–63, Cl. 193—36.

Scheiding, Horst F. H. Fish washing machine. 3,071,801, 1–8–63, Cl. 17—6.

Scheidler, Frederick E., to United Aircraft Corp. Hydraulic computer system. 3,084,675, 4–9–63, Cl. 121—38.

Scheidlinger, Irving. Device for tires. 3,078,902, 2–26–63, Cl. 152—213.

Schein, Henry, and J. Kelter, to Imperial Electronics, Inc. Electrochemotherapeutic cardiac device. 3,078,850, 2–26–63, Cl. 128—419.

Scheinberg, Solomon A.: *See*—
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Scheitlin, George E., and C. F. Draut, to Arvin Industries, Inc. Catalytic converter. 3,090,677, 5–21–63, Cl. 23—288.

Schekulin, Hans, to Bolkow-Entwicklungen Kommanditgesellschaft. Rotary wing aircraft rotor constructions. 3,109,-497, 11–5–63, Cl. 170—160.26.

Scheldorf, Marvel W., to Andrew Corp. Suppressed-radiation antenna. 3,071,771, 1–1–63, Cl. 343—828.

Scheldorf, Marvel W., to Andrew Corp. Bifilar wound quarter-wave helical antenna having broadside radiation. 3,083,364, 3–26–63, Cl. 343—843.

Scheldorf, Owen H., to General Electric Co. Compressor valve assembly. 3,082,512, 3–26–63, Cl. 29—156.7.

Scheldrup, Alfred H. Rail mounted apparatus for highway vehicles. 3,086,483, 4–23–63, Cl. 105—159.

Schelisch, Ernst F., to Marconi's Wireless Telegraph Co. Ltd. Anti-jamming pulsed-radar circuit. 3,095,565, 6–25–63, Cl. 343—17.1.

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Schell, Edward H. Humidity and corrosion indicator. 3,084,658, 4–9–63, Cl. 116—114.

Schell, Samuel D. Secretariat convertible cabinets. 3,087,767, 4–30–63, Cl. 312—240.

Schellenberg, Clifford, to Cleveland Product Co, Ltd. Process for cleaning and degreasing bones. 3,087,945, 4–30–63, Cl. 260—412.6.

Schellenberg, Hanspaul, to Schweizer. Milch-Gesellschaft A.-G. Lamp shade structure. 3,109,252, 11–5–63, Cl. 40—131.

Schellenberg, Walter O., and J. H. Engel, to Phillips Petroleum Co. System for handling refrigerant upon shut-down. 3,109,292, 11–5–63, Cl. 62—52.

Schellenberg, Wolf-Dietrich, H. Kramer, H. Barti, and H. Hofer, to Farbenfabriken Bayer Aktiengesellschaft. Sustained-release pharmaceutical preparations. 3,080,346, 3–5–63, Cl. 260—78.5.

Scheller, Hans, to Gebr. Scheller Textilmaschinenfabrik G.m.b.H. Adjusting arrangement for the sections of a knitting machine. 3,079,776, 3–5–63, Cl. 66—82.

Scheller Textilmaschinenfabrik G.m.b.H., Gebr.: *See*—
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Scheller, Walter, and M. Blumer, to Ciba Ltd. Process for the manufacture of metallic niobium or tantalum or alloys thereof. 3,110,585, 11–12–63, Cl. 75—84.5.

Scheller, Wilfred R., to AMP Inc. Electrical connector. 3,083,345, 3–26–63, Cl. 339—47.

Schellhammer, Carl-Wolfgang, S. Petersen, and G. Domagk, to Farbenfabriken Bayer Aktiengesellschaft. Quinone derivatives and processes for producing the same. 3,084,165, 4–2–63, Cl. 260—287.

Schellhammer, Carl-Wolfgang, and G. Domagk, to Farbenfabriken Bayer Aktiengesellschaft. Aza analogues of polynuclear o-quinones. 3,108,108, 10–22–63, Cl. 260—288.

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Hack, Heinrich. 3,079,801.
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Hack, Heinrich. 3,107,538.
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Von Petery, Achim. 3,092,195.

Schenck, Hermann, and W. Wenzel. Shaft furnace sintering method. 3,083,091, 3–26–63, Cl. 75—5.

Schenck, Hilbert V., Jr., to United States of America, Atomic Energy Commission. Nuclear power plant. 3,102,852, 9–3–63, Cl. 204—193.2.

Schenck, Leslie M., and J. G. Papalos, to General Aniline & Film Corp. Color stabilizing process for the manufacture of ester-type anionic surface active agents. 3,089,882, 5–14–63, Cl. 260—400.

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Schenk, Adelbert J.: *See*—
Da Roza, Frank G., Nowawski, and Schenk. 3,077,164.

Schenk, Bernard H., and J. W. Mosher, to Union Carbide Corp. Fibrous web reinforced cellulosic casings. 3,104,682, 9–24–63, Cl. 138—128.

Schenk, Gustav, to Litton World Trade Corp. Computing assembly for calculating machine. 3,082,942, 3–26–63, Cl. 235—60.

Schenk, Jakob, to The Wander Co. Sterile aqueous solutions of vitamin D and calcium salts and method of making the same. 3,089,822, 5–14–63, Cl. 167—81.

Schenk, John A.: *See*—
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Schenk, Richard F., to Johnson & Johnson. Fabricated device and method of fabrication. 3,082,928, 3–26–63, Cl. 229—19.

Schenk, Walter, to Henkel & Cie G.m.b.H. Process for the preparation of cyclic dicarboxylic acids. 3,101,368, 8–20–63, Cl. 260—515.

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Schenkengel, Emerich, to G. M. Pfaff, A.-G. Presser foot support for sewing machines. 3,083,660, 4–2–63, Cl. 112—240.

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Scherbatskoy, Serge A. Epithermal neutron detection. 3,080,478, 3–5–63, Cl. 250—71.5.

Scherbatskoy, Serge A. Apparatus for deep-well logging. 3,080,480, 3–5–63, Cl. 250—83.3.

Scherbatskoy, Serge A. Radiation detector. 3,080,482, 3–5–63, Cl. 250—83.3.

Scherbatskoy, Serge A. Operation of pipelines. 3,089,030, 5–7–63, Cl. 250—43.5.

Scherbatskoy, Serge A. Stabilized radiation detector. 3,089,955, 5–14–63, Cl. 250—71.5.

Scherenberg, Hans O., to Daimler-Benz Aktiengesellschaft. Rotary piston engine. 3,108,578, 10–29–63, Cl. 123—8.

Scherenberg, Hans O., to Daimler-Benz Aktiengesellschaft. Structural connection between rotatable parts. 3,108,640, 10–29–63, Cl. 170—135.4.

Scherer, Bernard F. Coupling having annularly arranged U-shaped gripping members retained against movement in sleeve. 3,116,078, 12–31–63, Cl. 285—104.

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Scherer, George F., and O. T. Hierwagen, to Rockwell Mfg. Co. Lubricating and sealing compositions. 3,090,751, 5–21–63, Cl. 252—21.

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Schilberg, Arnold G., deceased, by I. G. Schilberg, special administratrix, to A. O. Smith Corp. Bulkhead reinforced offset frame. 3,088,750, 5–7–63, Cl. 280—106.

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Schinn, Ernst, to Escher Wyss Aktiengesellschaft. Apparatus for treating fibrous materials in the production of cellulose or semi-cellulose. 3,076,501, 2–5–63, Cl. 162—237.

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Schirmer, Maximilian, to Hermsdorf Fixture Mfg. Co., Inc. Finger pull. 3,070,830, 1–1–63, Cl. 16—124.

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Schlage, Ernest L., to Schlage Lock Co. Pin tumbler cylinder key system. 3,095,726, 7–2–63, Cl. 70—383.

Schlage, Ernest L., to Schlage Lock Co. Pin tumbler cylinder key system. 3,099,151, 7–30–63, Cl. 70—363.

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Schlapp, Werner, and P. Naumann, to Ernst Leitz Gesellschaft mit beschrankter Haftung. Reflex camera. 3,081,-685, 3–19–63, Cl. 95—64.

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Schlecht, Charles H., to The National Drying Machinery Co. Drying machine. 3,111,251, 11–19–63, Cl. 226—105.

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Schlecht, Leo, G. Trageser, and R. Staeger, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Process for the recovery of metals from scraps by a sulfidizing and oxidizing treatment. 3,082,068, 3–19–63, Cl. 23—203.

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Schlegel, Horst, to Patent-Treuhand-Gesellschaft fur elektrische Gluhlampen m.b.H. Discharge lamp with magnetic stabilization. 3,113,234, 12–3–63, Cl. 313—155.

Schlegel, John C.: *See*—
Lundberg, Lennart A., Schlegel, and Carpenter. 3,091,936.

Schlegel Mfg. Co., The: *See*—
Cook, Herbert A., Jr. 3,091,821.

Schleich, Fritz, to C. Zeiss. Source of beams for producing a high intensity charge carrier beam. 3,071,707, 1–1–63, Cl. 313—84.

Schleicher, Allen K., and E. J. Schell, to Andre-Matic Machinery Co. Multi-container packaging apparatus and method. 3,108,414, 10–29–63, Cl. 53—48.

Schleifer, Carlo, to Sant'Andrea Novara Officine Meccaniche e Fonderie S.p.A. Rectilinear combing frame for long fibres. 3,074,118, 1–22–63, Cl. 19—215.

Schleifer, Carlo, to Sant'Andrea Novara Officine Meccaniche e Fonderie S.p.A. Dust removing device for combing frames. 3,084,400, 4–9–63, Cl. 19—218.

Schleifer, Carlo, to Sant'Andrea Novara Officine Meccaniche e'Fonderie S.p.A. Adjustment of nippers for combining frames. 3,108,333, 10–29–63, Cl. 19—235.

Schleifer, Josef, to Eugen Baeuer, G.m.b.H. Exhaust arrangement. 3,071,059, 1–1–63, Cl. 98—115.

Schleifer, Josef, to Eugen Bauer G.m.b.H. Illuminating arrangement. 3,095,155, 6–25–63, Cl. 240—52.

Schlein, Seymour N., to The Fanner Mfg. Co. Line protector. 3,075,037, 1–22–63, Cl. 174—5.

Schlein, Seymour N., to The Fanner Mfg. Co., a division of Textron, Inc. Puller device. 3,075,745, 1–29–63, Cl. 254—51.

Schlein, Seymour N., to Fanner Mfg. Co., a Division of Textron, Inc. Radius chill. 3,076,240, 2–5–63, Cl. 22—174.

Schlein, Seymour N., to The Fanner Mfg. Co. Plastic bellows elbow with spigot and socket ends. 3,076,669, 2–5–63, Cl. 285—179.

Schleicin, Fritz. Thermonuclear reactor. 3,072,551, 1–8–63, Cl. 204—193.2.

Schlemmer, Aubrey R. Overhead loader. 3,076,572, 2–5–63, Cl. 214—140.

Schlenker, Felix, to Chemische Werke Albert. Aluminum-containing phenolic resins. 3,071,563, 1–1–63, Cl. 260—50.

Schlenker, Hans, to Junghans A.G., Gebruder. Stop watch. 3,077,729, 2–19–63, Cl. 58—126.

Schlepperwerk Nordhausen, VEB: *See*—
Vogel, Richard. 3,075,504.

Schleppinghoff, Bernhard: *See*—
Kronig, Walter, Meckelburg, Scharfe, Schleppinghoff, and Schmidt. 3,075,917.

Schler, Ell. Expandable step-up folder. 3,113,573, 12–10–63, Cl. 129—15.

Schlesinger, Albert, and S. M. Gordon, to Endo Laboratories Inc. 1,1-diphenyl-1-hydrocarbonoxy, 4-tertiary amino 2-butanones. 3,073,842, 1–15–63, Cl. 260—326.5.

Schlesinger, Heinz, to Azoplate Corp. Material for electrophotographic and electroradiographic purposes. 3,114,633, 12–17–63, Cl. 96—1.

Schlesinger, Kurt, to Motorola, Inc. Cathode ray tube with low velocity deflection and post deflection beam acceleration. 3,102,212, 8–27–63, Cl. 315—12.

Schlesman, Carleton H., to United States of America, Navy. Fluid driven gyroscope. 3,078,728, 2–26–63, Cl. 74—5.

Schless, Robert A., Jr., deceased (S. E. Schless and W. R. La Flure, executors of said R. A. Schless, Jr.). Modular storage facilities. 3,087,764, 4–30–63, Cl. 321—107.

Schless, Robert A., Jr., deceased; by W. R. La Flure, and S. Schless, co-executors. Molded drawers for modular storage facilities. 3,097,901, 7–16–63, Cl. 312—330.

Schless, Shirley: *See*—
Schless, Robert A., Jr. 3,097,901.

Schless, Shirley EN: *See*—
Schless, Robert A., Jr. 3,087,764.

Schley, Delmar D.: *See*—
Elm, Robert A., Krawczak, Schley, and Levin. 3,075,030.

Schley, John R.: *See*—
Puyear, Robert B., and Schley. 3,079,276.

Schlicht, Le Roy G., to Packard-Bell Electronics Corp. Transistorized television camera. 3,077,517, 2–12–63, Cl. 178—7.2.

Schlichtig, Ralph C. Reversible heat engines. 3,076,316, 2–5–63, Cl. 60—59.

Schlichtig, Ralph C. Reversible heat pumps. 3,076,321, 2–5–63, Cl. 62—270.

Schlichting, Frederick P., to ACF Industries, Inc. Carburetor. 3,077,341, 2–12–63, Cl. 261—39.

Schlichting, John, and T. S. Sprague, to The Babcock & Wilcox Co. Liquid metal heated vapor generator. 3,112,-735, 12–3–63, Cl. 122—32.

Schlichting, Kurt, and H. Müller, to Deere & Co. Hitch device. 3,110,509, 11–12–63, Cl. 287—3.

Schlichtkrull, Jorgen, to Novo Terapeutisk Laboratorium A/S. Quick acting insulin preparation. 3,091,573, 5–28–63, Cl. 167—75.

Schlicke, Heinz M., H. J. Rey, and H. E. Weidmann, to Allen-Bradley Co. Filter having lumped resonance elements spaced along length of shielding enclosure with adjustable magnetic coupling between elements. 3,093,803, 6–11–63, Cl. 333—73.

Schlidt, Rudolf H., and F. K. Paull. Method of converting automobile bodies to a compact form for transport as scrap. 3,101,044, 8–20–63, Cl. 100—42.

Schlieder, Harold A., to Blaw-Knox Co. Means for generating electric functions. 3,078,713, 2–26–63, Cl. 73—205.

Schliekelmann, Robert J., to Koninklijke Nederlandse Vliegtuigenfabriek Fokker, N.V. Method of forming an aircraft part having a pliable deicer boot thereon. 3,085,925, 4–16–63, Cl. 156—285.

Schlieker, Willy H., K.G.: *See*—
Behrens, Albert, Kolzow, and Brandt. 3,088,548.

Schliephacke, Fridtjof F., to A. Lorenz. Head-rest and control arrangement for multiple position chair. 3,074,758, 1–22–63, Cl. 297—61.

Schliephacke, Fridtjof F., to A. Lorenz. Leg rest mechanism for tilting seating units. 3,076,676, 2–5–63, Cl. 297—88.

Schliephacke, Fridtjof F., to A. Lorenz. Multiple position reclining chair. 3,081,128, 3–12–63, Cl. 297—88.

Schliephacke, Fridtjof F., to A. Lorenz. Underslung leg-rest for reclining chair. 3,086,816, 4–23–63, Cl. 297—89.

Schliephacke, Fridtjof F., to A. Lorenz. Underslung leg-rest control means for reclining chairs. 3,092,415, 6–4–63, Cl. 297—89.

Schliephacke, Fridtjof F., to A. Lorenz. Reclining chair and control arrangement. 3,100,126, 8–6–63, Cl. 297—89.

Schliephacke, Fridtjof F., to A. Lorenz. Multiple position reclining chair. 3,101,216, 8–20–63, Cl. 297—88.

Schliephacke, Fridtjof F., to A. Lorenz. Multiple position reclining chair with extendible head-rest. 3,102,753, 9–3–63, Cl. 297—61.

Schliephacke, Fridtjof F., to A. Lorenz. Reclining chair. 3,103,381, 9–10–63, Cl. 297—84.

Schliephacke, Fridtjof F., to A. Lorenz. Multiple position reclining chair. 3,103,382, 9–10–63, Cl. 297—85.

Schliephacke, Fridtjof F., to A. Lorenz. Reclining chair of the multiple position type. 3,104,128, 9–17–63, Cl. 297—85.

Schliephacke, Fridtjof F., to A. Lorenz. Multiple position reclining chair with extendible head-rest. 3,104,912, 9–24–63, Cl. 297—61.

Schliephacke, Fridtjof F., to A. Lorenz. Leg-rest control means for multiple position reclining chair. 3,115,363, 12–24–63, Cl. 297—89.

Schlig, Eugene S.: *See*—
Meyers, Norman H., Rochester, and Schlig. 3,086,130.

Schlinger, Warren G.: *See*—
Eastman, Du Bois, and Schlinger. 3,075,912.
Eastman, Du Bois, and Schlinger. 3,089,843.

Schlitters, Esther M.: *See*—
Schlitters, Michael J. 3,071,997.

Schlitters, Michael J., deceased by H. S. Derderian, and E. M. Schlitters, co-executors. Self-adjusting tool holders. 3,071,997, 1–8–63, Cl. 82—35.

Schlitz, Jos., Brewing Co.: *See*—
Tennant, Edward E. 3,076,484.

Schloemann Aktiengesellschaft: *See*—
Billen, Peter, Emmerich, Haendeler, and Linnerz. 3,085,684.
Ehlert, Helmut. 3,093,863.
Groos, Horst H. 3,089,591.
Rahn, Richard. 3,103,964.
Schiffers, Josef, Robra, and Driesel. 3,102,672.
Wehmeyer, Werner. 3,107,716.

Schloemann, Ernst F. R. A., to Raytheon Co. Ferrite isolator utilizing aligned crystals with a specific anisotropy constant. 3,100,288, 8–6–63, Cl. 333—24.2.

Schloemer, Clyde J., to Kasten Mfg. Corp. Feed troughs. 3,082,739, 3–26–63, Cl. 119—61.

Schloen, Hans G.: *See*—
Kletz, Hans, and Schloen. 3,094,681.

Schlösser, Clemens, to Spinnbau G.m.b.H. Thread braking device for use in connection with ring spinning and twisting machines. 3,104,514, 9–24–63, Cl. 57—73.

Schlopperwerk Nordhausen, VEB: *See*—
Hausmann, Werner. 3,074,285.

Schlor, Hanshelmut, and G. Schrader, to Farbenfabriken Bayer Aktiengesellschaft. Phosphoric acid, thionophosphoric acid, phosphonic acid, thiophosphonic acid, phosphinic acid and thionophosphinic acid derivatives of alkylsulfonamides. 3,086,974, 4–23–63, Cl. 260—247.1.

Schlor, Hans-Helmut, and G. Schrader, to Farbenfabriken Bayer Aktiengesellschaft. Thio- and dithio-phosphorus acid alkyl esters and process for the production thereof. 3,094,550, 6–18–63, Cl. 260—461.

Schlor, Karl, to NSU Motorenwerke Aktiengesellschaft and Wankel G.m.b.H. Multi-part rotor for rotary mechanisms. 3,102,520, 9–3–63, Cl. 123—8.

Schloss, Fred, and A. O. Sykes, to United States of America, Navy. Mechanical impedance meter. 3,070,996, 1-1-63, Cl. 73—67.1.

Schlosser & Co. G.m.b.H.: *See*—
Wolt, Erich. 3,082,100.

Schlosser, Edward P.: *See*—
Garofalow, Donald G., and Schlosser. 3,104,307.

Schlosser, Peter. Process for preparing a water-soluble sodium salt of acetylsalicylic acid. 3,109,019, 10-29-63, Cl. 260—480.

Schlotmann, Karl, to Maschinenfabrik Stromag G.m.b.H. Flexible couplings. 3,095,714, 7-2-63, Cl. 64—11.

Schlotterbeck, Earl S., to General Motors Corp. Control for refrigerating system. 3,084,521, 4-9-63, Cl. 62—192.

Schlotterer, Gustav. Method for the manufacture of hollow bodies. 3,101,401, 8-20-63, Cl. 219—67.

Schlottmann, Herman: *See*—
Hector, Russell, Schlottmann, and Ebbert. 3,091,322.

Schlotzhauer, Allan T.: *See*—
Newman, Douglas A., and Schlotzhauer. 3,080,954.

Schluderberg, Donald C., to The Babcock & Wilcox Co. Nuclear reactor containment system. 3,098,023, 7-16-63, Cl. 204—193.2.

Schlueter, Ernest. Trailer drawbar hitch. 3,084,954, 4-9-63, Cl. 280—478.

Schlueter, Robert J.: *See*—
White, Wilfrid F., Goldwasser, Weber, Egan, and Schlueter. 3,111,458.

Schlupe, Hans: *See*—
Leuschner, Johannes, and Schlupe. 3,111,768.

Schlumberger, Etienne M., to Conch International Methane Ltd. Container for storing liquefield gases at very low temperatures. 3,099,362, 7-30-63, Cl. 220—9.

Schlumberger, Etienne M., to Conch International Methane Ltd. Apparatus for pumping boiling liquid. 3,106,827, 10-15-63, Cl. 62—52.

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Blagg, Leon. 3,092,182.
Blair, Winton B. 3,078,797.
Blair, Winton B. 3,094,930.
Blizard, Robert B. 3,080,010.
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Brieger, Emmet F. 3,072,202.
Brieger, Emmet F. 3,101,797.
Codrington, Robert S. 3,113,087
Cubberly, Walter E., Jr. 3,097,433.
Dewan, John T. 3,095,505.
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Doll, Henri-Georges. 3,072,844.
Dueker, Stanley T. 3,106,130.
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Kisling, James W., III. 3,095,930.
Kokesh, Frank P. 3,088,540.
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Lebourg, Maurice P. 3,107,730.
Lebourg, Maurice P. 3,110,257.
Morgan, James H. 3,090,910.
Pohorilles, Eugene M. 3,100,443.
Schneider, William P. 3,093,811.
Schuster, Nick A. 3,083,335.
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Whitten, Frank R. 3,104,712.

Schlumbohm, Peter. Centrifugal friction pump. 3,071,311, 1-1-63, Cl. 230—113.

Schlumbohm, Peter. Centrifugal pump. 3,071,312, 1-1-63, Cl. 230—118.

Schluter, Herbert P., to Burroughs Corp. Device for removing coverings from elongated articles. 3,089,367, 5-14-63, Cl. 81—9.5.

Schmadebeck, John H., to Hooker Chemical Corp. Preparation of stabilized sulfur dichloride. 3,071,441, 1-1-63, Cl. 23—205.

Schmadebeck, John H., to Hooker Chemical Corp. Preparation of stabilized sulfur dichloride. 3,071,442, 1-1-63, Cl. 23—205.

Schmahl, George. Electric inhaler. 3,115,134, 12-24-63, Cl. 128—192.

Schmalenbach, Adolf. Process for the production of naphthalene. 3,113,161, 12-3-63, Cl. 260—674.

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Schmanke, George W., Jr., and J. V. D. Southworth, Jr., to Carrier Corp. Refrigeration system supports. 3,081,603, 3-19-63, Cl. 62—77.

Schmauch, Lorenz J., to Standard Oil Co. Thermal conductivity cell apparatus. 3,075,379, 1-29-63, Cl. 73—27.

Schmaus, Siegfried H. A., to Ametek, Inc. Measuring dispenser for liquids. 3,080,097, 3-5-63, Cl. 222—189.

Schmeckenbecher, Arnold, to General Aniline & Film Corp. Process of removing nickel carbonyl vapor from gases containing the same. 3,086,340, 4-23-63, Cl. 55—66.

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Schmerling, Louis, to Universal Oil Products Co. Polyhalooctahydroalkanonaphthalenedicarboxylic acids, anhydrides and method of preparation thereof. Re. 25,430, 7-30-63, Cl. 260—346.3.

Schmerling, Louis, to Universal Oil Products Co. Organic substances stabilized with a metal deactivator. 3,071,451, 1-1-63, Cl. 44—73.

Schmerling, Louis, to Universal Oil Products Co. Partial dehydrohalogenation of haloalkylhalobicycloalkenic compounds. 3,090,817, 5-21-63, Cl. 260—648.

Schmerling, Louis, to Universal Oil Products Co. Production of salicylaldehydes. 3,098,875, 7-23-63, Cl. 260—600.

Schmerling, Louis, to Universal Oil Products Co. Nitration of aromatic compounds. 3,110,738, 11-12-63, Cl. 260—645

Schmerling, Louis, and W. G. Toekelt, to Universal Oil Products Co. Preparation of acid from diolefins. 3,075,010, 1-22-63, Cl. 260—533.

Schmerling, Louis, and H. S. Bloch, to Universal Oil Products Co. Insecticidal compositions containing polyoxyalkylene glycol monoethers of phenolic derivatives of halocycloalkanes. 3,091,566, 5-28-63, Cl. 167—30.

Schmermund, Alfred. Machines for handling cigarettes. 3,106,282, 10-8-63, Cl. 198—59.

Schmertz, Charles B. Electronic gavel. 3,072,898, 1-8-63, Cl. 340—384.

Schmerzler, Lawrence J., to General Instrument Corp. Thermoelectric device for controlling the psychrometric condition of a flowing fluid. 3,073,127, 1-15-63, Cl. 62—3.

Schmettow, Erich, to Siemens-Electrogerate Aktiengesellschaft. Automatic washing machine having a variable speed drive. 3,088,303, 5-7-63, Cl. 68—12.

Schmid, Alois, and H. Hofer. Method for carrying out endothermic processes in a shaft furnace. 3,074,706, 1-22-63, Cl. 263—52.

Schmid, August. Skittle game with arrangement for automatically indicating the fallen pins. 3,102,724, 9-3-63, Cl. 273—52.

Schmid, Bruce K.: *See*—
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Schmid, Bruce K., to Gulf Research & Development Co. Recovery of commercial grade naphthalene by azeotropic distillation of crude naphthalenes with a glycol. 3,071,632, 1-1-63, Cl. 260—674.

Schmid, Christian O., and A. J. Fischer, to Infilco Inc. Apparatus for removing settled solids from liquid treating basins. 3,102,094, 8-27-63, Cl. 210—528.

Schmid, Christoph, and R. Gedenk, to Deutsche Erdöl-Aktiengesellschaft. Method of treating waters to be introduced into geological formations. 3,106,525, 10-8-63, Cl. 210—57.

Schmid, Erich: *See*—
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Schmid, Hans: *See*—
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Schmid, Hans, and H. R. Mühlemann, to GABA A.G. Fluorides of organic bases as well as of amphoteric compounds, a method for their preparation, including the application of such new compounds, in the caries prophylaxis, new dentifrices and mouth wash as well as a method for their preparation. 3,083,143, 3-26-63, Cl. 167—93.

Schmid, Heinrich, Firma: *See*—
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Schmid, Heinrich, to Heinrich Schmid, Firma. Drive mechanism, particularly for picking system for looms. 3,083,739, 4-2-63, Cl. 139—147.

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Schmid, Hermann, to Daimler-Benz Aktiengesellschaft. Control arrangement for a heating and ventilating system, especially of motor vehicles. 3,086,440, 4-23-63, Cl. 98—2.

Schmid, Hermann, to General Precision, Inc. Transistor switch having impedance means effecting negligible drop between emitter and collector. 3,112,410, 11-26-63, Cl. 307—88.5.

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Schmid, John H., and L. J. Maciuklewicz, to Zurn Industries, Inc. Wall closet carrier. 3,078,477, 2-26-63, Cl. 4—252.

Schmid, Leopold F., and H. H. Honick, to Firma, Dr. Ing. h.c.F., Porsche, K.G. Internal combustion engine arrangement. 3,077,870, 2-19-63, Cl. 123—44.

Schmid, Paul F., and J. E. Muller, to Acme Air Appliance Co., Inc. Core for pneumatic valve. 3,078,864, 2-26-63, Cl. 137—223.

Schmid, Paul F., and J. E. Muller, to Acme Air Appliance Co., Inc. Dispensing and relief valve. 3,083,882, 4-2-63, Cl. 222—396.

Schmid, Ulrich J.: *See*—
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May, Michael, and Schmidlin. 3,116,422.

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Schmidt, Arnold, to Siemens-Schuckertwerke Aktiengesellschaft. Electric current inverter. 3,097,335, 7-9-63, Cl. 321—45.

Schmidt, Benjamin F. Multiple production pump. 3,076,416, 2-5-63, Cl. 103—191.

Schmidt, Benjamin F. Sand trapping sucker-rod for piston type oil well pump. 3,090,324, 5-21-63, Cl. 103—220.

Schmidt, Benjamin F. Sand and gas deflector for oil well pumps. 3,106,526, 10-8-63, Cl. 210—188.

Schmidt, Carl O., Jr., to The Cincinnati Butcher's Supply Co. Bleeding conveyor. 3,076,996, 2-12-63, Cl. 17—1.

Schmidt, Carl O., Jr., to The Cincinnati Butchers' Supply Co. Injection apparatus for the treatment of meat. 3,081,691, 3-19-63, Cl. 99—257.

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Schmidt, Daniel. Supplementary lighting arrangement for vehicles. 3,088,022, 4-30-63, Cl. 240—7.1.

Schmidt, Edward C., to E. L. Pucel. Tilting arc device. 3,100,123, 8-6-63, Cl. 294—103.

Schmidt, Edward M., to Borg-Warner Corp. Static inverter. 3,091,729, 5-28-63, Cl. 321—5.

Schmidt, Erich A., ½ to Universal Button Co. Stapling machine with reinforcing tape dispensing means. 3,084,344, 4-9-63, Cl. 1—121.

Schmidt, Ernst H. W. Pump. 3,088,411, 5-7-63, Cl. 103—1.

Schmidt, Fred J., to Ellicott Machine Corp. Electric-hydraulic dredge. 3,094,795, 6-25-63, Cl. 37—67.

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Schmidt, George J.: *See*—
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Schmidt, Gerhard, and H. Feindt, to Licentia Patent-Verwaltungs-G.m.b.H. Flashlights. 3,097,798, 7-16-63, Cl. 240—10.65.

Schmidt, Gunther, to Dr. Karl Thomas G.m.b.H. 2-hydroxymethyl-8-hydroxy-1,4-benzodioxane. 3,101,345, 8-20-63, Cl. 260—340.3.

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Strugala, Alfred, Sporenberg, and Schmidt. 3,105,399.

Schmidt, Heinz, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Process for accelerating the peroxidic hardening of unsaturated, phosphorus-containing poly-esters by means of an isocyanate. 3,079,364, 2-26-63, Cl. 260—45.4.

Schmidt, Herbert. Machine and method of making brushes. 3,093,416, 6-11-63, Cl. 300—21.

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Schmidt, Karl-Ludwig: *See*—
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Schmidt, Karol, to Vyzkumny ustav energeticky. Separation of solid substances from liquids. 3,093,579, 6-11-63, Cl. 210—117.

Schmidt, Lewis W., to Blockwelder Mfg. Co. Plant thinning implement. 3,101,123, 8-20-63, Cl. 172—556.

Schmidt, Lothar M., to General Precision, Inc. High speed tape memory system. 3,092,810, 6-4-63, Cl. 340—172.5.

Schmidt, Marion A. Razor blade stropping holder. 3,088,252, 5-7-63, Cl. 51—218.

Schmidt, Max. Package, in particular for hollow bodies sensitive to pressure such as Christmas tree balls. 3,093,241, 6-11-63, Cl. 206—45.31.

Schmidt, Max. Extruder having an interchangeable injector head. 3,109,196, 11-5-63, Cl. 18—12.

Schmidt, Oltmann G. Hydraulically operated land contouring machine. 3,097,440, 7-16-63, Cl. 37—129.

Schmidt, Oswald: *See*—
Balli, Heinz, Leuchs, Hehl, Grunwald, and Schmidt. 3,082,114.
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Schmidt, Richard, to Franz Morat G.m.b.H. Pattern wheel. 3,076,325, 2-5-63, Cl. 66—50.

Schmidt, Richard, to Franz Morat, G.m.b.H. Feeding mechanism for yarn winding and processing machines. 3,093,330, 6-11-63, Cl. 242—45.

Schmidt, Richard, to Franz Morat, G.m.b.H. Feeder arrangement for circular knitting machines. 3,115,761, 12-31-63, Cl. 66—131.

Schmidt, Robert A.: *See*—
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Schmidt, Ronald G., and J. G. Tomkinson, to Minneapolis-Honeywell Regulator Co. Photoflash apparatus. 3,071,681, 1-1-63, Cl. 240—1.3.

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Papratiz, Franz, Goldmann, and Schmidt. 3,070,997.

Schmidt, Theodor, to Indugas, Gesellschaft fur Industrielle Gasverwendung m.b.H., Firma. Cooled furnace transport rollers. 3,100,631, 8-13-63, Cl. 263—6.

Schmidt, Theodore W.: *See*—
Quenzler, Henry H. W., and Schmidt. 3,109,610.

Schmidt, Thomas R., to Shell Oil Co. Eddy current type pipeline flaw testing and flaw location marking device. 3,116,452, 12-31-63, Cl. 324—40.

Schmidt, Ulrich, to E. Merck Aktiengesellschaft. Mercaptomethyl-pyridine derivatives and their production. 3,075,987, 1-29-63, Cl. 260—294.8.

Schmidt, Walter: *See*—
Kronig, Walter, Meckelburg, Scharfe, Schleppinghoff, and Schmidt. 3,075,917.

Schmidt, Warren E.: *See*—
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Schmidt, Wilhelm: *See*—
Kohlstaedt, Erwin, Schmidt, and Schneider. 3,077,436.

Schmidt, Wilhelm, to Forschungszentrum der Luftfahrtindustrie. Driving arrangement for land-, water- and aircraft. 3,111,928, 11-26-63, Cl. 115—5.

Schmidt, William. Cervical brace. 3,103,215, 9-10-63, Cl. 128—75.

Schmidt, William C. Corncob material cigarette. 3,100,492, 8-13-63, Cl. 131—2.

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La Patka, Lawrence T., and Schmidt. 3,071,743.

Schmidt-Kastner, Günter, J. Schmid, F. Grewe, and V. Fluck, to Farbenfabriken Bayer Aktiengesellschaft. Antibiotic phyllomycin and a process for the production thereof. 3,107,202, 10-15-63, Cl. 167—65.

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Schmidt'sche Heissdampf-Gesellschaft mit beschrankter Haftung: *See*—
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Schmieder, Felix, J. Hildebrandt, and W. Krombach, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Process for the manufacture of crimped filament yarns. 3,112,551, 12-3-63, Cl. 28—72.

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Schmier, Jacob, to Rodale Mfg. Co., Inc. (also known as Rodale Manufacturing Co., Inc. and Rodale Manufacturing Company, Inc.). Duplex receptacle and method of manufacturing. 3,094,367, 6-18-63, Cl. 339—122.

Schmier, Jacob, and H. P. Lewis, to Rodale Mfg. Co., Inc. Electric switch. 3,073,933, 1-15-63, Cl. 200—156.

Schmiermann, Franciscus X. A., to Van Doorne's Aanhangwagenfabriek N.V. Tank vehicle of the semitrailer type. 3,081,104, 3-12-63, Cl. 280—5.

Schmitt, Justin M., and H. L. Andrews, to The Chun King Corp. Method of harvesting wild rice. 3,111,799, 11–26–63, Cl. 56—1.

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Schmitt, Hubert A., to Boeing Airplane Co. Portable dimpler. 3,091,277, 5–28–63, Cl. 153—21.

Schmitt, Hubert A. Portable hydraulic torque wrench. 3,097,551, 7–16–63, Cl. 81—56.

Schmitt, Jean, to Societe Alsacienne de Constructions Mecaniques. Frame printing machine. 3,106,890, 10–15–63, Cl. 101—123.

Schmitt, Johannes: *See*—
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House, Ronald R., Rassweiler, and Schmitt. 3,086,961.

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Schmitt, Karl, E. Lindner, and W. Meixner, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning. N-(B-tertiaryamino-lower alkyl-B-meta-oxy-phenyl)-lower alkyl alkenyl and aryl amides. 3,103,516, 9–10–63, Cl. 260—294.

Schmitt, Leo C., to American Potash & Chemical Corp. Production of a non-caking borax. 3,109,705, 11–5–63, Cl. 23—59.

Schmitt, Robert O., to The Proctor & Gamble Co. Process for the purification of glyceride oils. 3,102,898, 9–3–63, Cl. 260—425.

Schmitt, Roland W., and M. D. Fiske, to General Electric Co. Superconducting circuits. 3,088,077, 4–30–63, Cl. 330—62.

Schmitt, Werner, R. Purrmann, P. Jochum, to Espe Fabrik Pharmazeutischer Praparate G.m.b.H. Filling of dental cavities and fastening substitute tooth members with admixture of a polyethylaneimine compound and an alkyl or aryl sulfonic acid ester. 3,107,427, 10–22–63, Cl. 32—15.

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Schmitter, Walter P., deceased, by A. Louise, and R. V. Abendroth, co-executors., to The Falk Corp. Coupling. 3,079,773, 3–5–63, Cl. 64—15.

Schmittmann, Hans-Richard, to Farbenfabriken Bayer Aktiengesellschaft. Braided combined cordage. 3,090,277, 5–21–63, Cl. 87—8.

Schmittmann, Hans-Richard, and K. Hartmann, to Farbenfabriken Bayer Aktiengesellschaft. Stranded rope of endless fully synthetic plastic filaments. 3,111,001, 11–19–63, Cl. 57—144.

Schmitt-Matzen, John G., to Gorman-Rupp Industries, Inc. Dishwasher recirculating assembly. 3,103,225, 9–10–63, Cl. 134—58.

Schmitt-Thomas, Karlheinz, and F. Fischer, to Stahl- und Walzwerke Rasselstein/Andernach AG. Process for testing the suitability of a material for shaping without cutting and device for use in this process. 3,086,391, 4–23–63, Cl. 73—87.

Schmitz, Earl F. Miniature vehicle and control system therefor. 3,082,699, 3–26–63, Cl. 104—247.

Schmitz, Ewald F., to A. O. Smith Corp. Closure for Metal tanks. 3,088,623, 5–7–63, Cl. 220—64.

Schmitz, Hugo, to Polysius G.m.b.H. Device for sorting material according to granular size and weight. 3,113,099, 12–3–63, Cl. 209—135.

Schmitz, John V., and R. J. Blackinton, to California Research Corp. Thixotropic coating solutions. 3,098,052, 7–16–63, Cl. 260—22.

Schmitz, Mattheus J.: *See*—
Mol, Gerrit, and Schmitz. 3,079,589.

Schmitz, Paul: *See*—
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Schmitz, Rudolf, and R. Brettschneider, to Gardisette-Werk Dr. Baier & Co. Warp knit fabric and method. 3,073,140, 1–15–63, Cl. 66—193.

Schmitz, Werner E. Elastic covering for use in ironing apparatus and the like. 3,115,717, 12–31–63, Cl. 38—66.

Schmitz, William F.: *See*—
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Schmitzer, Karl. Conveyor for dung. 3,103,276, 9–10–63, Cl. 198—226.

Schmitz-Josten, Robert, to Farbenfabriken Bayer Aktiengesellschaft. Reaction products of ethylenically unsaturated polymers and phenolic compounds. 3,110,699, 11–12–63, Cl. 260—62.

Schmoock, Roy F., to Fischer & Porter Co. Damping control for rebalancing motors. 3,081,423, 3–12–63, Cl. 318—448.

Schmook, Edward, Jr., to Oscar Mayer & Co., Inc. Meat comminutor. 3,095,022, 6–25–63, Cl. 146—192.

Schmook, Edward, Jr., to Oscar Mayer & Co., Inc. Method of forming casing stuffed products. 3,107,392, 10–22–63, Cl. 17—45.

Schmook, Edward, Jr., and A. H. Vedvik, to Oscar Mayer & Co., Inc. Continuous chopper. 3,108,626, 10–29–63, Cl. 146—192.

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Frank, Gerard A., and Schmuldt. 3,083,595.

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Schnabel, Harry, Jr. Method and structure for underpinning. 3,091,938, 6–4–63, Cl. 61—51.

Schnabolk, Morris. Sealing strip guide. 3,079,036, 2–26–63, Cl. 220—52.

Schnack, Otto N., and R. De Coene, to Solvic Societe Anonyme. Vinyl chloride polymerization process with metal alkyl catalyst. 3,076,794, 2–5–63, Cl. 260—92.8.

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Schneebeli, Hans, and F. Volz, to H. Schneebeli & Co. Climbing device enabling ascension and descension of tree trunks, masts, poles and the like. 3,078,951, 2–26–63, Cl. 182—134.

Schneeberger, Robert J., to Westinghouse Electric Corp. Radiation sensitive device. 3,082,340, 3–19–63, Cl. 313—65.

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Schneider, Abraham, to Sun Oil Co. Preparation of tetramethylcyclohexanes. 3,103,540, 9–10–63, Cl. 260—666.

Schneider, Adam B., to Decca Ltd. Adjustable polarization waveguide for radar. 3,076,188, 1–29–63, Cl. 343—5.

Schneider, Anthony C., and F. L. Young, Jr., to Freezing Equipment Sales, Inc. Refrigeration. 3,079,763, 3–5–63, Cl. 62—84.

Schneider, Charles H., L. R. Ariedge, H. D. Hamilton, and W. G. Cassill, to The Mead Corp. Apparatus for controlling edge beads. 3,104,182, 9–17–63, Cl. 118—204.

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Schneider, Emmor V., to The Alliance Mfg. Co., Division of Consolidated Electronics Industries Corp. Friction drive release for phonograph turntables. 3,101,950, 8–27–63, Cl. 274—9.

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Schneider, Gebhard K. Photo-electric cell for the automatic exploring of curves. 3,112,422, 11–26–63, Cl. 313—96.

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Schneider, John H., to Mine Safety Appliances Co. Exhalation valve. 3,085,591, 4–16–63, Cl. 137—525.3.

Schneider, John R. Teething device. 3,115,139, 12–24–63, Cl. 128—354.

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Schneider, Kurt, and H. Schnell, to Studiengesellschaft Kohle m.b.H. Process for the production of cyclododecatri-(1,5,9)-enes. 3,076,045, 1–29–63, Cl. 260—666.

Schneider, Leonard G. Commode for pets. 3,100,474, 8–13–63, Cl. 119—1.

Schneider, Lukas: *See*—
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Schneider, Robert P., A. J. Meyerhoff, and P. E. Shafer, to Burroughs Corp. Voltage regulation with temperature compensation. 3,103,617, 9–10–63, Cl. 323—22.

Schneider, Robert V., and L. A. Kasparson, to Norton Co. Apparatus for maintaining constant peripheral speed of a grinding wheel to compensate for wheel wear. 3,113,405, 12–10–63, Cl. 51—134.5.

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Schneider, William S., and C. M. Carpenter, Jr., to Packaging Frontiers Inc. Pre-perforated material for packages and method of making same. 3,083,876, 4–2–63, Cl. 222—107.

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Schneiderman, Joseph. Emergency radio receiver. 3,098,975, 7–23–63, Cl. 325—466.

Schneiderman, Joseph. Protective shield for electrical terminals. 3,113,997, 12–10–63, Cl. 174—138.

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Schulte-Huermann, Werner, and Schnell. 3,076,784.
Windemuth, Erwin, Schnell, and Bayer. 3,073,802.
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Schnell, Hermann, and H. Krimm, to Farbenfabriken Bayer Aktiengesellschaft. Process for the production of hardened, polycarbonate-modified epoxy resin bodies. 3,098,056, 7–16–63, Cl. 260—42.

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Schneller, Joseph W., to National Gypsum Co. Well lath attachment. 3,086,329, 4–23–63, Cl. 50—314.

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Schniers, Robert C.: *See*—
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Schoeffel, Dietmar M. Baby rocker. 3,100,638, 8–13–63, Cl. 272—33.
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Schoen, Roger W., and G. F. Kincaid, to Alco Valve Co. Non-recycling thermostatic switch. 3,075,388, 1–29–63, Cl. 73—368.7.

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Schoenbeck, Leland C., to E. I. du Pont de Nemours and Co. Continuous fluid bed adsorption of bromine on anion exchange resin. 3,075,830, 1–29–63, Cl. 23—216.

Schoenbeck, Leland C., to E. I. du Pont de Nemours and Co. Process for sorption of bromide ion on anion exchange resins. 3,101,250, 8–20–63, Cl. 23—87.

Schoenberger, Robert L., Jr., to R. R. Donnelley & Sons Co. Web feed apparatus for a case forming machine for books. 3,103,843, 9–17–63, Cl. 83—107.

Schoeneberg, Werner A. P., and F. Fortess, to Celanese Corp. of America. Treatment of knitted fabrics. 3,077,371, 2–12–63, Cl. 8—107.

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Schoeneman, Robert E., to Potter Instrument Co., Inc. Vacuum buffer loop device for tape handlers. 3,091,408, 5–28–63, Cl. 242—55.12.

Schoenfein, Robert A. Identification card and support. 3,083,484, 4–2–63, Cl. 40—1.5.

Schoenfeld, Myron R. Infusion monitoring device. 3,105,490, 10–1–63, Cl. 128—214.

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Eichenberger, Donald L., and Schoenike. 3,102,236.

Schoening, Paul E.: *See*—
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Schoenmakers, Wijnand J., to North American Philips Co., Inc. Matrix memory device. 3,075,185, 1-22-63, Cl. 340—174.

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Schohl, John L. Thread grinding machine. 3,104,505, 9-24-63, Cl. 51—259.

Schoiaert, Albert. Belt control system for worker rollers of nap raising machines. 3,075,273, 1-29-63, Cl. 26—35.

Scholefield, Clifford L., to General Electric Co. Coaxial reed relay for interrupting the center conductor and simultaneously terminating its opened ends. 3,087,125, 4-23-63, Cl. 333—7.

Scholfield, Ethel E. and R. P., to Wheeldex Mfg. Co., Inc. Filing apparatus. 3,106,920, 10-15-63, Cl. 129—16.

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Scholfield, Ethel E. and R. P. 3,106,920.

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Scholle, William R. 3,087,518.
Scholle, William R. 3,087,655.

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Scholle, William R., to Scholle Container Corp. Paperboard container with flexible liner therein. 3,087,655, 4-30-63, Cl. 222—183.

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Schöllhammer, Friedrich W., to Daimler-Benz Aktiengesellschaft. Lubrication system. 3,073,253, 1-15-63, Cl. 103—162.

Schöllkopf, Ernst, to Winkler, Fallert & Co. AG, Maschinenfabrik. Band printing apparatus. 3,084,623, 4-9-63, Cl. 101—228.

Scholten, Carel S., and B. J. Loopstra, to Electrologica, N.V. Electronic computer with interrupt feature. 3,079,082, 2-26-63, Cl. 235—157.

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Schooley, Maurice A., and B. M. Shinn, to Armour & Co. Growth promotant substances. 3,085,933, 4-16-63, Cl. 167—53.

Schoonover, Paul L., to Monolith Portland Cement Co. Apparatus and method for conveying slurry. 3,093,364, 6-11-63, Cl. 259—146.

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Schopp, James C., to Radio Corp. of America. Electron beam convergence apparatus. 3,114,858, 12-17-63, Cl. 315—22.

Schopp, James C., and L. E. Annus, to Radio Corp. of America. Adjustable voltage supply. 3,113,237, 12-3-63, Cl. 315—31.

Schoppe, Fritz, to Metallhan Semler, G.m.b.H. Method and apparatus for mixing and carrying out reactions. 3,098,704, 7-23-63, Cl. 23—1.

Schoppe, H., & Schultz: *See*—
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Schoppe, Heinrich, and P. Willis, to H. Schoppe & Schultz. Nut-containing emulsion and method of making the same. 3,115,412, 12-24-63, Cl. 99—126.

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Schoppee, Lawrence W., and F. C. Crescenzo, to Package Machinery Co. Automatically controlled magazine feed means to insure constant output rate. 3,106,118, 10-8-63, Cl. 83—11.

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Schopper, Jurgen R., to Dresser Industries, Inc. Plural focusing electrode systems for measuring the dip of subsurface strata. 3,105,191, 9-24-63, Cl. 324—10.

Schoppmeyer, Werner R. L., and H. Schmidt, to Lever Brothers Co. Process for the manufacture of packaging materials. 3,112,985, 12-3-63, Cl. 8—115.6.

Schor, Herbert, and R. N. Seck. Folding boat. 3,108,295, 10-29-63, Cl. 9—2.

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Schossow, George W. Endotracheal tube. 3,087,493, 4-30-63, Cl. 128—351.

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Schott, Andrew F. Abacus. 3,076,272, 2-5-63, Cl. 35—33.

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Schott, Arthur K., to Houdaille Industries, Inc. Punching device. 3,114,280, 12-17-63, Cl. 83—140.

Schott, Donald E., to Thomas C. Wilson, Inc. Pneumatic motor with overspeed safety device. 3,071,115, 1-1-63, Cl. 121—34.

Schott, Hans, to E. I. du Pont de Nemours and Co. Sheet forming binder particles composed of thermoplastic polymer dispersed in a polysaccharide matrix. 3,114,672, 12-17-63, Cl. 162—157.

Schott, Stuart, and V. L. Hansley to National Distillers and Chemical Corp. Boron production. 3,086,847, 4-23-63, Cl. 23—209.

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Schöttle, Ulrich, and G. Reinicke, to Standard Elektrik Lorenz Aktiengesellschaft. Cash register safeguard for use in a system for automatically controlling the movement of goods. 3,072,324, 1-8-63, Cl. 235—11.

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Schouteden, Ferdinand L., to Gevaert Photo-Producten N.V. Process for improving the dyeability of polymeric material. 3,083,070, 3-26-63, Cl. 8—115.5.

Schouteden, Ferdinand L., to Gevaert Photo-Production N.V. Process for the preparation of polymers containing amidoxime groups. 3,087,914, 4-30-63, Cl. 260—78.4.

Schouten, Frank, to United States of America, Army. Remote control isotope manipulator. 3,087,632, 4-30-63, Cl. 214—1.

Schouw, Arthur C., and R. R. Mosher, to Ferro-Fab, Inc. Cleaning machine. 3,094,999, 6-25-63, Cl. 134—132.

Schraber, Henry A., and R. O. Barrows. Multiple purpose spotting gun. 3,091,403, 5-28-63, Cl. 239—413.

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Schrader, Gerhard, to Farbenfabriken Bayer Aktiengesellschaft. Dithiophosphonic acid esters and a process for their production. 3,074,991, 1-22-63, Cl. 260—461.

Schrader, Gerhard, to Farbenfabriken Bayer Aktiengesellschaft. Process for production of dithiolphosphoric acid esters. 3,078,295, 2-19-63, Cl. 260—461.

Schrader, Gerhard, to Farbenfabriken Bayer Aktiengesellschaft. Thionophosphinic acid esters and process for their production. 3,081,330, 3-12-63, Cl. 260—461.

Schrader, Gerhard, to Farbenfabriken Bayer Aktiengesellschaft. Pyrophosphonic acid esters and process for their production. 3,088,965, 5-7-63, Cl. 260—461.

Schrader, Gerhard, to Farbenfabriken Bayer Aktiengesellschaft. Thiophosphoric acid esters and process for their production. 3,092,649, 6-4-63, Cl. 260—461.

Schrader, Gerhard, to Farbenfabriken Bayer Aktiengesellschaft. Thiophosphonic acid ester amides. 3,099,674, 7-30-63, Cl. 260—461.

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Schrader, Harold D., to Sullivan Valve and Engineering Co. Gas burner construction. 3,105,541, 10-1-63, Cl. 158—104.

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Schramel, Franz J., to North American Philips Co. Inc. Telecommunication system comprising transfluxors. 3,112,368, 11-26-63, Cl. 179—15.

Schramel, Franz J., C. G. Den Hertog, and W. F. Brok, to North American Philips Co., Inc. Device to shift a block signal to a given mean phase and to hold it therein with respect to the pulse instants of an incoming pulse sequence. 3,112,363, 11-26-63, Cl. 178—53.1.

Schramm, Albert A. Portable platform step for stepladders. 3,078,950, 2-26-63, Cl. 182—120.

Schramm, Arthur G. Self-loading and dumping trailer. 3,092,273, 6-4-63, Cl. 214—504.

Schramm, Arthur G. Steerable dolly. 3,105,704, 10-1-63, Cl. 280—443.

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Schramm, Jacob H., to Westinghouse Electric Corp. Nonmagnetic iron-base alloys. 3,081,164, 3-12-63, Cl. 75—123.

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Schramm, Paul, L. Fechter, J. K. Baars, and J. Muskat, to Nederlandse Organisatie voor Toegenpast-Natuurwetenschappelijk Onderzoek ten behoeve van de Volksgezondheid. Aeration apparatus. 3,109,875, 11-5-63, Cl. 261—92.

Schrank, Harry P. Tubeless tire with puncture sealing device. 3,090,416, 5-21-63, Cl. 152—347.

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Schreiber, Carl W., to Owens-Illinois Glass Co. Universal automatic ware loading machine and method. 3,100,051, 8-6-63, Cl. 214—1.

Schreiber, Carl W., to Owens-Illinois Glass Co. Universal automatic ware loading machine. 3,101,151, 8-20-63, Cl. 214—1.

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Schreiber, Robert E., to Boeing Airplane Co. Shock relief plates. 3,070,998, 1-1-63, Cl. 73—147.

Schreiner, John R.: *See*—
Gebert, Gregory G., and Schreiner. 3,105,749.

Schreiner, Kenneth E.: *See*—
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Schreiner, Kenneth E., to International Business Machines Corp. Information-handling apparatus and method. 3,071,738, 1-1-63, Cl. 333—11.

Schreiner, Kenneth E., to International Business Machines Corp. Storage register. 3,108,193, 10-22-63, Cl. 307—88.

Schrenk, Walter J., and K. J. Cleereman, to The Dow Chemical Co. Backflow restrictor for extruders. 3,115,674, 12-31-63, Cl. 18—12.

Schreter, Arnold H. Bow tie construction. 3,106,720, 10-15-63, Cl. 2—151.

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Schreyer, Kenneth D., and H. F. Parker, to Columbus McKinnon Corp. Combination rail for trolley conveyors. 3,103,184, 9-10-63, Cl. 104—108.

Schreyer, Ralph C., to E. I. du Pont de Nemours and Co. Stabilized tetrafluoroethylene-fluoroolefin copolymers having —CF_2H end groups. 3,085,083, 4-9-63, Cl. 260—87.5.

Schreyer, Ralph C., to E. I. du Pont de Nemours and Co. Preparation of dicarboxylic acid nitriles. 3,092,654, 6-4-63, Cl. 260—465.8.

Schrier, Israel, to Bausch & Lomb Inc. Mold construction for casting thermosetting plastics of accurately controlled shape. 3,070,846, 1-1-63, Cl. 18—39.

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Schrimpf, Henry W., to Minneapolis-Honeywell Regulator Co. Electrical apparatus for certifying magnetic tape. 3,088,101, 4-30-63, Cl. 340—174.1.

Schroder, Allen S. Water timing distributing valve. 3,108,609, 10-29-63, Cl. 137—119.

Schröder, Hubert, to Jenaer Glaswerk Schott & Gen. Transparent, conductive, reflection-reducing coatings on nonconductive objects and method. 3,094,436, 6-18-63, Cl. 117—215.

Schröder, Johann F., to C. C. Egelhaaf, Kommanditgesellschaft. Threading and guiding means for the weft thread in shuttles with automatic ejection of the cop residue. 3,082,796, 3-26-63, Cl. 139—198.

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Schroeder, Earle E., to Allis-Chalmers Mfg. Co. Adjustable seal for pumps. 3,101,671, 8-27-63, Cl. 103—103.

Schroeder, Elmer F., to G. D. Searle & Co. 3,6,8-triketopyrimido [5,4-] 1,4-thiazines and process. 3,080,364, 3-5-63, Cl. 260—243.

Schroeder, Elmer F., to G. D. Searle & Co. 5-carbamoylmethylthio-6-aminouracil and derivatives thereof. 3,080,370, 3-5-63, Cl. 260—256.5.

Schroeder, Everett H., to Kollsman Instrument Corp. Integrated flight instrument system. 3,112,644, 12-3-63, Cl. 73—178.

Schroeder, Frederick R., to Trico Products Corp. Wiper arm testing device or the like. 3,115,035, 12-24-63, Cl. 73—141.

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Schroeder, George O., to American Can Co. Container. 3,099,378, 7-30-63, Cl. 229—5.5.

Schroeder, Hansjuergen A., to Olin Mathieson Chemical Corp. Alkyl, aryl substituted melems. 3,089,875, 5-14-63, Cl. 260—249.6.

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Schroeder, John O., to Radio Corp. of America. Radio signal receivers. 3,114,004, 12–10–63, Cl. 179—15.

Schroeder, Lester A. Snow and ice removal tool. 3,091,790, 6–4–63, Cl. 15—105.

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Schroeder, Manfred R., to Bell Telephone Laboratories, Inc. Time domain vocoder. 3,071,652, 1–1–63, Cl. 179—15.55.

Schroeder, Manfred R., to Bell Telephone Laboratories, Inc. Autocorrelation vocoder equalizer. 3,091,665, 5–28–63, Cl. 179—15.55.

Schroeder, Manfred R., to Bell Telephone Laboratories, Inc. Vocoder excitation generator. 3,109,928, 9–3–63, Cl. 179—1.

Schroeder, Manfred R., to Bell Telephone Laboratories, Inc. Automatic measurement of reverberation time. 3,111,186, 11–19–63, Cl. 181—.5.

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Schroeder, Robert C., and D. D. Wood, to Sparton Corp. Simplified freight bracing apparatus. 3,114,336, 12–17–63, Cl. 105—369.

Schroeder, Robert C., and D. D. Wood, to Sparton Corp. Freight-bracing apparatus. 3,114,338. 12–17–63, Cl. 105—369.

Schroeder, Robert E., and F. E. Smithberg, to Dukane Corp. Recording-reproducing machine. 3,097,907, 7–16–63, Cl. 346—17.

Schroeder, Robert J., to Allis-Chalmers Mfg. Co. Bucket structure. 3,093,917, 6–18–63, Cl. 37—141.

Schroeder, Samuel A.: *See*—
Gregoire, Stephen E., Davies, and Schroeder. 3,084,303.

Schroeder, Wayne A., to Chase Bag Co. Plastic liner inserting machine. 3,074,325, 1–22–63, Cl. 93—8.

Schroeder, William: *See*—
Fullerton, Thomas J., and Schroeder. 3,076,641.

Schroeder, William, to Acme Steel Co. Pallet rack. 3,106,297, 10–8–63, Cl. 211—148.

Schroeder, William, C. Lewis, H. Hocksema, T. E. Eble, and B. Bannister, to The Upjohn Co. Acylated psicofuranosyladenines. 3,079,378, 2–26–63, Cl. 260—211.5.

Schroeder, William F. Tide indicator. 3,099,159, 7–30–63, Cl. 73—322.

Schroemges, Henry. Fold-down extension table. 3,080,832, 3–12–63, Cl. 108—13.

Schroer, Charles A., D. C. Swanson, and F. Steedly, to Kaiser Aluminum Chemical Corp. Metallurgy. 3,111,732, 11–26–63, Cl. 22—200.

Schröer, Karl, and W. Bratumyl, to Kieler Howaldtswerke Aktiengesellschaft. Mounting batch for submarine vessels. 3,090,341, 5–21–63, Cl. 114—201.

Schroeter, Louis C., and G. A. Boyack, to The Upjohn Co. Antifungal cycloheximide starch inclusion compositions. 3,092,546, 6–4–63, Cl. 167—42.

Schrom, Archie M. Dispensing carton. 3,102,675, 9–3–63, Cl. 229—20.

Schroter, Fritz, to Ringsdorff-Werke G.m.b.H. Impulse counter. 3,077,546, 2–12–63, Cl. 310—49.

Schroter, Kurt, and F. Grosse-Scharmann. Walker-type motor vehicle. 3,109,506, 11–5–63, Cl. 180—8.

Schrougham, Benton. Bird restraining and releasing device. 3,080,850, 3–12–63, Cl. 119—15.6.

Schrougham, Benton. Heel splash guard. 3,102,346, 9–3–63, Cl. 36—70.

Schubert, Bernhard: *See*—
Rudszinat, Willy, and Schubert. 3,104,752.

Schubert, Dale L., ½ to Industrial Development Co., Inc. Disc-type wood reducer with multiple feed. 3,101,756, 8–27–63, Cl. 144—176.

Schubert, Dale L., ½ to Industrial Development Co., Inc. Continuous ball-bearing-type press for making composition board, plywood and like products. 3,111,149, 11–19–63, Cl. 144—281.

Schubert, Francis L.: *See*—
Rubenstein, Lester S., and Shubert. 3,097,094.

Schubert, Frank R.: *See*—
Valentine, Harry M., Ternent, and Schubert. 3,087,760.

Schubert, Friedrich: *See*—
Lang, Konrad, and Schubert. 3,090,809.

Schubert, Friedrich, K. Lang, W. Schabacher, and A. Burger, to Farbenfabriken Bayer Aktiengesellschaft. Method for preparing alkali-metal borohydrides. 3,077,376, 2–12–63, Cl. 23—14.

Schubert, Karl P.: *See*—
Beacom, Robert, and Schubert. 3,103,838.
Beacom, Robert, and Schubert. 3,103,840.

Schubert, Kurt, and W. Brill, to Siemens & Halske Aktiengesellschaft. Device for cooling high capacity transmitter tubes. 3,113,614, 12–10–63, Cl. 165—67.

Schuchardt, Lee F., to Merck & Co., Inc. Preparing a mixed pollo, pertussin, tetanus, and diphtheria vaccine with benzethonium chloride. 3,097,140, 7–9–63, Cl. 167—78.

Schuchardt, Lee F., and S. M. Zulick, to Merck & Co., Inc. Benzyl alcohol stabilized pollo vaccines and production thereof. 3,097,142, 7–9–63, Cl. 167—78.

Schuchardt, Lee F., and S. M. Znlick, to Merck & Co., Inc. Myristyl-gamma-picolinium chloride preserved pollo vaccine and its production. 3,097,143, 7–9–63, Cl. 167—78.

Schuck, Charles W.: *See*—
Harvey, Richard F., and Schuck. 3,113,862.

Schuck, Oscar H., to Minneapolis-Honeywell Regulator Co. Aeronautical apparatus and method. 3,082,324, 3–19–63, Cl. 250—83.3.

Schuck, Oscar H., to Minneapolis-Honeywell Regulator Co. Variable focus transducer. 3,090,030, 5–14–63, Cl. 340—16.

Schucke, Horst: *See*—
Bunger, Fritz, and Schucke. 3,091,158.

Schuder, Charles B., to Fisher Governor Co. Pneumatic valve positioner. 3,082,782, 3–26–63, Cl. 137—85.

Schudt, Hans. Machine for peeling cucumbers or other elongated vegetables or fruits. 3,115,914, 12–31–63, Cl. 146—43.

Schueler, Arthur W., to Precision Welder and Flexopress Corp. Magnetic force welders. 3,099,739, 7–30–63, Cl. 219—86.

Schueller, Otto, to United States of America, Air Force. Multi-purpose space capsule. 3,073,040, 1–15–63, Cl. 53—12.

Schueller, Otto, to United States of America, Air Force. Aerospace environment simulator. 3,084,454, 4–9–63, Cl. 35—12.

Schuermann, Fritz, and R. Novotny. Method of fixing anchor bolts in the drill holes. 3,108,443, 10–29–63, Cl. 61—45.

Schuessler Knitting Mills, Inc.: *See*—
Schuessler, Walter E. 3,109,176.

Schuessler, Levyn R. Mailing unit. 3,073,509, 1–15–63, Cl. 229—73.

Schuessler, Levyn R. Bookkeeping sheet and units. 3,081,112, 3–12–63, Cl. 283—66.

Schuessler, Walter E., to Schuessler Knitting Mills, Inc. Cap and tie cord combination. 3,109,176, 11–5–63, Cl. 2—201.

Schuette, John H., to Invincible Metal Furniture Co. Desk with detachable leg portions. 3,088,785, 5–7–63, Cl. 312—195.

Schuetz, Harold F.: *See*—
Horan, Raymond E., Jr., and Schuetz. 3,104,918.

Schuetz, James W., to Blaw-Knox Co. Mandrel bar steadier. 3,101,015, 8–20–63, Cl. 80—11.

Schuetze, Bryan D.: *See*—
Mazzagatti, Roy P., and Schuetze. 3,111,356.

Schuffler, Max: *See*—
Blaschek, Rudolf, and Schuffler. 3,073,236.

Schuffman, Oscar: *See*—
Wilson, Christopher L., and Schuffman. 3,093,525.

Schulle, Joseph A., to Aqua'Lonics, Inc. Electrodialysis cell. 3,091,583, 5–28–63, Cl. 204—301.

Schuftan, Paul M., to The British Oxygen Co. Ltd. Improved process for the separation of air to produce a desired separation product in the gaseous phase under pressure. 3,110,155, 11–12–63, Cl. 62—30.

Schuhmann, Hans: *See*—
Wille, Hans, Schuhmann, and Jellinek. 3,092,602.

Schuhmaschinen-Gesellschaft Hanke & Co. m.b.H.: *See*—
Lorenz, Werner. 3,090,056.

Schulenberg, Franz, to Gea-Luftkuhler-Gesellschaft m.b.H. Air-cooled surface condenser. 3,073,575, 1–15–63, Cl. 165—146.

Schulde, Felix: *See*—
Heuck, Claus, Rochlitz, Maus, Winter, and Schulde. 3,100,197.

Schuler, Emil H.: *See*—
Schuler, Robert C. and E. H. 3,089,534.

Schuler, Robert C. and E. H. Bookmaking machine. 3,089,534, 5–14–63, Cl. 156—357.

Schulerud, Albert L.: *See*—
Farrar, Richard E., and Schulerud. 3,105,051.

Schulkes, Johannes A.: *See*—
Gorter, Evert W., Schulkes, and Verweel. 3,085,960.

Schuller, James T.: *See*—
Holstein, Alvin W., and Schuller. 3,085,711.

Schuller, Kurt, to Fichtel & Sachs A.G. Three-speed coaster brake. 3,102,436, 9–3–63, Cl. 74—750.

Schuller, Walter H., and R. V. Lawrence, to United States of America, Agriculture. Dibasic acid from photolevopimaric acid. 3,086,989, 4–23–63, Cl. 260—514.

Schuller, Werner H. W.: *See*—
Snrunck, Gerhard, and Schuller. 3,108,028.

Schuller, Werner H. W. Method and apparatus for producing a dry mat sheet. 3,087,830, 4–30–63, Cl. 117—32.

Schulman, Daniel, to Caldwell Research, Inc. Target and circuit. 3,112,110, 11–26–63, Cl. 273—102.2.

Schulman, James H. Thermoluminescent radiation dosimeter. 3,115,578, 12–24–63, Cl. 250—71.

Schulman, Norman. Knee cap brace. 3,074,400, 1–22–63, Cl. 128—165.

Schulstad, Robert J. Tooth banding mechanism. 3,081,543, 3–19–63, Cl. 32—63.

Schult, Joachim C. E., and M. O. Shrader, deceased (L. H. Shrader, administratrix), to Pittsburgh Chemical Co. Preparation of terephthal-aldehyde from xylene dichloride. 3,089,908, 5–14–63, Cl. 260—599.

Schulte, Erich, and E. Hein, to Siemag, Siegener Maschinenbau G.m.b.H. Continuous rolling mill. 3,110,204, 11–12–63, Cl. 80—35.

Schulte, Harry J. Jr., to Bell Telephone Laboratories, Inc. Magnetic comparison circuit. 3,072,800, 1–8–63, Cl. 307—8.8

Schulte, Harry J., Jr., to Bell Telephone Laboratories, Inc. Sequential circuits employing magnetic elements. 3,086,124, 4–16–63, Cl. 307—88.

Schulte-Huermann, Werner, and H. Schnell, ½ to Farbenfabriken Bayer Aktiengesellschaft, and ½ to Mobay Chemical Co. Polyethers from aryl halides and organic diols. 3,076,784, 2–5–63, Cl. 260—47.

Schulte, Karl: *See*—
Enenkel, Hans J., Muller, and Schulte. 3,104,241.

Schulte, Karl, H. Müller, and H.-G. Kraft, to E. Merck Aktiengesellschaft. Cyclohexane derivatives. 3,100,205, 8–6–63, Cl. 260—247.2.

Schulte, Rudolf R. Drainage device. 3,111,125, 11–19–63, Cl. 128—350.

Schulten, Rudolf, W. Guth, A. Setzwein, H. Braun, and G. Berberich, to Brown, Boveri & Cie Aktiengesellschaft. Heterogeneous nuclear reactor. 3,089,835, 5–14–63, Cl. 204—193.2.

Schultes, A. C., & Sons, Inc.: *See*—
Schultes, James F. 3,092,189.

Schultes, James F., to A. C. Schultes & Sons, Inc. Core device. 3,092,189, 6–4–63, Cl. 175—77.

Schulthels, Werner, K. Schimmelschmidt, H. Hoffmann, E. Baier, and A. Bode, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Dyeings and prints possessing fastness to wet processing and their manufacture on cellulose material. 3,088,790, 5–7–63, Cl. 8—54.2.

Schulthels, Werner, K. Schimmelschmidt, H. Hoffmann, and E. Baier, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning. Water-soluble disazo dyes containing two thiosulfuric acid groups. 3,098,064, 7–16–63, Cl. 260—176.

Schultz, Alfred W.: *See*—
Lee, Thomas J., Patrick, and Schultz. 3,078,775.

Schultz, Arnold J. Floating marine fuel supply terminal. 3,076,205, 2–5–63, Cl. 9—8.

Schultz, Arnold J. Floating off-shore terminal. 3,077,615, 2–19–63, Cl. 9—8.

Schultz, Arthur D.: *See*—
Previte, Dominick L., and Schultz. 3,080,644.

Schultz, Carl E. Variable strength permanent magnets. 3,079,535, 2–26–63, Cl. 317—201.

Schultz, Curtis J., to Motorola, Inc. Tape feeding and storage device. 3,094,293, 6–18–63, Cl. 242—55.01.

Schultz, Daniel A.: *See*—
Davis, Curtis W., Jr., Carney, Kurick, and Schultz. 3,107,463

Schultz, Donald E.: *See*—
Kauffmann, William M. Metzger, and Schultz. 3,114,358.

Schultz, Earl K., Jr. Battery and clamp protector. 3,105,567, 10–1–63, Cl. 180—68.5.

Schultz, Edward H., Jr., to Nagel-Chase Mfg. Co. Sheave. 3,094,881, 6–25–63, Cl. 74—230.8.

Schultz, Eugene A., to Crane Packing Co. Automatic lap sensing and correcting device. 3,101,575, 8–27–63, Cl. 51—129.

Schultz, Forrest O. E., to Midland-Ross Corp. Brake control for disconnected trailers. 3,085,833, 4–16–63, Cl. 303—29.

Schultz, Forrest O. E., to Midland-Ross Corp. Moisture ejection valve. 3,101,091, 8–20–63, Cl. 137—204.

Schultz, Franklin G. Roll feed device. 3,095,130, 6–25–63, Cl. 226—108.

Schultz, Fred J., and S. S. Kershaw, Jr., to McGraw-Edison Co. Lightning arrester isolator devices. 3,111,606, 11–19–63, Cl. 317—70.

Schultz, Frederick A., and N. G. Noell, to International Business Machines Corp. Method of packaging and interconnecting circuit components. 3,102,328, 9–3–63, Cl. 29—155.5.

Schultz, Frederick J.: *See*—
Parmele, Harris B., Schultz, and Jensen. 3,112,755.

Schultz, Gerald W. Apparatus for extracting buried objects. 3,103,076, 9–10–63, Cl. 37—2.

Schultz, Gunter *See*—
Helming, Bernd, and Schultz. 3,084,878.

Schultz, Harold B., to The Bendix Corp. Full power hydraulic servomotor. 3,074,383, 1–22–63, Cl. 121—38.

Schultz, Harold B., to The Bendix Corp. Control valve actuating structure. 3,106,874, 10–15–63, Cl. 91—434.

Schultz, Harold R., Sr., and R. E. Mason, to Hughes Aircraft Co. TWT arcing suppressor using temporary shunting thyratron and long duration disabling circuit. 3,084,284, 4–2–63, Cl. 328—9.

Schultz, Herbert C., to Raymond International Inc. Lining of pipes including lining machine with belt drive trowels. 3,108,348, 10–29–63, Cl. 25—38.

Schultz, Herman S.: *See*—
Glickman, Samuel A., and Schultz. 3,092,630.

Schultz, Herman S., J. P. Copes, and R. L. Mayhew, to General Aniline & Film Corp. Process of preparing 4-substituted-2-morpholones. 3,073,822, 1–15–63, Cl. 260—247.7.

Schultz, Jerald. Cam generating mechanism. 3,080,795, 3–12–63, Cl. 90—18.

Schultz, John B., and G. E. Theriault, to Radio Corp. of America. Plural input signal translating system. 3,080,529, 3–5–63, Cl. 330—38.

Schultz, Julius B., to Ford Motor Co. Independent vehicle suspension. 3,073,617, 1–15–63, Cl. 280—96.2.

Schultz, Julius B., to Ford Motor Co. Vehicle suspension system. 3,086,792, 4–23–63, Cl. 280—96.2.

Schultz, Melvin L., and W. E. Harty, to Radio Corp. of America. Germanium silicon alloy semiconductor detector for infrared radiation. 3,105,906, 10–1–63, Cl. 250—83.3.

Schultz, Mortimer A., and G. W. Nagel, to Westinghouse Electric Corp. Indicational system for electromagnets. 3,103,653, 9–10–63, Cl. 340—248.

Schultz, Moses R., to Knoll Associates, Inc. Table and top with petal-simulating sections. 3,073,660, 1–15–63, Cl. 311—101.

Schultz, Ralph L., to Victor Adding Machine Co. Record tape feed mechanism for business machines. 3,075,626, 1–29–63, Cl. 197—114.

Schultz, Raymond F., E. J. O'Toole, and R. E. Widdowson, to General Motors Corp. Automobile refrigerating apparatus. 3,107,503, 10–22–63, Cl. 62—217.

Schultz, Robert A., to United States Steel Corp. Apparatus for synchronizing the speed of strip sampling punch and continuously travelling strip. 3,075,419, 1–29–63, Cl. 83—295.

Schultz, Robert A., to United States Steel Corp. Cable reel for a continuously travelling strip sampling apparatus. 3,075,420, 1–29–63, Cl. 83—298.

Schultz, Robert A., to United States Steel Corp. Strip clamping and cam mechanisms for a strip sampling punch. 3,075,422, 1–29–63, Cl. 83—319.

Schultz, Robert A., to United States Steel Corp. Breaker-block system for mill rolls. 3,101,636, 8–27–63, Cl. 80—57.

Schultz, Robert D., to Aerojet-General Corp. Method for the preparation of diborane. 3,112,180, 11–26–63, Cl. 23—204.

Schultz, Robert G., and V. R. Gaertner, to Monsanto Chemical Co. Dielectric compositions and process. 3,089,987, 5–14–63, Cl. 317—258.

Schultz, Robert S., to American Can Co. Collapsible tube. 3,073,485, 1–15–63, Cl. 222—92.

Schultz, Robert S., and A. K. Grimsley, to American Can Co. Dispenser and applicator. 3,106,742, 10–15–63, Cl. 15—565.

Schultz, Silas L. Illuminated sprinkler. 3,104,815, 9–24–63, Cl. 239—19.

Schultz, Warner W., to General Electric Co. Identifying plant and animal deficiencies by radioactive means. 3,094,-621, 6–18–63, Cl. 250—83.3.

Schultz, Werner F., and W. G. Herridge, Jr., to General Motors Corp. Safety switch. 3,110,780, 11–12–63, Cl. 200—61.5.

Schultz, William J.: *See*—
Manning, Ralph M., and Schultz. 3,075,636.

Schultze, Harold E., to General Motors Corp. Hydraulic shock absorber with compression stop and hydraulic lock. 3,086,622, 4–23–63, Cl. 188—88.

Schultze, Harold E., to General Motors Corp. Anti-roll control system. 3,090,611, 5–21–63, Cl. 267—11.

Schultze, Henry G.: *See*—
Bown, Delos E., Schultze, and Watson. 3,078,144.

Schultze, Martin, H. Severin, K.-A. Kolscher, and P. Rosenbaum, to Deutsche Solvay-Werke Gesellschaft mit beschrankter Haftung. Process for obtaining sodium chloride with a decreased tendency to agglomerate and use of the process for preventing the agglomerate of sodium chloride. 3,112,175, 11–26–63, Cl. 23—89.

Schuly Tool and Mfg. Co.: *See*—
Mosher, James K. 3,086,565.

Schulz, Albert E., and G. J. Reisch, to General Electric Co. Heating unit mounting means. 3,102,249, 8–27–63, Cl. 338—316.

Schulz, Arthur J.: *See*—
Newland, Arthur E., and Schultz. 3,086,513.

Schulz, Charles M., to American Can Co. Can divider. 3,098,-552, 7–23–63, Cl. 198—31.

Schulz, Donald F., to Hewlett-Packard Co. Transistor amplifier having low output noise. 3,100,876, 8–13–63, Cl. 330—17.

Schulz, Eugen: *See*—
Finsterwalder, Ulrich. 3,114,302.

Schulz, Eugene K. Propulsion unit for boats. 3,105,353, 10–1–63, Cl. 60—35.54.

Schulz, George, to Gits Bros. Mfg. Co. Shaft seal. 3,093,381, 6–11–63, Cl. 277—8.

Schulz, George A. Baseball game device. 3,101,197, 8–20–63, Cl. 273—89.

Schulz, Guenther, to Joh A. Benckiser, G.m.b.H., Chemische Fabrik. Process of producing citric acid. 3,086,928, 4–23–63, Cl. 204—72.

Schulz, Johan G. D.: *See*—
McCracken, John H., and Schulz. 3,075,007.
McCracken, John H., and Schulz. 3,078,279.

Schulz, Kathryn M. Container assembly for plant husbandry. 3,082,575, 3–26–63, Cl. 47—37.

Schulz, Kurt W. Acoustical tile or the like and its manufacture. 3,074,505, 1–22–63, Cl. 181—33.

Schulz, Otto: *See*—
Vierling, Oskar, Peuser, Roseler, and Schulz. 3,083,897.

Schulz, Paul, and G. Janus, to Siemens & Halske Aktiengesellschaft. Television receiver comprising an optical filter. 3,078,343, 2–19–63, Cl. 178—7.85.

Schulz, Peter R., to International Business Machines Corp. Electrical circuit board with component standoff. 3,089,062, 5–7–63, Cl. 317—101.

Schulz, Richard, to Voigt & Haeffner A.G. Air blast circuit breakers. 3,072,767, 1–8–63, Cl. 200—148.

Schulz, Richard, to Voigt & Haeffner A.G. Pneumatic controls for high-voltage air blast circuit breakers. 3,073,932, 1–15–63, Cl. 200—148.

Schulz Tool and Mfg. Co.: *See*—
Hieber, Ellsworth E. 3,108,769.
Mosher, James K. 3,091,419.

Schulz, William E., to E. I. du Pont de Nemours and Co. Process for producing a fibrous explosive having variable density. 3,102,833, 9–3–63, Cl. 149—19.

Schulz, Wolfgang. Wood impregnating compositions and process. 3,083,138, 3–26–63, Cl. 167—38.5.

Schulz-Du Bois, Erich O., and W. J. Tabor, to Bell Telephone Laboratories, Inc. Traveling wave maser. 3,076,148, 1–29–63, Cl. 330—4.

Schulze and Burch Biscuit Co.: *See*—
Hahn, James H., and Nadherny. 3,071,236.
Hahn, James H., and Nadherny. 3,093,281.

Schulze, Carl, to General Motors Corp. Gear change mechanism. 3,110,191, 11–12–63, Cl. 74—333.

Schulze, Eleonore B. K.: *See*—
Bauer, Kurt, Danziger, and Schulze. 3,082,259.

Schulze, Gottfried: *See*—
Bauer, Kurt, Danziger, and Schulze. 3,082,259.

Schulze, Herman H.: *See*—
Roberts, Glaness B., Gunyon, and Schulze. 3,110,314.

Schulze, Herman H., to Avco Corp. Snapping bars for corn picker snapping rolls. 3,090,388, 5–21–63, Cl. 130—5.

Schulze, Karl L. Trickling filter. 3,118,102, 12–3–63, Cl. 210—150.

Schulze, Robert E., D. J. Dicktel, and E. G. Kreusch, to Culligan, Inc. Hydrosulfite and chlorine treatment of ion exchange material in an iron removal unit. 3,078,224, 2–19–63, Cl. 210—30.

Schulze, Robert E., and D. J. Dicktel, to Culligan, Inc. Water conditioning tank and liner therefor. 3,081,906, 3–19–63, Cl. 220—63.

Schulze, Robert E., and E. A. Morrison, to Culligan, Inc. Four-stage automatic valve for a water softener or conditioner. 3,083,728, 4–2–63, Cl. 137—599.1.

Schulze, Robert E., and E. J. Heartstedt, to Culligan, Inc. Chemical solution tank and means for controlling chemical dosage. 3,089,508, 5–14–63, Cl. 137—433.

Schulze, William A., and D. B. Speed, to E. I. du Pont de Nemours and Co. Preparation of aqueous potassium silicate solutions. 3,077,389, 2–12–63, Cl. 23—312.

Schulz-Zoller, Helga: *See*—
Zoller, Hans. 3,095,101.

Schumacher, David T. Convertible billing envelope with carbons for preparing statement and customer's address in duplicate. 3,111,336, 11–19–63, Cl. 282—25.

Schumacher, Frank A., to General Electric Co. Thermoelectric module. 3,083,248, 3–26–63, Cl. 136—4.

Schumacher, Frank A., and R. E. King, to General Electric Co. Refrigerator defrost control system. 3,111,814, 11–26–63, Cl. 62—156.

Schumacher, Fred J. Mitten holding, stretching and shaping device. 3,096,008, 7–2–63, Cl. 223—78.

Schumacher, Rudolf, to Basic Products Corp. Power supply apparatus. 3,091,730, 5–28–63, Cl. 321—16.

Schumacher, Stanley P. Packaging material and package. 3,096,879, 7–9–63, Cl. 206—46.

Schumacher, Wilhelm W. B.: *See*—
Westman, Albert E. R., and Schumacher. 3,102,425.

Schuman, Seymour, to Propper Mfg. Co., Inc. Sterilization indicators. 3,114,349, 12–17–63, Cl. 116—114.

Schumann, Alec: *See*—
Kelly, Stanley, Schumann, and Adams. 3,089,922.

Schumann, Eugene R., to The Powers Regulator Co. Thermostatic shut-off valve. 3,081,034, 3–12–63, Cl. 236—93.

Schumann, Robert H. Tractor wheel mover. 3,070,877, 1–1–63, Cl. 29—267.

Schumann, Werner: *See*—
Irmscher, Klaus, and Schumann. 3,073,816.

Schumm, Erich. Holder for a flower. 3,073,063, 1–15–63, Cl. 47—35.

Schunk & Ebe G.m.b.H.: *See*—
Gutberlet, Theodor. 3,099,761.

Schunk, Henry F., and J. M. Welty, to Automatic Records, Inc. Data processing system. 3,084,854, 4–9–63, Cl. 274—32.

Schupan, Fred A.: *See*—
Alexander, Raymond, Schupan, and Abbott. 3,094,027.

Schupbach, Rene M. Cravat holder. 3,086,266, 4–23–63, Cl. 24—49.

Schupbach, Rene M. Necktie holder. 3,108,342, 10–29–63, Cl. 24—49.

Schupp, Arthur A., Jr., and H. K. Forsen, to General Dynamics Corp. Resistor. 3,075,162, 1–22–63, Cl. 338—280.

Schur, Ernest M.: *See*—
Selle, Bernard G. 3,092,301.

Schur, Milton O., to Olin Mathieson Chemical Corp. Composite rod machine. 3,088,359, 5–7–63, Cl. 83—411.

Schur, Milton O., to Olin Mathieson Chemical Corp. Packaging film. 3,097,787, 7–16–63, Cl. 229—53.

Schur, Milton O., to Olin Mathieson Chemical Corp. Tube winding apparatus and process. 3,102,458, 9–3–63, Cl. 93—80.

Schurr, Charles A., to Square D Co. Control circuit. 3,084,310, 4–2–63, Cl. 317—123.

Schurr, Charles A., and C. B. Sanborn, Jr., to Square D Co. Motor control. 3,076,126, 1–29–63, Cl. 318—207.

Schurr, Charles A., and F. A. Manners, to Square D Co. Rolling mill control. 3,104,566, 9–24–63, Cl. 80—56.

Schussler, Mortimer, and W. R. Benn, to Union Carbide Corp. Production of titanium-base alloy. 3,071,461, 1–1–63, Cl. 75—135.

Schussler, Robert J. Automatic punch can opener. 3,100,341, 8–13–63, Cl. 30—4.

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Schuster, Donald H. Educational testing device. 3,096,592, 7–9–63, Cl. 35—9.

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Schuster, Ludwig K., and A. L. Baldi, Jr., to Pennsalt Chemicals Corp. Protective coating. 3,112,231, 11–26–63, Cl. 148—6.2.

Schuster, Nick A., to Schlumberger Well Surveying Corp. Magnetic resonance methods and apparatus. 3,083,335, 3–26–63, Cl. 324—.5.

Schuster, Nick A., to Schlumberger Well Survey Corp. Magnetic anomaly detection apparatus with permanent magnet means. 3,114,876, 12–17–63, Cl. 324—34.

Schuster, William T., ½ to A. G. Schuster. Water-supplying device for storage batteries. 3,082,286, 3–19–63, Cl. 136—162.

Schut, Robert N., to Mikes Laboratories, Inc. Hydroindolo [2,3]quinolizines. 3,087,930, 4–30–63, Cl. 260—288.

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Schutte, Rudolf, to North American Philips Co., Inc. Arrangement for the stereophonic reproduction of signals. 3,087,994, 4–30–63, Cl. 179—15.

Schuttevaer, Jurrianus, to Koninklijke Nederlandsche Hoogovens en Staalfabrieken N.V. Marking of ingots. 3,096,549, 7–9–63, Cl. 22—200.

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Schütze, Hans-Jürgen, and H. Kallweit, to General Electric Co. Method and apparatus for making cathodes. 3,097,112, 7–9–63, Cl. 117—201.

Schutze, Henry G., and A. D. Suttle, Jr., to Esso Research and Engineering Co. Reactions of olefins by radiation. 3,071,524, 1–1–63, Cl. 204—154.

Schutze, Henry G., A. T. Watson, and A. D. Suttle, Jr., to Esso Research and Engineering Co. Catalytic olefin polymerization method. 3,105,024, 9–24–63, Cl. 204—162.

Schwab, Bruno, to Hergeth K.G. Maschinenfabrik u. Apparatebau. Apparatus for regulating the density of cotton fed to cleaning and opening machines in cotton and fibre spinning. 3,070,847, 1–1–63, Cl. 19—204.

Schwab, Carl E., to Hazeltine Research, Inc. Radar testing apparatus. 3,083,361, 3–26–63, Cl. 343—17.7.

Schwab, Carl M., G. G. Grimmer, and T. G. Garwood, to Otis Engineering Corporation. Nipple with lateral port control. 3,075,586, 1–29–63, Cl. 166—224.

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Schwartz, Daniel M., T. N. Hackett, and J. Rosenblatt, to The Elmco Corp. Endless tread vehicle having a pump mounted thereon. 3,085,643, 4–16–63, Cl. 180—53.

Schwartz, Daniel S., to Gulton Industries, Inc. Piezoelectric transducer. 3,076,903, 2–5–63, Cl. 310—8.3.

Schwartz, Daniel S., to Gulton Industries, Inc. Device for measurement of high temperature. 3,115,779, 12–31–63, Cl. 73—362.

Schwartz, Earl S., to H. Kramer & Co. Ingot and package utilizing same. 3,097,741, 7–16–63, Cl. 206—65.

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Schwartz, Harold O., A. C. Ippolito, and W. V. Machanian, to The Wurlitzer Co. Sound generating means. 3,095,467, 6–25–63, Cl. 84—1.25.

Schwartz, Hyman. Metal cleaning compositions. 3,095,379, 6–25–63, Cl. 252—101.

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Schwartz, Marcus, to S. & S. Industries, Inc. Adjusting strap buckle. 3,075,268, 1–29–63, Cl. 24—200.

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Schwyzer, Robert, and H. Kappeler, to Ciba Corp. Polypeptides and process for their manufacture. 3,093,627, 6–11–63, Cl. 260—112.

Schyns, Pierre, to Etablissements Callebaut-De Blicquy, societe anonyme. Apparatus for treating textile products by means of liquids. 3,092,990, 6–11–63, Cl. 68—189.

Sciaky, Albert M., to Welding Research, Inc. Automatic voltage compensator for three phase. 3,098,977, 7–23–63, Cl. 328—69.

Sciaky, David, to Welding Research, Inc. Control system. 3,098,187, 7–16–63, Cl. 318—162.

Sciaky, David, to Welding Research, Inc. Zeroing system for electron gun. 3,112,391, 11–26–63, Cl. 219—124.

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Sciaky, Roberto: *See*—
Camerino, Bruno, Sciaky, and Sala. 3,083,141.
Camerino, Bruno, Sciaky, and Sala. 3,103,522.

Scibelli, Eugene A. Apparatus for sequentially dispensing objects. 3,109,556, 11–5–63, Cl. 221—80.

Sciechitano, Patsy A.: *See*—
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Scidmore, Wright H., and P. R. Yoder, Jr. Optical device for demonstrating comatic aberration. 3,094,790, 6–25–63, Cl. 35—19.

Scientific Design Co., Inc.: *See*—
Brown, David, and Colton. 3,085,117.
Colton, John W. 3,095,295.
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Davis, Robert S. 3,084,914.
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Scinta, Anthony C., to Trico Products Corp. Windshield wiper system. 3,083,394, 4–2–63, Cl. 15—250.14.

Sciola, Anthony: *See*—
Jensen, Gerold A., Kakatsakis, and Sciola. 3,082,846.

Scislowicz, Henry M., to Abbott Laboratories. Venous catheter apparatus. 3,097,646, 7–16–63, Cl. 128—214.

Sciuto, Carl C., and V. Hellstern, to Stile-Craft Manufacturers, Inc Interlocked valve and coupling. 3,106,379, 10–8–63, Cl 251—149.9.

Sclafani, Joseph R., to Aerotec Industries, Inc. Apparatus for flotation of articles on water. 3,091,782, 6–4–63, Cl. 9—316.

Sclar, Nathan, to Fairchild Camera and Instrument Corp. Image intensification tube system. 3,100,845, 8–13–63, Cl. 250—213.

Scofield, Donald W., to Philco Corp. Heaters. 3,086,101, 4–16–63, Cl. 219—37.

Scofield, Donald W., to Philco Corp. Electric appliance. 3,103,162, 9–10–63, Cl. 99—427.

Scofield, Raymond C., and F. L. Stoller, to Phillips Petroleum Co. Copper salt slurry process for diolefin separation. 3,080,437, 3–5–63, Cl. 260—681.5.

Scoggin, Baxter I., Jr., and W. E. Vaughan, to Cook Chemical Co. Continuous spray device for aerosol valves. 3,081,918, 3–19–63, Cl. 222—394.

Scoggin, Jack S., to Phillips Petroleum Co. Polymerization process and reactor system. 3,087,917, 4–30–63, Cl. 260—88.2.

Scoggin, Jack S., to Phillips Petroleum Co. Separation of polymer from solvent. 3,090,774, 5–21–63, Cl. 260—85.3.

Scoggins, Max F., to United States of America, Atomic Energy Commission. Remotely controlled dust sampler. 3,104,542, 9–24–63, Cl. 73—28.

Scognamillo, Frank. Rotary machine. 3,098,451, 7–23–63, Cl. 103—136.

Scoles, George W., to The Dow Chemical Co. Herbicide-fertilizer composition. 3,074,791, 1–22–63, Cl. 71—2.6.

Scoles, Graham J., to Associated Electrical Industries (Manchester) Ltd. Electrical pulse generators. 3,087,079, 4–23–63, Cl. 310—111.

Sconzo, Thomas G. Adjustable door latch assembly. 3,107,113, 10–15–63, Cl. 292—228.

Sconzo, Thomas G., and A. A. Ribaudo; said Ribaudo assor. to said Sconzo. Door knob assembly. 3,073,639, 1–15–63, Cl. 292—224.

Scoparino, Melchior. Action doll or like figurine. 3,090,156, 5–21–63, Cl. 46—118.

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Williams, Richard E. 3,074,305.
Williams, Richard E. 3,076,370.

Scoremaster, Inc.: *See*—
Rothberg, Jack L., and Melcher. 3,093,374.

Scortia, Thomas N., to Chromalloy Corp. Improved polyvinyl chloride propellant compositions. 3,084,083, 4–2–63, Cl. 149—19.

Scot, Hermon H. Stereo amplifier apparatus and the like. 3,071,648, 1–1–63, Cl. 179—1.

Scot-E-Spikes, Inc.: *See*—
Wyllie, James F. 3,076,273.

Scott, Alan T.: *See*—
Lewington, Michael H., and Scott. 3,099,342.

Scott, Alec C., to Aeroflex Laboratories Inc. Multi-circuit rotary electrical connector. 3,099,503, 7–30–63, Cl. 339—2.

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Haynie, Robert N., and Scott. 3,108,815.

Scott Aviation Corp.: *See*—
Replogle, Edward H., and Simmonds. 3,101,734.

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Scott, Charles E., to Sun Oil Co. Polymerization of epoxy compounds. 3,099,628, 7–30–63, Cl. 260—2.

Scott Corp., The: *See*—
Scott, Vernon B., and Rapson. 3,106,069.

Scott, Don, to Fermco Laboratories, Inc. Composition for determination of glucose. 3,104,209, 9–17–63, Cl. 195—103.5.

Scott, Don, and F. E. Hammer, to Fermco Laboratories, Inc. Deoxygenating method and product. 3,095,307, 6–25–63, Cl. 99—171.

Scott, Donald F.: *See*—
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Scott, Edward F., and R. D. Greene, to American Cyanamid Co. Vat-dye flash-aging printing process. 3,095,256, 6–25–63, Cl 8—70.

Scott, Edward L. Handle construction for ski poles. 3,085,814, 4–16–63, Cl. 280—11.37.

Scott, Edwin P. Safety car seat. 3,099,486, 7–30–63, Cl. 297—389.

Scott, Esra E. Tellurion. 3,107,441, 10–22–63, Cl. 35—45.

Scott & Fetzer Co., The: *See*—
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Scott, Floyd L.: *See*—
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Scott, Francis L.: *See*—
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Scott, Francis L., and R. Netsch, to Pennsalt Chemicals Corp. Polymeric 2,4,6-thionylisocyanurate and process of preparing same. 3,071,554, 1–1–63, Cl. 260—2.5.

Scott, Francis L., and H. Q. Smith, to Pennsalt Chemicals Corp. Diureidotriazines and process for making. 3,101,335, 8–20–63, Cl. 260—249.8.

Scott, Frederick A., and L. K. Mudge, to United States of America, Atomic Energy Commission. Method of preparing uranium dioxide. 3,114,682, 12–17–63, Cl. 204—1.5.

Scott, George A., and M. S. Williams, Jr., to General Electric Co. Door latch. 3,099,471, 7–30–63, Cl. 292—7.

Scott, George W., to E. I. du Pont de Nemours and Co. Polymerizable emulsion and process of polymerization. 3,082,262, 3–19–63, Cl. 260—652.5.

Scott, Graeme, and Z. A. Kular, to Northern Electric Co. Ltd. Sorting apparatus. 3,080,033, 3–5–63, Cl. 193—23.

Scott, Harold R., to The Birmingham Small Arms Co. Ltd. Electrical switches. 3,081,385, 3–12–63, Cl. 200—67.

Scott, Howard M., and C. E. Reeder, to Radio Corp. of America. Method and circuit for compensating for non-uniformities in display storage tubes. 3,115,592, 12–24–63, Cl. 315—12.

Scott, James, & Co. (Electrical Engineers) Ltd.: *See*—
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Scott, James H., to Engelhard Hanovia, Inc. Surgeon's headlamp. 3,086,516, 4–23–63, Cl. 128—23.

Scott, John F.: *See*—
Huelster, Otto J., and Scott. 3,107,408.

Scott, John F., to Scovill Mfg. Co. Screw fasteners. 3,102,571, 9–3–63, Cl. 151—7.

Scott, John N., Jr.: *See*—
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Scott, John N., Jr., to Phillips Petroleum Co. Method and apparatus for producing cold drawn monofilaments. 3,095,606, 7–2–63, Cl. 18—8.

Scott, John N., Jr., D. L. Alexander, and D. L. Peters, to Phillips Petroleum Co. Blow molding apparatus. 3,091,803, 6–4–63, Cl. 18—5.

Scott, John W., to Albritton Engineering Corp. Fastening apparatus. 3,106,994, 10–15–63, Cl. 189—36.

Scott, John W. Jr.,: *See*—
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Scott, John W., Jr., and R. H. Kozlowski, to California Research Corp. Catalytic conversion process for the production of low freezing point fuels. 3,110,662, 11–12–63, Cl. 208—88.

Scott, Joseph D., W. W. Toy, and D. E. Madge, to Rohm & Haas Co. Graft copolymer of an acrylic ester with poly(vinyl acetate). 3,083,172, 3–26–63, Cl. 260—29.6.

Scott, Kenneth L.: *See*—
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Scott, Larkin B., to The Perkin-Elmer Corp. Binary converter. 3,071,320, 1–1–63, Cl. 235—61.

Scott, Leslie E., to General Motors Corp. Selective antenna tuning system for a transistor portable automobile radio receiver. 3,092,773, 6–4–63, Cl. 325—370.

Scott, Lyle B., and M. B. Riordan, to BJ Service, Inc. Well treating method and apparatus. 3,101,117, 8–20–63, Cl. 166—67.

Scott, Margaret B., to Ber-Mar Mfg. Laundry hanger. 3,079,004, 2–26–63, Cl. 211—86.

Scott, Merl G.: *See*—
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Scott, Michael W.: *See*—
Cook, William W., Gibson, Roberts, and Scott. 3,072,999.

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Peoples, Virgil H. 3,101,975.
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Renner, Victor A. 3,076,700.
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Scott, Paul T., to E. I. du Pont de Nemours and Co. Melt spinning process for producing hollow-core filament. 3,095,258, 6–25–63, Cl. 18—54.

Scott, Paul T., to E. I. du Pont de Nemours and Co. Textile. 3,110,617, 11–12–63, Cl. 117—138.8.

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Scott, Richard, B. Brightman, and J. C. Perkins, Jr., to General Dynamics Corp. Time division multiplex transmission system. 3,111,557, 11–19–63, Cl. 179—15.

Scott, Robert G., to Brasco Mfg. Co. Locking mechanism and panic actuating device. 3,083,560, 4–2–63, Cl. 70—92.

Scott, Robert G., to Brasco Mfg. Co. Two-way locking device. 3,086,383, 4–23–63, Cl. 70—156.

Scott, Roland J. Drawing board table support clamp. 3,106,376, 10–8–63, Cl. 248—226.

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Scott, Vernon B., and C. M. Peters, to U.S. Industries, Inc. Integrating fluid meter. 3,071,002, 1–1–63, Cl. 73—224.
Scott, Vernon B., and W. J. Rapson, Jr., to The Scott Corp. Method and apparatus for locating leaks. 3,106,089, 10–8–63, Cl. 73—40.5.
Scott, Warren H., to Minneapolis-Honeywell Regulator Co. Thermal control apparatus. 3,098,138, 7–16–63, Cl. 200—122.
Scott, William F., and A. E. Burkall, to Whirlpool Corp. Home appliance. 3,080,059, 3–5–63, Cl. 210—144.
Scott, William L. Arm sling. 3,103,216, 9–10–63, Cl. 128—94.
Scott, William M., Jr., to I-T-E Circuit Breaker Co. Circuit connection for circuit breakers having current limiting fuses. 3,116,385, 12–31–63, Cl. 200—114.
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Browne, Lindsay H. 3,080,820.
Browne, Lindsay H. 3,080,821.
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Sinclair, George E. 3,099,143.
Scott, Willard L. Pipette construction. 3,084,592, 4–9–63, 88—14.
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Scotti, Arthur L., to Prod-O-Matic, Inc. Machine for intermittent application of adhesive. 3,091,216, 5–28–63, Cl. 118—406.
Scotti, Filippo. Device for drying hair. 3,105,501, 10–1–63, Cl. 132—9.
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Seaver, Donald A. 3,102,650.
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Scragg, Ernest P. R. 3,071,838.
Scragg, Ernest P. R. 3,074,225.
Scragg, Ernest P. R., to Ernest Scragg & Sons Ltd. Apparatus for heat treating thermoplastic yarns. 3,071,838, 1–8–63, Cl. 28—62.
Scragg, Ernest P. R., to Ernest Scragg and Sons Ltd. Textile spindle machine mounting. 3,074,225, 1–22–63, Cl. 57—77.45.
Scray, Peter J., and C. Crews. Bird insecticide dispenser. 3,105,464, 10–1–63, Cl. 119—160.
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Scriba, Gottfried, W. Graulich, and P. Schneider, to Farbenfabriken Bayer Aktiengesellschaft. Composition of modified elastomeric butadiene-acrylonitrile copolymers and of modified thermoplastic-acrylonitrile copolymers. 3,103,498, 9–10–63, Cl. 260—45.5.
Scriba, Gottfried, and A. R. Heinz, to Farbenfabriken Bayer Aktiengesellschaft. Coagulation of aqueous polymer emulsion. 3,115,484, 12–24–63, Cl. 260—83.3.
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Scribner, Albert W. Continuous casting process. 3,089,208, 5–14–63, Cl. 22—200.1.
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Scurlock, Arch C., K. E. Rumbel, and R. Friedman, to Atlantic Research Corp. Process for generating gases and apparatus therefor. 3,092,968, 6–11–63, Cl. 60—39.47.
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Pappo, Raphael. 3,087,926.
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Pappo, Raphael, and Jung. 3,101,349.
Robinson, Richard A. 3,101,338.
Rorig, Kurt J. 3,071,588.
Rorig, Kurt J. 3,073,835.
Rorig, Kurt J. 3,081,303.
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Rorig, Kurt J. 3,098,857.
Rorig, Kurt J. 3,100,775.
Rorig, Kurt J. 3,101,340.
Rorig, Kurt J. 3,101,371.
Rorig, Kurt J. 3,101,372.
Schroeder, Elmer F. 3,080,364.
Schroeder, Elmer F. 3,080,370.
Tyner, David A. 3,090,792.
Searle, Lloyd V., and R. L. Henderson. Radar integrating system. 3,113,311, 12–3–63, Cl. 343—17.1.
Searle, Walter W. R., to The Hoover Co. Timer control for automatic washing and drying machines. 3,111,017, 11–19–63, Cl. 68—12.
Searles, Le Roy D. Combination line reel and line anchoring device. 3,093,907, 6–18–63, Cl. 33—85.
Searles, William G.: *See*—
Crane, Jack W., Best, Dwyer, and Searles. 3,090,295.
Sears, Anthony. Centrifugal direct current electric generator. 3,096,454, 7–2–63, Cl. 310—178.
Sears, Chester G., and G. J. Butterworth, to Poor & Co. Crushing and screening plant. 3,112,078, 11–26–63, Cl. 241—76.
Sears, Frank L., Sr. Tree loader. 3,115,256, 12–24–63, Cl. 214—3.
Sears, George W., Jr.: *See*—
Meadows, Geoffrey W., and Sears. 3,110,681.
Sears, Howard V., to St. Joseph Lead Co. Down-hole drill. 3,084,673, 4–9–63, Cl. 121—28.
Sears, Roebuck & Co.: *See*—
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Gall, John C. 3,102,691.
Golec, Edward J. 3,097,813.
Henyan, Clare A. 3,075,454.
Lubrs, Gilbert W. 3,094,007.
Nishigami, Teiichi. 3,111,099.
Searv Mfg. Co.: *See*—
Flynn, Frank M. 3,109,642.
Seas, Ltd.: *See*—
Foster, Frank M. 3,116,379.
Sease, Will S., to Chicago Pneumatic Tool Co. Jet nozzle protector. Re. 25,452, 10–1–63, Cl. 175—340.
Seasholtz, Elwood F.: *See*—
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Seaton, Norman T., to Beckman Instruments, Inc. Improved high-sensitivity trigger circuits. 3,090,924, 5–21–63, Cl. 328—203.
Seaton-Wilson Mfg. Co.: *See*—
Magorien, Vincent G. 3,073,342.
Seattle Door Co., Inc.: *See*—
MacDonald, Donald. 3,083,745.
Seattle University: *See*—
Luger, Paul. 3,101,465.
Seaver, Donald A., to Scovill Mfg. Co. Make-up kits. 3,073,320, 1–15–63, Cl. 132—79.
Seaver, Donald A., to Scovill Mfg. Co. Adjustable perfume bottle container. 3,102,650, 9–3–63, Cl. 215—12.
Seavey, Alton W., to General Electric Co. Fan blade hub connector. 3,084,852, 4–9–63, Cl. 230—272.
Seavey, Frederick R., to Olin Mathieson Chemical Corp. Detonator seal. 3,099,957, 8–6–63, Cl. 102—28.
Seaview Industries, Inc.: *See*—
Becker, Nathan. 3,115,728.
Seaward, Carl R., to General Electric Co. Electrodeposition cell. 3,113,094, 12–3–63, Cl. 204—206.
Sebban, Jeanne: *See*—
Magat, Michel, Chapiro, and Sebban. 3,115,418.
Sebek, Oldrich K., to The Upjohn Co. Process for the 9α-hydroxylation of steroids with ascochyta. 3,116,220, 12–31–63, Cl. 195—51.
Sebens, Carl R.: *See*—
Dueker, Gordon W., and Sebens. 3,070,989.
Sebok, Albert L.: *See*—
Daugherty, Frank Z., and Sebok. 3,096,451.
Sebok, Albert L., and F. Z. Daugherty, to Ametek, Inc. Vacuum cleaner motor fan unit. 3,096,929, 7–9–63, Cl. 230—117.
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Seck, Robert N.: *See*—
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Secunde, Richard R., and A. W. Pratt, to Lear Siegler, Inc. Alternating current frequency sensing and indicating circuit. 3,075,127, 1–22–63, Cl. 317—147.
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Riegelman, Harry M. 3,082,029.
Riegelman, Harry M. 3,088,177.
Riegelman, Harry M. 3,091,008.
Riegelman, Harry M. 3,097,401.
Riegelman, Harry M. 3,110,935.
Riegelman, Harry M. 3,111,209.
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Joseph, Elias F., and Cleneay. 3,088,683.
Seddon, Jeffrey W., to Gullick Ltd. Roof support in mines. 3,097,829, 7–16–63, Cl. 262—1.
Seddon, John, L. Haverty, deceased; by E. V. Haverty, administratrix to Power Jets (Research and Development) Ltd. High speed aerodynamic body. 3,072,368, 1–8–63, Cl. 244—41.
Seddon, Richard I.: *See*—
Dinsmore, Joseph A., and Seddon. 3,092,344.
Sedgley, Robert H., to Arthur S. Brown Mfg. Co. Improved V-belt. 3,103,124, 9–10–63, Cl. 74—234.
Sedgwick, Robert K., and H. W. Kippers, to Kearney & Trecker Corp. Machine tool for removing a mass of material from a container and method. 3,104,989, 9–24–63, Cl. 134—8.
Sedlak, John A., to American Cyanamid Co. Process for preparing α-fluoroacrylates. 3,075,002, 1–22–63, Cl. 260—486.
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Kieffer, Richard, and Sedlatschek. 3,086,886.
Kieffer, Richard, and Sedlatschek. 3,110,101.
Sedlmeier, Josef: *See*—
Smidt, Jurgen, Hafner, Jira, Sedlmeier, and Maier. 3,086,994.
Smidt, Jürgen, Jira, Hafner, Sedlmeier, and Maier. 3,086,052.
Sedlock, Jack. Play-pen crib combination. 3,088,131, 5–7–63, Cl. 5—99.

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Breitenstein, Charles T. 3,102,455.
Breitenstein, Charles T. 3,103,159.
Breitenstein, Charles T. 3,103,873.
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Croteau, Thomas H., and Grouten. 3,097,427.
Jensen, Herman G. 3,095,115.

Seecamp, Louis W. Lever action firearm. 3,092,924, 6-11-63, Cl. 42—22.

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Seed, Aniese E., to Toledo Scale Corp. Load cell. 3,110,175, 11-12-63, Cl. 73—141.

Seedlock, Walter F., J. Gurskis, Jr., L. C. Coombs, and T. P. Buckman, to Lockheed Aircraft Corp. Missile transporter-launcher. 3,106,864, 10-15-63, Cl. 89—1.7.

Seedorf, Ralph F., to Carthage Mills Inc. Printed materials for covering floors, walls and the like. 3,109,746, 11-5-63, Cl. 117—15.

Seefelder, Matthias, and D. Leuchs, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Production of chlorine-substituted nitrogenous heterocyclic compounds. 3,108,104, 10-22-63, Cl. 260—251.

Seefelder, Matthias, and G. Neubauer, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Process for the production of carbo-di-imides. 3,108,138, 10-22-63, Cl. 260—551.

Seefield, Edgar W., F. J. Buchmann, and H. E. Stanley, to Esso Research and Engineering Co. Stripping and creaming butyl rubber latices within a specific pH range. 3,083,173, 3-26-63, Cl. 260—29.7.

Seefluth, Charles L., to Phillips Petroleum Co. Method of sealing thermoplastic film overwrap. 3,084,489, 4-9-63, Cl. 53—39.

Seeger, Earl B. Haberdashery hanger. 3,081,881, 3-19-63, Cl. 211—13.

Seeger, Ernst, and A. Kottler, to Dr. Karl Thomae, G.m.b.H. 1-(4-methoxyphenyl)-1-dimethylamino-2-phenyl ethane, acid addition salts and quaternary ammonium salts. 3,091,640, 5-28-63, Cl. 260—570.8.

Seeger, Ernst, and A. Kottler, to Dr. Karl Thomae G.m.b.H. 1-cyclohexyl, 1-cyclohexenyl, 1-furyl, and 1-thienyl, tertiary amino substituted methanes. 3,109,845, 11-5-63, Cl. 260—293.

Seeger, Fritz. Silo closure. 3,103,083, 9-10-63, Cl. 50—1.

Seeger, Nelson V., to Diamond Alkali Co. Process of wet spinning steroregular polyvinyl alcohol. 3,102,775, 9-3-63, Cl. 18—54.

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Seehof, Jerrold M., M. S. Armstrong, and S. B. Smithberg, to The National Cash Register Co. Automatic reading apparatus. 3,089,122, 5-7-63, Cl. 340—146.3.

Seekonk Lace Co.: *See*—
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Seel, Howard J., to Harris-Intertype Corp. Rotary printing press. 3,112,695, 12-3-63, Cl. 101—137.

Seelbach, Charles W.: *See*—
Makowski, Henry S., and Seelbach. 3,084,145.
Morway, Arnold J., Kelley, Seelbach, and Cottle. 3,098,042.

Seeler, Henry W. Device for treatment of pulmonary diseases. 3,083,707, 4-2-63, Cl. 128—29.

Seeler, Henry W., to United States of America, Air Force. Quick release mechanism. 3,099,870, 8-6-63, Cl. 24—230.

Seeley, Donald C.: *See*—
Marino, Anthony J., Jr., and Seeley. 3,086,850.

Seeley, Elwin W., to United States of America, Navy. Inductively loaded folded antenna. 3,103,011, 9-3-63, Cl. 343—749.

Seeley, Harold T., to General Electric Co. Electric rectifying and filtering system. 3,088,066, 4-30-63, Cl. 321—10.

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Tack, Carl E., and Seelig. 3,079,873.

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Nevitt, Thomas D., and Seelig. 3,085,095.

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Seeloff, Melvin M., to The Taylor-Winfield Corp. Rotary current conductor. 3,105,728, 10-1-63, Cl. 339—5.

Seem, Warren A.: *See*—
Stoddard, Nicholas J., and Seem. 3,077,724.
Stoddard, Nicholas J., and Seem. 3,091,912.
Stoddard, Nicholas J., and Seem. 3,112,600.

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Sees, Myron M., to General Electric Co. Flange construction. 3,083,863, 4-2-63, Cl. 220—80.

Seestrom, Frank E., to Collins Radio Co. Positive blanking circuit with isolation capacitor to prevent input overload. 3,109,944, 11-5-63, Cl. 307—88.5.

Seewack, Benjamin. Drain for plumbing. 3,071,781, 1-8-63, Cl. 4—286.

Seewalt, Raphael. Catcher attachment for vehicles. 3,104,907, 9-24-63, Cl. 293—34.

Seff, Frederic A. Reels or the like. 3,089,585, 5-14-63, Cl. 206—53.

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Segel, Joseph M., to Jordan-Edwards Co., Inc. Carrying handle actuated recorder. 3,104,289, 9-17-63, Cl. 179—100.1.

Segerberg, Åke T. G., to Aktiebolaget Bofors. Gun turret. 3,091,994, 6-4-63, Cl. 89—36.

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Stuessel, John K., and Segerlund. 3,115,539.

Segers, John P.: *See*—
Rhodes, Joseph C., and Segers. 3,076,417.
Rhodes, Joseph C., and Segers. 3,115,768.

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Seglin, Leonard, G. Sklar, and R. A. White, to FMC Corp. Preparation of triaryliphosphates. 3,077,491, 2-12-63, Cl. 260—461.

Segraves, Charles H., and H. A. Sutton, Jr. Apparatus and method for improving uniformity of zinc coatings on the threaded ends of galvanized pipes. 3,105,774, 10-1-63, Cl. 117—97.

Segrest, Frank. Quick float life preserver. 3,090,979, 5-28-63, Cl. 9—318.

Segrest, Joseph D., to United States of America, Navy. Protection device for reverse polarity in D.-C. generators. 3,079,532, 2-26-63, Cl. 317—31.

Segreto, John J., to B. R. Feld. Bookbinding method and apparatus. 3,093,396, 6-11-63, Cl. 281—21.

Segro, Nicholas R., S. T. Moore, and J. H. Daniel, Jr., to American Cyanamid Co. Stiff, strong paper. 3,081,143, 3-12-63, Cl. 8—116.

Segsworth, Robert S., to Ajax Magnethermic Corp. Induction heating furnaces. 3,081,391, 3-12-63, Cl. 219—10.49.

Segur, Asa B. Poultry break-apart method. 3,099,858, 8-6-63, Cl. 17—45.

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Seibel, Bobby H., and C. D. Hilliman, to Keuffel & Esser Co. Reflecting attachment for telescopes. 3,074,315, 1-22-63, Cl. 88—38.

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Seidel, Harold, to Bell Telephone Laboratories, Inc., Reciprocal gyromagnetic loss device. 3,072,869, 1-8-63, Cl. 333—81.

Seidel, Harold, to Bell Telephone Laboratories, Inc. Nonreciprocal wave transmission components. 3,102,244, 8-27-63, Cl. 333—24.2.

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Seidel, William B., to The Cincinnati Milling Machine Co. Method of truing and dressing an abrasive wheel and apparatus therefor. 3,075,512, 1-29-63, Cl. 125—11.

Seidel, William B., to The Cincinnati Milling Machine Co. Grinding wheel truing mechanism. 3,075,513, 1-29-63, Cl. 125—11.

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Seien, Günter, to GEA Luftkuhlergesellschaft Happel Gesellschaft m.b.H. & Co. K.G. Method and apparatus for the automatic production of tubes provided with transverse ribs especially for heat exchangers. 3,095,638, 7-2-63, Cl. 29—202.

Seien, Günter, to GEA Luftkuhlergesellschaft Happel Gesellschaft m.b.H. & Co. K.G. Apparatus for automatically threading transverse ribs on a tube, especially for heat exchangers. 3,095,639, 7-2-63, Cl. 29—202.

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Seiferth, Oscar E., G. M. Austin, and H. E. Snyder, to Oscar Mayer & Co., Inc. Hermetically sealed food package. 3,086,869, 4-23-63, Cl. 99—171.

Seiferth, Oscar E., and G. M. Austin, to Oscar Mayer & Co., Inc. Food package. 3,108,005, 10-22-63, Cl. 99—171.

Seiferth, Oscar E., and G. M. Austin, to Oscar Mayer & Co., Inc. Hermetically sealed food package. 3,116,153, 12-31-63, Cl. 99—171.

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Seike, Helmut K., to Kaiser Industries Corp. Voltage regulator for generators. 3,076,922, 2-5-63, Cl. 322—28.

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Seiner, Jerome A., to Pittsburgh Plate Glass Co. Conserving polyol in the cooking of polyesters of polybasic acids and polyhydric alcohols in the absence of solvents. 3,109,832, 11-5-63, Cl. 260—75.

Seiner, Jerome A., to Pittsburgh Plate Glass Co. Conserving polyol in fusion cooking of polymeric polyesters. 3,109,833, 11-5-63, Cl. 260—75.

Seiner, Jerome A., to Pittsburgh Plate Glass Co. Fusion process for the production of polymeric polyesters from isophthalic acid and polyols. 3,109,834, 11-5-63, Cl. 260—75.

Seireg, Ali, and E. J. Wellauer, to The Falk Corp. Coupling. 3,096,631, 7-9-63, Cl. 64—15.

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Crossland, Edward J. 3,082,419.
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Seliger, Mildred A. Flower arranging holder. 3,087,280, 4-30-63, Cl. 47—41.

Seliger, Rudolf R.: *See*—
Smith, Aubrey A., and Seliger. 3,082,978.

Seligman, Jay W., to L. Freyer. Sharpener. 3,097,457, 7-16-63, Cl. 51—246.

Seligman, Kurt L.: *See*—
Andersen, Donald E., and Seligman. 3,079,365.

Seligman, Robert B., and C. Toepfer, to Philip Morris, Inc. Fibrous cigarette filter. 3,101,723, 8-27-63, Cl. 131—208.

Seligson, Arnold L. Capacitive source signal generators. 3,176,366, 12-31-63, Cl. 179—1.

Seligson, Charles. Method of making a knitted fabric. 3,083,439, 4-2-63, Cl. 28—72.

Selikson, Nathan, to Menasco Mfg. Co. Purging apparatus. 3,100,108, 8-6-63, Cl. 263—40.

Selko, Soil L.: *See*—
Powell, Stanley F. 3,086,724.

Selkregg, Edward M., Jr., and R. C. Colligan, to Bernard Gloekler North East Co. Pallet rack. 3,097,747, 7-16-63, Cl. 211—182.

Sell, Peter: *See*—
Lowther, Robert R., and Sell. 3,086,154.

Sellars, Elmer V. Accelerator hold-down device for a motor vehicle. 3,075,402, 1-29-63, Cl. 74—532.

Selle, Bernard G., ½ (50%) to T. I. Sheridan, Jr., F. M. Donahue, W. F. Roden, and E. M. Schur. Carton. 3,092,301, 6-4-63, Cl. 229—51.

Selle, Wilbur A.: *See*—
MacLeod, Norman A. 3,094,983.

Sellen, John M., Jr.: *See*—
Shelton, Haywood, and Sellen. 3,096,456.

Sellers, Donald F., to Ling-Temco-Vought, Inc. Combination hydraulic actuator and potentiometer. 3,096,497, 7-2-63, Cl. 338—83.

Sellet, Lucien, to Jaques Wolf & Co. Dyeing assistants and process for producing same. 3,072,611, 1-8-63, Cl. 260—70.

Sellew, William W.: *See*—
Rich, Stanley R. 3,097,160.

Selling, Hendrik J., C. Bok, and F. J. van Krugten, to Novivlas, N.V. Method and an apparatus for the manufacture of bast fibre yarn. 3,114,231, 12-17-63, Cl. 57—51.6.

Sellinger, Burton, and G. E. Schmitt, to Colgate-Palmolive Co. Packaging of materials and means therefor. 3,115,248, 12-24-63, Cl. 206—84.

Sellmaier, Alfons, to Gesellschaft fur Linde's Eismaschinen Aktiengesellschaft. Low temperature gas decomposition plant. 3,107,992, 10-22-63, Cl. 62—18.

Selman, Claude. Knot keeper. 3,114,950, 12-24-63, Cl. 24—120.

Selmer, John W. Combination reclining and exercise apparatus. 3,075,518, 1-29-63, Cl. 128—25.

Selman, Alan A., to Dunlop Rubber Co. Ltd. Fluid springs. 3,081,075, 3-12-63, Cl. 267—65.

Selman, Stanley: *See*—
Fritz, Charles G., Moore, and Selman. 3,114,778.

Selmer, H. & A., Inc.: *See*—
Taylor, Robert B., and Walker. 3,101,607.

Selsted, Walter T., to Ampex Corp. Strip transport apparatus. 3,108,728, 10-29-63, Cl. 226—95.

Selsted, Walter T., and G. A. Brettell, to Ampex Corp. Electrostatic esrphone. 3,084,229, 4-2-63, Cl. 179—111.

Selta Corp.: *See*—
Inderfurth, Karl H., and Crawley. 3,075,794.

Seltmann, Heinrich. Mould for shaping ceramic material. 3,075,846, 1-29-63, Cl. 106—38.9.

Seltsam, Harold O., to Tomlinson Industries, Inc. Valve including a seat cup. 3,081,063, 3-12-63, Cl. 251—331.

Seltsam, Harold O., to Tomlinson Industries, Inc. Self-closing lift type faucet. 3,104,089, 9-17-63, Cl. 251—263.

Seltzer, Irwin: *See*—
Dawson, Timothy L., Rattee, Seltzer, and Wyld. 3,084,-016.

Seltzer, Norman L., to The Kendall Co. Diaper. Re. 25,332, 2-19-63, Cl. 139—383.

Seltzer, Norman L., to The Kendall Co. Diaper. 3,104,684, 9-24-63, Cl. 139—413.

Seltzer, Robert E., to The American Baler Co. Mechanical baler and control arrangement therefor. 3,109,362, 11-5-63, Cl. 100—49.

Selwyn-Smith, Roy, to Britains Ltd. Constructional toy. 3,078,616, 2-26-63, Cl. 46—17.

Sem, Mathias O., to Elektrokemisk A/S. Process of producing calcium carbide. 3,080,216, 3-5-63, Cl. 23—208.

Sem, Mathias O., N. J. Haavik, and K. Lorck, to Elektrokemisk A/S. Semi-enclosed smelting furnace and method of operating same. 3,108,150, 10-22-63, Cl. 13—9.

Seman, Colman J.: *See*—
Seman, David C., C. J. and F. P. 3,096,195.

Seman, David C., C. J. and F. P. Process for producing an ornamental wall facing. 3,096,195, 7-2-63, Cl. 117—8.5.

Seman, Frederick P.: *See*—
Seman, David C., C. J. and F. P. 3,096,195.

Semar, Claud S.: *See*—
Louton, James C., Jr., and Semar. 3,077,125.

Semar, Richard W.: *See*—
Actor, Phillip P., Semar, and Pagano. 3,087,856.

Semb, Joseph, G. E. Bonvicino, and R. A. Hardy, Jr., to American Cyanamid Co. 3,4,5-trialkoxycinnamamide derivatives. 3,072,649, 1-8-63, Cl. 260—240.

Semb, Joseph, and J. R. Vaughan, Jr., to American Cyanamid Co. Amides of 2-(aminomethyl)-oxacycloalkanes. 3,072,650, 1-8-63, Cl. 260—240.

Semb, Tord K.: *See*—
Jakobsen, Kjell, and Semb. 3,099,216.

Semchyshen, Marion, to American Metal Climax, Inc. Tungsten-hafnium alloy casting. 3,116,145, 12-31-63, Cl. 75—176.

Semco Research, Inc.: *See*—
Stevenson, George G. 3,073,577.

Semeria, Francesco, and S. Montagna, to Siemens Societa per Azioni. Single-stage transistor oscillator, particularly for communication systems. 3,072,862, 1-8-63, Cl. 331—117.

Semicon Associates, Inc.: *See*—
Kopplus, Otto G. 3,076,916.

Semicon of California, Inc.: *See*—
Cronin, Leo J. 3,097,421.

Semler, Loren H., to Metal Specialties Mfg. Co. Self sustaining paper punch frame assembly. 3,087,367, 4-30-63, Cl. 83—588.

Semmelman, John O., and C. E. Schiding, to The Dentists' Supply Co. of New York. Articulated tooth holder. 3,111,-760, 11-26-63, Cl. 32—71.

Semon, Howard W.: *See*—
Vogt, Charles C., and Semon. 3,101,388.

Semon, Lawrence J. Telephone switchboard patching unit. 3,096,404, 7-2-63, Cl. 179—42.

Semon, Lawrence J. Monitor control unit. 3,113,185, 12-3-63, Cl. 179—42.

Semon, William P. Tooth brush. 3,087,183, 4-30-63, Cl. 15—244.

Semonsky, Miroslav, E. Rockova, and V. Jelinek, to Spofa sdruzeni podniku pro zdravotnickou vyrobu. Process of preparing β-4-methoxybenzoyl-β-haloacrylic acids. 3,105,-850, 10-1-63, Cl. 260—521.

Sempa-Chimie: *See*—
Krausz, Francois. 3,112,323.

Semperit Osterreichisch-Amerikanische Gummiwerke Aktiengesellschaft: *See*—
Brugger, Otto, and Posch. 3,087,847.

Semple, Jason V., to Rain Jet Corp. Fluid diffusing device. 3,082,957, 3-26-63, Cl. 239—206.

Semple, William E., to International Business Machines Corp. Device for measuring fiber and coating height. 3,088,211, 5-7-63, Cl. 33—167.

Sempler, Richard V.: *See*—
Sempler, Vance A. 3,070,918.

Sempler, Vance A., ½ to R. V. Sempler. Compartmented trolling reel. 3,070,918, 1-1-63, Cl. 43—54.5.

Sem-Sandberg, Sverre G., to Telefonaktiebolaget L M Ericsson. Gated multiar with temperature compensating means. 3,080,488, 3-5-63, Cl. 307—88.5.

Semsel, Andrew M.: *See*—
Rauhut, Michael M., and Semsel. 3,099,684.
Rauhut, Michael M., and Semsel. 3,099,690.
Rauhut, Michael M., and Semsel. 3,099,691.
Rauhut, Michael M., and Semsel. 3,100,799.

Sender, Friedheim, to Prakla Gesellschaft für praktische Lagerstättenforschung G.m.b.H. Control circuit arrangement, particularly for low-ohmic amplifiers. 3,088,067, 4-30-63, Cl. 323—22.

Sendor, Mortimer S. Plastic book cover and method of making. 3,088,753, 5-7-63, Cl. 281—29.

Sendor, Mortimer S. Composite catalog and method of making. 3,110,508, 11-12-63, Cl. 283—1.

Sendorykas, Jack J. Velocipede convertible to coaster wagon. 3,081,105, 3-12-63, Cl. 280—7.17.

Sendzimir, Tadeusz. Clam shell cold rolling mill. 3,076,360, 2-5-63, Cl. 80—38.

Sendzimir, Tadeusz. Prevention of coil breaks. 3,079,975, 3-5-63, Cl. 153—54.

Seneca Falls Machine Co.: *See*—
Eisengrein, Robert H. 3,072,836.

Senechal, Wallace R., to Sperry Rand Corp. Transparent closure. 3,085,840, 4-16-63, Cl. 312—138.

Seney, John S., to E. I. du Pont de Nemours and Co. Yarn guide and string-up apparatus. 3,077,313, 2-12-63, Cl. 242—47.9.

Seney, John S., to E. I. du Pont de Nemours and Co. Precision frequency control. 3,089,992, 5-14-63, Cl. 318—171.

Seney, John S., to E. I. du Pont de Nemours and Co. Condition responsive indicating and control system. 3,112,070, 11-26-63, Cl. 236—78.

Senfleben, Paul W., to Safe-Pack Container Co. Apparatus for forming containers. 3,081,676, 3-19-63, Cl. 93—82.

Seng Co., The: *See*—
Fox, Martin. 3,096,964.

Senger, C. L., K.G.: *See*—
Hecker, Josef. 3,078,023.

Senger, Horst, to Bolkow-Entwicklungen Kommanditgesellschaft. Remote control and stabilizing apparatus. 3,090,-582, 5-21-63, Cl. 244—14.

Senger, Raymond J., to Develop-Amatic Engineering. Component checker. 3,092,253, 6-4-63, Cl. 209—81.

Senger, Werner I.: *See*—
Fibiker, Robert J., and Senger. 3,079,802.

Senical, Earl F. Display rack. 3,115,252, 12-24-63, Cl. 211—55.

Senick, Donald M. Battle game. 3,113,777, 12-10-63, Cl. 273—130.

Senior, Bernard W.: *See*—
Custers, Jan F. H., Dyer, Senior, and Wedepohl. 3,082,-477.

Senior, Frank C., to Strategic Materials Corp. Furnace refractory structures. 3,079,450, 2-26-63, Cl. 13—9.

Senior, George A., Jr., to Union Carbide Corp. Method for the production of aqueous trimethylolphenol solutions. 3,109,033, 10-29-63, Cl. 260—621.

Senior, Henry, to The British Xylonite Co. Ltd. Apparatus for making dished receptacles. 3,103,243, 9-10-63, Cl. 153—2.

Senior, Kenneth: *See*—
Kerrison, Oscar C., and Senior. 3,104,224.

Senk, Jaromir, and J. Folta, to Zavody prumyslove automatisace narodni podnik Praha. Control device with output in pulse form. 3,077,111, 2-12-63, Cl. 73—362.

Senkbeil, Herman O., to The Dow Chemical Co. O-[1-(chloromethyl)2-propynyl]O,O-dialkyl phosphates and phosphorothioates. 3,071,610, 1-1-63, Cl. 260—461.

Senkbeil, Herman O., to The Dow Chemical Co. Phosphorus and sulfur containing organic compounds. 3,072,702, 1-8-63, Cl. 260—461.

Senkbeil, Herman O., to The Dow Chemical Co. O-alkynyl O-alkyl phosphoramidates and phosphoramidothioates. 3,087,957, 4-30-63, Cl. 260—461.

Senkbeil, Herman O., to The Dow Chemical Co. Phosphoramidates and phosphoramidothioates. 3,088,966, 5-7-63, Cl. 260—461.

Senkbeil, Herman O., to The Dow Chemical Co. O-alkyl o-ethynylcycloalkyl phosphoramidates and phosphoramidothioates. 3,099,675, 7-30-63, Cl. 260—461.

Senn Custom, Inc.: *See*—
Sinninger, Dwight V. 3,081,450.
Sinninger, Dwight V. 3,109,124.

Senn, Jurg A., to Kearney & Trecker Corp. Precision power clamp. 3,106,110, 10-8-63, Cl. 77—4.

Senn, Lonella E., to Pantray, Inc. Drain tray. 3,087,417, 4-30-63, Cl. 99—355.

Senn, Otto: *See*—
Merian, Ernest, and Senn. 3,093,437.

Senn, Otto, to Sandoz Ltd. (also known as Sandoz A.G.). Disperse azo dyestuffs. 3,112,304, 11-26-63, Cl. 260—207.

Senn, Rudolf G., to Georg Fischer Aktiengesellschaft. Bobbin stripping device. 3,107,700, 10-22-63, Cl. 139—262.

Senn, Stuart C. Electrically heated soldering plier. 3,114,-821, 12-17-63, Cl. 219—26.

Senné, Edgar P. Hose construction. 3,110,922, 11-19-63, Cl. 15—327.

Senne, Edgar P., and B. N. Adams, to Electrolux Corp. Vacuum cleaner controls. 3,083,396, 4-2-63, Cl. 15—319.

Sennebogen, Erich, to Westinghouse-Bremsen-Gesellschaft, m.b.H. Overload safety control apparatus for hoisting equipment. 3,072,264, 1-8-63, Cl. 212—39.

Sennet, Edith L.: *See*—
Levkoff, Henry S. and D. 3,074,547.

Sennet, Morgan B., to De Laval Turbine Inc. Screw pump. 3,086,474, 4-23-63, Cl. 103—128.

Sennet, Morgan B., to De Laval Turbine Inc. Screw pump. 3,103,894, 9-17-63, Cl. 103—128.

Sennewald, Kurt: *See*—
Butenuth, Gunther, Meltendorf, Gabler, and Sennewald. 3,079,325.
Jacobowsky, Armin, and Sennewald. 3,079,444.
Opitz, Wolfgang, and Sennewald. 3,071,615.

Sennewald, Kurt, K. Born, H. Erpenbach, and G. Döbek, to Knapsack-Griesheim Aktiengesellschaft. Process for the preparation of unsaturated carboxylic acid derivatives. 3,079,420, 2-26-63, Cl. 260—464.

Sennewald, Kurt, K. Born, and H. Rehberg, to Knapsack-Griesheim Aktiengesellschaft. Process for preparing 1-cyanobutadiene-1,3. 3,090,804, 5-21-63, Cl. 260—465.9.

Sennewald, Kurt, F. Pohl, W. Meininger, and W. Vogt, to Knapsack-Griesheim Aktiengesellschaft. Process for the manufacture of monovinyl acetylene of high purity. 3,093,696, 6-11-63, Cl. 260—678.

Sennewald, Kurt, A. Götz, and G. Kallrath, to Knapsack-Griesheim Aktiengesellschaft. Manufacture of 1,2-dicyanocyclobutane. 3,096,860, 7-2-63, Cl. 260—464.

Sennewald, Kurt, G. Armin, and G. Kallrath, to Knapsack-Griesheim Aktiengesellschaft. Process for the manufacture of 1,2-dicyano cyclobutane. 3,099,680, 7-30-63, Cl. 260—464.

Sennewald, Kurt, A. Götz, and G. Kallrath, to Knapsack-Griesheim Aktiengesellschaft. Process for the manufacture of adipo-dinitrile. 3,113,959, 12-10-63, Cl. 260—465.8.

Sennheun, Emil, to Fernseh G.m.b.H. Circuit arrangement for producing a control voltage for automatic control of electric signals. 3,102,163, 8-27-63, Cl. 178—7.2.

Sensel, Eugene E., to Texaco Inc. Fractionation process involving molecular sieves. 3,095,288, 6-25-63, Cl. 55—62.

Sensenbaugh, James D.: *See*—
Ulmer, Richard C., Sensenbaugh, and Livingston. 3,115,-925.

Senser, Frank J., to Van Houten, Inc. Gas turbine power plant. 3,078,671, 2-26-63, Cl. 60—39.37.

Sensonics, Inc.: *See*—
Ostrow, Stanley. 3,086,132.

Sensui, Nobuo, S. Aoki, and T. Yoshikawa, to Shibaura Kyodo Kogyo & Kabushiki Kaisha (known as Shibaura United Engineering Co. Ltd.). Lubricant supply device. 3,086,-614, 4-23-63, Cl. 184—7.

Sentell, William E.: *See*—
Petrilla, Anthony D., and Sentell. 3,088,082.

Sentinel Oil Tool Development & Services Ltd.: *See*—
Crooks, George C. 3,089,724.

Separator, Aktiebolaget: *See*—
Banm, Engelbert. 3,072,503.
Beskow, Stig. 3,099,246.
Dahlgren, Sven A. B. 3,092,180.
Ekegren, Sven G. 3,104,153.
Falkenblad, Nils T., and Hallstrom. 3,099,519.
Hallstrom, Bengt H. 3,099,520.
Hallstrom, Bengt H. 3,101,041.
Maehana, Waino. 3,099,277.
Nordegren, Sven-Ake. 3,111,933.
Palmqvist, Fredrik T. E. 3,085,742.
Palmqvist, Fredrik T. E., and Beskow. 3,108,953.
Sjöholm, Claes B., and Nilsson (Hentzel). 3,071,860.
Svensson, Stig A. G. 3,085,420.
Svensson, Stig A. G. 3,090,784.
Thylefors, Henric W. 3,079,069.
Thylefors, Henric W. 3,079,070.
Zachariassén, Stig H. B. 3,092,584.

Sepp, Oscar W., Jr., to M. Steinthal & Co., Inc. Parachute reefing ring mountings and the method of installing same. 3,079,114, 2-26-63, Cl. 244—152.

Sepp, Oscar W., Jr., to M. Steinthal & Co., Inc. Personnel parachute pack. 3,087,694, 4-30-63, Cl. 244—141.

Sepp, Oscar W., Jr., to M. Steinthal & Co., Inc. Personnel parachute pack. 3,087,696, 4-30-63, Cl. 244—148.

Sepulveda, Ismael E. Portable machining tool. 3,115,055, 12-24-63, Cl. 82—4.

Serafin, Joseph W. Method and apparatus for superfinishing ring raceways. 3,089,289, 5-14-63, Cl. 51—58.

Seragnoli, Ariosto. Method for feeding into a machine articles delivered by more machines. 3,100,561, 8-13-63, Cl. 198—21.

Serck Radiators Ltd.: *See*—
Montgomerie, George A. 3,093,983.

Serdahely, Anthony M., to Beckman Instruments, Inc. Goniometer. 3,102,413, 9-3-63, Cl. 73—1.

Serico, Daniel A.: *See*—
MacIntosh, David, and Serico. 3,112,856.

Seright, Carl G.: *See*—
Marshall, Thomas G., Jr., and Seright. 3,111,603.

Serio, Anthony W. Fully immersible electric frying pan. 3,089,943, 5-14-63, Cl. 219—44.

Serio, Anthony W., to Youngstown Steel Door Co. Pouring top assembly for fluid containers. 3,114,484, 12-17-63, Cl. 222—465.

Serlemitsos, Peter J.: *See*—
Reese, James H., and Serlemitsos. 3,091,914.

Sernetz, Heinz. Elastically mounted antifriction bearing structures. 3,097,022, 7-9-63, Cl. 308—20.

Sernetz, Heinz. Resilient mount for load-carrying anti-friction bearings. 3,097,026, 7-9-63, Cl. 308—184.

Serniuk, George E.: *See*—
Kuntz, Irving, Baldwin, Thomas, and Serniuk. 3,104,-235.

Serniuk, George E., to Esso Research and Engineering Co. Process of grafting a vinyl monomer on the reaction product of an aldehyde with an isoolefin-diolefin copolymer and resulting product. 3,076,779, 2-5-63, Cl. 260—41.5.

Serniuk, George E., D. L. Cottle, and L. S. Minckler, Jr., to Esso Research and Engineering Co. Fast curing halogenated polymers. 3 081,284, 3-12-63, Cl. 260—85.3.

Serota, Samuel: *See*—
Wall, Monroe E., Serota, and Kenney. 3,076,002.

Serotta, George. Intercommunication systems. 3,103,557, 9-10-63, Cl. 179—37.

Serowy, Fritz, to Deutsche Akademie der Wissenschaften Zu Berlin. Process for treating carnallite bearing materials. 3,101,247, 8-20-63, Cl. 23—39.

Serra, Gerald F., P. E. Daro, and A. J. Buchtenkirch, to Giannini Controls Corp. Fluid stream direction indicator. 3,108,473, 10-29-63, Cl. 73—188.

Serres, Carl, Jr.: *See*—
Fields, Ellis K., and Serres. 3,109,868.

Serres, Carl, Jr., and E. K. Fields, to Standard Oil Co. Triarylcarbinols. 3,083,214, 3-26-63, Cl. 260—380.

Serres, Carl, Jr., and E. K. Fields, to Standard Oil Co. Separating 4,4'-benzophenone dicarboxylic acid from a mixture of 4,4'- and 2,4'-benzophenone dicarboxylic acids and concurrently producing 2 anthroquinone carboxylic acid. 3,089,879, 5-14-63, Cl. 260—376.

Serres, Carl, Jr., and E. K. Fields, to Standard Oil Co. Separation of naphthoic acids. 3,102,907, 9-3-63, Cl. 260—525.

Serson, Paul H., to Her Majesty the Queen in right of Canada, as represented by the Minister of Mines and Technical Surveys. Method of making an electromagnetic measurement. 3,114,103, 12-10-63, Cl. 324—.5.

Servage, Henri, to Moulinage et Retorderie de Chavanoz. Apparatus for making novelty yarn. 3,074,223, 1-22-63, Cl. 57—18.

Servais, Norman H. Visual warning devices. 3,089,456, 5-14-63, Cl. 116—30.

Servel, Inc.: *See*—
Coleman, Joseph J., and Wilke. 3,081,369.
Kirkman, Fredrick J. 3,106,403.
Warren, Robert A. 3,096,216.
Warren, Robert A. 3,114,659.
Wilke, Milton E., and Warren. 3,116,172.

Service Metal Fabricators, Inc.: *See*—
Vani, James. 3,070,821.
Vani, James, and Malpede. 3,075,057.
Vani, James, and Malpede. 3,090,981.

Service Pipe Line Co.: *See*—
Hill, Arthur M. 3,107,379.

Service Recorder Co., The: *See*—
Cool, Kenneth A., and Taylor. 3,104,146.

Servicised Products Corp.: *See*—
Fujihara, Yoshiki. 3,097,579.

Servillat, Gabriel, to Societe des Mécaniques Verdol. Machines for the preparation of cards for jacquards. 3,090,-550, 5-21-63, Cl. 234—54.

Servo Corp. of America: *See*—
Gallagher, Cornelius A., and Pelino. 3,095,171.
Greenleaf, Francis D., and Meyer. 3,074,019.
Hansel, Paul G. 3,104,391.
Hansel, Paul G. 3,110,027.
Howell, Sabert N. 3,081,632.
Knoll, Joseph, and Melman. 3,111,556.
Pelino, William M. 3,108,772.
Pelino, William M. 3,108,773.
Pelino, William M., and Gallagher. 3,108,771.
Remz, Harold S., and Wakshinsky. 3,079,497.
Stone, Virgil D., and Shirley. 3,105,562.
Waller, Herbert H. 3,110,021.
Willey, Frank G. 3,078,340.
Willey, Frank G. 3,078,341.

Servomatic Hydraulics (Guildford) Ltd.: *See*—
Wolfendale, Caleb F. 3,071,758.

Servo Mechanisms, Inc.: *See*—
Friedman, George J., and De Bottari. 3,105,382.

Servomechanisms, Inc.: *See*—
Riegert, Richard P. 3,094,650.

Seserman, Samuel. Elastic banding device. 3,078,631, 2-26-63, Cl. 53—198.

Sesini, Enrico, and M. Pierazzuoli, to Pirelli Societa per Azioni. Means for detecting and localizing oil leakages in electric cables. 3,075,380, 1-29-63, Cl. 73—40.5.

Sessions Clock Co., The: *See*—
King, Phillip W. 3,099,127.

Sessions, Marc H., and A. H. Neubauer. Dispenser for powdered soap and the like. 3,072,299, 1-8-63, Cl. 222—246.

Setar Aktiengesellschaft: *See*—
Bryner, Hans. 3,098,348.

Setecka, John C. Automatic apparatus for segregating returned bowling balls. 3,105,684, 10-1-63, Cl. 273—49.

Setka, Raymond P.: *See*—
Carr, Edward W., and Setka. 3,078,869.

Seto, Thomas A.: *See*—
Koe, Billie K., and Seto. 3,078,269.

Seto, Thomas A., to Chas. Pfizer & Co., Inc. Derivatives of penicillanic acid. 3,092,620, 6–4–63, Cl. 260—239.1.

Setter, Ralph E., to Universal Pulleys Co., Inc. Portable batch concrete plant. 3,101,931, 8–27–63, Cl. 259—154.

Settimi, Raymond J., to Borg-Warner Corp. Thermostatically controlled clutch. 3,105,580, 10–1–63, Cl. 192—82.

Settles, James L., and E. E. Conner, to Westinghouse Electric Corp. Current transformer. 3,082,389, 3–19–63, Cl. 336—174.

Settles, Robert W.: *See*—
Green, Joseph G., Settles, and Thorsson. 3,077,236.

Settles, William R., 30% to A. C. Soderman. Cigarette pack with pocket clip. 3,084,407, 4–9–63, Cl. 24—3.

Setzer, Glenn W. Process for improving structural members and improved structural members. 3,101,272, 8–20–63, Cl. 117—7.

Setzerin, Andreas: *See*—
Schulten, Rudolf, Guth, Setzwein, Braun, and Berberich. 3,089,835.

Setzler, Paul H., to Bell Intercontinental Corp. Means for separation and removal of parts from a vibrating machine. 3,098,323, 7–23–63, Cl. 51—7.

Seubert, William A., to Union Carbide Corp. Radial extrusion die. 3,105,269, 10–1–63, Cl. 18—14.

Seubold, Frank H., Jr., to Collier Carbon and Chemical Corp. Polymerization of olefins and aluminum hydride activators therefor. 3,076,047, 1–29–63, Cl. 260—683.15.

Seulen, Gerhard: *See*—
Müller, Ernst, and Seulen. 3,073,442

Sevald, William T. Humidifier. 3,074,698, 1–22–63, Cl. 261—35.

Sevast, Ulysses B. Bowling ball dust compartment. 3,083,509, 4–2–63, Cl. 51—273.

Sevcik, Günther, to VEB Tabak- und Industriemaschinen Dresden. Device for applying wrappers to cigar fillers. 3,096,771, 7–9–63, Cl. 131—36.

Sevcik, John G., to Burton-Dixie Corp. Collapsible bed and enclosure therefor. 3,077,612, 2–19–63, Cl. 5—66.

Sevcik, John G., to Burton-Dixie Corp. Roll-away bed. 3,089,151, 5–14–63, Cl. 5—149.

Sevens, Gerard M.: *See*—
Willems, Jozef F., and Sevens. 3,078,163.

Severance, Ralph H., to The Magnavox Co. Fuze mechanism. 3,102,479, 9–3–63, Cl. 112—71.

Severance, Ralph H., and D. E. Craig, to The Magnavox Co. Timing and/or relay device. 3,102,480, 9–3–63, Cl. 102—78.

Severin, Hans: *See*—
Schultze, Martin, Severin, Holscher, and Rosenbaum. 3,112,175.

Severin, John A., to Texas Instruments Inc. Transistorized dynamic focus circuit. 3,084,276, 4–2–63, Cl. 315—27.

Severinsson, Erik S. Devices for joining pile sections. 3,104,532, 9–24–63, Cl. 61—53.

Severson, Asbjorn M., to Minneapolis-Honeywell Regulator Co. Fluid amplifier. 3,080,886, 3–12–63, Cl. 137—597.

Severson, Donald E., and D. S. Gleason, to The State University and the School of Mines, also known as the University of North Dakota. Gasification process for the production of synthesis gases. 3,110,578, 11–12–63, Cl. 48—203.

Severson, Gordon W., to Clark Equipment Co. Seat suspension. 3,086,742, 4–23–63, Cl. 248—399.

Severson, Wilmer I. Golf cart seat. 3,080,142, 3–5–63, Cl. 248—121.

Sevilla Co.: *See*—
Kennedy, Robert. 3,077,291.

Sevilla, Ernesto G., to Sperry Rand Corp. Resettable delay flop utilizing capacitor in feedback circuit. 3,097,310, 7–9–63, Cl. 307—88.5.

Sevir, Anton: *See*—
Hartsell, Dave A., and Sevir. 3,077,223.

Sevold, William T.: *See*—
Pearson, Henry. 3,085,345.

Seward, Harold H. Electromechanical transducing system. 3,096,444, 7–2–63, Cl. 250—220.

Sewell, Arthur D.: *See*—
Fuller, Hubert D., and Sewell. 3,084,342.

Sewell, Daniel K.: *See*—
Anderson, Robert I., and Sewell. 3,109,648.
Anderson, Robert I., and Sewell. 3,109,649.

Sewell, Donald N., to Dielectric Products Engineering Co., Inc. Attrahently biased spring clamp with quick-release expanding means, useful for coupling waveguide sections. 3,107,967, 10–22–63, Cl. 339—251.

Sewell, Edgar F.: *See*—
Smith, Frank W., Gilbert, and Sewell. 3,092,595.

Sewell, John F. Combination sponge and chamois. 3,083,392, 4–2–63, Cl. 15—118.

Sexauer, J. A., Mfg. Co., Inc.: *See*—
Holm, James P. 3,084,347.

Sexsmith, Fred H., to Johnson & Johnson. Polyvinyl chloral, methods of making the same and uses thereof. 3,085,910, 4–16–63, Cl. 117—138.8.

Sexsmith, Fred H., to Johnson & Johnson. Methods for treating textile materials and resulting products. 3,100,135, 8–6–63, Cl. 8—116.

Sexsmith, Fred H., and D. R. Petterson, to Chicopee Mfg. Corp. Wiping materials and methods of making the same. 3,077,423, 2–12–63, Cl. 117—143.

Sexton, Arthur R., to The Dow Chemical Co. Method for the manufacture of N-methylene glycinonitrile. 3,096,362, 7–2–63, Cl. 260—465.5.

Sexton, Hartson J.: *See*—
Frost, Raymond B., and Sexton. 3,113,791.

Sexton, John L., ⅓ to W. C. Hurtt, and ⅓ to P. M. Hankison. Well cementer or the like. 3,086,591, 4–23–63, Cl. 166—151.

Sexton, William W. Shoe horns. 3,088,639, 5–7–63, Cl. 223—118.

Seybold, Eugene: *See*—
Mangianco, Paul and P. J., and Seybold. 3,082,859.

Seybold, Frederick W., to American Type Founders Co., Inc. Rotary offset printing presses. 3,110,252, 11–12–63, Cl. 101—144.

Seyferth, Dietmar, to Ethyl Corp. Preparation of vinyl metal compounds. 3,085,119, 4–9–63, Cl. 260—665.

Seyferth, Dietmar, and M. A. Weiner, to Ethyl Corp. Preparation of allylic metal compounds. 3,085,120, 4–9–63, Cl. 260—665.

Seyforth, Leslie V., to The Bendix Corp. Mechanical digital-coded unlocking device. 3,110,014, 11–5–63, Cl. 340—164.

Seyfried, Arthur W., to Scovill Mfg. Co. Suction cleaner bag mounting means. 3,088,260, 5–7–63, Cl. 55—374.

Seyfried, Arthur W., and E. B. Mudge, to Scovill Mfg. Co. Steam iron water gauge. 3,075,309, 1–29–63, Cl. 38—77.

Seyfried, Richard F.: *See*—
Sommer, Richard A., Seyfried, and Kasper. 3,084,323.

Seyler, Donald R.: *See*—
Hess, Paul J., and Seyler. 3,094,298.

Seymour, Cray R., to Sperry Rand Corp. Magnetic devices. Re. 25,367, 4–2–63, Cl. 340—174.

Seymour, Dale R., T. F. Poe, and H. Heyman; said Heyman assor. to said Seymour and said Poe. Panel handling and transporting machines. 3,090,516, 5–21–63, Cl. 214—654.

Seymour, David J., and G. T. Welshko, to Bethlehem Steel Co. Hinged container guides for container ships. 3,111,104, 11–19–63, Cl. 114—72.

Seymour, Donald E. Vending machine. 3,088,629, 5–7–63, Cl. 221—77.

Seymour, Harvey W., to American Chain & Cable Co., Inc. Hot-dip coating apparatus. 3,091,217, 5–28–63, Cl. 118—420.

Seymour, Harvey W., to American Chain & Cable Co., Inc. Hot dip coating. 3,115,421, 12–24–63, Cl. 117—114.

Seymour, Keith G.: *See*—
Handley, Melvin F., and Seymour. 3,082,074.

Seymour, Malcolm, to Prototypes Inc. Liquid dispensing receptacle. 3,076,435, 2–5–63, Cl. 119—77.

Seymour Mfg. Co.: *See*—
Garrison, Marvin L. 3,096,984.
Sallee, Aaron D. 3,088,264.

Seymour, Shaun A., to Sperry Rand Corp. Heat exchanger. 3,115,130, 12–24–63, Cl. 126—110.

Sfat, Michael R., R. H. Baukneeht, R. F. Bawden, and R. V. Dahlstrom, to Rahr Malting Co. Grain malting method and product. 3,116,221, 12–31–63, Cl. 195—70.

Sfacko, Nicholas M., R. Nebel, and W. L. Van Derbeek, to Johns-Manville Corp. Method of producing shaped asbestos-cement articles. 3,095,346, 6–25–63, Cl. 162—154.

Sgorbati, Richard, Sr. Abrading devices. 3,105,329, 10–1–63, Cl. 51—186.

Shaback, Andrew J., to H. K. Porter Co., Inc. Transformer bushing construction. 3,096,392, 7–2–63, Cl. 174—31.

Shabica, Anthony C.: *See*—
Margerison, Richard B., Shabica, and Ziegler. 3,095,446.

Shackelford, John H. Artificial denture with adjustable segments. 3,104,465, 9–24–63, Cl. 32—2.

Shackelford, John H. Dentist's wheeled operatory unit. 3,111,759, 11–26–63, Cl. 32—22.

Shackelford, John R.: *See*—
Wierbicki, Eugen, Shackelford, and Cooper. 3,108,880.

Shackley, Douglas, to The Long Meg Plaster & Mineral Co. Ltd. Loading and transport of minerals in mines and quarries. 3,115,258, 12–24–63, Cl. 214—82.

Shackman, Norman: *See*—
Cataldo, John B., and Shackman. 3,104,276.

Shackson, Richard H., to Cleveland Technical Center, Inc. Portable gas conditioning apparatus. 3,103,104, 9–10–63, Cl. 62—5.

Shadan, Alexander: *See*—
Atwood, Mark T., McClaflin, and Shadan. 3,080,411.

Shadan, Anna M., to Continental Oil Co. Wax compositions. 3,092,506, 6–4–63, Cl. 106—270.

Shady, Doyle C.: *See*—
Gresko, Stephen J. 3,097,388.

Shafer, Hal J., Jr., to Owens-Illinois Glass Co. Decorating method and apparatus. 3,086,458, 4–23–63, Cl. 101—115.

Shafer, Homer J., and G. T. Johnson, to Shafer Valve Co. Removable sealing construction for valve. 3,083,945, 4–2–63, Cl. 251—363.

Shafer, Homer J., and B. A. Metzger, to Shafer Valve Co. Safety shut-off for piston pump and valve unit. 3,089,430, 5–14–63, Cl. 103—228.

Shafer, Philip E.: *See*—
Schneider, Robert P., Meyerhoff, and Shafer. 3,103,617.

Shafer Valve Co.: *See*—
Shafer, Homer J., and Johnson. 3,083,945.
Shafer, Homer J., and Metzger. 3,089,430.

Shaffer, Cleve F. Passenger cars in transportation systems. 3,115,101, 12–24–63, Cl. 105—344.

Shaffer, Donald U., and E. C. Greenwood, to Shaffer Tool Works. Multi-purpose wellhead apparatus for oil wells. 3,077,931, 2–19–63, Cl. 166—89.

Shaffer, James H., J. E. Strain, D. Cuneo, and M. J. Kelly, to United States of America, Atomic Energy Commission. Separation of protactinium from molten salt reactor fuel compositions. 3,110,555, 11–12–63, Cl. 23—14.5.

Shaffer, Keith G.: *See*—
Bell, Harry G., Gay, and Shaffer. 3,091,769.
Bell, Harry G., Gay, and Shaffer. 3,101,479.

Shaffer, Peter T. B., to The Carborundum Co. Zirconium boride-silicide bodies and methods of making same. 3,085,888, 4–16–63, Cl. 106—57.

Shaffer Tool Works: *See*—
Murray, James W., Jr. 3,074,486.
Shaffer, Donald U., and Greenwood. 3,077,931.
Wilde, Arthur E. 3,114,420.

Shaffer, William R.: *See*—
Coffman, Frederick E., and Shaffer. 3,083,918.

Shaffett, Richard D., and L. W. Pourciau, to The Dan-Way Corp. Cleaning composition and method of cleaning. 3,110,678, 11–12–63, Cl. 252—99.

Shaffstall Equipment, Inc.: *See*—
Shaffstall, Everett G., and Smith. 3,114,501.

Shaffstall, Everett G., and E. H. Smith, to Shaffstall Equipment, Inc. Power boosted keyboard assembly. 3,114,501, 12–17–63, Cl. 234—123.

Shahan, Victor T., to International Business Machines Corp. Magnetic memory. 3,090,037, 5–14–63, Cl. 340—174.

Shakely, Howard H., to Jones & Laughlin Steel Corp. Pulse lubrication method. 3,109,513, 11–5–63, Cl. 184—1.

Shaler, David, D. F. Cleary, and W. L. Kacin, to Hogan Faximile Corp. Recorder drying mechanism. 3,100,252, 8–6–63, Cl. 219—19.

Shaler, Richard G.: *See*—
Shaler, Richard G., Jr., McAdam, and R. G. Shaler. 3,109,847.

Shaler, Richard G., Jr.: *See*—
Shaler, Richard G., McAdam, and R. G. Shaler, Jr. 3,100,707.

Shaler, Richard G., R. L. McAdam, and R. G. Shaler, Jr., to American Tansul Co. Addition of dry hectorite to beer. 3,100,707, 8–13–63, Cl. 99—48.

Shaler, Richard G., Jr., R. L. McAdam, and R. G. Shaler, to The Inerto Co. Oxasoline modified clay. 3,109,847, 11–5–63, Cl. 260—299.

Shalit, Harold: *See*—
Gosselin, Kenneth F., and Shalit. 3,113,984.
McEvoy, James E., and Shalit. 3,097,974.

Shallenberg, Robert L., to International Harvester Co. Fuel injector. 3,083,912, 4–2–63, Cl. 239—88.

Shaller, Herman I., to United States of America, Navy. Recovery system for test missiles. 3,081,626, 3–19–63, Cl. 73—167.

Shallow, Eric W.: *See*—
Perry, Gerald H., and Shallow. 3,087,070.
Perry, Gerald H., and Shallow. 3,113,296.

Shames, Harold: *See*—
Shames, Sidney J. and H. 3,074,746.

Shames, Oscar, and K. L. Jerome. Air-to-air ranging system. 3,076,190, 1–29–63, Cl. 343—6.5.

Shames, Sidney J. and H. Jaw-type expansion adapter for fluid conduits. 3,074,746, 1–22–63, Cl. 285—8.

Shampaine Industries, Inc.: *See*—
Adolphson, Roy T. 3,100,129.
Fegan, Frank J., and Smith. 3,090,382.
Gillerman, Harvey M. 3,076,929.
Moran, H. David. 3,106,401.

Shanahan, William J., to Skiatron Electronics & Television Corp. Symbol generator. 3,091,759, 5–28–63, Cl. 340—324.

Shanahan, William J., to Skiatron Electronics & Television Corp. Multiple code subscription television system. 3,106,604, 10–8–63, Cl. 178—5.1.

Shanahan, William J., V. R. Zopf, and A. M. Loshin, to Skiatron Electronics & Television Corp. Metering systems. 3,078,337, 2–19–63, Cl. 178—5.1.

Shand, George, and G. G. Atkinson, to Associated Electrical Industries (Manchester) Ltd. Automatic traffic signalling systems. 3,090,032, 5–14–63, Cl. 340—41.

Shand and Jura Co.: *See*—
Jura, Peter C., Champion, and Thule. 3,074,590.

Shand, Stanley G., and A. C. Gower, to Saunders Valve Co. Ltd. Fluid controlling valves. 3,102,550, 9–3–63, Cl. 137—219.

Shane, Robert T., and C. Vander Kolk, to The Upjohn Co. Recovery of alkali-metal salts of heparin free of ammonia. 3,080,290, 3–5–63, Cl. 167—74.

Shang, Jeng C., to Union Tank Car Co. Elevated tank. 3,103,292, 9–10–63, Cl. 220—18.

Shank, Ira. Floor washing machines. 3,096,533, 7–9–63, Cl. 15—99.

Shank, McConnell, and V. A. Mocas, to The Richardson Co. Battery and cover. 3,075,036, 1–22–63, Cl. 136—134.

Shanklin, Dunbar L.: *See*—
Blackwood, George W., and Shanklin. 3,093,499.

Shanklin, Dunbar L.: *See*—
Adams, Alfred B., Farkas, Marduller, and Shanklin. 3,094,425.

Shanklin, Harry N.: *See*—
Landrum, Ira T., Kennedy, Shanklin, Cummins, Steward, Boulware, Kleypas, and Evans. 3,106,735.

Shankman, Charles: *See*—
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Shanks, Dellis W. Balancing monorail figure toy. 3,108,397, 10–29–63, Cl. 46—100.

Shanley, Francis R.: *See*—
Knapp, William J., and Shanley. 3,089,196.

Shanley, James H. Process for bonding gypsum to aluminum. 3,104,982, 9–24–63, Cl. 117—70.

Shanley, Thomas J., 50% to Diamond Alkali Co. Apparatus for producing corrugated board. 3,077,222, 2–12–63, Cl. 156—473.

Shannon, Frank P. Minnow holder. 3,098,312, 7–23–63, Cl. 43—4.

Shannon, John K. Method and apparatus for making storage battery plates. 3,095,633, 7–2–63, Cl. 29—2.

Shannon, Richard F.: *See*—
Slayter, Games, and Shannon. 3,113,105.

Shannon, Richard F., to Owens-Corning Fiberglas Corp. Manufacture and stabilization of colloidal silicic acid. 3,083,167, 3–26–63, Cl. 252—313.

Shannon, Richard F., to Owens-Corning Fiberglas Corp. Insulating materials. 3,104,196, 9–17–63, Cl. 161—271.

Shannon, Richard F., and P. W. Sullivan, to Owens-Corning Fiberglas Corp. Foamable composition comprising a novolac resin, a monoalkyl-tri(polyalkoxydialkylsiloxy)silane, a curling agent, and a blowing agent, and proceas of making same. 3,081,269, 3–12–63, Cl. 260—2.5.

Shannon, Suel G., to AMP Inc. Electrical connector. 3,097,906, 7–16–63, Cl. 339—253.

Shannon, William H.: *See*—
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Shannon, William R. Collapsible desk for beds. 3,094,080, 6–18–63, Cl. 108—129.

Shanok, Jesse P.: *See*—
Shanok, Victor and J. P. 3,115,227.

Shanok, Victor and J. P. Luggage handle assembly. 3,115,227, 12–24–63, Cl. 190—57.

Shansky, Albert, and A. Tarasov, to Turner Hall Corp. Permanent waving compositions comprising 2,2,2-trichloro-1,1-ethanediol. 3,109,778, 11–5–63, Cl. 167—87.1.

Shansky, David: *See*—
Strohmeier, Walter, and Shansky. 3,089,035.

Shapcott, Sidney E. Radio guidance system. 3,107,352, 10–15–63, Cl. 343—106.

Shape, Robert C.: *See*—
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Shapira, Nathan H. Connector for panels or other plate shaped members. 3,076,534, 2–5–63, Cl. 189—35.

Shapiro, A. Morton: *See*—
Marcellino, Carmen L., and Palanker. 3,088,516.

Shapiro, Arthur M. to United States of America, Army. Lubricant for metal forming process. 3,098,294, 7–23–63, Cl. 29—528.

Shapiro, Bernard I., to United States of America, Navy. Apparatus for measuring tube vibration. 3,106,092, 10–8–63, Cl. 73—71.4.

Shapiro, Edward M.: *See*—
Jenks, Glenn H., Shapiro, Elliott, and Cannon. 3,079,317.

Shapiro, Elliot L.: *See*—
Reimann, Hans, and Shapiro. 3,085,088.

Shapiro, Elliot L., and H. Reimann, to Schering Corp. 16α-alkoxycorticoids. 3,089,873, 5–14–63, Cl. 260—239.55.

Shapiro, Emil: *See*—
Goldman, Maurice A. 3,081,499.

Shapiro, Harry and M. Infant's shoes. 3,075,305, 1–29–63, Cl. 36—2.5.

Shapiro, Herbert M.: *See*—
Ligenza, Joseph R., and Shapiro. 3,108,915.

Shapiro, Herman G. Aircraft traffic pattern and runway computer. 3,100,601, 8–13–63, Cl. 235—61.

Shapiro, Hymin: *See*—
Brown, Jerome E., De Witt, and Shapiro. 3,086,034.
Brown, Jerome E., Shapiro, and De Witt. 3,110,577.
Giraitis, Albert P., Johnston, and Shapiro. 3,085,319.
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Shapiro, Isadore, and H. G. Weiss, to Olin Mathieson Chemical Corp. Ethenyltetraborane and process for its preparation. 3,086,996, 4–23–63, Cl. 260—606.5.

Shapiro, Louis, and R. E. Ogilvie, to Elion Instruments, Inc. Electron microanalyzer system. 3,103,584, 9–10–63, Cl. 250—49.5.

Shapiro, Martin: *See*—
Shapiro, Harry and M. 3,075,305.

Shapiro, Martin D. Maller. 3,103,307, 9–10–63, Cl. 229—74.

Shapiro, Paul: *See*—
Sheldahl, David B., Collings, Shapiro, and Watkins. 3,078,993.

Shapiro, Paul, L. V. Collings, D. B. Sheldahl, and F. M. Watkins, to Sinclair Research, Inc. Method of reducing corrosion of ferrous metal surface by ammonium nitrate solution. 3,078,992, 2–26–63, Cl. 206—84.

Shapiro, Paul, and L. V. Collings, to Sinclair Research, Inc. Corrosion protection. 3,091,580, 5–28–63, Cl. 204—147.

Shapiro, Paul, D. B. Sheldahl, and L. V. Collings, to Sinclair Research, Inc. Ammoniacal ammonium nitrate solution of reduced corrosive tendencies. 3,096,169, 7–2–63, Cl. 71—59.

Shapiro, Seymour L.: *See*—
Geiger, Karl, Shapiro, and Freedman. 3,090,818.

Shapiro, Seymour L., and L. Freedman, to U.S. Vitamin & Pharmaceutical Corp. Pyridylalkyl dicyandiamides and guanylureas. 3,074,955, 1–22–63, Cl. 260—295.

Shapiro, Seymour L., L. Freedman, and H. Soloway, to U.S. Vitamin & Pharmaceutical Corp. Certain P-acetaminophenoxyacetamido derivatives. 3,081,302, 3–12–63, Cl 260—247.2.

Shapiro, Seymour L., L. Freedman, and H. Soloway, to U.S. Vitamin & Pharmaceutical Corp. N-alkyl-2-(2-[9-carbazolylethyl])piperidines. 3,093,651, 6–11–63, Cl. 260—293.

Shapiro, Seymour L., and L. Freedman, to U. S. Vitamin & Pharmaceutical Corp. Method for treatment of dermatological disorders. 3,068,008, 7–16–63, Cl. 167—55.

Shapiro, Seymour L., and L. Freedman, to U.S. Vitamin & Pharmaceutical Corp. Bicycloheptyl, aralkyl-ureas. 3,115,-524, 12–24–63, Cl. 260—553.

Shapiro, Sidney H.: *See—*
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Shapiro, Sol, to ACF Industries, Inc. Infrared search and tracking system comprising a plurality of detectors. 3,106,-642, 10–8–63, Cl. 250—83.3.

Shapley, Gail C.: *See—*
Robbins, Earl D. 3,089,316.

Shapona, George, and H. J. Brown, to Sharon Steel Corp. Basic open hearth roof construction. 3,092,051, 6–4–63, Cl. 110—99.

Shapter, Robert D.: *See—*
Edwards, James D., Harrington, and Shapter. 3,114,252.

Sharav, William B.: *See—*
Amsel, Francis E., Sharav, and Stanchus. 3,097,979.
Kubli, Robert A., and Sharav. 3,097,294.
Kubli, Robert A., and Sharav. 3,100,829.
Neely, John H., Zuchowski, Sharav, and Sasse. 3,071,678.

Sharav, William B., T. L. Coless, and L. A. Prince, to Union Carbide Corporation. Submerged-melt arc welding, composition and process. 3,076,735, 2–5–63, Cl. 148—26.

Shardlow, Peter R. D.: *See—*
Fitzgerald, Gerald, and Shardlow. 3,076,194.

Sharkey, Chester W. Portable furnace for thawing earth and the like. 3,095,870, 7–2–63, Cl. 126—271.2.

Sharkey, William H.: *See—*
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Sharko, Sam, J. Salem, and J. H. Andresen, Jr., to Intercontinental Dynamics Corp. Pitot static tester. 3,089,331, 5–14–63, Cl. 73—4.

Sharma, Devendra N. Sound reproducing systems for television, radio and the like. 3,086,078, 4–16–63, Cl. 178—7.9.

Sharon Steel Corp.: *See—*
Shapona, George, and Brown. 3,092,051.

Sharp, Allen W., to Equity Financial Corp. Apparatus for continuous chilling of poultry. 3,091,099, 5–28–63, Cl. 62—376.

Sharp, Annabel R., J. L. Higgins, and Z. M. Roehr, to Brunswick Corp. Card-supporting hypodermic syringe. 3,072,120, 1–8–63, Cl. 128—215.

Sharp, Benjamin T., to E. I. du Pont de Nemours and Co. Apparatus and process for distributing viscous liquids. 3,103,942, 9–17–63, Cl. 137—1.

Sharp, Carl R.: *See—*
Coffey, Jule H., and Sharp. 3,088,677.

Sharp, Chester L., to D. O. Johnson, and L. W. Fagg, dba Johnson-Fagg Engineering Co. Reciprocating rod packing. 3,084,946, 4–9–63, Cl. 277—121.

Sharp, Dexter B., to Monsanto Chemical Co. α,β,γ,δ-tetraarylporphins. 3,076,813, 2–5–63, Cl. 260—314.

Sharp, Dexter B., to Monsanto Chemical Co. Olefin separation. 3,109,800, 11–5–63, Cl. 204—162.

Sharp, Donald E., deceased (by Ohio Citizens Trust Co., executor), H. N. Dean, E. W. Babcock, and E. C. Montgomery, to Libbey-Owens-Ford Glass Co. Process and apparatus for forming multiple sheet glazing units. 3,078,692, 2–26–63, Cl. 65—55.

Sharp, Everett H.: *See—*
Mazziotti, Philip J., and Sharp. 3,071,944.
Mazziotti, Philip J., and Sharp. 3,105,369.

Sharp, Everett H., to Dana Corp. Universal joint. 3,106,-077, 10–8–63, Cl. 64—21.

Sharp, Francis B.: *See—*
Gibbard, Thomas, Sharp, and Salway-Waller. 3,105,891.

Sharp, Joe C., and W. A. McPherson, to Spencer Chemical Co. Fertilizer granulating drum unit. 3,083,081, 3–26–63, Cl. 23—259.1.

Sharp, Martin. Contour duplicating apparatus. 3,100,344, 8–13–63, Cl. 32—67.

Sharp, Paul F.: *See—*
Wolf, Cecil R., Holland, and Sharp. 3,104,699.

Sharp, Robert M., and I. P. Trotter, Jr., to Esso Research and Engineering Co. Deflector for solids flowing in a gasiform stream. 3,075,559, 1–29–63, Cl. 138—37.

Sharp, Robert W.: *See—*
Archibald, Philip C., Conger, Sharp, and Tomlinson. 3,104,148.

Sharp, Rodman A., and M. S. Eichen, to General Dynamics Corp. Radiation detecting apparatus of the ionization chamber and scintillation type. 3,097,301, 7–9–63, Cl. 250—83.6.

Sharpe, Frederick P., to Kelsey-Hayes Co. Transporting apparatus. 3,087,629, 4–30–63, Cl. 214—1.

Sharpe, Howard A. Tubeless tire patching tool. 3,073,191, 1–15–63, Cl. 81—15.7.

Sharpe, Philip B. Combined dispenser and applicator for adhesive tapes. 3,112,051, 11–26–63, Cl. 225—6.

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Ayres, Arthur U. 3,075,695.
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Downing, Francis P. 3,078,287.
Fitzsimmons, Harold C. 3,075,696.
Fitzsimmons, Harold C. 3,095,371.
Gooch, Fred P. 3,087,621.
Gooch, Fred P. 3,098,820.
Keith, Frederick W., Jr. 3,109,839.
Payne, Robert E., Cohen, and Gibson. 3,092,723.
Payne, Robert E., and Gooch. 3,094,828.
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Shartrand, Allan C., and A. J. Otteson, to General Electric Co. Gas-cooled dynamoelectric machine with asymmetrical flow. 3,091,710, 5–28–63, Cl. 310—57.

Shashaty, Alexander, to Wm. K. Stamets Co. Combination board and log holding knee dog structure of a sawmill. 3,089,523, 5–14–63, Cl. 143—126.

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Shatynski, John H., to Celanese Corp. of America. Automatic transmission fluids containing a triaryl phosphate. 3,087,895, 4–30–63, Cl. 252—78.

Shaub, Kenneth D., and W. W. Wotell, to The Bendix Corp. Sealed pressure switch. 3,072,762, 1–8–63, Cl. 200—83.

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Shaver, Kenneth J., to Monsanto Chemical Co. Guanadine or melamine process. 3,108,999, 10–29–63, Cl. 260—249.7.

Shaver, Oliver R., and M. E. Gedgaudas, to Pacific Semiconductors Inc. Method of making a low resistance ohmic contact. 3,115,697, 12–31–63, Cl. 29—155.5.

Shaver, Raymond M., to Pullman Inc. Lading anchor construction. 3,098,457, 7–23–63, Cl. 105—404.

Shaver, Raymond M., and A. H. Hartwig, to Pullman-Standard Car Mfg. Co. Railway car roof hatch. 3,090,160, 5–21–63, Cl. 50—14.

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Shaw, Chester C.: *See—*
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Shaw, George H., and R. E. Schapel. Multiple electrical connector and method of constructing said connector. 3,074,044, 1–15–63, Cl. 339—176.

Shaw, George R., to W. R. Weaver. Reticle for variable power telescope sights. 3,097,432, 7–16–63, Cl. 33—50.

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Shaw, Harold N. Stored heat steam generator. 3,082,312, 3–19–63, Cl. 219—39.

Shaw, Harold N. Laundry machines. 3,113,004, 12–3–63, Cl. 34—95.

Shaw, Herbert S., and K. J. Bentley. Means to guide a conveyor belt around corners. 3,095,964, 7–2–63, Cl. 198—184.

Shaw, Hubert K., and E. C. Craig, deceased (H. S. Craig, executrix), to International Applied-Research Corp. Survival-apparel and related survival-gear. 3,076,206, 2–5–63, Cl. 9—330.

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Shaw, John T.: *See—*
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Shaw, John T., to American Cyanamid Co. N-oxides of amino-S-triazines and process for preparing them. 3,093,645, 6–11–63, Cl. 260—249.6.

Shaw, John T., F. J. Gross, and R. K. Madison, to American Cyanamid Co. Novel mercurated acrylamide compounds and germicidal textile finishes. 3,082,118, 3–19–63, Cl. 117—76.

Shaw, Jonny B. Lap tray. 3,102,500, 9–3–63, Cl. 108—43.

Shaw, Leslie E. Pipe wrapping device. 3,074,605, 1–22–63, Cl. 225—100.

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Lavin, Edward, Markhart, and Hunt. 3,072,597.
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Shay, Robert R. Single stick boat control. 3,085,447, 4–16–63, Cl. 74—471.

Shay, Thomas M., to Shay Containers, Inc. Container. Re. 25,465, 10–22–63, Cl. 217—12.

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Shea, Warren, to Radiant Pen Corp. Display ball-point pen. 3,077,692, 2–19–63, Cl. 40—334.

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Shealy, Otis L., to E. I. du Pont de Nemours and Co. Crimpable synthetic filaments and process of manufacturing same. 3,078,544, 2–26–63, Cl. 28—82.

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Coover, Harry W., Jr., and Shearer. 3,072,629.
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McCall, Marvin A., and Shearer. 3,076,015.

Shearer, Newton H., Jr., and F. B. Joyner, to Eastman Kodak Co. Poly-α-olefins containing alkylidenebisphenols and butylated hydroxy toluene. 3,103,501, 9–10–63, Cl. 260—45.95.

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Sheatz, Guy C. Multiple electrode holders for indicating nerve responses to stimulation. 3,089,483, 5–14–63, Cl. 128—2.1.

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Shedd, Robert R., to United States Steel Corp. Manufacture of tin plate. 3,101,767, 8–27–63, Cl. 153—92.

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Sheehan, Joseph E., Sr., to M. A. Sheehan. Endless conveyors. 3,100,041, 8–6–63, Cl. 198—158.

Sheehan, Mary A.: *See—*
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Sheehan, Robert G. Three-axle vehicle suspension including load stabilizing means. 3,099,460, 7–30–63, Cl. 280—104.5.

Sheehan, Thomas H., to Sunbeam Corp. Apparatus for forming cutting elements. 3,104,500, 9–24–63, Cl. 51—89.

Sheehan, William C., to E. I. du Pont de Nemours and Co. Coating regenerated cellulose film with a salt of a substituted polymerization product of styrene and maleic acid. 3,111,425, 11–19–63, Cl. 117—64.

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Sheeley, David D., to General Motors Corp. Control console for an appliance. 3,072,782, 1–8–63, Cl. 240—2.

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Mahlmeister, Raymond A., and Straw. 3,115,819.
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Shelby, Wallace A., Jr., to H. H. Robertson Co. Cellular floor construction. 3,102,610, 9–3–63, Cl. 189—34.

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Sheldahl, David B., L. V. Collings, P. Shapiro, and F. M. Watkins, to Sinclair Research, Inc. Ferrous metal container for ammonium nitrate solution and method of reducing corrosion thereof. 3,078,993, 2–26–63, Cl. 206—84.

Sheldahl, David B., and G. Entwistle, to Sinclair Refining Co. Coating composition and method. 3,086,870, 4–23–63, Cl. 106—10.

Sheldahl, David B., and G. Entwistle, to Sinclair Refining Co. Coating composition. 3,086,871, 4–23–63, Cl. 106—14.

Sheldon, Donald T., Sr. Elevated scorer for games. 3,110,-498, 11–12–63, Cl. 273—127.

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Sheldon, Gilbert J., and G. A. Ulrich, to Bausch & Lomb Inc. Focusing endoscope. 3,090,378, 5–21–63, Cl. 128—4.

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Sherbondy, William A. Caulking gun. 3,076,225, 2–5–63, Cl. 18—3.5.

Sherbondy, William A. Hand carpet sweeper construction. 3,092,862, 6–11–63, Cl. 15—41.

Sherbondy, William A. Caulking gun with trimming attachment. 3,105,614, 10–1–63, Cl. 222—82.

Sherbrook, Victor A., to Frank Noone Shoe Co., Inc. Method of applying a decorative strip to a shoe. 3,075,212, 1–29–63, Cl. 12—142.

Sherbrook, Victor A., to Frank Noone Shoe Co., Inc. Decorative strip for a shoe. 3,075,308, 1–29–63, Cl. 36—17.

Sherburne, Philip C., to Grinnell Corp. Shock absorber for fluid systems. 3,106,992, 10–15–63, Cl. 188—87.

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Sherman, Orville B., to Owens-Illinois Glass Co. Method of forming hollow plastic articles. 3,114,594, 12–17–63, Cl. 18—55.

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Sherock, Duane. Solar operated device. 3,112,862, 12–3–63, Cl. 230—48.

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Sherron, Percival H. Telephone corner assembly for telephone booths. 3,105,271, 10–1–63, Cl. 20—3.5.

Sherron, Percival H. Telephone booths with pull out ceiling structures. 3,111,720, 11–26–63, Cl. 20—3.5.

Sherven, Vern H. Mobile hay stack form. 3,093,141, 6–11–63, Cl. 130—20.

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Jahn, Edward R., and Zaupa. 3,089,167.
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Sherwood, Henry A. Fastener for papers and the like. 3,082,499, 3–26–63, Cl. 24—67.

Sherwood, Walter A. Fishing lure. 3,073,054, 1–15–63, Cl. 43—17.1.

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Shevick, Philip, to Nuclear-Chicago Corp. Radioactivity source-and-detector probe. 3,103,588, 9–10–63, Cl. 250—83.6.

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Shields, Albert F., to S & S Corrugated Paper Machinery Co., Inc. Folder taper machine. 3,097,575, 7–16–63, Cl. 93—49.

Shields, Donald J., and H. W. Coover, Jr., to Eastman Kodak Co. Crystalline N-alkyl acrylamide and methacrylamide polymers. 3,075,956, 1–29–63, Cl. 260—88.1.

Shields, Harold L., to The Quaker Oats Co. Isolating a lichenin-containing constituent from dehulled barley grain. 3,115,411, 12–24–63, Cl. 99—98.

Shields, Herbert F. H. Wire ropes. 3,088,269, 5–7–63, Cl. 57—146.

Shields, James J., to Continental Aviation and Engineering Corp. Mounting structure. 3,104,525, 9–24–63, Cl. 60—39.32.

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Shields, Walter A. Apparatus for sealing closure caps to filled vials. 3,091,063, 5–28–63, Cl. 53—349.

Shiffler, Richard W., to Union Carbide Corp. Non-corrosive hydraulic fluids. 3,098,825, 7–23–63, Cl. 252—78.

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Shillady, Marion C., and P. V. Frakes. Pressure relief devices for pressure vessels and methods of making the same. 3,074,602, 1–22–63, Cl. 222—397.

Shilling, Harvey F. Quick detachable rear view mirror assembly for automobiles. 3,114,530, 12–17–63, Cl. 248—226.

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Shimko, Alexander. Heating apparatus. 3,086,710, 4–23–63, Cl. 237—2.

Shimula, Yoshihiro. Device for cooling the specimen in X-ray diffraction apparatus. 3,112,398, 11–26–63, Cl. 250—51.5.

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Shultz, Gerald L., to International Business Machines Corp. Character recognition machine. 3,074,050, 1-15-63, Cl. 340—146.3.

Shultz, James H., and C. G. Zike, to W. J. Saeman. Silamine curing agents. 3,072,594, 1-8-63, Cl. 260—43.

Shultz, Theodore S.: *See*—
Gresser, Herbert D., Grosof, Solon, and Shultz. 3,096,767.

Shultz, Walter: *See*—
Ordinetz, Walter, and Shultz. 3,106,854.

Shulver, William, and G. W. Guyer, to Owens-Corning Fiberglas Corp. Method of precoating and coating glass fibers and article produced thereby. 3,090,701, 5-21-63, Cl. 117—76.

Shumake, David E. House trailer support. 3,074,693, 1-22-63, Cl. 254—92.

Shumaker, Arnold G.: *See*—
Gochenour, Olin C., and Shumaker. 3,107,875.

Shumaker, Charles S., to Kelsey-Hayes Co. Apparatus for rolling disks. 3,090,265, 5-21-63, Cl. 80—16.

Shumaker, Charles S., and G. E. Gollwitzer, to Kelsey-Hayes Co. Rolling mill. 3,078,748, 2-26-63, Cl. 80—58.

Shumaker, Hugh W. Wind deflectors. 3,072,431, 1-8-63, Cl. 296—1.

Shumaker, Hugh W. Horizontal deflectors. 3,089,728, 5-14-63, Cl. 296—91.

Shumaker, Hugh W. Horizontal deflector. 3,090,645, 5-21-63, Cl. 296—91.

Shumaker, Lawrence E., to The Eversman Mfg. Co. Land leveling attachment for tractors. 3,090,141, 5-21-63, Cl. 37—180.

Shuman, Abraham. Tension regulator for sewing machine presser bar. 3,089,447, 5-14-63, Cl. 112—235.

Shuman, Abraham. Presser foot. 3,094,089, 6-18-63, Cl. 112—235.

Shuman, Frank R., Jr.: *See*—
Dempsey, James F., and Shuman. 3,097,761.

Shumway, Halsey D.: *See*—
McCutchen, Brunson S., and Shumway. 3,090,340.

Shunk, Clifford H., to Merck & Co., Inc. Anthelmintic benzimidazole compositions and methods of using same. 3,080,282, 3-5-63, Cl. 167—53.

Shunk Mfg. Co.: *See*—
Winget, William A. 3,070,938.

Shurcliff, John P. Writing instruments. 3,093,112, 6-11-63, Cl. 120—14.1.

Shurcliff, John P. Selective friction telescopic connectors. 3,102,742, 9-3-63, Cl. 287—58.

Shure Bros., Inc.: *See*—
Ahrens, Erhard, Kühn, and Richter. 3,077,521.
Gunter, Lee, Jr., and Anderson. 3,077,522.

Shurgan, Joel, to Duro-Test Corp. Constant lumen maintenance lamp. 3,091,718, 5-28-63, Cl. 313—222.

Shur-Lok Corp.: *See*—
Rohe, Frederick W. 3,081,809.

Shuron Optical Co.: *See*—
McGraw, Leslie D., and Stockdale. 3,075,896.

Shurter, Robert A., Jr., and D. O. Howe, to Commercial Solvents Corp. Process for additional corn-ear growth. 3,102,017, 8-27-63, Cl. 71—2.1.

Shurtleff, Harold R., V. T. Judd, and G. E. Burdick, to Raytheon Co. Continuous dial feed electric welding apparatus. 3,095,499, 6-25-63, Cl. 219—80.

Shurtleff, O. O.: *See*—
Chatham, George N., and Shurtleff. 3,096,790.
Chatham, George N., and Shurtleff. 3,099,290.

Shustack, Stanley B. Apparatus for catalytic treatment of internal combustion engine exhaust gases. 3,071,449, 1-1-63, Cl. 23—288.

Shuster, Leo B. Cloth cutting apparatus having anvil rollers operating across a die at right angles to each other. 3,110,207, 11-12-63, Cl. 83—87.

Shuster, Saul: *See*—
Mann, Alfred E., Dubey, Wolf, Ralph, Oliver, and Shuster. 3,094,439.

Shustock, William S.: *See*—
Cairelli, Carmen P., and Shustock. 3,083,896.

Shustrom, Elmer J., to The Cadillac Co., Inc. Shutter construction. 3,115,223, 12-24-63, Cl. 189—62.

Shute, Wallace B. Surgical instrument. 3,088,454, 5-7-63, Cl. 128—2.

Shutkufski, John J., to General Fittings Co. Expansion tank and air removal unit. 3,080,119, 3-5-63, Cl. 237—63.

Shutt, Donald P., to Western Gear Corp. Gear and bearing test apparatus and torque inducer coupling therefor. 3,078,711, 2–26–63, Cl. 73—162.

Shutt, Milo, to Union Industrial Co., Division of the Alliance Machine Co. Parking structures. 3,092,267, 6–4–63, Cl. 214—16.1.

Shutt, Milo, to Union Industrial Co. Parking structures. 3,107,016, 10–15–63, Cl. 214—16.1.

Shutt, Paul B., L. J. Larsen, C. M. Barnes, and S. F. Pullano, to The Bendix Corp. Master cylinder filler cap. 3,077,283, 2–12–63, Cl. 220—44.

Shutt, William M., Jr., to General Motors Corp. Universal joint spider. 3,110,166, 11–12–63, Cl. 64—17.

Shuttleworth, David H.: *See*—
Peebles, Benjamin W., and Shuttleworth. 3,077,947.

Shuttleworth, Stanley G., to Leather Industries Research Institute. Process for the stiffening of parts of footwear. 3,076,987, 2–12–63, Cl. 12—146.

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Shutts, Leroy W., to General Motors Corp. Combustion chamber fluid inlet construction. 3,075,352, 1–29–63, Cl. 60—39.65.

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Craddock, Ronald G., and King. 3,115,108.
King, Marvin M. 3,107,943.
Shwayder, Jesse. 3,094,357.

Shwayder, Jesse, to Shwayder Bros., Inc. Chair. 3,094,357, 6–18–63, Cl. 297—452.

Shyballa, Nicholas, to United States of America, Navy. Compensated antenna. 3,082,421, 3–19–63, Cl. 343—114.

Shyluk, Walter P.: *See*—
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Sibal, Donald W.: *See*—
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Sibert, Merle E., to Lockheed Aircraft Corp. Method for making film capacitors. 3,085,052, 4–9–63, Cl. 204—38.

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Sibley, Craig R.: *See*—
Blackman, Paul R., and Sibley. 3,115,568.

Sibley, Hiram S.: *See*—
York, Shelby L., Jr., and Sibley. 3,093,963.

Sibley, Richard D.: *See*—
Casassa, William H. L., Jr., and Sibley. 3,084,513.

Sicedison S.p.A.: *See*—
Bortolini, Paolo, and Guerrieri. 3,087,867.
Fontana, Giuseppe, and Federici. 3,080,301.
Saccardo, Pietro, and Gozzo. 3,104,156.

Siehler, Lorenz. Rural mail box indicator assembly. 3,081,024, 3–12–63, Cl. 232—34.

Sichling, Georg, to Siemens-Schuckertwerke Aktiengesellschaft. Phase and frequency converter device. 3,109,976, 11–5–63, Cl. 321—4.

Siciliano, Anthony J., to Keen Mfg. Corp. Sprocket wheels. 3,097,735, 7–16–63, Cl. 198—171.

Siciliano, Samuel F., to George C. Moore Co. Elastic fabric. 3,077,758, 2–19–63, Cl. 66—192.

Sick, Erwin. Photoelectric device for high precision linear measurement. 3,102,960, 9–3–63, Cl. 250—220.

Sick, Erwin K. Photoelectric device. 3,072,798, 1–8–63, Cl. 250—230.

Sickert, Richard G., and R. L. Eichhorn, to Whirlpool Corp. Thermocouple device and method of making the same. 3,111,432, 11–19–63, Cl. 136—4.

Sickinger, Hans: *See*—
Biel, Hans, and Hornung. 3,085,265.
Biel, Hans, and Hornung. 3,090,481.
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Bue, Richard C. 3,099,481.

Sidaris, Nicholas J., to Minneapolis-Honeywell Regulator Co. Dryer apparatus. 3,096,971, 7–9–63, Cl. 263—33.

Siddle, John K., and H. L. Miller, to Midland-Ross Corp. Burner assembly for hydrocarbon fuel. 3,090,436, 7–30–63, Cl. 263—19.

Siddons, John R. Explosive-charge operated fastening tools. 3,095,573, 7–2–63, Cl. 1—44.5.

Sidebotham, Ernest W. Beds. 3,100,900, 8–20–63, Cl. 5—284.

Side-O-Matic Unloader Corp., The: *See*—
Winter, Charles M. 3,093,248.

Sider, Joseph: *See*—
Savit, Carl H., Brustad, and Sider. 3,096,846.

Sides, Harold I., to Tote-Cart Co. Cart support. 3,078,102, 2–19–63, Cl. 280—33.99.

Sides, Harold I., to Tote-Cart Co. Cart support. 3,083,030, 3–26–63, Cl. 280—79.1.

Sidi, Henri, to Heyden Newport Chemical Corp. Trialkylene diamine initiators for the polymerization of formaldehyde. 3,096,306, 7–2–63, Cl. 260—67.

Sidi, Henri, to Heyden Newport Chemical Corp. Dihydroxy diamine initiators for the polymerization of formaldehyde. 3,096,307, 7–2–63, Cl. 260—67.

Sidi, Henri, and R. T. Gottesman, to Heyden Newport Chemical Corp. Triaminophenol initiators for the polymerization of formaldehyde. 3,096,308, 7–2–63, Cl. 260—67.

Sidi, Henri, and R. T. Gottesman, to Heyden Newport Chemical Corp. N,N,N',N'-tetraalkyl alkylene diamine initiators for the polymerization of formaldehyde. 3,097,190, 7–9–63, Cl. 260—67.

Sidney, Milton M., and D. Woolley, to Mailman Bros., d.b.a. Durham Enders Razor Co. One piece disposable razor. 3,078,569, 2–26–63, Cl. 30—32.

Sidwell, Clarence W.: *See*—
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Sidwell, Leland A.: *See*—
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Sieband, Melvin P., C. C. Ryan, and D. R. Houston, to United States of America, Navy. Target position predicting servomechanism. 3,090,556, 5–21–63, Cl. 235—183.

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Siebel, Gustav, W. Müller, and E. Trägner, to Aluminium-Industrie-Aktien-Gesellschaft. Method for manufacturing highly polishable sheets of aluminum. 3,093,459, 6–11–63, Cl. 29—197.5.

Siebel, Hans P.: *See*—
Willersinn, Herbert, Dietrich, Fust, Friederich, and Siebel. 3,110,694.

Siebel, Mathias P. L.: *See*—
Pall, David B., and Siebel. 3,077,176.

Siebelt, Raymond J. Vacuum seal container cap. 3,098,575, 7–23–63, Cl. 215—37.

Siebenhausen, Christian H., to Shell Oil Co. Method of anchoring offshore structures. 3,115,755, 12–31–63, Cl. 61—46.

Siebentritt, Carl R., Jr.: *See*—
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Sieber, Herman L., to Time, Inc. Flow system. 3,098,787, 7–23–63, Cl. 162—216.

Siebers, Robert W.: *See*—
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Siebert, Alfred: *See*—
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Langenberg, Walter P., and Siebert. 3,106,857.

Siebert, Wolfgang: *See*—
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Siebertz, Karl, to Siemens & Halske Aktiengesellschaft. Method and device for the successive zone melting and resolidifying of extremely pure substances. 3,086,856, 4–23–63, Cl. 75—10.

Siebler, Oskar: *See*—
Werner, William, Siebler, Alt, and Buchner. 3,114,356.

Siebol, George: *See*—
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Siebol, George, to Olympic Screw & Rivet Corp. Blind rivet assembly having mandrel with a deformable skirt portion. 3,073,205, 1–15–63 Cl. 85—40.

Siebol, George, to Olympic Screw & Rivet Corp. Method of setting lock bolts. 3,091,982, 6–4–63, Cl. 78—46.

Siebrasse, Willi: *See*—
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Siebring, Claude and O. Overhead conveyor and bunk feeder. 3,094,205, 6–18–63, Cl. 198—64.

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Sieburg, Robert. Work feeding systems for machining operations. 3,077,973, 2–19–63, Cl. 198—179.

Sieburth, John M., to Virginia Polytechnic Institute. Antibacterial compositions and method of using same. 3,082,150, 3–19–63, Cl. 167—53.

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Siefert, Roland, to Kienzle Uhrenfabriken A.G. Drive pawl for electrically wound clocks. 3,115,788, 12–31–63, Cl. 74—577.

Siefert, William A.: *See*—
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Siegal, Bernard, R. M. Petgrave, and P. Thau, to Bristol-Myers Co. Clear mineral oil in water emulsion for hair application. 3,101,300, 8–20–63, Cl. 167—87.

Siegal, Bernard, and R. M. Petgrave, to Bristol-Myers Co. Transparent water and mineral oil gels as hair conditioners. 3,101,301, 8–20–63, Cl. 167—87.

Siegal, Burton L., to O'Brien Mfg. Corp. Rod drive unit for a sewer cleaning machine. 3,106,734, 10–15–63, Cl. 15—104.3.

Siegal, Burton L., and H. S. Shubart, to Emil J. Paidar Co. Chair headrest. 3,108,837, 10–29–63, Cl. 297—222.

Siegal, Marvyn E., to Philco Corp. Oscillator frequency control system. 3,109,148, 10–29–63, Cl. 331—14.

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Siegel, Allan E. Coiffure hood. 3,113,321, 12–10–63, Cl. 2—174.

Siegel, Edgar, and A. Schlachter, to Farbenfabriken Bayer Aktiengesellschaft. Derivatives of P-[coumarinyl-(3)]-phenyl-carbamic acid. 3,074,963, 1–22–63, Cl. 260—343.2.

Siegel, George J. Smoking device. 3,115,884, 12–31–63, Cl. 131—207.

Siegel, Harry. Nursing bottle holder. 3,081,895, 3–19–63, Cl. 215—11.

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Siegel, Martin, to Burroughs Corp. Roll-on endorse ink well. 3,101,667, 8–27–63, Cl. 101—364.

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Siegel, Moses, to United States of America, Navy. Mechanical programmed gas generator. 3,088,377, 5–7–63, Cl. 89—1.7.

Siegel, Rubin, to A. Siegel Handles, Inc. Method for making a handle. 3,095,641, 7–2–63, Cl. 29—411.

Siegel, Sheldon, E. J. Hanus, and R. H. Reiner, to Merck & Co., Inc. Pharmaceutical compositions and method of preparing the same. 3,116,204, 12–31–63, Cl. 167—81.

Siegel, Vernon H., to Radatron Research & Development Corp. Microwave signal checker for continuous wave radiations. 3,094,663, 6–18–63, Cl. 325—364.

Siegel, William A., to Minneapolis-Honeywell Regulator Co. Motion-to-air-pressure transducer. 3,078,738, 2–26–63, Cl. 74—579.

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Sieger, Earl W., to United States Steel Corp. Apparatus for handling and wetting dust. 3,086,537, 4–23–63, Cl. 134—61.

Sieger, Joshua. Apparatus for detecting inflammable gases. 3,094,393, 6–18–63, Cl. 23—254.

Sieger, Maurice P., to United Engineering and Foundry Co. Headstock for lathe. 3,090,674, 7–9–63, Cl. 82—28.

Sieger, Maurice P., to United Engineering and Foundry Co. Rolling mill screwdown apparatus. 3,104,567, 9–24–63, Cl. 80—56.

Siegfried Aktiengesellschaft: *See*—
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Duennenberger, Max, and Siegrist. 3,103,518.
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Siek, Clarence. Paint brush cleaning aid. 3,085,583, 4–16–63, Cl. 134—109.

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Siena, Michael P., to Bausch & Lomb Inc. Collet. 3,076,660, 2–5–63, Cl. 279—2.

Siepmann, Karl, and R. von Felgel-Farnholz, to Fernseh G.m.b.H. Combined television and cinematographic camera. 3,114,002, 12–10–63, Cl. 178—6.8.

Sierant, Stanley L. Aerating washing apparatus. 3,111,686, 11–26–63, Cl. 4—180.

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Sierra Engineering Co.: *See*—
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Bloom, Aaron, and Morton. 3,073,302.

Sierra, Hugh M., to International Business Machines Corp. Apparatus and methods for automatic indexing and storage. 3,081,447, 3–12–63, Cl. 340—172.5.

Sierra-Neva Industries, Inc.: *See*—
Whear, Alfred L. 3,088,342.
Sierra Research Corp.: *See*—
Chisholm, John P. 3,108,275.
Davis, James E. P. 3,106,323.
Sieurin, Donald: *See*—
Kinnicutt, Roger, Jr., and Sieurin. 3,109,340.
Sievers, Albert H. Sanitary floors for animals. 3,097,625, 7–16–63, Cl. 119—15.
Sievers, Roland: *See*—
Glegerich, August, and Sievers. 3,091,060.
Sievert, John A., F. R. Conley, and J. N. Dew, to Continental Oil Co. Method of selectively plugging formations. 3,103,-974, 9–17–63, Cl. 166—30.
Sievert, William C.: *See*—
Bernick, Leslie M., Pearson, and Sievert. 3,093,555.
Sievert, William C., and B. E. Hicks, to Inland Steel Co. Galvanizing process. 3,104,993, 9–24–63, Cl. 148—6.15.
Siewert, Elmer, to Triplex Engineering Co. Collapsible trailer. 3,073,615, 1–15–63, Cl. 280—37.
Siewert, Norman R., to Kinedlow Corp. Bar screen. 3,093,-580, 6–11–63, Cl. 210—159.
Siewert, Oliver R.: *See*—
Ott, Richard J., and Siewert. 3,110,847.
Siewertsen, Jens K.: *See*—
Wesseler, William O., and Siewertsen. 3,073,888.
Sifferle, Howard: *See*—
Rockola, David C., Petri, and Sifferle. 3,082,853.
Sifford, Luther L., Sr.: *See*—
Murray, John A., and Sifford. 3,076,341.
Siganos, Emmanuel: *See*—
Gay, Raymond, and Siganos. 3,074,886.
Gay, Raymond, and Siganos. 3,085,866.
Sigg, Hans-Peter, to Sandoz Ltd. Thiocolchicine derivatives. 3,082,226, 3–19–63, Cl. 260—399.
Siggel, Erhard: *See*—
Riehl, Lothar, and Siggel. 3,108,082.
Siggel, Erhard, and L. Riehl, to Vereinigte Glanzstoff-Fabriken AG. Process for preparing polyethylene terephthalate. 3,073,801, 1–15–63, Cl. 260—75.
Siggel, Erhard, and L. Riehl, to Vereinigte Glanzstoff-Fabriken AG. Process for the production of polyethylene terephthalate. 3,095,403, 6–25–63, Cl. 260—75.
Siggel, Erhard, and L. Riehl, to Vereinigte Glanzstoff-Fabriken AG. Method of preparing finely divided polyethylene terephthalate from polyethylene terephthalate scraps. 3,098,046, 7–16–63, Cl. 260—2.3.
Siggel, Erhard, and F. Kleekamm, to Vereinigte Glanzstoff-Fabriken A.G. Method and apparatus for heating and drawing threads. 3,099,872, 8–6–63, Cl. 28—71.3.
Sigler, Harold, to Fairchild Camera and Instrument Corp. Liquid treatment apparatus for photopolymer sheet material. 3,088,391, 5–7–63, Cl. 95—93.
Sigma Instruments, Inc.: *See*—
Pahud, George M. 3,079,478.
Stein, Laurence B., Jr. 3,091,731.
Stein, Laurence B., Jr., and McDonald. 3,091,723.
Sigman, John J., Jr.: *See*—
Daniel, David W., and Sigman. 3,077,877.
Sigman, Torrance L.: *See*—
Milburn, Frank L., and Sigman. 3,113,566.
Signal-Stat Corp.: *See*—
Bielweiss, Arthur F., Colombo, Dickson, and Orlov. 3,098,139.
Bruce, Donald S., Dickson, and Koljonen. 3,096,026.
Dickson, John B. 3,115,307.
Welsh, James W. 3,110,788.
Welsh, James W. 3,112,434.
Signode Steel Strapping Co.: *See*—
Dalton, Joseph H. 3,084,872.
Ericsson, Arvid I., and Vilcins. 3,103,955.
Haraden, William J. 3,089,366.
Kuster, William F. 3,083,845.
Langas, Arthur, and Lingle. 3,106,136.
Leslie, John W. 3,082,425.
Lingle, Harrison C., and Langas. 3,086,207.
Martin, Hollinshead T., and Lindholm. 3,088,397
Meier, William A. 3,089,233.
Sauer, Leo P., and Frisch. 3,089,376.
Sigoda, Merton A.: *See*—
Sigoda, Victor J. and M. A. 3,079,879.
Sigoda, Victor J. and M. A., to Man-Sew Corp. Overedge sewing machines. 3,079,879, 3–5–63, Cl. 112—162.
Sih, Charles J.: *See*—
Welsenborn, Frank L., and Sih. 3,110,733.
Sihvonen, Kauno E.: *See*—
Bowser, Phillip C., and Sihvonen. 3,077,028.
Sihvonen, Yro T.: *See*—
Boyd, David R., and Sihvonen. 3,073,011.
Slipesteijn, Antje K., and G. L. Wiggerink, to North American Philips Co., Inc. Bis (triphenyl tin) polysulphides and method of combating fungi. 3,113,069, 12–3–63, Cl. 167—30.
Sikes, Morce H. Coin controlled game apparatus. 3,084,936, 4–9–63, Cl. 273—11.
Sikora, Donald S., to Monroe Calculating Machine Co. Resettable information storage device. 3,095,502, 6–25–63, Cl. 235—61.12.
Sikora, John P. Oven. 3,077,826, 2–19–63, Cl. 99—421.
Sikora, Stephen J., to United States of America, Navy. Barometric-radar altitude indicating system. 3,115,628, 12–24–63, Cl. 343—12.
Sikorski, Frank J., to JB Electronic Transformers, Inc. Miniature relay. 3,092,701, 6–4–63, Cl. 200—87.
Sikorski, Paul E.: *See*—
Brignac, Edmond P., Sikorski, and Wright. 3,083,412.
Sikorski, Paul E., to Monsanto Chemical Co. Process and apparatus for heating and stretching filaments. 3,108,323, 10–29–63, Cl. 18—8.
Silard, Bela A. Recorder for densitometer. 3,096,137, 7–2–63, Cl. 346—32.
Silber, Victor B. Shoe heel. 3,085,578, 4–16–63, Cl. 128—590.
Silberels, Charles H., and D. L. Coy, to Sommerfeld Machine Co., Inc. Machine tool. 3,111,871, 11–26–63, Cl. 82—29.
Silberels, Joseph, to The Huffman Mfg. Co. Tandem bicycle frame. 3,075,788, 1–29–63, Cl. 280—281.
Silberolsen, Hermann, and M. Michalke, to Mannesmann Aktiengesellschaft. Method for producing iron powder having low carbon and oxygen contents. 3,073,695, 1–15–63, Cl. 75—5.
Silberg, Oscar, 40% to G. M. Iligas, and 30% to W. Cornia. Tire chain device. 3,074,453, 1–22–63, Cl. 152—237.
Silberger, Marvin E. Overload device. 3,095,979, 7–2–63, Cl. 212—134.
Silberkuhl, Wilhelm J., U. Kastl, and E. Haeuseler. Prestressed concrete bodies. 3,084,481, 4–9–63, Cl. 50—129.
Silberstein, Richard, to United States of America, Commerce. Satellite relay station using antenna diversity selection. 3,095,538, 6–25–63, Cl. 325—4.
Silbert, Leonard S., and D. Swern, to United States of America, Agriculture. Preparation of long-chain aliphatic peroxy acids. 3,079,411, 2–26–63, Cl. 260—406.
Silbo Enterprises Inc.: *See*—
Silen, Almer A. 3,078,953.
Silbrico Corp.: *See*—
Mendius, Carl, Jr. 3,113,924.
Silen, Almer A., to Silbo Enterprises Inc. Collapsible portable ladder. 3,078,953, 2–26–63, Cl. 182—163.
Silentbloc Ltd.: *See*—
Nicolaisen, Juncker Z. 3,109,639.
Silent Glow Oil Burner Corp., The: *See*—
Sherman, Ralston M. 3,081,944.
Silex Co., The: *See*—
Rodwick, Frank P., and Thome. 3,093,081.
Siliani, Pier L. Self-adjusting condition responsive relay circuit. 3,105,175, 9–24–63, Cl. 317—148.5.
Siline, Robert J. Outdoor shower taking device. 3,077,609, 2–19–63, Cl. 4—151.
Silkauf Mfg. Co., Inc.: *See*—
Miller, George, and Colclough. 3,080,572.
Silliker, John H., C. H. Koons, and C. E. Jansen, to Swift & Co. Drying of bacterial cultures. 3,075,887, 1–29–63, Cl. 195—101.
Silliman, John C., to American Pipe and Construction Co. Hydraulic wire rod tensioning means. 3,115,316, 12–24–63, Cl. 242—148.
Silliman, Sheldon D.: *See*—
Derr, Willard A., and Silliman. 3,075,177.
Silliman, Sheldon D., and W. A. Derr, to Westinghouse Electric Corp. Decimal pulse register with repeating stages. 3,076,899, 2–5–63, Cl. 307—88.5.
Silliman, Sheldon D., and W. A. Derr, to Westinghouse Electric Corp. Binary self-checking supervisory control system. 3,082,403, 3–19–63, Cl. 340—163.
Silliman, Sheldon D., and B. R. Johnson, to Westinghouse Electric Corp. Monitor system for circuit interrupters. 3,099,724, 7–30–63, Cl. 200—81.6.
Silliman, Sheldon D., and W. A. Derr, to Westinghouse Electric Corp. Remote signal systems. 3,107,340, 10–15–63, Cl. 340—163.
Sills, Hubert R., to Canadian General Electric Co., Ltd. Salient pole rotor construction. 3,089,049, 5–7–63, Cl. 310—269.
Silopark S.A.: *See*—
Blanca, Edoardo G. 3,083,792.
Blanca, Edoardo G. 3,101,130.
Silson, John E.: *See*—
Abramson, Bernard, Greif, and Silson. 3,095,355.
Silson, John E., P. Meshberg, and B. Abramson, to Revlon, Inc. Actuator for aerosol medication spray dispensers. 3,107,670, 10–22–63, Cl. 128—173.
Silva, Adalbert M., and C. F. Rueping, to Texaco Inc. Dewaxing process. 3,108,942, 10–29–63, Cl. 208—25.
Silva, Alfred W., to A. F. Graf von Soden. Utility chair structure and the like. 3,083,999, 4–2–63, Cl. 297—286.
Silva, Joseph W.: *See*—
Snyder, George R., and Silva. 3,107,450.
Silver, Alexander: *See*—
Cazier, John M., Parker, and Silver. 3,104,520.
Rowlett, Beb H., and Silver. 3,079,127.
Silver, Alexander, to The Garrett Corp. Load control valve for gas turbine compressors. 3,060,713, 3–12–63, Cl. 60—39.29.
Silver, Alexander, and R. L. Cholvin, to The Garrett Corp. Turbo charger boost density control. 3,096,614, 7–9–63, Cl. 60—13.
Silver, Bernard, to Atlantic Research Corp. Propellant grains. 3,097,481, 7–16–63, Cl. 60—35.6.
Silver, Bertram S. Composite article of furniture. 3,082,034, 3–19–63, Cl. 297—135.
Silver Corp.: *See*—
Steele, Clarence R., and Price. 3,100,462.
Silver, Dennis S., to Farrow & Jackson Ltd. Apparatus for heating liquid, powdered or granular material. 3,098,721, 6–11–63, Cl. 219—19.

Silver, Dennis S., to Farrow and Jackson Ltd. Conveyors, particularly for use in vending machines. 3,101,829, 8–27–63, Cl. 193—12.
Silver, Dennis S., to Farrow and Jackson Ltd. Lockout mechanism for vending machine. 3,101,867, 8–27–63, Cl. 221—125.
Silver, Joseph R. Retaining wall. 3,114,244, 12–17–63, Cl. 61—49.
Silver, Julian. Convertible wood type machine shop toy. 3,071,889, 1–8–63, Cl. 46—39.
Silver, Julian, to Instant-Fold Products, Inc. Collapsible bag carrier. 3,078,895, 2–26–63, Cl. 150—1.
Silver, Robert S., to G. & J. Weir, Ltd. Method for operating a multi-stage flash distillation system. 3,111,462, 11–19–63, Cl. 202—53.
Silver, Robert S., and J. R. Herd, to G. & J. Weir, Ltd. Method and apparatus for the multistage flash distillation of a liquid. 3,105,020, 9–24–63, Cl. 202—53.
Silver, Saul H., to American Machine & Foundry Co. Measuring and balancing systems for high-speed machines. 3,077,781, 2–19–63, Cl. 73—465.
Silver, Stan M. Packaging and display box. 3,082,864, 3–26–63, Cl. 206—45.14.
Silver, Stan M. Top grip carrier for bottles or the like. 3,097,010, 7–9–63, Cl. 294—87.2.
Silver, Walter H., to Paul P. Piper, Sr. Cotton wagon construction. 3,075,801, 1–29–63, Cl. 296—28.
Silver, Walter H., and O. W. Oerman, to Deere & Co. Hitch device. 3,106,253, 10–8–63, Cl. 172—239.
Silver Creek Precision Corp.: *See*—
Donofrio, Alfonso M. 3,086,639.
Silverman, Abraham. Machine for automatically feeding a plumber's snake. 3,093,854, 6–18–63, Cl. 15—104.3.
Silverman, Bernard H., and E. Balgley, to Heyden Newport Chemical Corp. Pentaerythritol-acrolein reaction products and their production. 3,109,830, 11–5–63, Cl. 260—67.
Silverman, Herbert H. Chance device comprising a game board apertured to receive rolling game pieces and having concealed indicia associated with the apertures therein. 3,113,778, 12–10–63, Cl. 273—139.
Silverman, Jacob. Pressing machine. 3,093,275, 6–11–63, Cl. 223—38.
Silverman, Milton: *See*—
Turner, Mason M., and Silverman. 3,081,220.
Silverman, Murray, to Eisenberg Jewelry, Inc. Clasp for a necklace or bracelet. 3,077,089, 2–12–63, Cl. 63—3.
Silverman, Robert M.: *See*—
Kobler, Richard, and Silverman. 3,089,002.
Silverman, William B., to Owens-Illinois Glass Co. Electrically heated glass melting unit. 3,109,045, 10–29–63, Cl. 13—6.
Silvern, David H., to Sundstrand Corp. Power system. 3,077,737, 2–19–63, Cl. 60—39.52.
Silvernail, Walter L., to American Potash & Chemical Corp. Polishing composition and process of forming same. 3,097,-083, 7–9–63, Cl. 51—307.
Silverschotz, Stanford B., to International Telephone and Telegraph Corp. Ice detector. 3,086,393, 4–23–63, Cl. 73—170.
Silverstolpe, Karl O. L. Method and means for producing aseptically packaged sterile plastic articles. 3,091,901, 6–4–63, Cl. 53—22.
Silvester, Austin G., to General Electric Co. Plate assembly and method of fabrication. 3,113,083, 12–3–63, Cl. 204—154.2.
Silvestri, Anthony J.: *See*—
Offenhauer, Robert D., and Silvestri. 3,073,867.
Silvestri, Giuliana: *See*—
Muench, Werner, Silvestri, and Notarbartolo. 3,111,515.
Silvey, Gene A.: *See*—
Anderson, Richard L., Marinace, and Silvey. 3,072,507.
Silvey, Joseph K. G., ½ to M. B. Cunningham. Process for improving the palatability of water. 3,080,315, 3–5–63, Cl. 210—62.
Simard, Albert, ½ to F. L. Moore. Fish scaling machine. 3,088,164, 5–7–63, Cl. 17—5.
Simard, Donald: *See*—
Simard, Joseph G. and D. 3,114,177.
Simard, Joseph G. and D. Sashless window. 3,114,177, 12–17–63, Cl. 20—52.
Simas, Edward F. Automobile speed control device. 3,077,-239, 2–12–63, Cl. 180—82.1.
Simberg, Rolf W. Slider in a slide fastener. 3,075,269, 1–29–63, Cl. 24—205.14.
Simbulan, Raymond F., to Brunswick Corp. Floor seal. 3,111,981, 11–26–63, Cl. 160—40.
Sime, Sylvan H. Auger bunk feeder. 3,103,913, 9–17–63, Cl. 119—52.
Simhauser, Anthony J., to United States of America, Navy. Electrical squib separation device. 3,080,815, 3–12–63, Cl. 102—49.
Simich, Emil. Cutting tool. 3,076,356, 2–5–63, Cl. 77—67.
Simini, Joseph P. Trigonometric calculator. 3,082,948, 3–26–63, Cl. 235—88.
Siminoff, Paul: *See*—
Dietz, Alma, De Boer, Smith, Siminoff, Boyack, and Whitfield. 3,116,202.
Simirra, Johannes R., to Space Technology Laboratories, Inc. Pierceable diaphragm and cutter fluid control arrangement. 3,087,643, 4–30–63, Cl. 220—47.
Simjian, Luther G., to Universal Match Corp. Currency exchange apparatus. 3,072,287, 1–8–63, Cl. 194—4.
Simjian, Luther G., to Reflectone Electronics, Inc. Golf game apparatus. 3,072,410, 1–8–63, Cl. 273—185.
Simjian, Luther G., to Universal Match Corp. Receptacle for storing articles in combination with unloading fixture. 3,074,663, 1–22–63, Cl. 242—67.3.
Simjian, Luther G., to Universal Match Corp. Depository machine combined with image recording means. 3,076,-965, 2–5–63, Cl. 346—22.
Simjian, Luther G., to Universal Match Corp. Depository machine combined with image recording means. 3,079,603, 2–26–63, Cl. 346—22.
Simjian, Luther G., to Universal Match Corp. Depository machine combined with image recording means. 3,092,433, 6–4–63, Cl. 346—22.
Simjian, Luther G., to Universal Match Corp. Feeding mechanism for documents or the like. 3,095,192, 6–25–63, Cl. 271—3.
Simjian, Luther G., to Universal Match Corp. Subscriber controlled apparatus. 3,097,347, 7–9–63, Cl. 340—147.
Simjian, Luther G., to Universal Match Corp. Dispensing system with receptacle designator. 3,103,960, 9–17–63, Cl. 141—160.
Simjian, Luther G., to Universal Match Corp. Depository machine combined with analyzing and image recording means. 3,104,314, 9–17–63, Cl. 235—61.9.
Simjian, Luther G., to Universal Match Corp. Security arrangement for depository machine. 3,110,540, 11–12–63, Cl. 346—22.
Simjian, Luther G., to Universal Match Corp. Depository apparatus. 3,112,019, 11–26–63, Cl. 194—2.
Simko, Edward G., to General Mills, Inc. Balloon construction. 3,107,884, 10–22–63, Cl. 244—31.
Simko, Edward G., and E. L. Hamernik, to United States of America, Army. Method of inflating high altitude inflatable structures. 3,107,008, 10–15–63, Cl. 244—1.
Simm, Walter: *See*—
Muller, Rudolf, Simm, and Linsert. 3,092,198.
Simmen, Robert, to Mefina S.A. Fuze for projectile. 3,115,-094, 12–24–63, Cl. 102—74.
Simmering-Graz-Pauker Aktiengesellschaft fur Maschinen-, Kessel -und Waggonbau: *See*—
Fritsch, Felix. 3,080,775.
Simmon, Alfred, and L. L. Weisglass, to Simmon Bros. Inc. Color filter devices for photographic printers and enlargers. 3,077,140, 2–12–63, Cl. 88—24.
Simmon, Alfred, and L. L. Weisglass, to Simmon Bros., Inc. Density control for photographic enlargers. 3,086,-709, 4–23–63, Cl. 235—184.
Simmon Bros., Inc.: *See*—
Simmon, Alfred, and Weisglass. 3,077,140.
Simmon, Alfred, and Weisglass. 3,086,709.
Weisglass, Louis L. 3,081,670.
Weisglass, Louis L. 3,097,563.
Simmonds, Milo R.: *See*—
Replogle, Edward H., and Simmonds. 3,101,734.
Simmonds Precision Products, Inc.: *See*—
Atun, Nathan. 3,114,262.
Edwards, Harrison F. 3,080,513.
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Simmons, Anthony T. F., to The English Electric Co. Ltd. Temperature control systems for aircraft. 3,071,185, 1–1–63, Cl. 165—22.
Simmons, Charles A., Sr., to Consolidated Devices & Development, Inc. Automobile parking system. 3,085,701, 4–16–63, Cl. 214—16.1.
Simmons, Charles P. Sofa-bed hinge mechanism. 3,107,363, 10–22–63, Cl. 5—41.
Simmons, Charles P. Sofa-bed hinge mechanism. 3,107,364, 10–22–63, Cl. 5—41.
Simmons Co.: *See*—
Blecker, Raymond H. 3,079,613.
Downs, William T., and Ryan. 3,080,720.
Mayer, Edwin H. 3,077,613.
Novascone, John L. 3,080,578.
Williams, Richard J., Heyl, and Downs. 3,081,463.
Simmons, Dorsey D., and C. G. Svala, to North Electric Co. Magnetic latching crossbar switch. 3,102,931, 9–3–63, Cl. 179—27.54.
Simmons, Edward C.: *See*—
Mann, Leonard J., Williamitis, and Simmons. 3,097,509.
Simmons, Edward R.: *See*—
Hildebrandt, Robert L., Newton, and Simmons. 3,103,-249.
Simmons, Fred A., to Simmons Tool Co., Inc. Broom-rake. 3,078,652, 2–26–63, Cl. 56—400.17.
Simmons, Harold C.: *See*—
Webster, William G., and Simmons. 3,080,885.
Simmons, Harold C., to Parker-Hannifin Corp. Spill type fuel injection nozzle. 3,097,795, 7–16–63, Cl. 239—124.
Simmons, Harold C., and L. B. O'Sickey, to Parker-Hannifin Corp. Fuel injection nozzle. 3,093,317, 6–11–63, Cl. 239—453.
Simmons, Harold T., to Mallory Timers Co., a Division of P. R. Mallory & Co., Inc. Intermittent driving device for a timer mechanism. 3,115,785, 12–31–63, Cl. 74—125.
Simmons, Howard E., Jr., to E. I. du Pont de Nemours and Co. Process for preparing cyclopropane derivatives. 3,074,-984, 1–22–63, Cl. 260—414.
Simmons, Jesse T. Bearing servicing tool. 3,083,449, 4–2–63, Cl. 29—255.
Simmons, Jesse T. Press for automotive service. 3,111,752, 11–26–63, Cl. 29—252.

Simmons, Lawrence C., to Cleveland Technical Center, Inc. Bearing apparatus. 3,071,420, 1–1–63, Cl. 308—87.

Simmons, Lawrence C., to Cleveland Technical Center, Inc. Loading system apparatus. 3,098,562, 7–23–63, Cl. 206—46.

Simmons Motor Units Ltd.: *See*—
Robinson, Edward L., and Shimwell. 3,108,217.

Simmons, Odya R. Water dispersal apparatus. 3,081,949, 3–19–63, Cl. 239—383.

Simmons, Richard G. Snow blower apparatus. 3,099,097, 7–30–63, Cl. 37—19.

Simmons, Richard G. Snow blower apparatus. 3,099,396, 7–30–63, Cl. 239—590.

Simmons, Robert C.: *See*—
Combs, Charles W., and Simmons. 3,077,563.
Janke, Kurt E., and Simmons. 3,079,572.

Simmons Tool Co., Inc.: *See*—
Simmons, Fred A. 3,078,652.

Simmons, Wayne A., to Tyler Pipe and Foundry Co. Pipe joint fabricating tool. 3,096,572, 7–9–63, Cl. 29—237.

Simms, F. S., & Co. Ltd.: *See*—
Barr, George M. 3,107,124.

Simms Motor Units Ltd.: *See*—
Miracki, Zdzislav S. 3,103,822.
North, Geoffrey R. 3,093,125.
Peterson, Thomas, and Uttin. 3,074,625.

Simnad, Massoud T.: *See*—
Goeddel, Walter V., and Simnad. 3,087,877.

Simo, Frank E., to Eaton Mfg. Co. Eddy current clutch control for a synchronized drive. 3,076,906, 2–5–63, Cl. 310—94.

Simon-Carves Ltd.: *See*—
Penn, Arthur, and Marsh. 3,075,476.

Simon, Donald R.: *See*—
Ratajski, Ziemowit R. S., and Simon. 3,112,464.

Simon, Donald R., and T. W. Parsons, to General Precision, Inc. Frequency resolver. 3,116,464, 12–31–63, Cl. 331—107.

Simon, Ell: *See*—
George, Melvin F., Jr., Simon, and Burkart. 3,079,289.
Hamilton, William F., Levine, and Simon. 3,084,024.

Simon, Ell, and F. W. Thomas, to Lockheed Aircraft Corp. Composition comprising a polyisocyanate reaction product and a polysulfide polymer. 3,077,464, 2–12–63, Cl. 260—42.

Simon, Ell, and F. W. Thomas, to Lockheed Aircraft Corp. Cellular reaction product of alkyd resin, polyhydric alcohol and arylene polyisocyanate and method of preparation. 3,106,537, 10–8–63, Cl. 260—2.5.

Simon, George, to Kay Mfg. Corp. Double hinged inner spring unit. 3,099,843, 8–6–63, Cl. 5—351.

Simon, Henry, Ltd.: *See*—
Bingham, John D. 3,113,923.

Simon, Jacob. Ball attacher. 3,078,882, 2–26–63, Cl. 140—93.

Simon, James P., to General Electric Co. Gas turbine scroll mount. 3,084,907, 4–9–63, Cl. 253—39.

Simon, Lewis B. Chamber orbiting rotary internal combustion engine. 3,114,354, 12–17–63, Cl. 123—16.

Simon, Myron S.: *See*—
Blout, Elkan R., Cohen, Green, and Simon. 3,077,402.
Blout, Elkan R., Green, Rogers, and Simon. 3,076,820.
Goulston, Arthur B., and Simon. 3,081,167.
Green, Milton, Morse, and Simon. 3,091,530.

Simon, Stephane M., to International Standard Electric Corp. Electrical trigger circuit. 3,081,419, 3–12–63, Cl. 317—148.5.

Simon, Stephane M. C. V., and E. J. H. De Raedt, to International Standard Electric Corp. Test device for telecommunication systems. 3,079,465, 2–26–63, Cl. 179—18.

Simon, Walter, H. J. Waldmann, R. Melan, and E. Plauth, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Production of cyclic alcohols and ketones. 3,093,686, 6–11–63, Cl. 260—586.

Simon, Warner H. High purity arc welding and apparatus therefor. 3,108,176, 10–22–63, Cl. 219—74.

Simon, Werner. Paint-spraying device with rotating brush. 3,084,069, 4–2–63, Cl. 117—111.

Simon, William, to Image Instruments, Inc. X-ray system. 3,076,054, 1–29–63, Cl. 178—6.5.

Simonds, Clarence S.: *See*—
Bell, Robert E., and Simonds. 3,105,940.

Simonds Saw and Steel Co.: *See*—
Kolesh, Victor A. 3,104,562.
Kolesh, Victor A. 3,115,242.
Kolesh, Victor A., and Lamlein. 3,088,502.

Simone, Dominic: *See*—
Herman, Daniel F., Simone, and Weil. 3,114,737.

Simonetta, John. Adjustable binder attachment for sewing machines. 3,112,719, 12–3–63, Cl. 112—137.

Simonette, Ralph: *See*—
Adams, Omar, Simonette, and Hildyard. 3,077,082.

Simonini, Gian C. Process for the treatment of vegetable material, particularly tobacco leaf, for the purpose of making it ready for commercial shipment. 3,084,488, 4–9–63, Cl. 53—24.

Simoniz Co.: *See*—
Chen, Ming C., and Cox. 3,103,408.
Kendall, Edward R. 3,074,799.
Smith, Thomas B., and Geen. 3,072,492.

Simonoff, Natalie L. Combination garment. 3,088,116, 5–7–63, Cl. 2—78.

Simons, Allison K., to Bostrom Corp. Seat suspension system. 3,098,676, 7–23–63, Cl. 297—307.

Simons, Allison K., A. O. Radke, and H. N. Tengler, to Bostrom Corp. Spring suspension for seats. 3,109,021, 11–5–63, Cl. 248—399.

Simons, Aloys. Centrifuge construction. 3,115,457, 12–24–63, Cl. 210—232.

Simons, Courtney S., to Freeport Sulphur Co. Leaching of chromium, nickel, cobalt, and manganese from ores. 3,082,080, 3–19–63, Cl. 75—119.

Simons, Gordon F.: *See*—
Morana, Simon J., Simons, and Wummer. 3,116,110.
Morana, Simon J., Simons, and Wummer. 3,116,111.

Simons, Jack. Applicator for liquids. 3,090,070, 5–21–63, Cl. 15—541.

Simonson, Lowden, C. Wieman, H. K. Reamey, Jr., and J. Kiefer, to Reynolds Metals Co. Graphite mold casting system. 3,076,241, 2–5–63, Cl. 22—200.1.

Simpelaar, Clyde S., to Modine Mfg. Co. Heat exchanger. 3,106,958, 10–15–63, Cl. 165—181.

Simpkins, Alan B., to Delcon Corp. Communication system. 3,114,800, 12–17–63, Cl. 179—1.5.

Simpkins, Gideon M., to Airaterra. Flush coupling assemblies. 3,079,178, 2–26–63, Cl. 285—83.

Simpkins, Gideon M., to Airaterra. Flush closure. 3,091,-356, 5–28–63, Cl. 220—25.

Simpkins, Gideon M., to Airaterra. Closure. 3,091,358, 5–28–63, Cl. 220—46.

Simpkins, Margaret R.: *See*—
Simpkins, Ralph A. 3,072,399.

Simpkins, Ralph A., deceased, by M. R. Simpkins, administratrix, to Darco, Inc. Amusement ride. 3,072,399, 1–8–63, Cl. 272—36.

Simpkins, William, to Tiffany Stand Co. Support construction. 3,099,233, 7–30–63, Cl. 108—156.

Simpkins, William, to Tiffany Stand Co. Support construction. 3,102,616, 9–3–63, Cl. 189—36.

Simpla Research and Mfg. Co.: *See*—
Rosenberg, Paul. 3,104,351.

Simplex Lock Corp.: *See*—
Fengler, Ferdinand. 3,115,765.

Simplex Wire and Cable Co.: *See*—
Munn, Paul S. 3,114,793.

Simplicity Engineering Co.: *See*—
Behnke, George W. 3,078,890.
Behnke, George W., and Westcott. 3,105,815.

Simplot, J. R., Co.: *See*—
Kueneman, Ray W., and Conrad. 3,085,019.

Simpson, Alfred M., to The Metal Box Co. Ltd. Carton transferring apparatus. 3,096,693, 7–9–63, Cl. 93—51.

Simpson, Arthur I. F.: *See*—
Ivens, Edgar, and Simpson. 3,102,169.

Simpson, Arthur I. F., and W. A. Cawthra, to Modern Telephones (Great Britain) Ltd. Transistor amplifiers with protective circuit means. 3,101,453, 8–20–63, Cl. 330—22.

Simpson, DeRoy. Portable fence. 3,108,786, 10–29–63, Cl. 256—59.

Simpson, De Roy. Exhaust filter. 3,110,581, 11–12–63, Cl. 55—387.

Simpson, De Roy. Disposable exhaust filter. 3,110,582, 11–12–63, Cl. 55—446.

Simpson, Donald B., to Ko-Lap-So-Carton Co. Holder for milk cartons. 3,084,829, 4–9–63, Cl. 220—85.

Simpson, Duncan W.: *See*—
Dawson, William H., Jr., and Simpson. 3,078,595.

Simpson, Frank E., and J. D. Hoffman, to FMC Corp. Bag making machine. 3,093,280, 6–11–63, Cl. 225—96.

Simpson, Frank E., and J. D. Hoffman, to FMC Corp. Bag stacking mechanism. 3,105,422, 10–1–63, Cl. 93—93.

Simpson, Frederick A. Thermally controlled valve with three ports. 3,088,672, 5–7–63, Cl. 236—12.

Simpson, George G.: *See*—
Herrington, Charley W., and Simpson. 3,083,128.

Simpson, Harry M. Game and toy. 3,106,039, 10–8–63, Cl. 46—47.

Simpson, Herbert, Corp.: *See*—
McIlvaine, Robert L. 3,077,714.
McIlvaine, Robert L. 3,086,719.
McIlvaine, Robert L., and Donat. 3,088,183.
McIlvaine, Robert L., and Granath. Re. 25,475.

Simpson, Jack N.: *See*—
Gongoll, Vernon F., Simpson, and Boyer. 3,073,410.

Simpson, James H., Jr.: *See*—
Greenwood, Ivan A., Jr., Lowdenslager, and Simpson. 3,103,624.

Simpson, James W., Jr., and R. S. Arnold, to General Electric Co. Indicator. 3,092,071, 6–4–63, Cl. 116—129.

Simpson, Justin, to Continental Can Co., Inc. Side seam indexing device for cans. 3,110,247, 11–12–63, Cl. 101—38.

Simpson Mfg. Co.: *See*—
Arnt, Herald P., Jr. 3,088,332.

Simpson, Orville, Co., The: *See*—
Corbin, Vernon L., and Crain. 3,081,874.

Simpson, Paul F.: *See*—
Hagan, Albert W., and Simpson. 3,098,600.

Simpson, Richard W.: *See*—
Atwood, Seth G., Kittle, Keith, Slattery, and Simpson. 3,071,292.

Simpson, S., Ltd.: *See*—
Diamond, Alfred. 3,098,288.

Simpson, Verne G.: *See*—
Smith, Wendell V., and Simpson. 3,084,115.

Simpson, Victor R., to International Business Machines Corp. Type belt device. 3,113,509, 12–10–63, Cl. 101—111.

Simpson, Warren C., and H. J. Sommer, to Shell Oil Co. Surfacing compositions comprising a mixture of a polyepoxide, a polyamide and a petroleum derived bituminous material. 3,103,771, 10–15–63, Cl. 117—32.

Simpson, William G. Apparatus for measuring feet for boots, shoes and other footwear. 3,098,301, 7–23–63, Cl. 33—3.

Sims, Charles R.: *See*—
McMath, Marl, and Sims. 3,110,925.

Sims, Claude C., to United States of America, Navy. High pressure piezoelectric hydrophone with tungsten backing plate. 3,079,584, 2–26–63, Cl. 340—10.

Sims, Donald E.: *See*—
Cooper, Leon M., and Sims. 3,115,620.

Sims, Homer J., to Rohm & Haas Co. 1,3,3,5-tetrachloro-2-keto-7-cyano-[2.2.2]-bicyclooctene-5. 3,086,040, 4–16–63, Cl. 260—464.

Sims, Leslie L., to Ethyl Corp. Chlorinated solvents stabilized with mixtures of adioxolane compound, anitro-aliphatic compound, and an aliphatic carboxylic acid ester. 3,113,155, 12–3–63, Cl. 260—652.5.

Sims, Leslie L., to Ethyl Corp. Chlorinated solvents stabilized with mixture of a dioxolane compound and a nitro-aliphatic compound. 3,113,156, 12–3–63, Cl. 260—652.5.

Sims, Victor A.: *See*—
Vitcha, James F., and Sims. 3,089,899.
Vitcha, James F., and Sims. 3,089,900.
Vitcha, James F., and Sims. 3,089,901.
Vitcha, James F., and Sims. 3,089,902.

Sims, Walter M. Ice cream freezer assembly. 3,087,708, 4–30–63, Cl. 259—53.

Simshauser, Herbert H. Variable pitch boat propeller. 3,099,320, 7–30–63, Cl. 170—160.13.

Sinclair, Alfred C., to Anderson, Clayton & Co. Vehicle lift with adjustable arms. 3,080,018, 3–5–63, Cl. 187—8.75.

Sinclair, Charles W., to Kelsey-Hayes Co. Method of making a brake drum. 3,090,114, 5–21–63, Cl. 29—447.

Sinclair, George E., to Scott & Williams, Inc. Elastic yarn feeder for knitting machines. 3,099,143, 7–30–63, Cl. 66—132.

Sinclair, Harold. Hydraulic turbo couplings. 3,075,354, 1–29–63, Cl. 60—54.

Sinclair Refining Co.: *See*—
Keith, Willis C., and Cotton. 3,075,009.
McReynolds, John I. 3,076,543.
Neubauer, Albert V. 3,081,761.
Sheldahl, David B., and Entwistle. 3,086,870.
Sheldahl, David B., and Entwistle. 3,086,871.

Sinclair Research Inc.: *See*—
Bartlett, Ronald S., Michaels, and Thomas. 3,079,447.
Bartlett, Ronald S., Michaels, and Thomas. 3,113,979.
Boyd, John L. 3,077,387.
Burk, Emmett H., Jr., Korelitz, and Jordan. 3,116,340.
Carlson, Dennis R., Case, and Patinkin. 3,083,088.
Case, Everett N., and Chambers. 3,098,728.
Case, Everett N., Patinkin, and Dellert. 3,083,086.
Chambers, Robert A., Sanford, Patinkin, and Foster. 3,109,869.
Cole, Eldon B., and Niles. 3,092,475.
Creech, Barnard, and Vierk. 3,078,237.
Curtice, Jay S., Snow and Baillie. 3,087,064.
Dresser, Thorpe. 3,113,982.
Emery, Leonard W. 3,115,929.
Friedman, Bernard S., and Zmitrovis. 3,097,155.
Grady, Anthony G., Verdol, and Walker. 3,080,275.
Haney, Stanley C., and Verdol. 3,088,815.
Hoffman, William D., and Burk. 3,113,159.
Holbert, Don R. 3,097,525.
Keith, Carl D., and Erickson. 3,079,327.
Keith, Willis C. 3,083,087.
Keith, Willis C. 3,098,884.
Keith, Willis C., and Chambers. 3,086,991.
Keith, Willis C., Verdol, and Zmitrovis. 3,099,686.
Keith, Willis C., and Zmitrovis. 3,100,232.
Keith, Willis C., and Zmitrovis. 3,102,904.
Kirk, James H. 3,077,449.
Korelitz, Theodore H. 3,103,545.
Kovach, Stephen M. 3,104,268.
Matson, Howard J. 3,097,170.
Monagle, John J. 3,081,285.
Mool, John, Thomas, and Burk. 3,085,971.
Muskat, Irving E. 3,085,986.
Muskat, Irving E. 3,085,994.
Nelson, John W. 3,076,763.
Nelson, John W. 3,110,670.
Nelson, John W., and Young. 3,071,634.
Patinkin, Seymour H., Sanford, and Chambers. 3,110,-741.
Pelzer, Harry L., and Calhoun. 3,110,344.
Perry, Robert O., and Holbert. 3,114,419.
Sanford, Robert A., Ballard, and Anderson. 3,083,244.
Shapiro, Paul, and Collings. 3,091,580.
Shapiro, Paul, Collings, Sheldahl, and Watkins. 3,078,-992.
Shapiro, Paul, Sheldahl, and Collings. 3,096,169.
Sheldahl, David G., Collings, Shapiro, and Watkins. 3,078,993.
Smith, Reading B. 3,080,300.
Smith, Reading B., and Dresser. 3,103,541.
Stahly, Eldon E. 3,105,351.
Truman, Paul W. 3,083,570.

Sinclair Research Inc.: *See*—Continued
Young, David W. 3,081,321.
Young, David W. 3,081,322.
Young, David W. 3,083,168.
Young, David W. 3,113,150.
Verdol, Joseph A. 3,096,286.
Vlasic, John. 3,114,393.
Watkins, Franklin M., and Sheldahl. 3,078,991.
Westphal, James A. 3,073,406.
Westphal, James A. 3,101,547.
Zenor, Hughes M. 3,082,943.

Sinclair, Richard L., and R. E. Jenkins; said Jenkins assor. to said Sinclair. Automobile parking apparatus. 3,079,015, 2–26–63, Cl. 214—16.1.

Sinclair, William R., and J. C. Williams, to Bell Telephone Laboratories, Inc. Mullite synthesis. 3,073,770, 1–15–63, Cl. 204—192.

Sindelar, Lawrence R., to The Goodyear Tire & Rubber Co. Apparatus for molding valve receiving aperture in a tire. 3,096,541, 7–9–63, Cl. 18—2.

Sindelar, William F., to Master Power Corp. Detent coupling means for socket of rotary power tool. 3,097,859, 7–16–63, Cl. 279—97.

Sinden, Alfred D., to Stephens-Adamson Mfg. Co. Eccentric drive for vibrating conveyor. 3,099,349, 7–30–63, Cl. 198—220.

Sinder, Mary: *See*—
Weller, Annette, and Sinder. 3,111,878.

Sindery, Guy G., to Houseman & Thompson Ltd. Protecting metal surfaces by corrosion inhibiting atmospheres. 3,084,022, 4–2–63, Cl. 21—2.5.

Sindlinger, Norman E.: *See*—
Fuller, Dudley D., Loeb, and Sindlinger. 3,076,523.

Sindlinger, Paul W.: *See*—
Reed, Theron J. 3,107,825.

Sindri Fertilizers and Chemicals Ltd.: *See*—
Chakravorty, Kshitish R., and Dutta. 3,088,924.

Sindric, Richard N.: *See*—
Weiner, Myron J., and Sindric. 3,081,116.

Sindy, Clarence F., to General Electric Co. Flash bulb filling apparatus. 3,098,335, 7–23–63, Cl. 53—59.

Sindy, Clarence F., and F. V. Kolda, to General Electric Co. Lamp mount forming machine. 3,084,721, 4–9–63, Cl. 140—71.6.

Siner, Stephen J., and V. Sussman, to Joseph Waldman & Sons. Sealing means and method of sealing. 3,077,639, 2–19–63, Cl. 18—59.

Sines, Francis J., to United States Steel Corp. Blast furnace tops. 3,095,986, 7–2–63, Cl. 214—35.

Sinex, Gene O., to American Tank and Steel Corp. Fluid separating apparatus. 3,077,713, 2–19–63, Cl. 55—219.

Singdale, Fred N., and W. H. Righter, to Lockheed Aircraft Corp. Resistance strain gage and method for making same. 3,079,575, 2–26–63, Cl. 338—2.

Singelmann, Dietrich E., to Bell Aerospace Corp. Water jet engine. 3,099,133, 7–30–63, Cl. 60—35.5.

Singer, Charles, to R. R. Donnelley & Sons Co. Record strip controlled individual-type casting and composing machine. 3,110,396, 11–12–63, Cl. 199—77.

Singer-Cobble, Inc.: *See*—
Beasley, Max M. 3,108,553.
Card, Joseph L. 3,084,644.
Card, Roy T. 3,075,482.
Card, Roy T. 3,084,645.
Card, Roy T. 3,096,734.
Gowin, Grover Z. 3,073,197.
Hammel, Wallace W., Jr. 3,103,187.

Singer Co., The: *See*—
Card, Joseph L. 3,115,856.
Cook, Albert N. 3,114,852.
Doerner, Ernest H. 3,106,176.
Happe, Reynold, Sailer, and Lubas. 3,109,164.
Johnson, Ralph E. 3,103,191.
Johnson, Ralph E., and Bartosz. 3,099,972.
Ketterer, Stanley J. 3,103,189.
Ketterer, Stanley J. 3,113,539.
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Ketterer, Stanley J. 3,115,855.
Lees, Nathaniel P. 3,099,973.
Mahler, Peter A., and Boyer. 3,111,827.
Perla, Martin R. 3,113,536.
Perla, Martin R. 3,113,538.
Szostak, Jan, and Brofsky. 3,105,449.
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Singer, Ernst. Pressure regulating valves utilizing a bar spring. 3,076,475, 2–5–63, Cl. 137—505.21.

Singer-Fidelity, Inc.: *See*—
De Mosa, John, and Peel. 3,083,553.
Mahler, Peter A. 3,081,609.
Mahler, Peter A. 3,090,216.

Singer, Franz: *See*—
Gebele, Kurt, and Singer. 3,089,401.
Gebele, Kurt, and Singer. 3,095,790.

Singer, Franz, to Compur-Werk G.m.b.H. & Co. Photographic camera. 3,071,054, 1–1–63, Cl. 95—10.

Singer, Franz, to Compur-Werk G.m.b.H. & Co. Photographic camera. 3,094,052, 6–18–63, Cl. 95—10.

Singer, Franz, to Compur-Werk G.m.b.H. & Co. Photographic camera. 3,110,236, 11–12–63, Cl. 95—10.

Singer, Jerome R., to The Regents of the University of California. Frequency stabilization system. 3,116,463, 12–31–63, Cl. 331—9.

Singer, Joe K., to Socony Mobil Oil Co. Regulated hydrogen-to-naphtha mol ratio. 3,091,584, 5–28–63, Cl. 208—65.

Singer, John J., and M. Weisberg, to Hampshire Chemical Corp. Iron chelate compositions. 3,115,511, 12–24–63, Cl. 260—439.

Singer, Josef, to Farbenfabriken Bayer Aktiengesellschaft. Quaternary coermunidonines. 3,107,247, 10–15–63, Cl. 260—274.

Singer, Leo S.: *See*—
Kaplan, Martin. 3,093,835.

Singer, Leon, and W. D. Armstrong, to The Regents of the University of Minnesota. Liquid food treating process. 3,094,419, 6–18–63, Cl. 99—60.

Singer Mfg. Co., The: *See*—
Alderman, Robert E. 3,097,278.
Cook, Albert N. 3,082,320.
Di Camillo, Raymond J. 3,094,088.
Enos, John P. 3,074,365.
Habedank, Gustav J., and Kuhar. 3,074,367.
Hayes, Frank A., Abel, and Herr. 3,084,640.
Herr, John A., and Reid. 3,089,441.
Johnson, Ralph E. 3,084,646.
Johnson, Ralph E. 3,096,736.
Johnson, Ralph E., and Kohlmayer. 3,074,364.
Ketterer, Stanley J. 3,084,648.
Kostenowczyk, Stanley. 3,081,723.
Kuhar, Ludwig J. 3,083,659.
Kuhar, Ludwig J. 3,087,388.
Marchand, Nathan. 3,089,086.
Matchett, David W., and Edwards. 3,084,647.
McCann, Francis D. 3,086,485.
McGill, Thomas A. 3,083,653.
Patrick, Vito J., Fisken, and Fenness. 3,089,446.
Patrick, William E. 3,083,661.
Perla, Martin R. 3,095,765.
Ranky, Bela. 3,079,554.
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Stanton, Edward W., and Hofgesang. 3,078,132.
Szuba, Walter D., and Benzing. 3,094,085.
Thorne, Charles L. 3,094,087.
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Kuzma, Stephen, and Singer. 3,084,824.
Kuzma, Stephen, and Singer. 3,103,278.

Singer, Robert B.: *See*—
Michell, William P., and Singer. 3,074,524.

Singer, Robert E., to Monroe Calculating Machine Co. Control for data processing. 3,106,338, 10–8–63, Cl. 234—58.

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Mishcon, Lester. 3,099,142.

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Singiser, Robert E.: *See*—
Heiser, Albert L., Jr., Lowenthal, and Singiser. 3,112,220.

Singleton, Jack: *See*—
Tallis, Ernest E., and Singleton. 3,110,059.

Singleton, John C., to Diamond Power Specialty Corp. Stud tensioner. 3,077,335, 2–12–63, Cl. 254—29.

Singleton, John C., and L. S. De Mart, to Diamond Power Specialty Corp. Stud tensioner drawbar connector. 3,115,332, 12–24–63, Cl. 254—29.

Singleton, Robert C.: *See*—
Flynn, Robert D., and Singleton. 3,094,607.

Sinha, Shyamal K., V. Marshall, and G. M. Stewart, Jr., to Jensen-Salsberg Laboratories, Inc. Serial passage of distempered virus in tissue cultures of chick embryo and canine tissue and vaccine therefrom. 3,080,291, 3–5–63, Cl. 167—78.

Sinhoff, Alfred O., to Waggonfabrik Talbot. Offset pivoted closure for hopper cars. 3,075,477, 1–29–63, Cl. 105—247.

Sinia Viscosa Societa Nazionale Industria Applicazioni Viscosa S.p.A.: *See*—
Notarbatolo, Luigi, and Pasin. 3,073,670.

Sink, William H., to Dana Corp. Clutch plate. 3,091,949, 6–4–63, Cl. 64—27.

Sink, William H., to Dana Corp. Clutch control linkage. 3,096,663, 7–9–63, Cl. 74—481.

Sinkewitsch, Leonid, to M. Grundig. Tape recorder. 3,111,281, 11–19–63, Cl. 242—55.13.

Sinn, Gerhard: *See*—
Anke, Klaus, Ertel, Frohr, Kessler, Pritsching, and Sinn. 3,093,781.

Sinn, Gustav: *See*—
Brachel, V., Hanswilli, Esser, Holtschmidt, and Sinn. 3,097,173.
Esser, Heinz, Sinn, and Von Brachel. 3,087,899.

Sinn, Gustav, R. Dietrich, and H. Esser, to Farbenfabriken Bayer Aktiengesellschaft. Stable aqueous emulsions of elastomeric chloroprene copolymers containing zinc oxide. 3,078,247, 2–19–63, Cl. 260—29.7.

Sinn, Richard: *See*—
Aroyan, Harry J., Sinn, Scherf, and Vogel. 3,073,754.

Sinnema, Yde A., to Twincon Koog-Zaandijk, N.V. Process for the preparation of a cocoa butter substitute as well as for the preparation of chocolate and the shaped products thus obtained. 3,084,049, 4–2–63, Cl. 99—118.

Sinner, Herbert: *See*—
Fries, Walter, and Sinner. 3,079,344.

Sinninger, Dwight V., to Senn Custom, Inc. Digit display apparatus. 3,081,450, 3–12–63, Cl. 340—336.

Sinninger, Dwight V., to Senn Custom, Inc. Electrical socket adapter having tube pin base. 3,109,124, 10–29–63, Cl. 317—101.

Sinnock, Pomeroy, to New Castle Products International, Inc. Folding door fabric stiffening. 3,095,032, 6–25–63, Cl. 160—84.

Sinski, Henry A.: *See*—
Russo, Carl J., Trifunovic, and Sinski. 3,090,579.
Russo, Carl J., Trifunovic, and Sinski. 3,096,562.

Sioles, George W., A. L. Di Mattia, and B. B. Bauer, to Zenith Radio Corp. Tone arm and cartridge assembly. 3,074,726, 1–22–63, Cl. 274—23.

Siomko, George, to Philco Corp. Improved sweep integrator system. 3,092,778, 6–4–63, Cl. 328—165.

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Sipe, Charles B. Holder. 3,094,215, 6–18–63, Cl. 211—13.

Sipe, James C., to United States Steel Corp. Method and composition for shielding steel from molten coating metal. 3,089,780, 5–14–63, Cl. 117—5.5.

Sipos, Walter. Cigarette filter. 3,081,777, 3–19–63, Cl. 131—10.

Sipos, Walter, 40% to Mary C. Ackerman. Insect trap. 3,103,391, 10–29–63, Cl. 43—113.

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Sippel, Charles P., Jr.: *See*—
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Wanielista, Walter, and Sippel. 3,110,491.

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Wunderlich, Gerhard, and Sippel. 3,096,432.

Sippel, Robert J.: *See*—
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Sippican Corp., The: *See*—
Ayer, William H., and Joslin. 3,098,951.
Francis, Samuel A., Gray, and Ayer. 3,083,261.

Sipple, Howard B.: *See*—
Walkey, George J., Sipple, Sorenson, and Norris. 3,098,444.

Sipress, Jack M., to Bell Telephone Laboratories, Inc. Nonreciprocal wave translating network. 3,098,978, 7–23–63, Cl. 330—12.

Sir Properties, Inc.: *See*—
Hack, Joseph. 3,101,297.

Sire, Edouard M. Magnetic games. 3,090,622, 5–21–63, Cl. 273—126.

Sirianni, Aurelio F.: *See*—
Puddington, Ira E., and Sirianni. 3,109,805.

Sirius: *See*—
Blanchard, Jean M. 3,071,145.

Sirles, Aden R.: *See*—
Komline, Thomas R., and Sirles. 3,090,488.

Sirons, Janis A., to United States of America, Air Force. Laser pumping technique using an internal pumping source. 3,102,920, 9–3–63, Cl. 88—1.

Sirota, Julius, to National Starch and Chemical Corp. Delayed tack coatings. 3,082,108, 3–19–63, Cl. 106—186.

Sirota, Julius, and B. D. Jubilee, to National Starch and Chemical Corp. Tape joint cement comprising polyvinyl alcohol and clay and method for preparing same. 3,084,183, 4–2–63, Cl. 260—29.6.

Sirugue, Edouard V., to Etablissements Sirugue & Cie, Societe a Responsabilite Limitee. Punching machine with photoelectric means to stop work carriage and actuate punch. 3,072,003, 1–8–63, Cl. 83—213.

Sisk, George W., Jr.: *See*—
Hames, William A., Jr., Jungemann, and Sisk. 3,084,522.

Siskind, Philip: *See*—
Borghard, Allan A., and Siskind. 3,077,553.

Siskind, Philip, to Sperry Rand Corp. Redundant amplifier failure alarm. 3,072,858, 1–8–63, Cl. 330—2.

Sisler, Robert R., to General Electric Co. Clutch control arrangement. 3,092,230, 6–4–63, Cl. 192—105.

Sisson, Earl L., to Clark Metal Products Inc. Combination cane and retriever. 3,093,402, 6–11–63, Cl. 294—19.

Sisson, Earl L., to Clark Metal Products, Inc. Workpiece-operated machine control. 3,109,527, 11–5–63, Cl. 192—125.

Sisson, Gilbert E.: *See*—
Nelson, Alden W., and Sisson. 3,098,621.

Sisson, James B., to St. Regis Paper Co. Method of forming a container from a flexible laminate of foamed polystyrene. 3,094,449, 6–18–63, Cl. 156—184.

Sistare, George H., and C. D. Coxe, to Handy & Harman. Silver composition. 3,114,631, 12–17–63, Cl. 75—173.

Sites, Benjamin L., to Miehle-Goss-Dexter, Inc. Optical system and method for making corrected color separations. 3,099,557, 7–30–63, Cl. 96—30.

Sittel, Richard L., to Unit Rig & Equipment Co. Vertically adjustable trailer unit. 3,102,734, 9–3–63, Cl. 280—43.19.

Sittel, Richard L., and J. A. Shelton, to Unit Rig & Equipment Co. Steering and follow-up linkage assembly. 3,096,844, 7–9–63 Cl. 180—79.2.

Sitz, Gilbert C.: *See*—
Hahn, Paul T., and Sitz. 3,107,961.

Sitz, Gilbert C., to AMP Incorporated. Electrical pin board. 3,085,220, 4–9–63, Cl. 339—18.

Sitzler, Edward R., and M. C. Lehring. Fishing float. 3,107,451, 10–22–63, Cl. 43—44.87.

Siuta, Walter T.: *See*—
Dantro, Horace F., Kalinowski, and Siuta. 3,091,515.

Sivacek, Emil E., to King-Seeley Thermos Co. Method for manufacturing a thermo-responsive device. 3,110,954, 11–19–63, Cl. 29—155.63.

Siverson, Marvin A. Deceleration and acceleration device for a sawmill carriage. 3,084,725, 4–9–63, Cl. 143—108.

Sivil, Blanche O.: *See*—
Hill, James S., and Sivil. 3,091,026.

Sivil, Cecil S.: *See*—
Hill, James S., and Sivil. 3,091,026.

Siwek, Stanley Z.: *See*—
Goldberg, Harry, Siwek, and Fosnacht. 3,110,998.

Six Cousins, The: *See*—
Paul, Alfred, Jr. 3,084,410.

Sixt, Johann: *See*—
Lohringer, Werner, and Sixt. 3,076,852.

Sizemore, Walter R., to Hanes Hosiery Mills Co. Device for straightening and aligning the points of knitwear looping machines. 3,100,010, 8–6–63, Cl. 153—39.

Sizer, Phillip S., to Otis Eng. Corp. Pressure responsive valve actuator. 3,071,117, 1–1–63, Cl. 121—38.

Sizer, Phillip S., to Otis Eng. Corp. Pressure responsive control valve for well tubing. 3,071,151, 1–1–63, Cl. 137—496.

Sizer, Phillip S., to Otis Engineering Corp. Anchoring and sealing devices. 3,102,593, 9–3–63, Cl. 166—125.

Sjoberg, Nils W., to Prime Mfg. Co. Machine for applying tape. 3,102,287, 9–3–63, Cl. 12—59.5.

Sjogren, Bertil K. F., S. Lindvall, H. W. Heiwinkel, and K. G. Hogberg, to Astra, Apotekarnes Kemiska Fabriker, Aktiebolaget. Process for treating canine distemper. 3,097,134, 7–9–63, Cl. 167—53.

Sjöholm, Claes B., and N. A. Nilsson, now by change of name N. A. Hentzel, to Separator Aktiebolaget. Apparatus for straining cheese curds. 3,071,860, 1–8–63, Cl. 31—48.

Sjostrom, John S., to General Electric Co. Relay testing circuit having monitor relays responsive to improper operation of load-controlling contacts. 3,105,935, 10–1–63, Cl. 324—28.

Sjostrom, John W.: *See*—
Pope, Lyman B., and Sjostrom. 3,088,249.

Sjostrom, Sverker W., to Aktiebolaget Scania-Vabis. Devices for automatic control of a machine in accordance with a predetermined program. 3,095,733, 7–2–63, Cl. 73—91.

Skaggs, Boyd T., to Container Corp. of America. Cushioned shipping folder. 3,116,005, 12–31–63, Cl. 229—40.

Skala, George F.: *See*—
Foody, Francis B., and Skala. 3,114,209.

Skala, George F., to General Electric Co. Gas detection. 3,094,392, 6–18–63, Cl. 23—232.

Skala, George F., to General Electric Co. Method and apparatus for detecting organic vapors and gases. 3,102,192, 8–27–63, Cl. 250—43.5.

Skalka, Albert J. Rotary dammer plow. 3,104,723, 9–24–63, Cl. 172—413.

Skallerup, Robert M. Method and apparatus for use in corrective dental work. 3,074,166, 1–22–63, Cl. 32—19.

Skalsey, Lily G., to National Broach & Machine Co. Automatic loading mechanism for gear finishing machines. 3,095,782, 7–2–63, Cl. 90—1.6.

Skanse, Carl T. Trousers pressing device. 3,089,265, 5–14–63, Cl. 38—69.

Skansen, Gisle: *See*—
Hönningstad, Birger, and Skansen. 3,113,897.

Skanska Attikfabriken A.B.: *See*—
Nyman, Karl B. G. 3,072,925.

Skanska Cementgjuteriet, Aktiebolaget: *See*—
Ahlberg, Anders E. A. 3,107,158.

Skaptason, Joseph B.: *See*—
Langdon, William K., Levis, and Skaptason. 3,104,200.

Skardal, Karl A. Method of cleansing spray tubes. 3,089,792, 5–14–63, Cl. 134—21.

Skarsten, Norman E., to Thorsen Mfg. Co. Packages and methods of packaging. 3,096,877, 7–9–63, Cl. 206—16.

Skarstrom, Charles W., to Esso Research and Engineering Co. Process for the drying of volatile liquids. 3,082,166, 3–19–63, Cl. 208—188.

Skarstrom, Charles W., to Esso Research and Engineering Co. Process for the recovery of hydrogen from hydrocarbon gas streams. 3,101,261, 8–20–63, Cl. 55—58.

Skarstrom, Charles W., to Esso Research and Engineering Co. Heatless fractionation utilising zones in series and parallel. 3,102,013. 8–27–63, Cl. 55—31.

Skarstrom, Charles W., to Esso Research and Engineering Co. Timing cycle for improved heatless fractionation of gaseous materials. 3,104,162, 9–17–63, Cl. 55—58.

Skarstrom, Charles W., and W. O. Heilman, to Esso Research and Engineering Co. Technique with the fractionation or separation of components in a gaseous feed stream. 3,086,339, 4–23–63, Cl. 55—26.

Skarstrom, Charles W., R. P. Crowley, and W. O. Heilman, to Esso Research and Engineering Co. Desulfurizing fluids utilizing pressure cycling technique. 3,102,853, 9–3–63, Cl. 208—211.

Skay, Carl E., to American Cyanamid Co. Production of aluminum sulfate. 3,079,228, 2–26–63, Cl. 23—123.

Skee-Bird Mfg. Co., Inc.: *See*—
Nuss, Maynard M. 3,107,923.

Skees, Hugh B. Insulating material for prevention of the transfer of heat. 3,098,560, 7–23–63, Cl. 206—45.33.

Skees, Hugh B. Inflatable heat insulating material. 3,098,563, 7–23–63, Cl. 206—46.

Skeeters, Maxwell J., to Diamond Alkali Co. Stabilized solvent composition. 3,076,040, 1–29–63, Cl. 260—652.5.

Skegga, Leonard T., to Technicon Instruments Corp. Chromatography analysis apparatus and method. 3,097,927, 7–16–63, Cl. 23—230.

Skeggs, Leonard T., to Technicon Instruments Corp. Fluid processing system with continuous filter apparatus. 3,098,719, 7–23–63, Cl. 23—253.

Skeggs, Leonard T., to Technicon Instruments Corp. Means for separating fluids from each other. 3,109,714, 11–5–63, Cl. 23—253.

Skeggs, Leonard T., and G. Kessler, to Technicon Instruments Corp. Apparatus for treating a liquid with a gas. 3,074,699, 1–22–63, Cl. 261—83.

Skelleftea Gummifabriks A.-B.: *See*—
Svensson, Assar N., and Brandt. 3,107,867.

Skelton, Charles W., to Texas Instruments Inc. Control system. 3,078,353, 2–19–63, Cl. 200—1.

Skelton, Jesse D.: *See*—
Horeth, John M., Skelton, and Stark. 3,110,878.

Skelton, Jesse D., P. S. Williams, and J. T. Baker, to Jersey Production Research Co. Geophysical exploration. 3,076,175, 1–29–63, Cl. 340—15.5.

Skerbinc, Frank: *See*—
Sloan, Otto, and Skerbinc. 3,085,476.

Skerritt, John W., to International Business Machines Corp. High speed multivibrator having cross coupling circuitry. 3,100,848, 8–13–63, Cl. 307—88.5.

Skerritt, John W., to International Business Machines Corp. Exclusive or circuit. 3,103,596, 9–10–63, Cl. 307—88.5.

Skerritt, Roy P. Lawn sprinkler with timed automatic shutoff. 3,089,651, 5–14–63, Cl. 239—68.

Skeuse, Thomas, to Geigy Chemical Corp. Process for coloring polypropylene. 3,097,044, 7–9–63, Cl. 8—55.

Sklatron Electronics & Television Corp.: *See*—
Loshin, Albert M. 3,104,387.
Shannahan, William J. 3,091,759.
Shanahan, William J. 3,106,604.
Shanahan, William J., Zopf, and Loshin. 3,078,337.

Ski-Dek Corp.: *See*—
Hall, Raymond L. 3,101,201.

Skidmore, Archie F., to Union Carbide Corp. Variable chamber sampler and transference apparatus. 3,071,005, 1–1–63, Cl. 73—422.

Skidmore, Richard H., to Welding Engineers, Inc. Process for treating material. 3,082,816, 3–26–63, Cl. 159—49.

Skiff, Russell A., to General Electric Co. Resin compositions and their preparation. 3,073,799, 1–15–63, Cl. 260—47.

Skifstrom, Walter W.: *See*—
Moore, Donovan J., and Skifstrom. 3,111,750.

Skil Corp.: *See*—
Amundsen, Oliver O., and Kocian. 3,097,858.
Hall, Emery L. 3,104,783.
McCloud, James. 3,114,421.
Naslund, Lennart V. 3,114,423.
Summerfield, David N. 3,108,201.

Skiles, Benjamin F., to E. I. du Pont de Nemours and Co. Polymeric acid salts of alkylaminoethyl methacrylate. 3,090,636, 7–30–63, Cl. 260—29.6.

Skill Tool, Inc.: *See*—
Braun, Carl K. 3,077,259.

Skillen, Dawson C., to Giannini Controls Corp. Transistor switching circuit with stabilized leakage current path. 3,073,969, 1–15–63, Cl. 307—88.5.

Skillin, Walter F., to The Cushman Chuck Co. Compensating power chuck. 3,096,988, 7–9–63, Cl. 279—4.

Skillman, William A.: *See*—
Heyser, Lewis S., and Skillman, and Mooney. 3,103,010.

Skinas, Kosmas. Combined scrubbing and drying machines. 3,090,982, 5–28–63, Cl. 15—99.

Skinner Brothers Rubber Co.: *See*—
Hugley, Dale G. 3,079,205.

Skinner, Burrhus F. Teaching and testing machines. 3,107,435, 10–22–63, Cl. 35—9.

Skinner, Clawson N. Facial muscle and tissue conditioning device. 3,091,237, 5–28–63, Cl. 128—60.

Skinner Engine Co.: *See*—
Henning, Joseph A. 3,071,398.

Skinner, George M.: *See*—
Eschenbach, Richard C., Skinner, and Gage. 3,106,632.
Eschenbach, Richard C., Wickham, and Skinner. 3,106,634.

Skinner, George M., R. C. Eschenbach, and R. J. Wickham, to Union Carbide Corp. Arc torch device. 3,106,633, 10–8–63, Cl. 219—75.

Skinner, Harvey G., to Westmoreland Plastics Co., Inc. Handle or rack device with molded ends. 3,075,735, 1–29–63, Cl. 248—251.

Skinner, Kenneth R.: *See*—
Woodward, Myrneth L., and Skinner. 3,075,430.

Skinner Precision Industries, Inc.: *See*—
Roddy, John J. 3,096,097.

Skinner, Ransom P., to Union Carbide Corp. Control apparatus for low temperature refrigeration system. 3,092,977, 6–11–63, Cl. 62—202.

Skinner, Ransom P., and R. M. Poorman, to Union Carbide Corp. Brazing dissimilar metal members. 3,105,293, 10–1–63, Cl. 29—474.4.

Skinner, Robert L., to The Bendix Corp. Valve testing apparatus. 3,100,392, 8–13–63, Cl. 73—46.

Skipor, Eugen, and S. Bachynskyj, 60% to said Skipor and 40% to said Bachynskyj. System for increasing fluid pressure. 3,086,470, 4–23–63, Cl. 103—50.

Skirvin, Clifford D. Photoelectrically controlled transistor circuit. 3,076,897, 2–5–63, Cl. 250—209.

Skladany, Joseph P., to Industrial Paper Log, Inc. Compressed fibrous articles. 3,104,085, 9–17–63, Cl. 248—119.

Sklar, George : *See*—
Seglin, Leonard, Sklar, and White. 3,077,491.

Sklar, Leo P., to Lite-Vent Industries, Inc. Structural beam. 3,099,335, 7–30–63, Cl. 189—37.

Sklar, Samuel. Universal door bucks and door hanging means. 3,083,798, 4–2–63, Cl. 189—46.

Sklaroff, Morton : *See*—
Revesz, George, Sklaroff, and Evalds. 3,077,588.

Sklenar, Jerome B. Water ski rope retrieving apparatus. 3,081,733, 3–19–63, Cl. 114—235.

Skobel, Max. Process and apparatus for making supported sleeving. 3,106,748, 10–15–63, Cl. 18—13.

Skoggard, Bruno B. Hollow structures and methods for forming same. 3,072,929, 1–15–63, Cl. 9—6.

Skold, John F. Periodical vendor. 3,082,910, 3–26–63, Cl. 221—36.

Skold, John F. Multiple coin actuator for vending machines. 3,088,571, 5–7–63, Cl. 194—92.

Skolnik, Edward, to Heyl & Patterson, Inc. Magnetic heavy medium treatment process and apparatus. 3,084,796, 4–9–63, Cl. 209—38.

Skomal, Edward N., to Sylvania Electric Products Inc. High power ferrite isolator having ferrite materials of differing curie temperature. 3,075,159, 1–22–63, Cl. 333—24.2.

Skomp, James H., to Mueller Co. Fire hydrant. 3,076,474, 2–5–63, Cl. 137—307.

Skony, Sigmund J., to Van Products, Inc. Electrical connector. 3,101,985, 8–27–63, Cl. 339—192.

Skoog, Per O. Method and means for producing tight-fitting patches for use in plywood-patching machines. Re. 25,463, 10–15–63, Cl. 156—98.

Skookum Co., Inc., The : *See*—
Baker, Charles J. 3,100,323.

Skopp, Gilbert H., and C. J. Litz, Jr., to United States of America, Army. Load positioning device. 3,077,325, 2–12–63, Cl. 244—122.

Skorupa, Paul, to P. Borsks. Cabinet door frame. 3,109,685, 11–5–63, Cl. 312—204.

Skotnicki, Thaddeus J. : *See*—
Winthrop, Arthur S., and Skotnicki. 3,102,043.

Skov, Erling P., and R. Narma, to Fairchild Recording Equipment Corp. Method and apparatus for eliminating overloading in modulating systems having pre-emphasis means. 3,111,635, 11–19–63, Cl. 333—14.

Skov, Raymond A. : *See*—
Newman Ernest G., Skippell, and Skov. 3,103,000.

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Peterson, Stanley W. 3,094,217.

Skowronski, George V., to American Can Co. Display carton. 3,078,028, 2–19–63, Cl. 229—30.

Skowronski, George V., to American Can Co. Leakproof recessed bottom carton. 3,078,171, 2–19–63, Cl. 99—171.

Skowronski, George V., to American Can Co. Carton. 3,111,255, 11–19–63, Cl. 229—51.

Skramstad, Harold K. : *See*—
Stout, Perry R., Skramstad, Merkle, Bailey, Spangenberg, Rabinow, and Raudenbush. 3,084,340.

Skrebba-Werk, Kommandit-Gesellschaft, Firma : *See*—
Jopp, Walter. 3,076,195.

Skripsky, Harold O. Straight edge with means for attaching to a work piece. 3,085,343, 4–16–63, Cl. 33—80.

Skrmetta, Cecil B. Sink attachment. 3,070,812, 1–1–63, Cl. 4—205.

Skrmetta, Raphael Q. Method for peeling shrimp. 3,070,833, 1–1–63, Cl. 17—45.

Skrobisch, Alfred : *See*—
Foley, Daniel E., and Skrobisch. 3,090,711.

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Skromme, Arnold B. : *See*—
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Skromme, Arnold B., to Deere & Co. Material unloader with rotary beater attachment. 3,104,111, 9–17–63, Cl. 275—3.

Skronek, Robert E., C. D. Tuttle, and C. H. Mellan, to General Motors Corp. Apparatus for gauging profiles. 3,104,471, 9–24–63, Cl. 33—174.

Skrupky, Dan. Transmission gearing. 3,081,646, 3–19–63, Cl. 74—665.

Skubic, Leroy F., to The Paltier Corp. Pallet tiering frame. 3,095,837, 7–2–63, Cl. 108—53.

Skugghall, Oscar A. W., to Nydals Gjuteri och Mekaniska Verkstad, Aktiebolaget. Methods of grinding or polishing elongated rotational bodies. 3,101,577, 8–27–63, Cl. 51—289.

Skumawitz, Max. Automatic vending machines. 3,085,712, 4–16–63, Cl. 221—150.

Skura, William A., to United States Rubber Co. Method of forming belt teeth in reinforced positive drive belts. 3,078,206, 2–19–63, Cl. 156—140.

Skuttle Mfg. Co. : *See*—
Powers, Milton A. 3,087,485.
Powers, Milton A. 3,099,286.

Skvore, Kasimir J., to R. M. Hill, and G. E. Gray. Molding apparatus. 3,081,486, 3–19–63, Cl. 18—2.

Skwierinski, Albion : 5% to J. E. Marshall, Jr., said Marshall attorney in fact for said Skwierinski, assor. of 25% to E. A. Myer, 25% to Dr. M. Aveledo, and 45% to J. M. Rincon. Method of applying mirror coating to acrylic base. 3,094,430, 6–18–63, Cl. 117—35.

Skytop Rig Co. : *See*—
Moller, Bynum W. 3,109,523.

Skywriting Corp. of America : *See*—
Pike, Sele S., and Hansen. 3,114,214.

Slack, Archie V., J. D. Hatfield, and H. K. Walters, Jr., to Tennessee Valley Authority. High-analysis fertilizer suspensions. 3,109,729, 11–5–63, Cl. 71—42.

Slack, Archie V., and H. K. Walters, Jr., to Tennessee Valley Authority. Method of producing high-analysis fertilizer suspensions. 3,113,858, 12–10–63, Cl. 71—42.

Slack, Austin B. : *See*—
English, John A. 3,111,322.

Slack, Frederick F. : *See*—
Greene, Benjamin F., Jr., Knight, Ernst, Slack, Ostroff, Cawley, and McManus. 3,109,170.
Pastoriza, James J., Ring, and Slack. 3,115,535.

Slack, Martin C. : *See*—
English, John A. 3,111,322.

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Chadwick, James A., and Mason. 3,103,978.

Slade, Albert E. : *See*—
McMahon, Howard O., and Slade. 3,106,648.

Slade, Albert E., to Arthur D. Little Inc. Magnetic control device having superconductive gates. 3,091,702, 5–28–63, Cl. 307—88.5.

Slade, Albert E., to A. D. Little, Inc. Electrical signal transmission circuit. 3,105,200, 9–24–63, Cl. 330—62.

Slager, James E., to Miles Laboratories, Inc. Process for periodate oxidation of polysaccharides. 3,086,969, 4–23–63, Cl. 260—209.

Slaght, William W., to Cleveland Steel Products Corp. Universal couplings. 3,070,980, 1–1–63, Cl. 64—17.

Slagle, Bobby G. Socket reducing means for open end wrench. 3,083,599, 4–2–63, Cl. 81—180.

Slagle, William C. : *See*—
Beach, Laurence R., Slagle, and Thoman. 3,109,060.

Slamar, Frank : *See*—
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Slamar, Frank, and A. Teplitz, to United States Steel Corp. Apparatus for wrapping paper about a bundle of sheets. 3,071,908, 1–8–63, Cl. 53—214.

Slamar, Frank, and A. Teplitz, to United States Steel Corp. Transfer mechanism. 3,092,270, 6–4–63, Cl. 214—89.

Slamecka, Vladimir : *See*—
Popper, Karel, and Slamecka. 3,073,725.

Slant Fin Radiator Corp. : *See*—
Turinsky, Isidore. 3,106,078.
Weinstein, Richard. 3,091,289.

Slark, Norman A., to English Electric Valve Co. Ltd. Manufacture of cascade image amplifiers. 3,095,251, 6–25–63, Cl. 316—19.

Slate, Matthew W., to Thompson Ramo Wooldridge Inc. Alarm system. 3,104,384, 9–17–63, Cl. 340—215.

Slate, Ralph L., to Halliburton Co. Method of preparing gelled aqueous fluid. 3,096,284, 7–2–63, Cl. 252—8.55.

Slater, Eben A., to Anchor Serum Co., Inc. Infectious rhinotracheitis virus attenuated in lamb cell tissue cultures. 3,096,247, 7–2–63, Cl. 167—78.

Slater, Eben A., to Phillips Roxane, Inc. Measles virus immunization with gamma globulin administered simultaneously with measles virus vaccine. 3,106,514, 10–8–63, Cl. 167—78.

Slater Electric Inc. : *See*—
Slater, Saul I. 3,103,618.

Slater, Frank, and M. Weber, to Marconi Instruments Ltd. pH meter with temperature compensated large range scale and small range expanded scale. 3,106,676, 10–8–63, Cl. 324—30.

Slater, John M., to North American Aviation, Inc. Autolubricated fluid bearing force measuring instrument. 3,109,310, 11–5–63, Cl. 73—516.

Slater, John M., to North American Aviation, Inc. Pressure measuring device. 3,113,459, 12–10–63, Cl. 73—398.

Slater, John M., D. E. Wilcox, and W. L. Pondrom, to North American Aviation, Inc. Gravimeter. 3,073,165, 1–15–63, Cl. 73—382.

Slater, John M., and R. B. Horsfall, to North American Aviation, Inc. Free rotor gyroscope control-torque applying means. 3,073,170, 1–15–63, Cl. 74—5.4.

Slater, John M., D. E. Wilcox, D. L. Freebairn, Jr., and W. L. Pondrom, Jr., to North American Aviation, Inc. Inertial velocity meter. 3,077,782, 2–19–63, Cl. 73—497.

Slater, John M., W. M. Scarborough, J. C. Boltinghouse, and D. L. Freebairn, Jr., to North American Aviation, Inc. Reversing gyroscope. 3,078,727, 2–26–63, Cl. 74—5.

Slater, Raymond L. : *See*—
Morrison, Wilbert H., and Slater. 3,104,185.

Slater, Saul I., to Slater Electric Inc. Continuously variable dimmer switch. 3,103,618, 9–10–63, Cl. 323—22.

Slater, Thomas, Jr. Drinking attachments for faucets. 3,101,900, 8–27–63, Cl. 239—25.

Slater, William : *See*—
Nutter, Walter, Cole, Denson, and Slater. 3,111,718.

Slater, William L. : *See*—
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Slater, William L., to Texaco Inc. Recovery of oil from oil shale by underground hydrogenation. 3,084,919, 4–9–63, Cl. 262—1.

Slates, Harry L. : *See*—
Talb, David, Wendler, and Slates. 3,116,303.

Slates, Harry L., and N. L. Wendler, to Merck & Co., Inc. Method for the preparation of Δ16–20-keto steroids. 3,082,219, 3–19–63, Cl. 260—397.3.

Slates, Harry L., and N. L. Wendler, to Merck & Co., Inc. Process for preparing benzophenone compounds. 3,113,970, 12–10–63, Cl. 260—591.

Slatin, Harvey L., to Timax Associates. Electrolytic production of metal alloys. 3,087,873, 4–30–63, Cl. 204—71.

Slatin, Harvey L., to Timax Associates. Electrolytic production of aluminum. 3,103,472, 9–10–63, Cl. 204—67.

Slatkin, Alfred D. Spray coating system. 3,077,422, 2–12–63, Cl. 117—104.

Slatkovski, Emil J. : *See*—
Dean, Ralph K., Slatkovski, and Wegner. 3,098,267.

Slaton, Jack H., to United States of America, Navy. Frequency discriminator. 3,082,378, 3–19–63, Cl. 328—132.

Slattery, Robert E. : *See*—
Atwood, Seth G., Kittle, Keith, Slattery, and Simpson. 3,071,292.

Slattery, Robert E., to Chemetron Corp. Method and apparatus for grinding welded rails. 3,090,170, 5–21–63, Cl. 51—140.

Slaugh, Lynn H. : *See*—
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Slaughter, Edward R. : *See*—
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Slaughter, Gerald M. : *See*—
Donnelly, Ralph G., Gilliland, and Slaughter. 3,079,251.
Patriarca, Peter, Shubert, and Slaughter. 3,078,551.

Slauson, Dudley B., to General Electric Co. Anti-secondary radiation dental X-ray cone. 3,102,957, 9–3–63, Cl. 250—105.

Slautterback, Robert C., to Ford Motor Co. Battery vent plug. 3,078,330, 2–19–63, Cl. 136—177.

Slautterback, Robert C., to Ford Motor Co. Battery vent plug. 3,083,254, 3–26–63, Cl. 136—177.

Slautterback, Robert C., to Ford Motor Co. Battery vent plug. 3,083,255, 3–26–63, Cl. 136—177.

Slautterback, Robert C., to Ford Motor Co. Battery vent plug. 3,083,256, 3–26–63, Cl. 136—177.

Slavecki, Ronald J., A. J. Campanella, and J. L. McLucas, to HRB-Singer, Inc. Stereo scanning unit and system. 3,109,057, 10–29–63, Cl. 178—6.5

Slaven, John J. Bird feeder. 3,083,687, 4–2–63, Cl. 119—51.

Slaven, John J. Wild bird feeding station. 3,104,649, 9–24–63, Cl. 119—51.

Slavens, Wayne E., to Deere & Co. Corn husking mechanism. 3,074,412, 1–22–63, Cl. 130—5.

Slavin, Peter, to Sperry Rand Corp. Read-write magnetic head switch. 3,115,621, 12–24–63, Cl. 340—174.1.

Slavsky, Robert J., to Shaw & Slavsky, Inc. Price card support. 3,070,911, 1–1–63, Cl. 40—11.

Slawin, Theodore J. Wheel puller. 3,099,077, 7–30–63, Cl. 29—201.

Slaymaker, Stephen C., to Shell Oil Co. Process for production of branch chain hydrocarbons from propene. 3,116,345 12–31–63, Cl. 260—683.15.

Slayter, Games, to Owens-Corning Fiberglas Corp. Glass-reinforced article. 3,080,247, 3–5–63, Cl. 106—286.

Slayter, Games, W. M. Rees, and J. T. Feld, to Owens-Corning Fiberglas Corp. Sound absorbing fibrous board with plastic film covering. 3,092,203, 6–4–63, Cl. 181—33.

Slayter, Games, R. G. Russell, and W. L. Morgan, to Owens-Corning Fiberglas Corp. Muffler liner. 3,109,511, 11–5–63, Cl. 181—61.

Slayter, Games, and R. M. Woodward, to Owens-Corning Fiberglas Corp. Lamellar metal structure. 3,109,716, 11–5–63, Cl. 29—191.2.

Slayter, Games, and R. F. Shannon, to Owens-Corning Fiberglas Corp. High temperature lubricant comprising fibrous glass. 3,113,105, 12–3–63, Cl. 252—18.

Sleeper, David P., to General Electric Co. Dishwasher construction. 3,072,452, 1–8–63, Cl. 312—228.

Sleeper, Neal M., to Howe Richardson Scale Corp. Apparatus for effecting automatic batching of composite mixtures. 3,085,191, 4–9–63, Cl. 323—51.

Sleicher, Charles A., Jr. : *See*—
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Slemmons, Arthur J., to FMC Corp. Rotary lawnmower. 3,085,386, 4–16–63, Cl. 56—25.4.

Slemmons, Arthur J., to FMC Corp. Combustion apparatus for an internal combustion engine. 3,102,521, 9–3–63, Cl. 123—32.

Slemmons Charles O., to The General Tire & Rubber Co. Mattress. 3,110,042, 11–12–63, Cl. 5—345.

Slepicka, Evelyn V. Head apparel with cooling means. 3,070,803, 1–1–63, Cl. 2—7.

Slepitis, Justin F., to Radio Corp. of America. Method of brazing. 3,085,325, 4–16–63, Cl. 29—493.

Slesaczek, Alfred, to Maerz Ofenbau AG. Wall construction and mounting thereof for industrial furnaces. 3,088,722, 5–7–63, Cl. 263—46.

Sletten, Carlyle J., to United States of America, Air Force. Amplitude scanning. 3,085,204, 4–9–63, Cl. 325—180.

Sletten, Carlyle J., to United States of America, Air Force. Antenna array synthesis method. 3,100,300, 8–6–63, Cl. 343—771.

Sletten, Carlyle J., to United States of America, Air Force. Means for obtaining tricoordinate radar information. 3,106,708, 10–8–63, Cl. 343—16.

Sletzinger, Meyer : *See*—
Chemerda, John M., Sletzinger, and Bollinger. 3,075,993.
Cutler, Frank A., Jr., and Sletzinger. 3,083,215.

Sletzinger, Meyer, and D. F. Reinhold, to Merck & Co., Inc. 6α,16α-dialkyl steroid intermediates and processes. 3,094,523, 6–18–63, Cl. 260—239.55.

Slick Electro Inc. : *See*—
Slick, Fred S. 3,106,187.

Slick, Fred S., to Slick Electro Inc. Flag anchor means for a flag pole. 3,106,187, 10–8–63, Cl. 116—173.

Sligh, James E. : *See*—
Coker, Richard G., Le Hardy, Dunlap, and Sligh. 3,107,564.

Sliman, Michael T. Alarm system. 3,114,904, 12–17–63, Cl. 340—280.

Sliman, Michael T. Alarm system. 3,114,905, 12–17–63, Cl. 340—280.

Slimovitz, Morris L. Dual feel glove and mitt. 3,098,237, 7–23–63, Cl. 2—164.

Slimovitz, Morris L. Target with bowling pins and indicator. 3,104,874, 9–24–63, Cl. 273—41.

Slimovitz, Morris L. Separate wrap-around forefinger for glove and mitt. 3,111,678, 11–26–63, Cl. 2—163.

Slinden, Burton J. Strand stretcher. 3,108,785, 10–29–63, Cl. 254—161.

Slingluff, Thomas J., to H. H. Robertson Co. Electrical ducts and fittings. 3,093,933, 6–18–63, Cl. 50—127.

Slivik, Richard M., to General Motors Corp. Reclining seat back. 3,093,415, 6–11–63, Cl. 297—373.

Sliwa, Arthur W., and W. J. Mazanek. Color wheel. 3,073,950, 1–15–63, Cl. 240—10.1.

Sloan, Abraham. Folding shoe rack. 3,115,850, 12–31–63, Cl. 108—111.

Sloan, Arthur W. : *See*—
Rainer, William C., Redding, Hitov, Sloan, and Stewart. 3,097,150.

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Sloan, Charles S., to The Sloan Co. Lamp receptacle. 3,084,304, 4–2–63, Cl. 339—61.

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Sloan, Charles S. 3,084,304.

Sloan, Edward C., A. H. Eberman, and H. A. Jensen, to Oscar Mayer Co., Inc. Package and method of forming same. 3,083,106, 3–26–63, Cl. 99—171.

Sloan, Frank C. Transversely movable passenger seat for automobiles, taxicabs and the like. 3,071,407, 1–1–63, Cl. 296—65.

Sloan, Frederick R. W. : *See*—
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Sloan, Harry E., H. E. Sloan, Jr., and L. B. Swanson, to The Cushman Chuck Co. Chuck with fixed rest for jaw-gripped work. 3,086,784, 4–23–63, Cl. 279—121.

Sloan, Harry E., Jr. : *See*—
Sloan, Harry E., H. E. Sloan, Jr., and Swanson. 3,086,784.

Sloan, Howard B. : *See*—
Peek, Sandford C., Jr., and Sloan. 3,114,069.

Sloan, Howard B., to Sylvania Electric Products Inc. Incandescent filament. 3,113,893, 12–10–63, Cl. 148—13.

Sloan, Julia M. : *See*—
Reid, John D., Fenner, and Sloan. 3,094,705.

Sloan, Julia M., H. W. Weller, Jr., and C. H. Haydel, to United States of America, Agriculture. Wrinkle recovery test apparatus. 3,094,866, 6–25–63, Cl. 73—159.

Sloan, Otto, and F. Skerbinc. Cutting tool for spherical surfaces. 3,085,476, 4–16–63, Cl. 90—12.

Sloan, Paul H., to Kirsch Co. Structural device. 3,076,222, 2–5–63, Cl. 16—98.

Sloan, Raymond W., and M. O. Johnson, to Socony Mobil Oil Co., Inc. Fluid density well logging sonde with two packing elements mounted on one shaft. 3,113,455, 12–10–63, Cl. 73—155.

Sloan, Theodore H., deceased ; E. J. Sweadner, executrix, 25% to W. B. Jaspert. Apparatus for centering and rotatably supporting cylindrical objects for honing and the like. 3,083,507, 4–2–63, Cl. 51—145.

Sloan, Thomas S. : *See*—
Barber, James C., Megar, and Sloan. 3,084,029.
Barber, James C., Megar, and Sloan. 3,113,839.

Sloan Valve Co. : *See*—
Filliung, Jacques J. 3,102,711.

Sloane, Peppy M. Toy construction sets. 3,074,202, 1–22–63, Cl. 46—17.

Slobodzinski, Edwin J., to International Business Machines Corp. Memory systems. 3,105,958, 10–1–63, Cl. 340—173.

Slocombe, Anthony D. : *See*—
Mortley, Wilfrid S., and Slocombe. 3,091,763.

Slocum, A. E. : *See*—
Bruce, Carl L. 3,105,752.

Slocum, Donald W., to American Cyanamid Co. Novel aromatic sulfides and method of preparing same. 3,111,541, 11–19–63, Cl. 260—578.

Slodki, Morey E., to United States of America, Agriculture. Dispersants comprising phosphoric acid monoesters of mannose polymers. 3,084,105, 4–2–63, Cl. 167—90.

Sloman, Arthur R., to Associated Pulp and Paper Mills Ltd. Continuous pulping process. 3,097,987, 7–16–63, Cl. 162—17.

Sloman, Robert A., to The Sandy Hill Iron & Brass Works. Cylinder mold vat assembly. 3,104,999, 9–24–63, Cl. 162—323.

Slominski, Walter V., to Hoover Ball and Bearing Co. Spring assemblies. 3,095,189, 6–25–63, Cl. 267—102.

Slomka, Leon F., to General Motors Corp. Missile stage separator. 3,110,260, 11–12–63, Cl. 102—49.

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Jeanes, Allene R., and Sloneker. 3,096,293.
Sloop, Clifford E. Spacer for spring-jaw type spade terminal. 3,076,953, 2–5–63, Cl. 339—259.
Slosman, Sam S., and H. C. Strachan, to United States Steel Corp. Method and apparatus for controlling the bulk density of coal. 3,085,382, 4–16–63, Cl. 134—57.
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Slotterbeck, Ober C., and J. Lakritz, to Esso Research and Engineering Co. Resinification by a grafting technique. 3,079,295, 2–26–63, Cl. 156—334.
Slotterbeck, Ober C., and J. F. McKay, deceased (by W. McKay, administratrix), to Esso Research and Engineering Co. Coating composition with blocked alcoholates therein. 3,097,957, 7–16–63, Cl. 106—285.
Slough, Jack M., to George Windeler Co., Ltd. Water cooling tower. 3,078,080, 2–19–63, Cl. 261—109.
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Slowinski, Robert H., to National Gypsum Co. Wall panel end joint clip. 3,102,366, 9–3–63, Cl. 50—381.
Slowinski, Robert H., to National Gypsum Co. Expandable wall panel. 3,112,532, 12–3–63, Cl. 20—15.
Slumberland Group Ltd.: *See*—
Aldridge, Reginald. 3,115,990.
Sly, Leslie W.: *See*—
Crawford, Ralph W., and Sly. 3,114,216.
Slyle, Milo W.: *See*—
Boyer, John L., and Slyle. 3,110,080.
Slyngstad, Charles E., and F. L. Lempert, to The M. W. Kellogg Co. Process for desulfurization of dissimilar hydrocarbons. 3,090,747, 5–21–63, Cl. 208—210.
Slyngstad, Charles E., and G. P. Eschenbrenner, to The M. W. Kellogg Co. Apparatus for handling powdered material. 3,092,468, 6–4–63, Cl. 23—284.
Slyn, Roman S., W. C. Hollyday, Jr., to Esso Research and Engineering Co. Middle distillate pour point depressants. 3,100,695, 8–13–63, Cl. 44—62.
Smale, Wilmer R. Self propelled forage harvester wagon. 3,106,304, 10–8–63, Cl. 214—519.
Smalheer, Calvin V., and W. M. Le Suer, to The Lubrizol Corp. Process for the modification of olefin polymers. 3,089,867, 5–14–63, Cl. 260—139.
Small, Augustus B.: *See*—
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Small, Augustus B., to Esso Research and Engineering Co. Isoolefin-multiolefin copolymer oils. 3,092,675, 6–4–63, Cl. 260—683.15.
Small, Charles B., H. L. Vail, Jr., and G. H. Hufferd, to Clevite Corp. Automatic spark advance device for ignition system. 3,094,108, 6–18–63, Cl. 123—148.
Small, Edward H.: *See*—
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Small, Louis, and H. 3,084,538.
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Small, Marvin, S. L. Javna, H. J. Bush, and E. G. Griffiths, to M. Small and S. L. Javna. Clip forming and fastening device. 3,115,904, 12–31–63, Cl. 140—93.
Small, Percy A.: *See*—
Chatt, Joseph, and Small. 3,109,838.
Small, Rudolph E.: *See*—
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Smalley, William, to Wm. Gardner & Sons (Gloucester) Ltd. Double cone mixing machines. 3,095,185, 6–25–63, Cl. 259—82.
Smalling, Jack W., to Esso Research and Eng. Co. Apparatus for controlling the loading of a fractionation column. 3,071,520, 1–1–63, Cl. 202—160.
Smallman, Carl R., to A. D. Little, Inc. Cryotron switching device. 3,105,156, 9–24–63, Cl. 307—88.5.
Smallman, Carl R., to Arthur D. Little, Inc. Multi-stable electrical circuit. 3,114,136, 12–10–63, Cl. 340—173.1.
Smallpeice, Cosby D. P., to Martonair Ltd. Pneumatic hammer. 3,071,116, 1–1–63, Cl. 121—38.
Smallpeice, Cosby D. P., to Nuquip Ltd. Filters for fluids. 3,099,546, 7–30–63, Cl. 55—274.
Smallridge, James H., and S. C. Willard, to Union Carbide Corp. Method for repairing self-baking electrodes. 3,106,596, 10–8–63, Cl. 13—18.
Smalter, Donald J., to International Minerals & Chemical Corp. Acidic phosphatic solutions. 3,074,780, 1–22–63, Cl. 23—165.
Smaltz, John D., to Delta Electric Co. Bicycle lamp. 3,073,949, 1–15–63, Cl. 240—7.55.
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Smart, Ernest F., and D. G. Nolles, to Westinghouse Electric Corp. Apparatus and method of assembly of electron discharge devices. 3,081,521, 3–19–63, Cl. 29—25.19.
Smart, Norman C., to The General Electric Co. Ltd. Automatic telephone systems. 3,087,997, 4–30–63, Cl. 179—18.
Smart, Richard: *See*—
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Smart, Stanley G., to Rose, Downs & Thompson, Ltd. Extraction of sugar juice with screw press. 3,100,725, 8–13–63, Cl. 127—43.
Smathers, Donald L., to E. I. du Pont de Nemours and Co. Alpha-halo formamidines. 3,084,192, 4–2–63, Cl. 260—564.
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Smeal, Donald L., to L. R. Nelson Mfg. Co., Inc. Irrigation pipe moving apparatus. 3,082,883, 3–26–63, Cl. 214—1.
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Smedberg, George E., to E. I. du Pont de Nemours and Co. Process of bleaching wood pulp by combined treatment with peroxide and an alkali metal borohydride. 3,100,732, 8–13–63, Cl. 162—78.
Smedema, Hette, J. Noordanis, and J. G. Damstra, to North American Philips Co., Inc. Self-starting transistor converter with overload protection. 3,098,201, 7–16–63, Cl. 331—113.
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Smidt, Jürgen, R. Jira, W. Hafner, J. Sedlmeier, and A. Maier, to Consortium fur Elektro Chemische Industrie G.m.b.H. Process for the production of acetaldehyde and acetone. 3,086,052, 4–16–63, Cl. 260—597.
Smidt, Jurgen, W. Hafner, R. Jira, J. Sedlmeier, and A. Maier, to Consortium fur Elektrochemische Industrie G.m.b.H. Process for the production of aldehydes and ketones. 3,086,994, 4–23–63, Cl. 260—597.
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Smink, David E., and G. C. Terrel, to Jersey Production Research Co. Collapsible dump bailer. 3,090,441, 5–21–63, Cl. 166—162.
Smirl, Richard L., to Borg-Warner Corp. Leveling valve mechanism. 3,082,018, 3–19–63, Cl. 280—124.
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Schilberg, Arnold G. 3,102,576.
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Smith, Albert L., to Celanese Corp. of America. Improvement in process for making haloaliphatic phosphate esters. 3,100,220, 8–6–63, Cl. 260—461.
Smith, Albert P., to Sure Hit Products Inc. Saw guide assemblies. 3,109,465, 11–5–63, Cl. 143—162.
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Smith, Alexander M., II, to Chatham Mfg. Co. Method of needle punching fibers to make needled fabrics or the like. 3,090,100, 5–21–63, Cl. 28—72.2.
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Smith, Alexander M., II, to Chatham Mfg. Co. Needle punch machine. 3,112,549, 12–3–63, Cl. 28—4.
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Smith, Alfred E., to United States of America, Atomic Energy Commission. Gold pressure vessel seal. 3,112,115, 11–26–63, Cl. 277—236.
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Smith, Alfred L., J. E. and W. R. Gohring, to American Fastener Corp. Machine for producing metal fasteners and applying same to the gathered neck of a flexible container. 3,076,970, 2–12–63, Cl. 1—106.
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Smith, Alonzo L. Method and apparatus for decreasing oil and gas ratio of a petroleum well. 3,073,393, 1–15–63, Cl. 166—243.
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Smith, Aubrey A., and R. R. Seliger, to The Bendix Corp. Aircraft control system. 3,082,978, 3–26–63, Cl. 244—77.
Smith, Aubrey H., to Eaton Mfg. Co. Synchronized control system. 3,092,736, 6–4–63, Cl. 317—6.
Smith, Audrey K. Portable car port. 3,092,126, 6–4–63, Cl. 135—5.
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Smith, Baynard R. Method of making metalized ceramic bodies. 3,074,143, 1–22–63, Cl. 25—156.
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Smith, Benjamin H., to Heinemann Electric Co. Circuit breaker. 3,081,387, 3–12–63, Cl 200—103.
Smith, Benjamin H., to Heinemann Electric Co. Relays with indicator. 3,083,359, 3–26–63, Cl. 340—376.
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Smith, Billy N., and W. J. Le Blanc, to The B. F. Goodrich Co. Brake retractor mechanism. 3,091,310, 5–28–63, Cl. 188—196.
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Smith, Bonnie, Jr. 3,103,783.
Smith, Bonnie, Jr., now by change of name Bonne Smith, Jr. Electro-plasmic jet forming hardware and circuitry. 3,103,783, 9–17–63, Cl. 60—35.5.
Smith, Bruce W., to Lockheed Aircraft Corp. Electric harness roving machine and method. 3,098,342, 7–23–63, Cl. 57—15.
Smith, Carl C., Jr.: *See*—
Brewer, Claire N., and Smith. 3,090,069.
Smith, Carl F.: *See*—
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Smith, Carl M., to General Aniline & Film Corp. Heat curable epoxy ether resin employing meta-chlor-aniline-formaldehyde hardener and process of curing the same. 3,071,559, 1–1–63, Cl. 260—45.2.
Smith, Charles A. V. Water skates. 3,108,296, 10–29–63, Cl. 9—310.
Smith, Charles B., to International Business Machines Corp. Magnetic core switching circuit. 3,089,128, 5–7–63, Cl. 340—174.
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Smith, Charles P., and L. A. Warner, to Sylvania Electric Products Inc. Apparatus for spooling filamentary material. 3,097,815, 7–16–63, Cl. 242—158.4.
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Smith, Charles S., to The Babcock & Wilcox Co. Apparatus for generating and superheating high pressure vapor with double attemperation thereof. 3,115,123, 12–24–63, Cl. 122—478.
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Smith, Charles W. Electrical distribution device. 3,107,132, 10–15–63, Cl. 339—60.
Smith, Charles W. Electrical distribution device and method of manufacture. 3,107,133, 10–15–63, Cl. 339—60.
Smith, Chester A., Jr. Nasal appliance. 3,108,588, 10–29–63, Cl. 128—76.
Smith, Chester L., to United States of America, Army. Electric timer and sequencing system for pyrotechnic flash items. 3,099,962, 8–6–63, Cl. 102—70.2.
Smith, Chester L., to Raytheon Co. Rooms for testing electronic equipment. 3,100,870, 8–13–63, Cl. 325—67.
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Smith, Clarence C., to Tranter Mfg., Inc. Plate type boiler. 3,101,780, 8–27–63, Cl. 165—166.
Smith, Clarence J. Can opener. 3,094,776, 6–25–63, Cl. 30—15.5.
Smith, Clarence J., and R. H. Stobiquist, to Kaiser Aluminum & Chemical Corp. Can end curling apparatus. 3,074,462, 1–22–63, Cl. 153—32.
Smith, Claude V. Toilet ventilator. 3,108,289, 10–29–63, Cl. 4—213.
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Smith, Clifford E., and J. V. Tuschhoff, to A. E. Staley Mfg. Co. Acylation of starch and cellulose. 3,081,296, 3–12–63, Cl. 260—233.5.
Smith, Cornelius P., and R. B. Ingraham, to The Dow Chemical Co. Constructional lamina. 3,086,899, 4–23–63, Cl. 154—45.9.

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Anderson, Carl P., and Clark. 3,081,014.
Bradbury, Wilburn F. 3,096,015.
Chan, Gim P. 3,072,238.
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Zeamer, Aaron C. 3,093,355.
Zeamer, Aaron C. 3,095,078.

Smith, Curtis W.: *See*—
Fetterly, Lloyd C., Collamer, and Smith. 3,089,862.
Fetterly, Lloyd C., Collamer, and Smith. 3,105,845.
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Smith, Alfred P., Sr., A. P. Smith, Jr., and Jones. 3,094,939.
Smith, Alfred P., Sr., A. P. Smith, Jr., and Jones. 3,095,123.

Smith, Dale R., to York Production Engineering Co., Inc. Cigar tipping machine. 3,093,884, 7–2–63. Cl. 131—88.

Smith, Daniel L., to Home Products, Inc. Removable spout for receptacle. 3,096,005, 7–2–63, Cl. 222—556.

Smith, David H., to David H. Smith, Inc. Elasticized garment seam construction. 3,085,256, 4–16–63, Cl. 2—275.

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Smith, David H. 3,085,256.

Smith, David L., to General Electric Co. Wheel slip suppression system. 3,093,399, 6–11–63, Cl. 291—2.

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Smith, Donald H., and G. R. Hoffman, to International Business Machines Corp. Photoconductive-electroluminescent information storage apparatus. 3,116,474, 12–31–63, Cl. 340—173.

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Smith, Donald S., to National Research Council. Narrow band filter circuit. 3,094,655, 6–18–63, Cl. 323—53.

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Smith, Douglas. Coupling for flanged pipe elements. 3,099,060, 7–30–63, Cl. 24—279.

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Smith, Edward C., to United States Rubber Co. Sheet thickness sensing servomechanism. 3,088,061, 4–30–63, Cl. 318—28.

Smith, Edward H., 50% to G. B. Hanson. Method of increasing the efficiency of fluid flow. 3,099,993, 8–6–63, Cl. 137—13.

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Smith, Edward M., and V. K. Steidley, to Gorman-Rupp Industries, Inc. Control valve for fluid flow system. 3,075,551, 1–29–63, Cl. 137—609.

Smith, Edward P., to Illinois Railway Equipment Co. Journal box construction for railway cars. 3,104,920, 9–24–63, Cl. 308—40.

Smith, Edwin S., to The Goodyear Tire & Rubber Co. Method of making low molecular weight vinyl resin. 3,107,237, 10–15–63, Cl. 260—92.8.

Smith, Elbert C., to Titanium Metals Corp. of America. Melting metals. 3,079,246, 2–26–63, Cl. 75—10.

Smith, Elmer L. Baby food container and spoon combined. 3,116,152, 12–31–63, Cl. 99—171.

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Smith, Floyd A., to Jersey Production Research Co. Cementing and completing wells in the earth. 3,097,691, 7–16–63, Cl. 166—28.

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Smith, Frank E., to General Motors Corp. Drawing reproduction method. 3,093,050, 6–11–63, Cl. 95—73.

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Smith, Frank W., R. H. Gilbert, and E. F. Sewell, to American Brake Shoe Co. Method of forming bodies of friction material. 3,092,595, 6–4–63, Cl. 260—3.

Smith, Franklin D., E. J. Prill, J. C. Wygant, and M. Kosmin, to Henkel and Cie G.m.b.H. Preparation of terephthalic acid by carboxylation reactions. 3,096,366, 7–2–63, Cl. 260—515.

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Smith, Frederick A., to Union Carbide Corp. Room temperature curable organosiloxane compositions. 3,109,826, 11–5–63, Cl. 260—18.

Smith, Frederick A., to Union Carbide Corp. Organosiloxane compositions curable to elastomers at room temperature. 3,110,689, 11–12–63, Cl. 260—18.

Smith, Frederick E., to United States of America, Navy. Air intercept computer. 3,088,108, 4–30–63, Cl. 343—7.

Smith, Frederick R. Grinding wheel dressing tool. 3,081,762, 3–19–63, Cl. 125—11.

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Fornitti, Philip M., and Smith. 3,103,160.

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Smith, Gene E. Bow checking device. 3,088,212, 5–7–63, Cl. 33—180.

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Smith, Gene W. Plastic protectors for sheet material, book and magazine covers, and the like. 3,099,464, 7–30–63, Cl. 281—20.

Smith, Geoffrey, and H. Meyer. Marking of articles. 3,078,910, 2–26–63, Cl. 156—517.

Smith, Geoffrey, and H. Meyer. Tab forming unit. 3,089,694, 5–14–63, Cl. 270—61.

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Smith, George A., J. L. Gaddy, Jr., and R. E. Russell, Jr., to Central Transformer Corp. Gas cooled and insulated transformer. 3,079,573, 2–26–63, Cl. 336—55.

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Smith, George E., and R. Wolfe, to Bell Telephone Laboratories, Inc. Thermoelectric behavior of bismuth-antimony thermo-elements. 3,090,207, 5–21–63, Cl. 62—3.

Smith, George E., Jr. Automatic tail gate release. 3,096,892, 7–9–63, Cl. 214—83.18.

Smith, George H., to Leviton Mfg. Co., Inc. Electrical switch. 3,075,398, 1–29–63, Cl. 74—104.

Smith, George H. Combustion promoter composition and methods of making and using same. 3,082,072, 3–19–63, Cl. 44—69.

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Smith, George H., to Minnesota Mining and Mfg. Co. Polymers of substituted aromatic compounds and process for their production. 3,110,687, 11–12–63, Cl. 260—2.

Smith, George H., to Minnesota Mining and Mfg. Co. Aromatic polyalkylenamides and polymers thereof. 3,115,474, 12–24–63, Cl. 260—2.

Smith, George H., to Minnesota Mining and Mfg. Co. Aliphatic polyalkylenamides and polymers therefrom. 3,115,482, 12–24–63, Cl. 260—78.

Smith, George H., to Minnesota Mining and Mfg. Co. Process for preparing 1,2-alkylenamides. 3,115,490, 12–24–63, Cl. 260—239.

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Smith, George L. Swimming pool ladder. 3,090,465, 5–21–63, Cl. 182—52.

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Smith, Gerald D. Lather making apparatus. 3,088,918, 5–7–63, Cl. 252—359.

Smith, Gilbert I., ½ to C. F. Mitchell. Bowler's practice and guide apparatus. 3,094,330, 6–18–63, Cl. 273—54.

Smith, Gilbert R., Jr., to Union Carbide Corp. Interlocking system. 3,088,038, 4–30–63, Cl. 307—39.

Smith, Glen W. Doll house. 3,078,615, 2–26–63, Cl. 46—12.

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Evans, Norman, Wicks, and Smith. 3,111,839.

Smith, Gordon R., to Minnesota Mining and Mfg. Co. Reaction milieu and afterburner incorporating same. 3,088,271, 5–7–63, Cl. 60—30.

Smith, Gordon R., and R. C. Wands, to Minnesota Mining and Mfg. Co. Dermal protective compositions. 3,100,180, 8–6–63, Cl. 167—91.

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Smith, Harold L., to Consolidated Electrodynamics Corp. Photographic development equipment. 3,094,914, 6–25–63, Cl. 95—89.

Smith, Harold W., W. C. Duesterhoeft, Jr., F. X. Bostick, Jr., and W. Garner, Jr., to Dresser Industries, Inc. Electrical well logging apparatus and method in which the measuring current density is controlled a substantial distance from the borehole. 3,096,477, 7–2–63, Cl. 324—1.

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Smith, Harry A., Jr., to American Brake Shoe Co. Hammers. 3,104,838, 9–24–63, Cl. 241—197.

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Smith, Harry V., F. D. Haag, and W. C. Jones, to Owens-Corning Fiberglas Corp. Apparatus for curing a cylindrical fiber glass and binder casing. 3,080,606, 3–12–63, Cl. 18—6.

Smith, Hartley P., to Associated Spring Corp. Spring dispenser. 3,104,923, 9–24–63, Cl. 312—45.

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Smith, Herbert Q., and F. L. Scott, to Pennsalt Chemicals Corp. Polymers from condensations of formaldehyde with sulfamides. 3,100,751, 8–13–63, Cl. 260—2.2.

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Smith, Horace L., Jr., to Hupp Corp. High-speed feeding and dividing apparatus. 3,087,652, 4–30–63, Cl. 222—55.

Smith, Horace L., Jr., to Burlington Industries, Inc. Muffle furnace. 3,097,831, 7–16–63, Cl. 263—3.

Smith, Horace V., to Metro Corp. Liquid sample pump assembly. 3,096,323, 5–21–63, Cl. 103—178.

Smith, Horace V., to Oil Metering and Processing Equipment Corp. Liquid metering assembly and method. 3,094,871, 6–25–63, Cl. 73—221.

Smith, Hosea E., and T. V. Dodson, to Esso Research and Engineering Co. Furnace plug mechanism. 3,076,578, 2–5–63, Cl. 220—46.

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Tomlinson, George H., II. 3,092,535.

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Smith, Hugh R., Jr., to Stauffer Chemical Co. Electronic furnace with shielded feed. 3,078,326, 2–19–63, Cl. 13—31.

Smith, Hugh R., Jr., to Temescal Metallurgical Corp. Gaseous ion purification process. 3,084,037, 4–2–63, Cl. 75—10.

Smith, Hugh R., Jr., to Stauffer Chemical Co. High vacuum chamber. 3,101,169, 8–20–63, Cl. 230—101.

Smith, Hugh R., Jr., to Temescal Metallurgical Corp. Apparatus for irradiating plastic tubular members with electrons deflected by a non-uniform magnetic field. 3,104,321, 9–17–63, Cl. 250—49.5.

Smith, Hugh R., Jr., and W. H. Colbert, to Libbey-Owens-Ford Glass Co. Method and apparatus for filming articles by vacuum deposition. 3,086,882, 4–23–63, Cl. 117—54.

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Smith, Jack, to General Electric Co. Remote control for microwave system. 3,098,180, 7–16–63, Cl. 317—149.

Smith, Jack C., E. E. Etterman, and R. T. Romine, to Detrex Chemical Industries, Inc. Automatic dry cleaning machine. 3,100,191, 8–6–63, Cl. 210—138.

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Smith, James B., F. S. Seichter, and S. F. Adler, to American Cyanamid Co. Process for enhancing the flow of fluids. 3,102,548, 9–3–63, Cl. 137—13.

Smith, James D., to Ronson Corp. Lighter casing structure. 3,081,611, 3–19–63, Cl. 67—7.1.

Smith, James D., to Ronson Corp. Cigar lighter. 3,111,015, 11–19–63, Cl. 67—7.1.

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Smith, James R. E.: *See*—
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Smith, James T., to J. R. Sheesley. Sliding hopper closure discharging assembly. 3,085,517, 4–16–63, Cl. 105—282.

Smith, James T., to International Business Machines Corp. Magnetic transducer. 3,098,998, 7–23–63, Cl. 340—174.1.

Smith, James T., to J. R. Sheesley. Worm. 3,106,103, 10–8–63, Cl. 74—458.

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Smith, John C.: *See*—
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Smith, John C., to The Dow Chemical Co. Carbonatropropyl dicarbamates. 3,094,538, 6–18–63, Cl. 260—340.2.

Smith, John C., and W. L. Bressler, to The Dow Chemical Co. Hydroxyalkylation of phenols. 3,088,980, 5–7–63, Cl. 260—613.

Smith, John C., W. R. Bradshaw, L. M. Raff, and W. L. Bressler, to The Dow Chemical Co. Process for the preparation of crystalline diglycidyl ether of bisphenol A. 3,095,429, 6–25–63, Cl. 260—348.

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Smith, John E., to Holley Carburetor Co. Manifold drain valve. 3,103,229, 9–10–63, Cl. 137—107.

Smith, John E., and P. A. Scicchitano. Work-supporting and guiding device. 3,092,900, 6–11–63, Cl. 29—200.

Smith, John F., to E. I. du Pont de Nemours and Co. Improved process for curing fluorocarbon elastomers. 3,080,336, 3–5–63, Cl. 260—41.

Smith, John F., to E. I. du Pont de Nemours and Co. Improved process for curing fluorocarbon elastomers. 3,080,336, 3–5–63, Cl. 260—41.

Smith, John F., to E. I. du Pont de Nemours and Co. Process for curing fluorocarbon elastomers without foaming thereof. 3,090,775, 5–21–63, Cl. 260—87.7.

Smith, John F. D., to Carrier Corp. Heat exchange apparatus of the evaporative type. 3,095,255, 6–25–63, Cl. 62—512.

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Smith, John H., to Correct-Air Corp. Air conditioner for industrial control quarters. 3,097,505, 7–16–63, Cl. 62—261.

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Smith, John J., to Mueller Co. Drilling machine. 3,087,358, 4–30–63, Cl. 77—40.

Smith, John K. Paddles for canoes and the like. 3,092,855, 6–11–63, Cl. 9—24.

Smith, John K., and A. Dorff. Handling apparatus. 3,104,023, 9–17–63, Cl. 214—653.

Smith, John O., and K. W. Easley, to Monsanto Research Corp. Ortho-substituted bicyclohexyl hydrocarbons as high energy fuels. 3,113,425, 12–10–63, Cl. 60—35.4.

Smith, John O., and K. W. Easley, to Monsanto Research Corp. Cyclododecane as a high energy fuel. 3,113,426, 12–10–63, Cl. 60—35.4.

Smith, John W., to Eastman Kodak Co. Method for continuously opening crimped tow. 3,095,632, 7–2–63, Cl. 28—72.

Smith, John W., to Eastman Kodak Co. Apparatus for moving tow. 3,110,432, 11–12–63, Cl. 226—108.

Smith, John W., and E. J. Biorseth, to The Mead Corp. Doctor blade. 3,081,191, 3–12–63, Cl. 117—64.

Smith, John W., and F. M. Willbrandt, to Battle Creek Packaging Machines, Inc. Wrapper sealing machine for limp polyolefin film wrappers. 3,083,514, 4–2–63, Cl. 53—201.

Smith, Joseph A., and S. R. Young, to Allied Chemical Corp. Process of producing high-nitrogen, low-chloride nitraphosphate complete fertilizers. 3,091,523, 5–28–63, Cl. 71—37.

Smith, Joseph A., and C. E. Waters, to Allied Chemical Corp. Liquid nitrogen-phosphorus fertilizers from wet-process phosphoric acid. 3,109,728, 11–5–63, Cl. 71—42.

Smith, Joseph A., and G. R. Gilliam, to Allied Chemical Corp. Granular N-K and N fertilizers from nitrogen solutions. 3,114,624, 12–17–63, Cl. 71—64.

Smith, Joseph B. Split coupling. 3,078,108, 2–19–63, Cl. 285—104.

Smith, Joseph E., Jr., to Ex-Cell-O Corp. Bearing mounting structure for magnetic memory drum apparatus. 3,082,411, 3–19–63, Cl. 340—174.1.

Smith, Joseph E., Jr., to Ex-Cell-O Corp. Linear actuator. 3,114,296, 12–17–63, Cl. 121—38.

Smith, Joseph H., to Johnson & Johnson. Methods and apparatus for making and bonding nonwoven fabrics. 3,088,859, 5–7–63, Cl. 156—26.

Smith, Joseph L. Display capsule. 3,072,244, 1–8–63, Cl. 206—17.

Smith, Joseph W. Game disc. 3,092,389, 6–4–63, Cl. 273—128.

Smith, Josephine C. Clothesline hanger holder. 3,085,691, 4–16–63, Cl. 211—86.

Smith, Julius L., Jr.: *See*—
Beckerich, John F., and Smith. 3,089,099.

Smith, Julius L., Jr., to Collins Radio Co. Nonreciprocal coaxial line negative resistance amplifier. 3,080,530, 3–5–63, Cl. 330—61.

Smith, Julius L., Jr., to Collins Radio Co. R.F. amplifier automatic frequency tuning. 3,106,681, 10–8–63, Cl. 325—421.

Smith, Karl E., to Bethea Co., Inc. Cable clamp. 3,115,688, 12–31–63, Cl. 24—125.

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Linder, Jerome, Newcomer, and Smith. 3,105,848.
Newcomer, Jack S., Linder, and Smith. 3,096,367.

Smith, Kenneth A. H. Magnetic teletypewriter transmittal distributor head. 3,110,767, 11–12–63, Cl. 178—52.

Smith, Kenneth C.: *See*—
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Smith, Kenneth E. Method and apparatus for steering underwater bodies. 3,096,739, 7–9–63, Cl. 114—23.

Smith, Kenneth G. Nail clippers. 3,093,898, 6–18–63, Cl. 30—28.

Smith, Kenneth L., to International Computers and Tabulators Ltd. Statistical record reading devices. 3,076,599, 2–5–63, Cl. 235—61.11.

Smith Kline & French Laboratories: *See*—
Anderson, Elvin L., 3,083,201.
Craig, Paul N., 3,074,931.
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Smith, Larrabee M., to Bell Telephone Laboratories, Inc. Sequential pulse transfer circuit. 3,071,700, 1–1–63, Cl. 307—88.5.

Smith, La Vergne L., to Telecomputing Corp. Wobble pump. 3,089,424, 5–14–63, Cl. 103—133.

Smith, Lawrence H., to Helm Accessories, Inc. Fishing rod handle structure. 3,080,673, 3–12–63, Cl. 43—22.

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Keyes, Jack, Oehlerking, and Smith. 3,109,422.

Smith, Leslie G.: *See*—
Robbins, Lewis C., and Smith. 3,085,360.

Smith, Leslie W. Abrasive spray gun. 3,102,368, 9–3–63, Cl. 51—11.

Smith, Lester L. Roof ridge ventilator. 3,079,853, 3–5–63, Cl. 98—42.

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Smith, Lofton H. Air filter. 3,080,694, 3–12–63, Cl. 55—284.

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Canterino, Peter J., and Smith. 3,102,050.

Smith, Lon T., to Phillips Petroleum Co. Process for polymerization of acrylic esters with catalysts comprising metal halides and group II metals. 3,100,200, 8–6–63, Cl. 260—89.5.

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Smith, Maineard L., and J. D. Tate, to The Goodyear Tire & Rubber Co. Tire with wide cord ply. 3,085,616, 4–16–63, Cl. 152—355.

Smith, Marvin M. Instrument for cooling smoke. 3,084,698, 4–9–63, Cl. 131—194.

Smith, Maurice D., to St. Regis Paper Co. Bread package and wrapper. 3,092,502, 6–4–63, Cl. 99—172.

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Smith, Norman J., to J. E. Lonergan Co. Precision dial assembly for gauges. 3,086,494, 4–23–63, Cl. 116—129.

Smith, Norman L., to H. K. Porter Co., Inc. Method of determining leaks in lightning arresters and the like. 3,090,112, 5–21–63, Cl. 29—407.

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Smith, P. G., to Sperry Rand Corp. Microwave frequency separator. 3,074,033, 1–15–63, Cl. 333—10.

Smith, Paul A., to Permanent Filter Corp. Filtering component. 3,080,972, 3–12–63, Cl. 210—90.

Smith, Paul C., R. E. Hyde, and A. J. Teague, to Strolee of California, Inc. Baby seat. 3,076,628, 2–5–63, Cl. 248—399.

Smith, Paul E., Jr., and H. A. Dudler, to Conval Corp. Motor positioning device. 3,092,742, 6–4–63, Cl. 310—68.

Smith, Paul E., Jr., and D. P. Norman, to Conval Corp. Recorder. 3,095,569, 6–25–63, Cl. 346—74.

Smith, Paul L., to Douglas Aircraft Co., Inc. Load carrying apparatus. 3,094,223, 6–18–63, Cl. 214—1.

Smith, Paul L., to Union Carbide Corp. Process for producing foam stabilizer for beer. 3,099,563, 7–30–63, Cl. 99—48.

Smith, Paul L., to Union Carbide Corp. Freeze concentration process. 3,102,036, 8–27–63, Cl. 99—205.

Smith, Paul L., and R. E. Cornwell, to Union Carbide Corp. Process for preparing stabilized solution of heat sensitive material. 3,087,822, Cl. 99—155.

Smith, Paul L., R. E. Cornwell, and T. W. Harwell, to Union Carbide Corp. Process for preparing concentrated solutions of heat-sensitive material. 3,113,878, 12–10–63, Cl. 99—205.

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Smith, Paul V., Jr., D. W. Young, and D. L. Cottle, to Esso Research and Engineering Co. Silicon containing lubricating compositions. 3,085,104, 4–9–63, Cl. 260—448.8.

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Smith, Peter, to Dynamics Corp. of America. Photoelectric transducer. 3,103,214, 9–10–63, Cl. 128—2.05.

Smith, Peter, to Dynamics Corp. of America. Medical transducer for detecting arterial pulsations. 3,107,664, 10–22–63, Cl. 128—2.05.

Smith, Philip T., to Radio Corp. of America. Traveling wave magnetron amplifier tubes. 3,076,115, 1–29–63, Cl. 315—3.5.

Smith, Pierre F., and L. D. King. Effervescing composition in particle form. 3,082,091, 3–19–63, Cl. 99—78.

Smith, Preston W., Jr., and M. C. Junger, to Acoustica Associates, Inc. Liquid volume sensing system. 3,113,456, 12–10–63, Cl. 73—290.

Smith, Randall E., to Republic Fastener Products Corp. Card package. 3,078,990, 2–26–63, Cl. 206—65.

Smith, Ray F. Hydrodynamic brake. 3,108,660, 10–29–63, Cl. 188—90.

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Smith, Raymond G., to Boeing Airplane Co. Accessory power system for aircraft. 3,100,285, 11–5–63, Cl. 60—35.6.

Smith, Raymond V., to Lockheed Aircraft Corp. Voltage supply and control system. 3,076,896, 2–5–63, Cl. 250—207.

Smith, Reading B., to Sinclair Research, Inc. Flash vaporization apparatus. 3,080,300, 3–5–63, Cl. 196—114.

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Crowley, Robert A., Smith, and Le Bus. 3,083,932.

Smith, Richard A., to American Machine & Foundry Co. Air confined system. 3,115,818, 12–31–63, Cl. 98—36.

Smith, Richard G., and J. M. McMahon, to Screen Products, Inc. Filter construction. 3,096,281, 7–2–63, Cl. 210—487.

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Kissin, Gerald H., and Smith. 3,098,018.

Smith, Richard M: *See*—
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Smith, Richard M., to Johnson & Johnson. Pressure-sensitive adhesive sheet having hydrophilic film backing and primer of rubbery latex, hydrophilic methylolated polyacrylamide, and acid catalyst and method of making it. 3,084,067, 4–2–63, Cl. 117—76.

Smith, Richard M. Speaker systems and sound chambers therefor. 3,115,208, 12–24–63, Cl. 181—31.

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Smith, Richard R., to General Signal Corp. Traffic directing system for parking areas. 3,110,010, 11–5–63, Cl. 340—51.

Smith, Richard R., M. W. Echo, and C. B. Doe, to United States of America, Atomic Energy Commission. Method and apparatus for examining fuel elements for leakage. 3,116,211, 12–31–63, Cl. 176—19.

Smith, Richard S., and V. P. Speiser. Leak testing apparatus. 3,103,910, 9–17–63, Cl. 116—117.

Smith, Robert, to General Motors Corp. Refrigerant condenser cooling means. 3,071,937, 1–8–63, Cl. 62—507.

Smith, Robert, to General Motors Corp. Refrigerating apparatus. 3,088,294, 5–7–63, Cl. 62—296.

Smith, Robert A.: *See*—
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Smith, Robert D. Streamlined housing for aircraft safety equipment. 3,100,096, 8–6–63, Cl. 244—117.

Smith, Robert E., to The Flexicore Co., Inc. Duct forming core. 3,101,519, 8–27–63, Cl. 25—128.

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Smith, Robert J., to ACF Industries, Inc. Carburetor. 3,086,757, 4–23–63, Cl. 261—34.

Smith, Robert J., to ACF Industries, Inc. Carburetor. 3,089,684, 5–14–63, Cl. 261—23.

Smith, Robert K., and C. Popoff, to E. F. Houghton & Co. Imide compounds and lubricants containing the same. 3,078,228, 2–19–63, Cl. 252—33.6.

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Smith, Robert M. Transistor test set. 3,076,140, 1–29–63, Cl. 324—158.

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Smith, Robert R., D. C. M. Mann, and J. F. Salmon, to B.X. Plastics Ltd. Graft co-polymers. 3,081,242, 3–12–63, Cl. 204—154.

Smith, Robert W., to Electro Counter & Motor Corp. Rotor brake. 3,110,830, 11–12–63, Cl. 310—77.

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Beaudry, Walter A., Pollitt, and Smith. 3,092,271.
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Smith, Roy E., to Owens-Corning Fiberglas Corp. Method and apparatus for forming and collecting filaments. 3,109,602, 11–5–63, Cl. 242—18.

Smith, Roy E., to Corning Glass Works. Glass-working apparatus. 3,113,012, 12–3–63, Cl. 65—152.

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Smith, Samuel M. Permanently creased cap. 3,085,252, 4–16–63, Cl. 2—195.

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Smith, Stanley W. Tug aircraft combination. 3,113,747, 12–10–63, Cl. 244—3.

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Smith, Sydney S., to Smith Development Co. Variable flow restriction device. 3,095,006, 6–25–63, Cl. 137—269.5.

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Samuel, William Y. 3,080,326.

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Smith, Telford L. Opposed bolt clamp. 3,088,185, 5–7–63, Cl. 24—279.

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Smith, Thomas R., ½ to W. Jamieson. Loose-leaf binder. 3,092,400, 6–4–63, Cl. 281—19.

Smith, Thomas R. Engine starting apparatus. 3,104,659, 9–24–63, Cl. 123—179.

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Smith, Traver J., ½ to G. I. Magnuson, and ½ to G. I. and R. Magnuson, and L. J. Fox, as trustees. Filling apparatus with splash minimizing, liquid transfer funnels. 3,107,703, 10–22–63, Cl. 141—86.

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Smith, Walter H. B., deceased, by K. B. Groves, executrix. Shotgun action. 3,077,045, 2–12–63, Cl. 42—41.

Smith, Walter H. B. Bolt action firearm with charger. 3,090,148, 5–21–63, Cl. 42—25.

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Jackson, James M., Jr. 3,104,987.

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Smith-Vaniz, William R., and P. H. Lee, to Trak Electronics Co., Inc. Fast-response and slow-decay automatic gain control and system. 3,110,864, 11-12-63, Cl. 325—319.

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Smithwick, Henry B. Fence construction. 3,089,681, 5-14-63, Cl. 256—47.

Smitley, Marion L., to Holley Carburetor Co. Dashpot. 3,081,847, 3-19-63, Cl. 188—94.

Smits, Hubertus J., to North American Philips Co., Inc. Stereo transducer. 3,115,554, 12-24-63, Cl. 179—100.41.

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Smolen, Joseph H. Bubble-forming fishing lure. 3,096,598, 7-9-63, Cl. 43—42.06.

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Smoliu, Edwin M., and M. N. O'Connor, to American Cyanamid Co. Preparation of trialkyl vinyl tin compounds. 3,074,985, 1-22-63, Cl. 260—429.7.

Smoll, Allen E., to Stewart-Warner Corp. Conveyor control system. 3,105,601, 10-1-63, Cl. 214—11.

Smollett, Roy J., Jr., to General Electronic Laboratories, Inc. Amplifier circuit. 3,089,100, 5-7-63, Cl. 330—205.

Smoltz, Erwin J. Automatic indicating tool. 3,088,213, 5-7-63, Cl. 33—180.

Smoot, Charles H., W. W. Berger, H. P. Adams, and J. R. Swanson, to Rockwell Mfg. Co. Flow responsive device. 3,115,778, 12-31-63, Cl. 73—205.

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Smura, Edwin J., to International Business Machines Corp. Cathode ray tube for processing digital data. 3,092,746, 6-4-63, Cl. 313—85.

Smusz, Teddy F., to Royal McBee Corp. Electrical switches. 3,073,935, 1-15-63, Cl. 200—160.

Smutny, Edgar J., S. B. Soloway, L. C. Dowding, and J. Van Overbeek, to Shell Oil Co. Method for preventing undesired plant growth. 3,101,265, 8-20-63, Cl. 71—2.7.

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Smyers, William H., and D. W. Young. Polymerization of aliphatic monomers in presence of aromatic-olefin copolymer and resulting product. 3,100,757, 8-13-63, Cl. 260—45.5.

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Smythe, William J., E. M. Muller, and R. W. Weeden, to Union Carbide Corp. Apparatus for curing vinyl resin foam. 3,072,960, 1-15-63, Cl. 18—6.

Smythe, William J., and E. M. Muller, to Union Carbide Corp. Method of making foamed plastisol containing a small amount of water. 3,113,116, 12-3-63, Cl. 260—2.5.

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Snelling, Charles D. Self-contained controlled temperature system. 3,112,877, 12-3-63, Cl. 236—1.

Snelling, Charles D. Self-contained temperature control system. 3,112,878, 12-3-63, Cl. 236—1.

Snelling, Charles D. Fluorescent lamp fixture. 3,112,890, 12-3-63, Cl. 240—51.11.

Snelling, Charles D. Engine starting aid. 3,114,360, 12-17-63, Cl. 123—142.5.

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Snikkers, Jan, to North American Philips Co., Inc. Disconnect plug for electric device. 3,091,747, 5-28-63, Cl. 339—61.

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Snow, Floyd E., and J. O. York, to Coast Pro Seal Mfg. Co. Applicator and mixer for viscous materials. 3,088,712, 5-7-63, Cl. 259—7.

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Snyder, Ira D. Necktie knot stay. 3,110,902, 11-19-63, Cl. 2—153.

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Snyder, Marvin K., and J. B. Dunnington, to Butler Mfg. Co. Window structure for panel type buildings. 3,101,820, 8-27-63, Cl. 189—65.

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Leblon, Emile, and Lambert. 3,109,706.
Solvic Societe Anonyme: *See*—
Schnack, Otto N., and De Cone. 3,076,794.
Solvik, Ragnar S., W. Kirch, and G. A. Lessells, to National Distillers and Chemical Corp. Removal of catalyst from polyolefin by treating with water and oxidizing agent. 3,114,742, 12-17-63, Cl. 260—93.7.
Soma, Nobuo: *See*—
Sunagawa, Genshun, and Soma. 3,113,950.
Sombold, Heinz G.: *See*—
Jaschinsky, Erich, Sombold, and Spies. 3,077,897.
Somer, Jack A., to Radio Corp. of America. Simulated stereophonic sound translating and recording system. 3,087,988, 4-30-63, Cl. 179—1.
Somers, Allen E.: *See*—
Henke, Alfred M., and Somers. 3,078,222.
Somers, Arthur V.: *See*—
Schwartzwalder, Karl, and Somers. 3,090,094.
Somers, Arthur V., to General Motors Corp. Alumina base ceramic. 3,088,832, 5-7-63, Cl. 106—39.
Somers, Edward V.: *See*—
Ure, Roland W., Jr., and Somers. 3,103,587.
Somers, Robert R. and J. E. Steiner, to United States Steel Corp. Method and apparatus for enlarging rings. 3,078,905, 2-26-63, Cl. 153—79.
Somers, William P.: *See*—
Kilburn, William C., and Somers. 3,114,825.
Somerset, Sherman J., to Gremar Mfg. Co., Inc. Coaxial connectors. 3,104,145, 9-17-63, Cl. 339—103.
Somerson, Norman L.: *See*—
Phillips, Thomas, and Somerson. 3,080,297.
Somerville, Gareth G., and A. C. Blaskell, to General Electric Co. Mechanism for spacing separated laminations of a cut core. 3,113,375, 12-10-63, Cl. 29—239.
Somerville, George R.: *See*—
Manasia, Joseph P., and Somerville. 3,102,823.
Somerville Industries Ltd.: *See*—
Dewhurst, Ernest J. 3,106,876.
Somhegyi, Kristof C., to Dynapower Systems Corp. Cart steering wheel suspension. 3,090,638, 5-21-63, Cl. 280—92.
Somlyody, Arpad, to Burroughs Corp. Electronic counters. 3,079,528, 2-26-63, Cl. 315—8.5.
Somlyody, Arpad, to Burroughs Corp. Electron beam switching tube counter circuit with low impedance driving means. 3,088,049, 4-30-63, Cl. 315—21.
Somme, Harry F., to R & C Investment, Inc. Shipping container. 3,115,281, 12-24-63, Cl. 222—184.
Sommer, Dr. Alois: *See*—
Bunger, Fritz, and Schucke. 3,091,158.
Sommer, August: *See*—
Ester, Wilhelm, and Sommer. 3,092,557.
Ester, Wilhelm, and Sommer. 3,092,587.
Sommer, Friedrich: *See*—
Petersen, Jürgen, Sommer, Lehmann, and Cordt. 3,114,008.
Sommer, Friedrich, to Siemens and Halske Aktiengesellschaft. Wired circuit plate with electrical components. 3,092,759, 6-4-63, Cl. 317—101.
Sommer, Gordon M., C. L. Mitchell, and V. J. Mankowsky, to U.S. Industries, Inc. Multispeed driving mechanisms. 3,074,297, 1-22-63, Cl. 74—750.
Sommer, Heinz E.: *See*—
Despres, Justin. 3,083,405.
Sommer, Harry J.: *See*—
Simpson, Warren C., and Sommer. 3,105,771.
Sommer, Leo H., to Dow Corning Corp. Method of preparing organosilicon functional compounds and products thereof. 3,111,534, 11-19-63, Cl. 260—448.2.
Sommer, Richard: *See*—
Greger, Paul, Doring, and Sommer. 3,073,226.
Sommer, Richard A., to The Ohio Crankshaft Co. Crankshafts and method of hardening same. 3,108,913, 10-29-63, Cl. 148—39.
Sommer, Richard A., R. F. Seyfried, and R. J. Kasper, to Ohio Crankshaft Co. Furnace control circuit. 3,084,323, 4-2-63, Cl. 322—20.
Sommer, Siegfried: *See*—
Wagener Siegfried Kreuter, and Sommer. 3,075,959.
Sommerfeld, Franz: *See*—
Reifenhäuser, Häns, and Sommerfeld. 3,114,282.
Sommerfeld Machine Co., Inc.: *See*—
Gerchow, Wilbur R. 3,109,335.
Silbereis, Charles H., and Coy. 3,111,871.
Sommerfield, Edward H., to International Business Machines Corp. Transistor protective circuit. 3,089,036, 5-7-63, Cl. 307—88.5.
Sommermeyer, Friedrich: *See*—
Scholkemeier, Friedrich-Wilhelm, Sommermeyer, and Gartner. 3,110,237.
Sommers, Earl E.: *See*—
Ballard, Edward C., and Sommers. 3,096,363.
Sommers, Earl F.: *See*—
Wotan, Homer G., and Sommers. 3,085,834.
Sommers, Henry S., Jr., to United States of America, Navy. Method and apparatus of target acquisition. 3,082,415, 3-19-63, Cl. 343—7.4.
Sommers, Vernon G.: *See*—
Garrett, Verne M., and Sommers. 3,088,531.
Sommerville, Anthony W.: *See*—
Nicklin, Thomas, and Sommerville. 3,097,926.
Somyk, John V. Pressure garment. 3,096,635, 7-9-63, Cl. 66—175.
Sonder, Gerhard, and R. F. Leis, to General Electric Co. Cooling fluid impeller for elastic fluid turbines. 3,085,400, 4-16-63, Cl. 60—39.66.
Sondgeroth, Leon F.: *See*—
Baldeschwiler, Raymond A. 3,083,848.
Sondheimer, Ernest: *See*—
Hamilton, James M., Szkolnik, and Sondheimer. 3,086,913.
Sondheimer, Franz: *See*—
Ringold, Howard J., Sondheimer, and Rosenkranz. 3,087,939.
Sondy, Dominic. Ceramic kiln. 3,095,186, 6-25-63, Cl. 263—7.
Sonecki, Joseph H., to Bethlehem Steel Co. Portable demagnetizer. 3,086,148, 4-16-63, Cl. 317—157.5.
Sones, William L., to General Motors Corp. Regulating system for alternators. 3,072,840, 1-8-63, Cl. 322—73.
Sonz, John, and E. Cohen, to American Cyanamid Co. 7-chloro 2-lower alkyl-1,2,3,4-tetrahydro-4-oxoquinazolines. 3,092,631, 6-4-63, Cl. 260—251.
Songer, Charles H., to Songer Mfg. Co., Inc. Water ski tow rope clamp. 3,091,207, 5-28-63, Cl. 114—199.
Songer Mfg. Co., Inc.: *See*—
Songer, Charles H. 3,091,207.
Sonic Engineering Corp.: *See*—
Cottell, Eric C., and Goodman. Re. 25,324.
Sonka, Lorraine C. and R. T. Molded flexible plastic packing container. 3,111,153, 11-19-63, Cl. 150—48.
Sonka, Robert T.: *See*—
Sonka, Lorraine C. and R. T. 3,111,153.
Sonnberg, Joachim, to Diessel Molkereimaschinen-Fabrik G.m.b.H. Device for automatically drawing samples from a flowing medium. 3,106,844, 10-15-63, Cl. 73—422.
Sonneborn Chemical and Refining Corp.: *See*—
Faust, Jacob, and Kukin. 3,098,821.
Sonneland, Ralph E.: *See*—
Knoph, Nic L., and Sonneland. 3,098,475.
Sonnemann, William K., to Westinghouse Electric Corp. Time-delay devices. 3,109,962, 11-5-63, Cl. 317—36.
Sonnenschein, Abraham: *See*—
Jaffe, David L., Ross, and Sonnenschein. 3,100,264.
Sonneville, Roger P. Block for supporting rail fasteners and rail fixing means incorporating said block. 3,112,071, 11-26-63, Cl. 238—349.
Sonntag, Clemens: *See*—
Wittnebert, Frederick R., and Sonntag. 3,087,464.
Sonntag, George E. Motor scooter having rear caster wheels. 3,100,020, 8-6-63, Cl. 180—25.
Sonntag, Norman O. V.: *See*—
Aylesworth, Robert D., Krabacher, Kadesch, and Sonntag. 3,074,981.

Sonobond Corp.: *See*—
Jones, James B., and Potthoff. 3,071,216.

Sonoco Products Co.: *See*—
Blanchet, Joseph E. A. 3,114,198.
Coker, Richard G., Le Hardy, Dunlap, and Sligh. 3,107,-564.
Coker, Richard G., Rowe, and Dunlap. 3,111,285.
Davis, William R. 3,096,011.
Davis, William R. 3,114,474.
Dunlap, Charles K., Jr., and Stanley. 3,115,315.
Rion, James H., Turnage, and Whaley. 3,099,572.

Sonotone Corp.: *See*—
Belove, Louis. 3,081,366.
Dieter, Norman H., Jr., and Bauer. 3,087,027.
Field, Harold, and Daria. 3,081,367.
Herrmann, Frank A. 3,082,380.
Pearson, Harry A., Herrmann, and Greenbaum. 3,110,-868.

Sontheimer, Carl G., to Trak Electronics Co., Inc. Isolator system providing low attenuation for input signals and extremely high attenuation for signals attempting to pass in the reverse direction. 3,094,668, 6–18–63, Cl. 328—209.

Sontheimer, Carl G., to The Liquidometer Corp. Measuring system with compensation for dielectric constant. 3,112,-647, 12–3–63, Cl. 73—304.

Sony Corp.: *See*—
Fukui, Hatsuaki, and Matsushima. 3,105,922.
Iwata, Saburo. 3,114,866.
Kihara, Nobutoshi. 3,112,365.
Kitamura, Nobuo. 3,105,110.
Shirakura, Kazuyuki. 3,114,011.
Snetsugu, Kenji. 3,107,280.
Uemura, Saburo, Matsumoto, and Yokoyama. 3,108,281.
Yasuda, Junichi. 3,102,987.

Sonymetal Products Co., Inc., The: *See*—
Benham, Kent W. 3,104,428.

Sonz, Alberto: *See*—
Casteill, Paolo, and Sonz. 3,104,068.

Soong, Stassen Y. C.: *See*—
Howard, John, and Soong. 3,077,393.

Soong, William E.: *See*—
Miller, Robert E., Kolany, and Soong. 3,102,294.

Soos, Steven W., to Westinghouse Electric Corp. Solenoid switch operating mechanism. 3,103,564, 9–10–63, Cl. 200—98.

Sopas Profumi S.p.A.: *See*—
Paradis, Lucien. 3,099,272.

Soper, Glenn T.: *See*—
Ensign, George G., Soper, and Lundahl. 3,075,345.

Soper, Quentin F.: *See*—
Cannon, William N., Kline, Cochran, and Soper. 3,105,-005.

Soper, Quentin F., to Ely Lilly and Co. Herbicidal method. 3,111,403, 11–19–63, Cl. 71—2.3.

Soper, William A.: *See*—
Miller, H. Paul, and Soper. 3,100,658.

Sopher, Raeman P.: *See*—
Rieppel, Perry J., Niemann, Sopher, and Pennell. 3,104,813.

Sorber, Hilbert, and K. G. Coolidge, to Schering Corp. Flow channeling device and valve actuating means for pressurized container. 3,089,625, 5–14–63, Cl. 222—398.

Sorchy, Anthony J., to Manning, Maxwell & Moore, Inc. Magnetic work holder. 3,079,140, 2–26–63, Cl. 269—8.

Soredal, Gunnar, to Svenska Ackumulator Aktiebolaget Jungner. Device used in connection with ship log based on measurement of the dynamic pressure. 3,083,568, 4–2–63, Cl. 73—181.

Sorel, Raymond T. Hydrophone with frusto-conical hollow carbon elements. 3,075,170, 1–22–63, Cl. 340—13.

Sorensen, Carl: *See*—
Porland, Kjeld, and Sorensen. 3,071,156.

Sorensen, Egon, J. G. Crost, and F. Brown, Jr., to Sunroc Corp. Wall hung water cooler with water cooled condenser. 3,091,100, 5–28–63, Cl. 62—395.

Sorensen, Einar. Toilet flushing mechanism. 3,076,974, 2–12–63, Cl. 4—57.

Sorensen, Gabriel. Smoking kiln. 3,081,692, 3–19–63, Cl. 99—259.

Sorensen, Harry E. Cargo transfer apparatus. 3,085,593, 4–16–63, Cl. 137—615.

Sorensen, Henry: *See*—
Shipley, Eugene E., and Sorensen. 3,070,979.
Willis, Robert J., Jr., and Sorensen. 3,083,680.

Sorensen, Robert L.: *See*—
Leckley, Robert M., and Sorensen. 3,081,168.

Sorensen, Robert P.: *See*—
Anderson, Swan F. and R. F., and Sorensen. 3,103,959.

Sorensen, Walter, to Hunke & Jochheim. File for non-punched papers. 3,099,269, 7–30–63, Cl. 129—37.

Sorenson, James L. Self-sealing sterile packaging and method. 3,095,972, 7–2–63, Cl. 206—63.2.

Sorenson, Vernon S.: *See*—
Walkey, George J., Sipple, Sorenson, and Norris. 3,098,-444.

Sorenson, William H., to Miehle-Goss-Dexter, Inc. File separating device. 3,095,193, 6–25–63, Cl. 271—42.

Sorflaten, Chester G., to Tisco Corp. Electrical connector. 3,113,822, 12–10–63, Cl. 339—272.

Sorg, Adam, to A. Sorg, and E. V. Hadley. Apparatus for forming plastic-coated filter paper webs for infusion packages. 3,085,617, 4–16–63, Cl. 156—500.

Sorg, Adam. Method of coating tea bag paper to render it heat-sealable. 3,106,481, 10–8–63, Cl. 117—44.

Sorg, Harold E., D. H. Preist, and R. H. Chamberlin, to Eitel-McCullough, Inc. Klystron. 3,078,385, 2–19–63, Cl. 315—5.48.

Sorger, Gunther U.: *See*—
Weinschel, Bruno O., and Sorger. 3,098,968.
Weinschel, Bruno O., and Sorger. 3,104,354.

Sorlente, Alfonse J., to Union Tank Car Co. Filter with automatic backwash control. 3,111,486, 11–19–63, Cl. 210—108.

Sorkin, Morris: *See*—
Auer, Frederick G., and Sorkin. 3,102,471.

Sorley, James D., and W. C. List. Sediment testing device. 3,086,388, 4–23–63, Cl. 73—61.

Sorley, James D., and W. C. List. Sediment testing device. 3,086,389, 4–23–63, Cl. 73—61.

Sormberger, Richard L.: *See*—
Cusano, Dominic A., and Sormberger. 3,095,324.

Sornberger, George E., to Moore Business Forms, Inc. Two-wide, continuous tabulating card strip. 3,114,565, 12–17–63, Cl. 281—5.

Sornsen, Wallace V., to Paul E. Hawkinson Co. Pneumatic tire spreader. Re. 25,339, 2–26–63, Cl. 254—50.4.

Soroban Engineering, Inc.: *See*—
MacNeill, John H., Bellinger, and Holmes. 3,089,413.
MacNeill, John H., Bellinger, White, West, and Holmes. 3,073,897.
MacNeill, John H., and West. 3,082,925.

Sorokin, Peter P.: *See*—
Lasher, Gordon J., and Sorokin. 3,072,859.
Smith, William V., and Sorokin. 3,072,890.

Sorrels, Weldon B. Mop sink. 3,076,202, 2–5–63, Cl. 4—189.

Sorrow, Billy B., and N. T. Kunkle, to Westinghouse Electric Corp. Lightning arresters. 3,099,770, 7–30–63, Cl. 315—36.

Sorstokke, Harold, and R. Pottkotter, to Stauffer Chemical Co. Process for the manufacture of trialkyl phosphates. 3,079,419, 2–26–63, Cl. 260—461.

Sorteberg, Johannes. Automatically balanced weighbeam systems. 3,085,744, 4–16–63, Cl. 235—61.

Sortland, Samson: *See*—
Ansell, George E., Bullock, and Sortland. 3,085,388.

Sorvall, Ivan, Inc.: *See*—
Filz, Charles J. 3,111,863.
Filz, Charles J. 3,112,081.

Sosalla, Harry L., E. A. Madison, and R. E. Coats, to Noble Mfg. Co., Inc. Granular material applicator. 3,074,727, 1–22–63, Cl. 275—14.

Sosin, Boleslaw M., and R. E. J. Gerard, to Marconi's Wireless Telegraph Co. Ltd. Translator distributed amplifier. 3,097,343, 7–9–63, Cl. 330—30.

Sosis, Paul: *See*—
Wilbert, Godfrey, and Sosis. 3,090,812.

Sosnowski, John: *See*—
Stark, Thomas M., Siegmund, and Sosnowski. 3,076,755.

Sosoka, John R., and J. V. Robinson, to Unitek Corp. Welding. 3,100,832, 8–13–63, Cl. 219—86.

Sosolic, Ernest, to Societe Ornanaise de Constructions Mecaniques (S.O.C.) Distributors notably for feeding machine-tools and the like. 3,093,250, 6–11–63, Cl. 214—1.

Sosolic, Ernest, to Societe Ornanaise de Constructions Mecaniques (S.O.C.) Distributor device. 3,096,888, 7–9–63, Cl. 214—1.

Sosa, Charles J. Apparatus for installing hinges. 3,082,800, 3–26–63, Cl. 144—27.

Soth, John M., to Delavan Mfg. Co. Variable area spray nozzle. 3,095,153, 6–25–63, Cl. 239—405.

Sothcott, John E. L.: *See*—
Sparling, Stanley C., Haslett, Hopkin, and Sothcott. 3,098,210.

Sotoda, Isao: *See*—
Takahashi, Torizo, Ogiu, Fujimura, Sotada, Fukui, and Yamamoto. 3,076,844.

Soubier, Leonard D.: *See*—
Kozak, John, and Soubier. 3,078,695.
Nelson, John R., and Soubier. 3,086,249.

Soubier, Leonard D., deceased (O. M. Soubier, executrix), and J. R. Nelson, to Owens-Illinois Glass Co. Apparatus for making composite plastic articles. 3,115,682, 12–31–63, Cl. 18—30.

Soubier, Olive M.: *See*—
Soubier, Leonard D., and Nelson. 3,115,682.

Soucie, Russell J., to Whirlpool Corp. Gas burner. 3,077,-922, 2–19–63, Cl. 158—105.

Soudan, Paul, and H. Mercier, to Pechiney Compagnie de Produits Chemique et Electrometallurgique. Apparatus for the continuous digestion of bauxite. 3,095,280, 6–25–63, Cl. 23—290.

Sougi, Michel: *See*—
Douis, Michel, Godart, Jouin, Laurent, and Sougi. 3,085,327.

Soule Steel Co: *See*—
Stanford, Verne A. 3,091,264.

Soulligney, Mitchell J., to Holley Carburetor Co. Universal sealing electrode. 3,098,916, 7–23–63, Cl. 219—10.53.

Sound Diffusion (Auto-Thermatic) Ltd.: *See*—
Stonor, Charles R. P. 3,083,358.

Sound Diffusion (Sales) Ltd.: *See*—
Stonor, Charles R. P. 3,098,123.

Soundlock Corp., The: *See*—
Kemp, William G. 3,095,943.
Lyon, William H. 3,080,169.
Lyon, William H. 3,086,089.
Lyon, William H., and Runge. 3,078,350.
Lyon, William H., and Runge. 3,078,464.

Soundscriber Corp., The: *See*—
De Napoli, Anthony C., Jr., and Balmer. 3,096,983.

Souply, Wesley R.: *See*—
Jacobs, Clyde L., and Souply. 3,077,269.

Sourresny, Herbert, to Schoeller-Bleckmann Stahlwerke Aktiengesellschaft, Fa. Drill stems for deep-well drill rods from non-magnetizable austenitic manganese-chromium alloy steels. 3,112,195, 11–26–63, Cl. 75—126.

Sourgens, Roger P., and R. A. Chollet. Electronic teleprinter adapted for collation. 3,099,705, 7–30–63, Cl. 178—2.

Sousa, Antonio P., and M. M. Brilhante. Automatic color film transparency processing machine. 3,082,675, 3–26–63, Cl. 95—89.

Soussloff, Dimitri G., S. Godel, T. Descovich, and R. E. Davis, to American Machine & Foundry Co. Elapsed time indicator. 3,090,915, 5–21–63, Cl. 324—68.

South Laboratories, Inc.: *See*—
Flournoy, John H. 3,078,685.

South African Iron and Steel Industries Corp. Ltd.: *See*—
Krüger, Cornelius J. 3,111,977.

South Bend Toy Mfg. Co., Inc.: *See*—
Chrelst, Louis R., Jr. 3,083,997.
Lotter, William. 3,098,477.
Rutkowski, Roman V. 3,090,636.

South Chester Corp.: *See*—
Barry, John K. 3,079,970.

Southeastern Metals Co.: *See*—
Alverson, Earl E. 3,099,182.

Souther, Robert R. Safety pin. 3,072,990, 1–15–63, Cl. 24—161.

Southern Bleachery and Print Works, Inc.: *See*—
Neale, Charles E. 3,102,771.

Southern Equipment & Supply Co., Inc.: *See*—
Harben, Grover S., Jr., and Whitmire. 3,076,898.

Southern Machinery Co.: *See*—
Andersen, Charles J., and Jones. 3,101,585.
Jones, Coy V., Sr. 3,074,254.
Kennedy, Harry R., and Andersen. 3,080,701.
Kennedy, Harry R., Andersen, and Jones. 3,074,224.

Southern Natural Gas Co.: *See*—
Timothy, Patrick H. 3,078,324.

Southern Research and Sales Corp.: *See*—
Hebert, Edwin. 3,073,391.

Southern Saw Service, Inc.: *See*—
Ramirez, Robinson P., and Belser. 3,072,164.

Southern Illinois University Foundation: *See*—
Brutten, Eugene J., Gray, and Rose. 3,083,682.

Southern States Inc.: *See*—
Richardson, Olan, and Walter. 3,094,340.

Southgate, Harold A., to Canada Wire and Cable Co. Ltd. Method of manufacturing aluminum sheath for electric cable. 3,103,453, 9–10–63, Cl. 148—11.5.

Southin, Roy T.: *See*—
Webb, Alfred W. O., Bailey, and Southin. 3,079,252.

Southland, John R.: *See*—
Greer, Edward M., and Southland. 3,077,102.

Southwest Filter Co.: *See*—
Thompson, Malcolm W. and D. C. 3,080,976.

Southwest Industrial Products, Inc.: *See*—
Austin, James M., Garvin, and Karr-Ake. 3,073,295.

Southwest Products Co.: *See*—
Evans, Jack R. 3,085,312.

Southwood, Dewey R. Fluid dispenser. 3,088,125, 5–7–63, Cl. 4—222.

Southwood, Robert L.: *See*—
Kremen, Seymour S., and Southwood. 3,099,149.

Southworth, Hamilton, Jr.: *See*—
Hawkins, Robert D., and Southworth. 3,093,367.

Southworth, John V. D., Jr.: *See*—
Schmanke, George W., Jr., and Southworth. 3,081,603.

Southworth Machine Co.: *See*—
Hawkes, Howard T. 3,103,284.

Souviner, George E.: *See*—
Kuntz, William K., and Souviner. 3,101,055.

Sowinski, Francis A.: *See*—
Yale, Harry L., and Sowinski. 3,079,393.
Yale, Harry L., Sowinski, and Bernstein. 3,071,596.
Yale, Harry L., Sowinski, and Pribyl. 3,079,400.

Sowter, George R., and R. M. Eisenberg, to ACF Industries, Inc. Radar altimeter simulator. 3,090,136, 5–21–63, Cl. 35—10.4.

Soyer, Robert. Devices forming the mouthpieces of air admission pipes for jet engines for aircraft. 3,074,232, 1–22–63, Cl. 60—35.6.

Söyland, Ingebret and K. Mobile excavators. Re. 25,495, 12–17–63, Cl. 214—138.

Söyland, Kristian: *See*—
Söyland, Ingebret and K. Re. 25,495.

Sozaki, Takeshi: *See*—
Takamatsu, Hideji, Umemoto, Kanoh, and Sozaki. 3,110,-728.

Spaa, Jacob H., to North American Philips Co., Inc. System for determining the radio activity of gas sols. 3,109,096, 10–29–63, Cl. 250—83.3.

Space Components Inc.: *See*—
Reed, Donald E. and S. F., Deady, and Fairbanks. 3,098,907.

Space Conditioning Corp.: *See*—
Meckler, Gershon. 3,102,399.

Space Equipment Corp.: *See*—
Blodgett, William G., Cummings, and Fleming. 3,116,-428.

Space-General Corp.: *See*—
Lehan, Frank W., and Hugheds. 3,087,111.

Space Technology Laboratories, Inc.: *See*—
Bers, Naum S. 3,097,335.
Clark, George L., and Hickey. 3,084,282.
Clark, George L., and Hickey. 3,088,052.
Clark, George L., and Hickey. 3,105,168.
Clauser, Milton U., Meyer, Huddlestone, and Fried. 3,102,088.
Clifford, Richard P., and Ambrosio. 3,088,072.
Cooper, John N., and Crittenden. 3,113,889.
Crittenden, Eugene C., Jr., Cooper, Learn, and Schmidlin. 3,084,339.
Fairbanks, Avard F. 3,112,433.
Hickey, John J., and Clark. 3,100,872.
Josephson, Vernal. 3,113,088.
Lipkis, Robert P. 3,088,989.
Mann, Horace T. 3,093,754.
Mann, Horace T. 3,113,806.
Meyer, Rudolf X. 3,113,427.
Moore, Donovan J., and Skilfstrom. 3,111,750.
Samulon, Henry A., and Robison. 3,076,861.
Schmidlin, Frederick W. 3,096,331.
Slmirra, Johannes R. 3,087,643.
Smith, Thomas D., and Spence. 3,113,223.
Weibel, Erich S. 3,105,803.

Spacht, Ronald B., to The Goodyear Tire & Rubber Co. Stabilization of organic compositions with metal deactivators. 3,072,573, 1–8–63, Cl. 252—51.5.

Spacht, Ronald B., to The Goodyear Tire & Rubber Co. Catalysts for condensation reactions of primary amines with dihydroxy aromatic compounds. 3,081,348, 3–12–63, Cl. 260—576.

Spacht, Ronald B., to The Goodyear Tire & Rubber Co. Catalysts for condensation reactions of primary amines with dihydroxy aromatic compounds. 3,081,349, 3–12–63, Cl. 260—576.

Spacht, Ronald B., to The Goodyear Tire & Rubber Co. Antioxidants. 3,102,871, 9–3–63, Cl. 260—45.8.

Spacil, Henry S., to Alloyd Research Corp. Analytical process and apparatus. 3,091,689, 5–28–63, Cl. 250—43.5.

Spacil, Henry S., and W. E. Tragert, to General Electric Co. Gas discharge heating device. 3,109,118, 10–29–63, Cl. 313—204.

Spack, Maurice. Catapult device. 3,071,127, 1–1–63, Cl. 124—17.

Spadaro, Giorgio I., to Acme-Lite Mfg. Co. Table and support therefor. 3,071,423, 1–1–63, Cl. 311—83.

Spadaro, Giorgio I. Reel holder. 3,072,280, 1–8–63, Cl. 220—4.

Spadaro, Giorgio I., to Acme-Lite Mfg. Co. Photography appliance. 3,075,069, 1–22–63, Cl. 240—1.3.

Spade, Robert L., and J. F. Voss, to Belden Mfg. Co. Welding cable. 3,098,892, 7–23–63, Cl. 174—47.

Spademan, Charles F., to Toledo Scale Corp. Load measuring device. 3,081,830, 3–19–63, Cl. 177—1.

Spaeth, Charles P., to E. I. du Pont de Nemours and Co. Dehydration of aromatic polycarboxylic acids. 3,106,568, 10–8–63, Cl. 260—346.3.

Spahl, Charles R., to American Optical Co. Flags and staffs therefor. 3,081,734, 3–19–63, Cl. 116—173.

Spaight, Elma: *See*—
Spaight, Harold L. 3,099,110.

Spaight, Harold L., deceased; E. Spaight, executrix, to Dur-O-wal National, Inc. Control joint. 3,099,110, 7–30–63, Cl. 50—346.

Spain, Horace H.: *See*—
Hilton, Albert R., Jr., and Spain. 3,100,527.
Holland, Warren E., Williams, and Spain. 3,097,692.

Spain, Robert F.: *See*—
Diamond, Milton J., and Spain. 3,089,084.
Diamond, Milton J., Spain, and Lutch. 3,097,523.
Toski, John W., and Spain. 3,076,128.

Spain, Roy C., to The Yale and Towne Mfg. Co. Side bar cylinder lock. 3,080,744, 3–12–63, Cl. 70—364.

Spain, Roy C., to The Yale and Towne Mfg. Co. Key bitting machine. 3,094,039, 6–18–63, Cl. 90—13.05.

Spainhour, Carroll D.: *See*—
Harris, Richard A., and Spainhour. 3,100,027.

Spainhour, James D., to Phillips Petroleum Co. Synthesis of certain substituted triazines. 3,095,414, 6–25–63, Cl. 260—248.

Spake, James E.: *See*—
Parham, Charles D., and Spake. 3,074,439.

Spalaris, Constantine N., to General Electric Co. Malleable tube-clad article and manufacturing method therefor. 3,088,893, 5–7–63, Cl. 204—154.2.

Spalding, A. G., & Bros., Inc.: *See*—
Latina, Harry B. 3,098,234.

Spalding, Dudley B. Pressure exchangers. 3,074,620, 1–22–63, Cl. 230—69.

Spalding, Dudley B. Pressure exchangers. 3,076,422, 2–5–63, Cl. 110—56.

Spalding, Dudley B. Pressure exchanger. 3,078,034, 2–19–63, Cl. 230—69.

Spalding, Dudley B. Pressure exchangers. 3,082,934, 3–26–63, Cl. 230—69.

Spalding, Dudley B. Pressure exchangers. 3,091,083, 5-28-63, Cl. 60—39.45.

Spalding, Dudley B. Pressure exchanger apparatus. 3,095,704, 7-2-63, Cl. 60—39.45.

Spalding, Richard O., and M. C. Street, to Owens-Illinois Glass Co. Method and apparatus for making printed flattened tubular carton blanks. 3,073,217, 1-15-63, Cl. 93—52.

Spalding, Robert G., to Symington Wayne Corp. Indicating apparatus for dispensing system. 3,100,062, 8-6-63, Cl. 222—35.

Spalding, Thomas R., to International Telephone and Telegraph Corp. Apparatus for detecting hot journal boxes. 3,076,089, 1-29-63, Cl. 246—169.

Spalla, Joseph R., to Royal McBee Corp. Margin regulators for typewriters or like business machines. 3,080,038, 3-5-63, Cl. 197—63.

Span Tendons Ltd.: *See*—
Harris, Alan J. 3,114,987.

Spang, Harold O.: *See*—
Himes, Glenn R., and Spang. 3,091,602.

Spangenberg, Wesley: *See*—
Stout, Perry R., Skramstad, Merkle, Bailey, Spangenberg, Rabilnow, and Raudenbush. 3,084,340.

Spangler, Earl G., and C. Schreur; said Schreur assor. to said Spangler. Method of making a coated fibrous filter element. 3,096,204, 7-2-63, Cl. 117—98.

Spann, Lawrence R: *See*—
Valyi, Emery I., and Spann. 3,078,527.

Spanner, Jack C., to United States of America, Atomic Energy Commission. Apparatus for measuring annular offset between a first metal tube and a second metal tube spatially disposed within the first tube. 3,100,281, 8-6-63, Cl. 324—40.

Spannbake, Ernst W.: *See*—
Hyler, John H., and Spannbake. 3,101,977.

Sparkes, Harry P., to Cole Electric Co. Connector assembly. 3,083,274, 3-26-63, Cl. 200—51.09.

Sparkia, Leo J.: *See*—
Handley, Harold E., Whitman, and Sparkia. 3,104,454.

Sparkletts Drinking Water Corp.: *See*—
Alex, Max. 3,088,289.

Sparkman, John W., Jr.: *See*—
Evanick, Michael O., and Sparkman. 3,072,367.

Sparkman, Virgil M. Book holder. 3,076,285, 2-5-63, Cl. 45—85.

Sparkman, Virgil M. Reading stand. 3,104,491, 9-24-63, Cl. 45—58.

Sparks, Arthur L. Lamp housings for use in connection with photographic apparatus. 3,112,075, 11-26-63, Cl. 240—20.

Sparks, Carter W.: *See*—
Sparks, William R., Matteson, and Sparks. 3,081,038.

Sparks, Cleone A. Method for impact-forming slipper-type pistons. 3,093,890, 6-18-63, Cl. 29—156.5.

Sparks, David E., to Admiral Corp. Method and apparatus for neutralizing Miller effect. 3,094,674, 6-18-63, Cl. 330—76.

Sparks, Marvin, ½ to A. E. Tabor. Portable hydrotherapy machine. 3,075,520, 1-29-63, Cl. 128—66.

Sparks, Neil R.: *See*—
Geyer, Robert L., and Sparks. 3,093,810.

Sparks, William. Braiding apparatus. 3,088,363, 5-7-63, Cl. 87—33.

Sparks, William B., D. W. Matteson, and C. W. Sparks, to Casalbi Co. Self-propelled lawn sprinkler. 3,081,038, 3-12-63, Cl. 239—192.

Sparks, William J.: *See*—
Gessler, Albert M., and Sparks. 3,093,601.
Gessler, Albert M., and Sparks. 3,112,681.

Sparling, Arthur J., to Mitchell Camera Corp. Pressure controller. 3,115,897, 12-31-63, Cl. 138—31.

Sparling, Stanley C., R. W. G. Haslett, P. R. Hopkin, and J. E. L. Sothcott, to Kelvin & Hughes Ltd. Echo ranging with reference to boundary conditions. 3,098,210, 7-16-63, Cl. 340—3.

Sparr, Bertram I.: *See*—
Sprinkle, Charles R., Sekula, Johnson, and Sparr. 3,097,128.

Sparrell, James K.: *See*—
Barger, J. Perry, Love, and Sparrell. 3,086,372.

Sparrendahl, Gunnar E. W., to Telefonaktiebolaget L M Ericsson. Telecommunication system. 3,112,369, 11-26-63, Cl. 179—15.

Sparrow, Hubert T., to Minneapolis-Honeywell Regulator Co. Fluid amplifier mixing control system. 3,091,393, 5-28-63, Cl. 236—12.

Sparrow, Hubert T., to Minneapolis-Honeywell Regulator Co. Heating system control with anticipating means. 3,091,394, 5-28-63, Cl. 236—68.

Sparrow, Kenneth M., to Lima Electric Motor Co., Inc. Dynamo electric machine. 3,093,782, 6-11-63, Cl. 318—186.

Sparrow, William T., and J. B. Montgomery, to Newport News Shipbuilding and Dry Dock Co. Cargo handling apparatus. 3,110,403, 11-12-63, Cl. 212—3.

Spars, Byron G.: *See*—
Berkowitz, Edward B., Makowski, Spars, and Berlin. 3,089,841.

Sparton Corp.: *See*—
Chow, Welchien, and Fisher. 3,090,349.
Schroeder, Robert C., and Wood. 3,114,335.
Schroeder, Robert C., and Wood. 3,114,336.
Schroeder, Robert C., and Wood. 3,114,338.

Spase, Charles B., to Lipe-Rollway Corp. Thermal unit. 3,086,398, 4-23-63, Cl. 73—368.

Spates, Henry M. Flexible mandrel. 3,105,538, 10-1-63, Cl. 153—63.

Spath, Catherine M.: *See*—
Yager, Barbara C., Spath, and Schwan. 3,113,864.

Spatz, Walter B. Marking pencil. 3,101,074, 8-20-63, Cl. 120—15.

Spatz, Walter B. Dispensers for fluent masses. 3,088,636, 5-7-63, Cl. 222—213.

Spatz, Walter B Marking pencil. 3,101,074, 8-20-63, Cl. 120—20.

Spaulding, Carl P., and M. C. Wilson, to Datex Corp. Encoder circuits. 3,099,002, 7-23-63, Cl. 340—347.

Spaulding, Carl P., and M. C. Wilson, to Datex Corp. Encoder circuits. 3,099,003, 7-23-63, Cl. 340—347.

Spaulding, Joseph H.: *See*—
Rodmaker, Gerald M., and Wedding. 3,108,751.

Spaunburgh, Richard G.: *See*—
Cheng, Chao-Shing, and Spaunburgh. 3,080,357.

Spaven, William J.: *See*—
Cutsogeorge, George A., and Spaven. 3,075,128.

Speaight, John H. W.: *See*—
Cushing, Cyril A., and Speaight. 3,101,702.

Speaker, Lawrence W., to General Electric Co. Water entrainment means for air conditioning apparatus. 3,079,767, 3-5-63, Cl. 62—280.

Speaker, Lawrence W., to General Electric Co. Fan construction. 3,089,314, 5-14-63, Cl. 62—279.

Speakman Co.: *See*—
Fraser, James. 3,105,519.
Fraser, James, and McLean. 3,090,050.
Gerow, Clarence C., and Rottcher. 3,095,581.
McLean, Edward S. 3,082,786.

Speakman, Eugene R., to Douglas Aircraft Co., Inc. Sealed hinge. 3,075,234, 1-29-63, Cl. 16—137.

Speakman, Frank P., and L. Williams, to Pye Ltd. Apparatus for gas analysis. 3,104,320, 9-17-63, Cl. 250—43.5.

Spear Box Co., Inc.: *See*—
Conescu, Sidney. 3,095,136.

Spear, J. W., & Sons Ltd.: *See*—
Spear, Jakob R. 3,110,077.

Spear, Jakob R., to J. W. Spear & Sons Ltd. Jigs for making pompons. 3,110,077, 11-12-63, Cl. 28—2.

Spear, Walter A., C. R. Turner, and C. F. Meeker, to Nutone, Inc. Ventilator hood with collapsible bonnet. 3,087,411, 4-30-63, Cl. 98—115.

Spears, Garfield. Cake cutter having power driven endless cutting wire. 3,089,371, 5-14-63, Cl. 83—201.

Spears, John K.: *See*—
Newland, Arthur E., and Schultz. 3,086,513.

Spears, Rufus P. Advertising napkin holder. 3,106,314, 10-8-63, Cl. 221—35.

Spens, Clarence J., and P. L. Andrews, to Oak Ridge Atom Industries, Inc. Method of treating grape vines. 3,101,497, 9-24-63, Cl. 47—1.3.

Spechler, Edward: *See*—
Webster, Roland C., Spechler, and Emerson. 3,089,388.

Specht, John K., to Sylvania Electric Products Inc. Molding apparatus. 3,074,113, 1-22-63, Cl. 18—42.

Specht, Julius H: *See*—
Wilson, George P., and Specht. 3,091,218.

Special Metals, Inc.: *See*—
Abkowitz, Stanley, and Woodall. 3,107,167.

Specialized Patents Sales and Developments Ltd.: *See*—
Pohl, Lothar L. 3,079,126

Specialties Development Corp.: *See*—
Ragno, Samuel M. 3,075,124.
Ragno, Samuel M. 3,108,191.
Ragno, Samuel M. 3,108,271.
Ragno, Samuel M. 3,109,165.
Ragno, Samuel M. 3,111,657.
Blom, Stanford W. 3,110,088.
Cutsogeorge, George A. 3,089,337.
Cutsogeorge, George A., and Spaven 3,075,128.
Dailey, Horace S., and Fleming. 3,111,279.
Dennis, David H. 3,076,566.
Fleming, William T. 3,086,405.
Putt, John W., and Thomann. 3,115,395.
Rakowski, Alexander J. 3,078,550.
Rice, Thomas K. 3,077,072.
Rill, Arduino. 3,079,716.
Rossi, William F., and Huston. 3,079,038.
Rothfuchs, Paul. 3,071,067.
Wentz, Edward A. 3,082,134
Wentz, Edward A. 3,083,131.
Zenobia, John C., Jr. 3,100,331.

Specialties Inc.: *See*—
Cahill, Daniel T. 3,095,785.
Fieldgate, Ivan O., and Gwathmey. 3,096,504.
Gray, Walter W. 3,085,430.
Gray, Walter W. 3,088,307.
Gray, Walter W. 3,111,029.
Hays, Robert F., Jr. 3,076,921.

Specialty Engineering & Electronics Co.: *See*—
Just, Richard. 3,093,734.

Specht, Herbert H.: *See*—
Ellenburg, George W., and Specht. 3,112,614.

Speck, Franklin T.: *See*—
Porter, Louis M., and Speck. 3,109,554.

Speck, Heini, to Union Special Maschinenfabrik, G.m.b.H. Sewing apparatus for closing bags. 3,077,843, 2-19-63, Cl. 112—11.

Speck, Josef. Muffler or silencer. 3,073,413, 1-15-63, Cl. 181—64.

Speck, Josef. Flashlight. 3,099,402, 7-30-63, Cl. 240—10.66.

Spector, Dov. Self-powered cathodic protection and electrolytic descaling device. 3,081,251, 3-12-63, Cl. 204—196.

Spector, Marshall L., to The M. W. Kellogg Co. Radioactive waste disposal. 3,110,557, 11-12-63, Cl. 23—50.

Spector, Morris, to Sterling Automotive Mfg. Co. Adjustable clamp. 3,100,327, 8-13-63, Cl. 24—274.

Spectra-Cast Corp.: *See*—
Russell, Alexander H. 3,078,249.

Spectrol Electronics Corp.: *See*—
Bamford, John W., and Usry. 3,108,245.
Ferrari, Rodolfo D. 3,076,162.

Spectrolab, a Division of Textron Electronics, Inc.: *See*—
Mann, Alfred E., Dubey, Wolf, Ralph, Oliver, and Shuster. 3,094,439.

Spedden, Henry R.: *See*—
Gaudin, Antoine M., Spedden, and Sullivan. 3,094,485.

Speechley, John, to Westland Aircraft Ltd. Flying vehicles. 3,112,088, 11-26-63, Cl. 244—2.

Speed, David B.: *See*—
Schulze, William A., and Speed. 3,077,389.

Speed Fastener, Inc.: *See*—
Kissane, Richard W. 3,075,197.

Speed, Virgil U.: *See*—
Bane, Glenn L. Fuerst, and Speed. 3,077,327.

Speedco, Inc.: *See*—
Good, Paul F. 3,101,042.

Speedlap Corp.: *See*—
Boettcher, Stephen A. 3,110,988.
Boettcher, Stephen A. 3,110,991.
Keefe, James V. 3,110,992.

Speed-O-Print Business Machines Corp.: *See*—
Carlson, John W. 3,078,777.
Carlson, John W. 3,097,585.
Carlson, John W 3,101,036.
Carlson, John W. 3,113,499.

Speed Park, Inc.: *See*—
Kroll, Cornelius, and N. M. 3,071,016.
Kroll, Cornelius and N. M. 3,087,346.

Speedrack Inc.: *See*—
Koustant, Anthony N., and Schell. 3,102,641.

Speegle, A. J.: *See*—
McGuire, Jack C., and Speegle. 3,095,929.

Speen, Gerald B.: *See*—
Adams, Paul R., Bovitz, Speen, and Hall. 3,073,168.
Adams, Paul R., Speen, and Brannon. 3,110,187.

Speen, Gerald B, to International Telephone and Telegraph Corp. Accelerometer. 3,080,761, 3-12-63, Cl. 73—516.

Speeter, Merrill E.: *See*—
Aspergren, Brooke D., Moffett, and Speeter. 3,072,722.

Speeter, Merrill E., to The Upjohn Co. Process for making amino alkyl-para amino-ortho substituted-benzoic acid esters and amides. 3,075,978, 1-29-63, Cl. 260—247.1.

Speidel, George B., to Metal Edge Industries. Box making machine. 3,076,389, 2-5-63, Cl. 93—41.1.

Speidel Industrial Division, Inc.: *See*—
Maeder, Paul F. 3,080,763.

Speidel, Louis, Jr., and E. J. Gow, Jr., to United States of America, Army. Replaceable wheel and track pad. 3,078,128, 2-19-63, Cl. 305—38.

Speidel, Louis, Jr., and E. J. Gow, Jr., to United States of America, Army. Aggressive dual pin track. 3,092,423, 6-4-63, Cl. 305—11.

Speidel, Thomas O. P., and R. C. Howard, to General Dynamics Corp. Pressure tube structure. 3,104,218, 9-17-63, Cl. 204—193.2.

Speiser, Maximilian R.: *See*—
Hatfield, Cleburne B., Speiser, and Avakian. 3,085,391.

Speiser, Maximilian R. Computer-type golf game. 3,091,466, 5-28-63, Cl. 273—184.

Speiser, Maximilian R., and C. L. Washburn, to A. C. Nielson Co. Voting machine. 3,102,685, 9-3-63, Cl. 235—55.

Speiser, Vernon P.: *See*—
Smith, Richard S., and Speiser. 3,103,910.

Spek Instrument Co.: *See*—
Kendrick, John. 3,085,473.

Spellman, James E.: *See*—
England, Richard J., and Spellman. 3,080,134.

Spelman, Rollin H., to The General Tire & Rubber Co. Radial cord truck tire. 3,090,417, 5-21-63, Cl. 152—354.

Spenard, Le Roy C., and D. J. Armstrong, to Holmes Electric Protective Co. Burglar alarm actuator. 3,091,760, 5-28-63, Cl. 340—378.

Spence, Clifton F., deceased; H. M. Spence, administratrix. Chain saw filing guide. 3,093,016, 6-11-63, Cl. 76—36.

Spence, Harry R.: *See*—
Smith, Thomas D., and Spence. 3,113,223.

Spence, Hilda M.: *See*—
Spence, Clifton F. 3,093,016.

Spence, Henry U., to Upson Machine Products, Inc. Bow steering for hydraulic jet-driven boat. 3,078,661, 2-26-63, Cl. 60—35.54.

Spence, Henry U., to Upson Machine Products, Inc. Steering device for turbine powered watercraft. 3,083,530, 4-2-63, Cl. 60—35.55.

Spence, Paulsen. Railroad crossing. 3,077,600, 2-12-63, Cl. 238—8.

Spence, Paulsen, deceased, L. B. Dexter and O. C. Paulsen, co-executors. Desuperheater. 3,092,677, 6-4-63, Cl. 261—16.

Spence, Robert A.: *See*—
Reid, John B., and Spence. 3,092,861.
Reid, John B., and Spence. 3,099,026.
Reid, John B., and Spence. 3,105,985.
Reid, John B., and Spence. 3,106,730.
Reid, John B., and Spence. 3,107,354.
Reid, John B., and Spence. 3,107,376.

Spence, Rodney E., to W. D. Box. Door frame structures. 3,079,650, 3-5-63, Cl. 20—11.

Spence, Thomas C.: *See*—
Murdock, Stanley A., and Spence. 3,091,507.
Routson, Willis G., and Spence. 3,097,054.
Routson, Willis G., and Spence. 3,097,055.

Spence, Thomas M. Steam or vapor bath. 3,115,645, 12-31-63, Cl. 4—161.

Spence, Walter C., and P. V. H. Svendsen, to Dominion Gulf Co. Sulfuric acid leaching of niobium ores. 3,087,809, 4-30-63, Cl. 75—115.

Spencer, Boyd L.: *See*—
Spencer, Charles O., and B. L. 3,115,125.
Spencer, Charles O., and B. L. 3,115,127.

Spencer, Charles O., and B. L. Internal combustion engine cooling system. 3,115,125, 12-24-63, Cl. 123—41.42.

Spencer, Charles O., and B. L. Removable insert for internal combustion chambers. 3,115,127, 12-24-63, Cl. 123—41.82.

Spencer Chemical Co.: *See*—
Byler, William H. 3,072,608.
Clark, Clayton F., and Hill. 3,104,232.
Clark, Clayton F., and Hill. 3,108,981.
Hopkins, Thomas R. 3,094,520.
Hopkins, Thomas R., and Neighbors. 3,073,738.
Hopkins, Thomas R., and Pullen. 3,086,059.
Hopkins, Thomas R., and Pullen. 3,116,322.
Hopkins, Thomas R., Rea, and Roszkowski. 3,100,223.
Mantell, Gerald J., Galiano, and Rankin. 3,092,640.
Miller, Ralph D., and Stanford. 3,104,269.
Sharp, Joe C., and McPherson. 3,083,081.

Spencer, Claude F., to The Norwich Pharmacal Co. 3-methoxymethyl-1-(5-nitrofurfurylideneamino) hydantoin. 3,110,713, 11-12-63, Cl. 260—240.

Spencer, Dennis L., to S. Smith & Sons (England) Ltd. Level indicating and control instruments. 3,090,397, 5-21-63, Cl. 137—391.

Spencer, Domina E., and S. C. Peek, Jr., to Sylvania Electric Products Inc. Aperture fluorescent lamp. 3,115,309, 12-24-63, Cl. 240—41.35.

Spencer, Donald B., to Guy F. Atkinson Co. Boring machine. 3,082,454, 3-26-63, Cl. 15—104.1.

Spencer, Donald L. Stock feeder. 3,074,377, 1-22-63, Cl. 119—54.

Spencer, Elbert C. Stake pointing machine. 3,111,971, 11-26-63, Cl. 144—30.

Spencer, Eugene G.: *See*—
Berg, William K., Riddell, Spencer, and Tomlinson. 3,099,285.

Spencer, Framroze J., to Monsanto Chemical Co. Composition comprising a mixture of polyethylene and an alkylalkoxysilane. 3,100,753, 8-13-63, Cl. 260—29.1.

Spencer, Frank R., and A. J. Malashevitz, to Formica Corp. Aminotriazine-aldelyde foam modified with a primary triol. 3,093,600, 6-11-63, Cl. 260—2.5.

Spencer, Fred J., to Collins Radio Co. Squelch circuit. 3,079,558, 2-26-63, Cl. 325—348.

Spencer, John H.: *See*—
Abel, George G., Jr., and Spencer. 3,105,172.

Spencer, John H., to General Electric Co. Isolation device for mounting screws in electrical connection box. 3,113,995, 12-10-63, Cl. 174—59.

Spencer, John H., and R. Brackett, to General Electric Co. Manual by-pass for meter socket. 3,076,167, 1-29-63, Cl. 339—19.

Spencer, Percy L., to Raytheon Co. Electron discharge devices with a sharp edged cathode. 3,109,123, 10-29-63, Cl. 315—39.63.

Spencer, Raymond E.: *See*—
Kennedy, Wilson R., and Spencer. 3,099,778.

Spencer, Robert A.: *See*—
Hershey, Harold J., and Spencer. 3,102,510.
Kalin, Walter, and Spencer. 3,116,481.
Kline, Richard G., Reid, and Spencer. 3,097,381.

Spencer, Robert C., Jr., and M. A. Eggenberger, to General Electric Co. Control apparatus for regulating an overspeed condition of an electric generator. 3,098,190, 7-16-63, Cl. 322—29.

Spencer, Rolf E., and G. H. Stephenson, to Electric & Musical Industries Ltd. Interpolating devices, especially for the control of automatic machine tools. 3,100,864, 8-13-63, Cl. 323—43.5.

Spencer, Roy A., Jr.: *See*—
Van Dyke, Genevieve D. 3,094,784.

Spencer, Russell C., to Olin Mathieson Chemical Corp. Gas discharge mechanism. 3,098,443, 7-23-63, Cl. 102—25.

Spencer, T. H.: *See*—
Hawes, David H., and Spencer. 3,089,021.

Spencer, Thomas A. Doorstop. 3,111,340, 11-19-63, Cl. 292—229.

Spencer Turbine Co., The: *See*—
Hunt, David H. 3,097,673.

Spencer, Vern: *See*—
Anderson, Swan F. and R. F., and Sorensen. 3,103,959.

Spengler, Gunter, and H. Hohn, to The Alpha Molykote Corp. Lubricant additives. 3,103,494, 9-10-63, Cl. 252—49.7.

Spengler, Günter, and J. Günsheimer, to Alpha-Molykote Corp. Lubricant composition and method of making the same. 3,114,712, 12–17–63, Cl. 252—46.4.

Spengler, Herbert: *See*—
Gruneberg, Gerhard, Jung, and Spengler. 3,082,282.

Spens, Gordon: *See*—
Lambert, Jordan W., Spens, and Wilson. 3,092,573.

Speranza, George P., and S. D. Lesesne, to Jefferson Chemical Co., Inc. Method for preparing basic polyether compositions. 3,110,732, 11–12–63, Cl. 260—584.

Speraw, Ervin R. Counter top construction and the like. 3,077,012, 2–12–63, Cl. 20—74.

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Spohn, Karl. Controls for automatic machine tools and the like. 3,113,371, 12-10-63, Cl. 29—42.
Spohn, Karl, and H. Walker. Automatic working turning means for screw machines. 3,096,673, 7-9-63, Cl. 82—2.5.
Spohrer, George V. Coin controlled service vending systems. 3,100,034, 8-6-63, Cl. 194—1.
Spokane Culvert and Fabricating Co.: *See*—
Honeyman, Alan A. 3,084,733.
Spolders, Rudolf: *See*—
Breuing, Wilhelm, Franke, and Spolders. 3,099,699.
Spolsino, Peter P., to W. R. Grace & Co. Sealing apparatus. 3,111,794, 11-26-63, Cl. 53—14.
Spon, Carroll V.: *See*—
North, Edwin W., and Spon. 3,101,603.
North, Edwin W., and Spon. 3,101,604.
Sponnoble, Harry, and J. E. Tingstad, to The Upjohn Co. Estrone solubilized with N,N-dimethyl-acetamide. 3,075,882, 1-29-63, Cl. 167—74.
Sponsel, Kurt H.: *See*—
Leupold, Curt W., Mohr, and Sponsel. 3,085,911.
Spooncer, William C. Combined road map and obstruction marker. 3,113,552, 12-10-63, Cl. 116—63.
Spooner, Archer M.: *See*—
Marvin, Ronald A., Shelley, and Spooner. 3,076,271.
Spooner Dryer & Engineering Co. Ltd., The: *See*—
Coar, Ronald. 3,078,592.
Jepson, Michael D. 3,096,162.
Spooner, Howard C.: *See*—
Jennings, Lyston C., and Spooner. 3,096,619.
Spooner, Howard E., to Engelhard Industries, Inc. Method for producing an electrical contact element. 3,075,281, 1-29-63, Cl. 29—155.55.
Spooner, Howard E., and A. G. Bergmann, to Engelhard Industries, Inc. Electrical contact. 3,113,196, 12-3-63, Cl. 200—166.
Spooner, Hubert: *See*—
Brown, David M., and Spooner. 3,113,636.
Spooner, Joseph R., and W. A. Hadley, to Linotype and Machinery Ltd. Sheet control for printing machines. 3,081,082 3-12-63, Cl. 271—68.
Spooner, Richard C.: *See*—
Hottenroth, Fred W., and Spooner. 3,092,095.
Spooner, Robert B.: *See*—
Nagey, Tibor F., Burriss, Spooner, and Maxwell. 3,113,089.
Spooner, Robert B., to Koppers Co., Inc. Apparatus for measuring the height and contour of material. 3,099,744, 7-30-63, Cl 250—71.5.
Sporck, Claus L., to The Lodge & Shipley Co. Metal working. 3,104,565, 9-24-63, Cl. 80—13.
Sporck, Claus L., and B. Sassen, to The Lodge & Shipley Co. Metal working. 3,104,640, 9-24-63, Cl. 113—53.
Sporck, Claus L., and B. Sassen, to The Lodge & Shipley Co. Metal working. 3,114,342, 12-17-63, Cl. 113—52.
Sporenberg, Willi: *See*—
Strugala, Alfred, Sporenberg, and Schmidt. 3,105,399.
Sporer, Anthony G.: *See*—
Mambourg, James E., Sporer, and Day. 3,074,568.
Sporer, Anthony G., to Libbey-Owens-Ford Glass Co. Bedding glass plates for grinding and polishing. 3,078,625, 2-26-63, Cl. 51—283.
Sporlan Valve Co.: *See*—
Leimbach, John G. 3,099,140.
Sporlan Valve Co., Inc.: *See*—
Kounovsky, Edward F., and Lange. 3,091,120.
Sporn, Stanley: *See*—
Berman, Herbert, and Sporn. 3,075,150.
Spotholz, Clifford H., to General Foods Corp. Pressure roasting of coffee. 3,106,470, 10-8-63, Cl. 99—68.
Spotholz, Clifford H., and C. C. Elsesser, to General Foods Corp. Beverage flavor and process for its production. 3,102,815, 9-3-63, Cl. 99—140.
Spotnails, Inc.: *See*—
Beckman, William R., and Kremiller. 3,112,489.
Spound, Albert M. Automatic projecting headrest for reclining chairs. Re. 25,345, 3-12-63, Cl. 297—61.
Spowart, Samuel J., D. Goodman, and D. Sutherland, to Campbell Taggart Associates Bakeries, Inc. Doubles eliminator for dough rounding machine. 3,115,250, 12-24-63, Cl. 209—90.
Spracklen, John G., to Zenith Radio Corp. Remote control apparatus. 3,076,142, 1-29-63, Cl. 325—392.
Spracklen, Stanford B.: *See*—
Davis, James C., and Spracklen. 3,114,090.
Noebels, Henry J., and Spracklen. 3,104,541.
Spragens, George F. Multi-way rotary valve structure. 3,085,594, 4-16-63, Cl. 137—625.18.
Spragens, George F., to The Martin Sweets Co. Valve packing assembly. 3,098,506, 7-23-63, Cl. 137—625.19.
Spraggins, Newton F.: *See*—
Johnson, Kenneth D., Talton, and Spraggins. 3,091,437.
Sprague, Basil S.: *See*—
Salvin, Victor S., Sprague, and Fortess. 3,101,236.
Sprague, Carlton L., and I. W. Wolf, to United States of America, Army. Printed circuit apparatus. 3,088,434, 5-7-63, Cl. 118—410.
Sprague Electric Co.: *See*—
Bernard, Walter J. 3,087,872.
Fournier, Lawrence E. 3,111,428.
Hurley, Thomas P., Donohue, and Teeple. 3,103,734.
Lamoureaux, Raymond A., Jr. 3,091,656.
Lamphier, Walter C. 3,093,775.
Lehovec, Kurt. 3,087,099.
Lehovec, Kurt. 3,097,976.
Rice, Livingston L., and Dagnoli. 3,100,857.
Rice, Livingston L., and Rohane. 3,100,330.
Rice, Livingston L., and Rohane. 3,100,813.
Robinson, Preston. 3,080,481.
Robinson, Preston, and Millard. 3,082,360.
Rubinstein, Harry W., and Williams. 3,073,007.
Shirn, George A. 3,085,979.
Sprague Engineering Corp.: *See*—
Tomlinson, Kenneth J. 3,085,407.

Sprague, Harold E., and M. E. Olson, to Thompson Ramo Wooldridge Inc. Magnetic pump. 3,089,425, 5-14-63, Cl. 103—152.
Sprague, James M.: *See*—
Bicking, John B., and Sprague. 3,113,075.
Novello, Frederick C., and Sprague. 3,097,204.
Sprague, James W., to The Standard Oil Co. Method for preparing high surface area titania. 3,092,457, 6-4-63, Cl. 23—202.
Sprague, John M., to Heinemann Electric Co. Movable arm actuated interconnected circuit breakers. 3,098,912, 7-23-63, Cl. 200—107.
Sprague, Robert H. Portable spraying device. 3,076,429, 2-5-63, Cl. 118—322.
Sprague, Robert H., to Horizons Inc. Fixing of print-out images. 3,082,086, 3-19-63, Cl. 96—48.
Sprague, Robert H., H. L. Fichter, Jr., and W. P. Hamilton, to Horizons Inc. Styryl dye base composition and photographic processes for producing lithographic surfaces photoresists and prints therewith. 3,095,303, 6-25-63, Cl. 96—33.
Sprague, Robert H., H. L. Fichter, Jr., and W. P. Hamilton, to Horizons Inc. Photographic process utilizing cyanine dye bases. 3,100,703, 8-13-63, Cl. 96—33.
Sprague, Robert H., H. L. Fichter, Jr., and J. G. Fidelman, to Horizons Inc. Direct positive dye bleach process and merocyanine composition therefor. 3,102,027, 8-27-63, Cl. 96—47.
Sprague, Robert H., H. L. Fichter, Jr., and W. P. Hamilton, to Horizons Inc. Print-out cyanine and styryl dye bases and process of producing litho masters and the like therewith. 3,102,810, 9-3-63, Cl. 96—33.
Sprague, Robert H., H. L. Fichter, Jr., and W. P. Hamilton, to Horizons Inc. Photographic bleaching out of cyanine dyes. 3,104,973, 9-24-63, Cl. 96—48.
Sprague, Robert H., and H. L. Fichter, Jr., to Horizons Inc. Print-out photoprocess with merocyanine dyes. 3,106,466, 10-8-63, Cl. 96—48.
Sprague, Robert H., and J. J. Urbancik, to Horizons Inc. Light-sensitive merocyanine dye base compositions. 3,109,736, 11-5-63, Cl. 96—90.
Sprague, Robert H., J. A. Stewart, and J. M. Lewis, to Horizons Inc. Photosensitive composition containing lenco dye and method for producing visible images using said composition. 3,113,024, 12-3-63, Cl. 96—48.
Sprague, Stephen B., and A. F. Burton; said Sprague assor. to said Burton. Multiple wire cable support. 3,072,357, 1-8-63, Cl. 242—86.5.
Sprague, Theodore S.: *See*—
Schlichting, John, and Sprague. 3,112,735.
Sprague, Theodore S., to The Babcock & Wilcox Co. Vapor generating unit and method of operating same. 3,114,353, 12-17-63, Cl. 122—34.
Sprague, Wesley I., to The Bendix Corp. High altitude suit and mask oxygen regulator. 3,077,881, 2-19-63, Cl. 128—144.
Spranger, Alfred F. Seat belt construction. 3,116,092, 12-31-63, Cl. 297—388.
Sprayers & Nozzles, Inc.: *See*—
Ford, Charles L. 3,088,679.
Spraying Systems Co.: *See*—
Wahlin, Fred W. 3,104,829.
Wahlin, Fred W., and O'Brien. 3,072,346.
Spraylat Corp.: *See*—
Oppenheim, Richard D., and Borner. 3,114,650.
Spray-O-Matic Corp.: *See*—
Widner, Irving. 3,077,857.
Sprayon Products, Inc.: *See*—
Moonan, William. 3,087,707.
Spreadbury, Walter G., W. W. Oslund, and G. R. Harlow, to Norton Co. Apparatus for the manufacturing of spindle supported mounted points. 3,109,261, 11-5-63, Cl. 51—5.
Spreitzer, William M., R. G. Tipping, M. E. Fisher, C. R. Copeland, and W. O. Alexander, to General Motors Corp. Transmission. 3,093,010, 6-11-63, Cl. 74—472.
Spretnjak, Steve A., to Excel Corp. Sash construction for a sliding window. 3,101,136, 8-20-63, Cl. 189—76.
Spriestersbach, Ronald C., and R. E. Bible, to General Precision, Inc. Transistorized flip-flop. 3,083,304, 3-26-63, Cl. 307—88.5.
Sprigings, Donald G., to H. K. Porter Co., Inc. Electrical insulator constructions. 3,098,894, 7-23-63, Cl. 174—178.
Sprigings, Donald G., to H. K. Porter Co., Inc. Current collector mechanism. 3,114,441, 12-17-63, Cl. 191—69.
Spring, Hans, to Watts Regulator Co. Liquid circulator. 3,071,075, 1-1-63, Cl. 103—87.
Spring Products Developing Co.: *See*—
Levine, David I. 3,084,353.
Springer, Anton M., to Telefonbau und Normalzeit G.m.b.H. Magnetic recording and play-back systems. 3,077,587, 2-12-63, Cl. 340—174.1.
Springer, Edward M., to Heyer Inc. Feeding means for duplicating machine. 3,108,458, 10-29-63, Cl. 64—27.
Springer, Hans: *See*—
Enochs, John R., Diamond, and Springer. 3,078,358.
Springer, Josephine E.: *See*—
Low, Valke W., and Springer. 3,073,432.
Springer, Paul A., and J. A. Dlouhy, to Emil J. Paldar Co. Chair structure and support. 3,115,368, 12-24-63, Cl. 297—451.
Springfield Greene Industries Inc.: *See*—
Hobin, John L. 3,074,275.
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Hahn, Walter J. 3,115,434.
Springfield Tool and Die Co., Inc.: *See*—
Stark, Ludwig. 3,092,141.
Springford, William R. H.: *See*—
Kerr, Robert A., Richardson, and Springford. 3,091,806.
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McMackin, Luther V. 3,104,152.
Morrison, Price W. 3,080,894.
Sprinkle, Charles R., L. F. Sekula, M. R. Johnson, and B. Sparr, to Shell Oil Co. Phenol stabilized organo-phosphorous insecticides. 3,097,128, 7-9-63, Cl. 167—22.
Sprole, Robert R., to Therm, Inc. Connectors. 3,104,144, 9-17-63, Cl. 339—89.
Sprosty, Clarence F.: *See*—
Parkinson, David B., and Sprosty. 3,082,291.
Sproule, Robert S., and J. A. Desbaillets, to Dominion Engineering Works Ltd. Seals for turbines and pumps. 3,081,975, 3-19-63, Cl. 253—26.
Sproule, Walter A.: *See*—
Von Wranau, Guido, and Phillips. 3,095,311.
Sprouse, Norman T.: *See*—
McIntyre, Glenn H., Jr., Sprouse, and Haber. 3,095,271.
Sprouse, Verner E., to Vernco Corp. Float valve mounting. 3,094,138, 6-18-63, Cl. 137—448.
Sprout, Oliver S., Jr.: *See*—
Smolens, Harry G., Sprout, and Lane. 3,077,372.
Sprout, Waldron & Co., Inc.: *See*—
Fisher, Chester D. 3,077,365.
Spruce Falls Power & Paper Co., Ltd.: *See*—
Eastwood, George G. M. 3,077,924.
Sprunck, Gerhard, and W. H. W. Schuller. Method and apparatus for the reinforcement of glass fibre webs or mats. 3,108,028, 10-22-63, Cl. 156—178.
Sprung, Joseph A., to General Aniline & Film Corp. Polyvinyl alcohol photographic silver halide emulsions. 3,113,026, 12-3-63, Cl. 96—107.
Spuhl, Walter. Apparatus for manufacturing interconnected springs. 3,098,510, 7-23-63, Cl. 140—92.8.
Spunize Co. of America, Inc.: *See*—
Rosenstein, Abraham J. and N., and Suggs. 3,101,521.
Spurck, Richard F., to The Machlett Laboratories, Inc. Electron tube with flexible grid supporting structure. 3,109,119, 10-29-63, Cl. 313—269.
Spurgeon, Marion D. Adjustable boring head. 3,089,358. 5-14-63, Cl. 77—58.
Spurgeon, Samuel J., J. E. Land, and R. E. Wingard, to Anderson Electric Corp. Electrical contact sealing composition. 3,113,881, 12-10-63, Cl. 106—287.
Spurgeon, William M.: *See*—
Greisl, Don H., Thompson, and Spurgeon. 3,087,874.
Spurlin, William V., to Link-Belt Co. Car shaker. 3,100,053, 8-6-63, Cl. 214—83.3.
Spurling, John E., to Millrich Engineering Co., a Division of Int'l Electronic Research Corp. Mass flow meter. 3,080,751, 3-12-63, Cl. 73—207.
Spurling, John E., to International Electronic Research Corp. Variable orifice. 3,106,225, 10-8-63, Cl. 138—45.
Spurlock, James W.: *See*—
Park, Arthur, and Spurlock. 3,085,977.
Spurlock, James W., C. R. Holmgren, and W. G. Bearden, to Pan American Petroleum Corp. Seal for casing cemented in well. 3,110,346, 11-12-63, Cl. 166—21.
Spurrier, Tim. Camping kit. 3,115,362, 12-24-63, Cl. 296—23.
Spurway, Maurice A., to Ferranti, Ltd. Series parallel transformer winding arrangement. 3,083,331, 3-26-63, Cl. 323—49.
Square D Co.: *See*—
Anger, Ernest G. 3,088,064.
Bernler, Chester A. 3,115,053.
Dessert, Edward P., Dietz, and Pickett. 3,109,907.
Eckl, James J. 3,108,258.
Eckl, James J., and Meyer. 3,071,699.
Gribble, Joseph J. 3,081,507.
Hudson, James W., and King. 3,104,774.
Kingdon, Ralph H. 3,105,173.
Manners, Frank A., and De Viney. 3,092,760.
Mekelburg, Earl F. 3,090,892.
Pettit, Dorn L. 3,090,899.
Pettit, Dorn L., Montross, and Hutchinson. 3,108,215.
Porter, Clarence W. 3,071,712.
Porter, Clarence W. 3,079,547.
Puetz, Jordan F. 3,081,845.
Sanborn, Calvin B., Jr. 3,105,181.
Schurr, Charles A. 3,084,310.
Schurr, Charles A., and Manners. 3,104,566.
Schurr, Charles A., and Sanborn. 3,076,126.
Stanback, Harris I. 3,076,954.
Stanback, Harris I., and Kingdon. 3,098,136.
Stanback, Harris I., and Wolf. 3,076,876.
Stimmel, Vincent W. 3,115,086.
Squassoni, Gino F: *See*—
Rossetto, Louis, and Squassoni. 3,074,328.
Rossetto, Louis, Squassoni, Coleman, and Gorrill. Re. 25,354.
Rossetto, Louis, Squassoni, and Grube. 3,106,880.
Squier, Benjamin T., and T. W. V. Jervis, to Mickleover Transport Ltd. Bodies for vehicles. 3,082,899, 3-26-63, Cl. 220—1.5.
Squier, Wells. Illuminating device. 3,077,537, 2-12-63, Cl. 240—81.

Squillario, George F.: *See*—
Garrou, Louis W., and Squillario. 3,075,375.
Garrou, Louis W., and Squillario. 3,109,301.

Squire, Alexander, Ltd.: *See*—
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Squire, Robert K. Removable guard rail stanchion. 3,084,759, 4–9–63, Cl. 182—113.

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Engleson, Harry E., and Sramek. 3,074,567.
Engleson, Harry E., and Sramek. 3,086,337.
Engleson, Harry E., and Sramek. 3,097,732.

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Tatel, Howard E. 3,091,765.

Sroka, Casimer: *See*—
Merbler, Rudolph, and Sroka. 3,081,924.

Staab, Walter: *See*—
Gross, Richard, Hertel, Kirst, Mohr, and Staab. 3,084,151.
Gross, Richard, Hertel, Kirst, Mohr, and Staab. 3,116,277.
Gross, Richard, Hertel, Mohr, and Staab. 3,071,571.
Gross, Richard, Hertel, Mohr, and Staab. 3,086,004.
Gross, Richard, Hertel, Mohr, and Staab. 3,116,276.

Staaden, Heinrich: *See*—
Räntsch, Kurt, and Staaden. 3,109,048.

Staadt, Harold E., to The Dow Chemical Co. Ammonium nitrate explosive composition. 3,091,559, 5–28–63, Cl. 149—60.

Staar, Marcel J. H. Phonograph arms for recording apparatus. 3,101,951, 8–27–63, Cl. 274—23.

Staatsbedrijf Artillerie-Inrichtingen: *See*—
Bakker, Marinus A. 3,075,314.
Bervoets, Johannes. 3,076,280.

Stabenow, Georg, to La Mont Steam Generators, Inc. Hot water generator. 3,081,749, 3–19–63, Cl. 122—406.

Stabler, Powell W. Fountain type wax applicator and floor polisher. 3,113,331, 12–10–63, Cl. 15—50.

Stacey, Francis W., to E. I. du Pont de Nemours and Co. Fluorinated derivatives of carboxylic acid hydrazides. 3,076,843, 2–5–63, Cl. 260—558.

Stacey, Francis W., to E. I. du Pont de Nemours and Co. N-(α-hydroxyalkyl) imido esters and their preparation. 3,115,513, 12–24–63, Cl. 260—453.

Stacey, Hugh J., to Parker-Hannifin Corp. Detent release for flow control valves. 3,088,489, 5–7–63, Cl. 137—622.5.

Stacey, Hugh J., to Parker-Hannifin Corp. Position hold and release mechanisms for flow control valves. 3,106,065, 10–8–63, Cl. 60—52.

Stachowiak, Frank R., and N. Szeremy, to General Electric Co. Audio muting circuit. 3,096,397, 7–2–63, Cl. 178—5.8.

Stack, Lawrence N.: *See*—
Pogo, Edward J., and Stack. 3,105,276.

Stackawicz, Carl. Cable gripping and sheath cutting tool. 3,107,424, 10–22–63, Cl. 30—90.5.

Stackhouse, A. M.: *See*—
Ackles, Robert N. 3,090,078.

Stackhouse, Robert D., to Union Carbide Corp. Coated graphite bodies. 3,085,317, 4–16–63, Cl. 29—183.5.

Stackhouse, Wells F., to American Locker Co., Inc. Coin controlled lock. 3,077,970, 2–19–63, Cl. 194—92.

Stackpole Carbon Co.: *See*—
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Stacor Corp.: See—
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Stacy, Carl J., to Phillips Petroleum Co. Apparatus for cutting and heat-sealing thermoplastic films. 3,115,564, 12–24–63, Cl. 219—19.

Stacy, Charles L., Jr.: *See*—
Dietzler, Andrew J., and Stacy. 3,082,188.

Stacy, Stanley L., and F. A. Tanner, Jr., to Ethicon, Inc. Surgical dispenser. 3,095,159, 6–25–63, Cl. 242—96.

Stad, Andrew N.: *See*—
Gegenheimer, Harold W., Gatto, and Stad. 3,084,625.

Stade, Gerhard, and G. Reppin, to Herbert Lindner, Firma. Relief grinding apparatus. 3,080,684, 3–12–63, Cl. 51—45.

Stadelman, Floyd W. Traction attachment for tractors. 3,096,998, 7–9–63, Cl. 280—405.

Stadler, Josef: *See*—
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Stadum, Clarence B., H. W. Van Ness, and E. C. Hartwig, to Westinghouse Electric Corp. Electric discharge apparatus. 3,089,948, 5–14–63, Cl. 219—114.

Staebler, Lloyd A., to Philco Corp. Refrigeration apparatus. 3,073,126, 1–15–63, Cl. 62—3.

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Schlecht, Leo, Trageser, and Staeger. 3,082,068.

Staeger, Rudolf. Detachable coupling for driven accessory in kitchen appliances. 3,093,982, 6–18–63, Cl. 64—11.

Staeger, Rudolf, to Albert Stulz. Juice extractor combined with a shredder. 3,106,948, 10–15–63, Cl. 146—76.

Staehle, Henry C., to Eastman Kodak Co. Laminated record card. 3,091,047, 5–28–63, Cl. 40—158.

Staehler, Lester F.: *See*—
Giger, Adolph J., Haury, McKenzie, and Staehler. 3,109,997.

Staehler, Robert E., to Bell Telephone Laboratories, Inc. Storage system. 3,102,998, 9–3–63, Cl. 340—173.

Staehlin, Ralph H. Method and apparatus for removing highway traffic lines. 3,107,460, 10–22–63, Cl. 51—176.

Staeuble, Max: *See*—
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Weber, Kurt, Ulrich, Bruengger, and Staeuble. 3,110,541.
Weber, Kurt, Ulrich, Hugelshofer, Bruengger, and Staeuble. 3,083,068.

Staeuble, Max, to Ciba Ltd. Hydroxyalkylaminopyrimidyl dibenzanthrones. 3,108,105, 10–22–63, Cl. 260—256.4.

Staeuble, Max, and K. Weber, to Ciba Ltd. New anthraquinone dyestuffs containing diaminotriazinylamino radicals. 3,074,945, 1–22–63, Cl. 260—249.

Staeuble, Max and K. Weber, to Ciba Ltd. Anthraquinone dyestuffs containing a 2-chloro,4-hydroxy(lower)alkylamino, triazinylamino group. 3,095,415, 6–25–63, Cl. 260—249.

Staff, Edward H. Machine for packaging loose bulky material. 3,086,564, 4–23–63, Cl. 141—81.

Staff, Richard M.: *See*—
Avallone, Eugene A., and Staff. 3,076,524.

Staffin, Gerald D., and W. K. Range, Jr., to Esso Research and Engineering Co. Lubricant containing ashless antiwear additives. 3,088,911, 5–7–63, Cl. 252—33.6.

Stafford, Alton B. Pressure supply gauge. 3,075,538, 1–29–63, Cl. 137—224.5.

Stafford, Earl. Drain strainer and over-flow pipe. 3,075,203, 1–29–63, Cl. 4—206.

Stafford, Oscar P., ½ to W. H. Patrick. Swimming pool safety device. 3,088,219, 4–23–63, Cl. 4—172.

Stafford Tool and Die Co. Ltd.: *See*—
Prew, Thomas B. 3,099,596.

Stafford, William L.: *See*—
Konrad, Howard E., and Stafford. 3,079,267.

Stageberg, Wilfred E., to Link-Belt Co. Mechanical coupling 3,083,802, 4–2–63, Cl. 192—45.1.

Stagg, Thomas G.: *See*—
Claisse, Arnold J., Collett, and Stagg. 3,114,455.

Staggs, Calvin H. Arm sling. 3,108,589, 10–29–63, Cl. 128—94.

Stahell, Paul: *See*—
Binder, Rolf, and Stähell. 3,111,848.
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Sta-Hi Corp.: *See*—
Oderman, Samuel, and Weber. 3,100,039.
Spitaleri, Vernon R., and Satre. 3,078,622.

Stahl, Ernst. Bone cleaning machines. 3,090,989, 5–28–63, Cl. 17—1.

Stahl, Gerald, to Philip Morris, Inc. Adjustable injector razor and the like. 3,095,645, 7–2–63 Cl. 30—65.

Stahl, Gerald, and C. A. Johnson, Jr., to Philip Morris, Inc. Case for a razor set or the like. 3,095,965, 7–2–63, Cl. 206—16.

Stahl, Helmut: *See*—
Illing, Gerhard, and Stahl. 3,108,091.

Stahl, Robert J.: *See*—
Johnson, Robert R., Stahl, and Walters. 3,107,630.

Stahl, Roy P.: *See*—
Schwartz, Robert E., Stahl, and Falk. 3,091,086.

Stahl- und Walzwerke Rasselstein/Andernach AG: *See*—
Neumann, Hans W. 3,074,813.
Schmitt-Thomas, Karlheinz, and Fischer. 3,086,391.

Stahl, Willi, to The Parkersburg Rig & Reel Co. Method and system for drying gas and reconcentrating the drying absorbent. 3,105,748, 10–1–63, Cl. 55—32.

Stahl, William C.: *See*—
La Vigne, Paul G., Roberts, and Stahl. 3,093,058.

Stahl, William F. Coil form. 3,112,898, 12–3–63, Cl. 242—118.7.

Stahl, William L.: *See*—
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Stahmer, Bernhardt. Cable guide mechanism for constant tension reel. 3,075,724, 1–29–63, Cl. 242—107.

Stahmer, Bernhardt. Rotating punching roll for punching potato chips. 3,084,730, 4–9–63, Cl. 146—1.

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Stanfield, Robert B. Signal responsive apparatus. 3,115,609, 12–24–63, Cl. 328—148.
Stanfield, Ward H. E.: *See*—
Lee, Ralph J. 3,109,249.
Stanford, George A. Disposable urinal bag. 3,095,578, 7–2–63, Cl. 4—110.
Stanford Research Institute: *See*—
Collis, Ronald T. H. 3,108,269.
Engelbart, Douglas C. 3,083,355.
Engelbart, Douglas C. 3,111,588.
Stanford, Verne A., to Soule Steel Co. Wire tying tool. 3,091,284, 5–28–63, Cl. 140—118.
Stanford, Warren E.: *See*—
Miller, Ralph D., and Stanford. 3,101,969.
Stang, Albert F.: *See*—
Bassler, Gerald C., and Stang. 3,076,044.
Stange, Hugo, and J. F. Allen, to FMC Corp. Preparation of diallylic phthalates. 3,086,985, 4–23–63, Cl. 260—475.
Stange, Wm. J., Co.: *See*—
Peat, Maclyn R. 3,095,306.
Stanger, Frank, to Corn Products Co. Liquid dispensing device. 3,079,783, 3–5–63, Cl. 68—207.
Stangl, Karl. Apparatus for the pressing of fibre goods into bales. 3,089,410, 5–14–63, Cl. 100—215.
Stanik, John: *See*—
Dodge, Harry G. 3,105,244.
Stanimirovitch, Douchan, to Societe des Accumulateurs Fixes et de Traction (Societe Anonyme). Miniature storage cells and their process of manufacture. 3,108,909, 10–29–63, Cl. 136—6.
Stankiewicz, Stanley, to General Motors Corp. Tie rod adjuster. 3,078,111, 2–19–63, Cl. 287—62.
Stanley, Alfred W., to Photo Materials Co. Trimming boards. 3,077,805, 2–19–63, Cl. 83—384.
Stanley, Allen C., to The Black and Decker Mfg. Co. Auxiliary cooling means for portable electric jig saw. 3,085,603, 4–16–63, Cl. 143—68.
Stanley, Allen C., to The Black and Decker Mfg. Co. Protective snap cover for recharger cord receptacle of cordless electric tool or appliance. 3,096,133, 7–2–63, Cl. 339—44.
Stanley, Charles V., and R. K. Orthuber, to International Telephone and Telegraph Corp. Infrared energy tracking system comprising oscillatory scanner. 3,107,300, 10–15–63, Cl. 250—83.3.
Stanley, Edward W.: *See*—
Bechtold, Donald C., and Stanley. 3,098,432.
Hornberger, Clarence L., and Stanley. 3,098,433.
Stanley, George C., Jr., to Hewlett-Packard Co. Sweep oscillator power leveler. 3,106,685, 10–8–63, Cl. 328—142.
Stanley, Harry E.: *See*—
McKinney, Alfred H., and Stanley. 3,109,220.
Stanley, Henderson M., to Helmick Foundry-Machines Co. Pump liner. 3,090,319, 5–21–63, Cl. 103—103.
Stanley, Howard E., to International Rectifier Corp. Cadmium sulfide photo-cell. 3,108,021, 10–22–63, Cl. 117—212.
Stanley, Hugh E.: *See*—
Seefield, Edgar W., Buchmann, and Stanley. 3,083,173.
Stanley, Lester N., to General Aniline & Film Corp. Process of preparing hydroxy-alkoxy arylophenones. 3,073,866, 1–15–63, Cl. 260—591.
Stanley, Lester N., to General Aniline & Film Corp. 2-hydroxy-2,4,5-trimethylbenzophenone. 3,092,663, 6–4–63, Cl. 260—591.
Stanley, Lorne R., to Safe-T Pacific Baking Co. Packing material. 3,074,513, 1–22–63, Cl. 206—46.
Stanley, Norman F., to Marine Colloids, Inc. Process for treating a polysaccharide of seaweeds of the gigartinaceae and solleriaceae families. 3,094,517, 6–18–63, Cl. 260—209.
Stanley, Ove T. Paint roller guide. 3,109,755, 11–5–63, Cl. 118—258.
Stanley, Peter P.: *See*—
Johansen, John V. 3,110,144.
Johansen, John V., and Stanley. 3,080,043.
Stanley, Richard B., to The Kartridg Pak Co. Crimping apparatus for sealing caps to containers. 3,075,331, 1–29–63, Cl. 53—353.
Stanley, Richard B., to The Katridg Pak Co. Container carrier. 3,090,478, 5–21–63, Cl. 198—131.
Stanley, Richard B., to Free-Roll Tester Corp. Apparatus and method for determining bearing condition of railway car journal boxes. 3,116,044, 12–31–63, Cl. 246—246.
Stanley, Richard C. Pipe coating apparatus. 3,071,107, 1–1–63, Cl. 118—306.
Stanley, Robert K., to Technisevice Corp. Method and apparatus for strand crimping. 3,111,740, 11–26–63, Cl. 28—1.
Stanley, Robert S.: *See*—
Heintz, Karl O., and Stanley. 3,088,094.
Stanley, Roy, Jr.: *See*—
Bird, Richard M., and Stanley. 3,093,776.
Stanley, Wallace A., to Watts Electric & Mfg. Co. Polarized electrical connector. 3,109,692, 11–5–63, Cl. 339—184.
Stanley, William, to Imperial Chemical Industries Ltd. Spinning apparatus. 3,074,104, 1–22–63, Cl. 18—8.
Stanley, William L., J. E. Brekke, and R. Teranishi, to United States of America, Agriculture. Extraction of flavors. 3,113,031, 12–3–63, Cl. 99—140.
Stanley, William T.: *See*—
Dunlap, Charles K., Jr., and Stanley. 3,115,315.
Stanley, William T. Finishing apparatus and method. 3,078,623, 2–26–63, Cl. 51—164.
Stanley Works, The: *See*—
Ford, Barton H. 3,093,188.
Ford, Barton H. 3,095,035.
Ford, Michael J. 3,079,986.
Ford, Michael J. and B. H. 3,096,814.
Johnson, Kenneth M., and MacFarlane. 3,102,307.
Nelson, Paul H. 3,078,502.
Nelson, Paul H. 3,111,165.
Robinson, Walter H., Jr. 3,107,426.
West, Robert F. 3,107,908.
Stanonis, Alphonso F., to World Magnetics, Inc. Device for testing eyes. 3,087,378, 4–30–63, Cl. 88—20.
Stanray Corp.: *See*—
Allen, John W. 3,113,215.
Cisco, Edward S. 3,112,712.
Hardy, Howard C. 3,096,847.
Lodjic, Carl L., and Lichti. 3,086,152.
Lodjic, Carl L., and Lichti. 3,099,847.
Ortman, Charles E., Jr. 3,103,736.
Stansberry, Robert F. Door handle and lock. 3,080,743, 3–12–63, Cl. 70—208.
Stansbury, Burton J.: *See*—
McCarthy, Patrick B. 3,114,317.
Stansbury, Harry A., Jr., and H. R. Guest, to Union Carbide Corp. Glutaraldehyde dicyanohydrin and acyl derivatives thereof. 3,090,803, 5–21–63, Cl. 260—465.4.
Stansbury, Harry A., Jr., and D. T. Manning, to Union Carbide Corp. Diamino cyclohexanols. 3,112,345, 11–26–63, Cl. 260—563.
Stansbury, Pat: *See*—
Hinz, Walter W., Stansbury, Parkison, and Boutwell. 3,103,068.
Stansell, Charles E. Dispensing devices. 3,084,840, 4–9–63, Cl. 226—82.
Stant Mfg. Co., Inc.: *See*—
Bowden, Eldred R. 3,083,862.
Bowden, Eldred R. 3,102,659.
Bowden, Eldred R. 3,102,660.
Burdue, Roy R. 3,074,588.
Friend, Dawson. 3,071,285.
Friend, Dawson. 3,082,905.
Stanton, Austin N., to Varo, Inc. Devices and systems for cooling or heating fluids. 3,083,543, 4–2–63, Cl. 62—3.
Stanton, Courtland C., to Corning Glass Works. Pipe coupling having a band clamp and resilient sleeve. 3,084,959, 4–9–63, Cl. 285—233.
Stanton, Edward W., and W. Hofgesang, to The Singer Mfg. Co. Cabinet with sewing machine supported from front hinges. 3,078,132, 2–19–63, Cl. 312—30.

Stanton, George W., and T. G. Traylor, to The Dow Chemical Co. Graft copolymer of a linear polyester condensation product and N-vinyl-3-morpholinone and process of making same. 3,090,766, 5-21-63, Cl. 260—45.4.

Stanton Instruments Ltd.: *See*—
Whitcroft, Robert J. 3,093,205.

Stanton, Philip L. Respiratory device. 3,073,298, 1-15-63, Cl. 128—29.

Stanton, Philip L. Anesthetizing and resuscitating apparatus. 3,077,191, 2-12-63, Cl. 128—29.

Stanton, Philip L. Resuscitator. 3,079,915, 3-5-63, Cl. 128—29.

Stanton, Philip L. Anesthetizing and gas therapy apparatus. 3,088,456, 5-7-63, Cl. 128—29.

Stanulis, Joseph S., O. P. Cox, and S. B. Zapolski, to General Welding Inc. Cable block. 3,109,627, 11-5-63, Cl. 254—134.3.

Stanulis, Leonard M.: *See*—
Stoligrosa, Eugene, Stanulis, and Lotz. 3,072,117.

Stanway, Edward. Beam dyeing machines. 3,100,979, 8-20-63, Cl. 68—150.

Stanyon, Horace E.: *See*—
Beeson, Eric J. G., Stanyon, and Capp. 3,100,168.

Stanzel, Victor. Jet propelled model aircraft. 3,080,676, 3-12-63, Cl. 46—77.

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Stapelfeldt, Roelif, to Westinghouse Air Brake Co. Hot bearing detector circuits. 3,076,090, 1-29-63, Cl. 246—169.

Stapelfeld, Wilfred P.: *See*—
Petrides, Thracy, and Stapelfeld. 3,116,040.

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Halley, Angus M., and Stapleford. 3,079,702.

Staples, James F. Tower cranes. 3,084,806, 4-9-63, Cl. 212—46.

Staples, John P.: *See*—
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Staples, John P., to United States of America, Navy. Aural landing speed system. 3,089,119, 5-7-63, Cl. 340—27.

Staples, Lynn W.: *See*—
Strout, Raymond D., and Staples. 3,081,076.

Staples, Robert L.: *See*—
Eames, Charles, and Staples. 3,114,575.

Staples, Robert W.: *See*—
Dear, Ervin J., and Staples. 3,096,037.

Stapleton, Anna M. Brassiere. 3,078,852, 2-26-63, Cl. 128—513.

Stapleton, Donald R. Marine propulsion apparatus. 3,076,427, 2-5-63, Cl. 115—16.

Stapling Machines Co.: *See*—
Fitch, Robert B., and Horvath. 3,087,419.

Staprans, Armand: *See*—
Riechler, Charles S., Pearsall, Staprans, and Symons. 3,113,238.

Star Cutter Co.: *See*—
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Star Dental Mfg. Co. Inc.: *See*—
Turchi, Anthony J., and Lieb. 3,074,167.

Star Expansion Industries Corp.: *See*—
Bell, Lewis W., and Muino. 3,103,013.
Bell, Walter. 3,100,650.
Bell, Walter. 3,105,605.

Star-Fire Marine Jet Co.: *See*—
Chronic, Bill M. 3,089,454.

Star Machinery Co. Ltd.: *See*—
Stark, Orlando A. 3,079,961.

Star Paper Tube, Inc.: *See*—
Roediger, Charles L., and Groome. 3,073,218.

Star Shade Cutter Co.: *See*—
Gast, Albert K., Jr. 3,100,649.

Star Sprinkler Corp.: *See*—
Gloeckler, Fred A. 3,080,000.

Star Surgical Instrument and Mfg. Co.: *See*—
Cronin, David I. 3,071,399.

Star Valley Electronics, Inc.: *See*—
Evans, Chauncey R. 3,073,202.

Starch, Lothar Jacquard machines. 3,096,792, 7-9-63, Cl. 139—59.

Starch Products Ltd.: *See*—
Parker, Edward J. 3,094,421.

Starcher, Paul S., S. W. Tinsley, and B. Phillips, to Union Carbide Corp. Bis-epsilon-caprolactones. 3,072,680, 1-8-63, Cl. 260—343.

Starcher, Paul S., S. W. Tinsley, C. W. McGary, Jr., and C. T. Patrick, Jr., to Union Carbide Corp. Polyepoxy sulfones. 3,073,955, 1-29-63, Cl. 260—79.3.

Starck, Clemens B.: *See*—
Nadeau, Gale F., Smith, and Starck. 3,091,534.

Starck, William A. Gear-forming method and apparatus. 3,084,572, 4-9-63, Cl. 80—16.

Stardust, Inc.: *See*—
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Stare, Donald E.: *See*—
Rappaport, George, Strack, and Stare. 3,108,035.

Starger, Samuel L., R. M. Levin, and I. J. Garshells, to Research Associates, Inc. Method and apparatus for cutting and sealing thermoplastic films. 3,106,502, 10-8-63, Cl. 156—251.

Staring, Bernardus J., to Emerson-White-Rodgers Co. Burner control system. 3,079,982, 3-5-63, Cl. 158—28.

Sta-Rite Mfg. Co., The: *See*—
Gaeke, Lee B. 3,106,150.

Sta-Rite Products, Inc.: *See*—
Boyd, Clinton A. 3,113,243.
Johnson, Erwin R. 3,092,074.
Marcell, George L. 3,072,070.

Stark, Carl K. Disposable container for printing ink fountains. 3,094,924, 6-25-63, Cl. 101—210.

Stark, Charles H.: *See*—
Curtani, Chester C., and Stark. 3,084,483.

Stark, Christopher P., to Phillips Petroleum Co. Separation of thioethers from hydrocarbon oils. 3,085,973, 4-16-63, Cl. 208—226.

Stark, Donald E., to Westinghouse Air Brake Co. Programming control circuits. 3,096,138, 7-2-63, Cl. 346—34.

Stark, Ernest H., to Joy Mfg. Co. Control device. 3,074,433, 1-22-63, Cl. 137—627.5.

Stark, Ernst: *See*—
Heuck, Claus, Stark, and Doppler. 3,111,499.

Stark, Forest G., to Art Metal, Inc. Latching mechanism for file rod pull and cabinet containing same. 3,115,881, 12-31-63, Cl. 129—16.

Stark, James W., Jr., to Union Carbide Corp. Leak resistant dry cell. 3,082,285, 3-19-63, Cl. 136—133.

Stark John B.: *See*—
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Stark, John F., and R. Y. Mosher, to The Norwich Pharmacal Co. Alimentary composition for combatting enteric infection in monkeys and method of using same. 3,075,876, 1-29-63, Cl. 167—53.

Stark, John, Jr., and A. J. Torre, to Radio Corp. of America. Color television receiver control apparatus. 3,114,794, 12-17-63, Cl. 178—5.4.

Stark, John, Jr., and A. J. Torre, to Radio Corp. of America. Color kinescope set-up procedures for color television receivers. 3,114,796, 12-17-63, Cl. 178—5.4.

Stark, John S., to Clopay Corp. Hinge construction for accordion folding door. 3,086,585, 4-23-63, Cl. 160—231.

Stark, Louis R., to Monsanto Chemical Co. Preservative-type functional fluids. 3,071,549, 1-1-63, 252—78.

Stark, Ludwig, to Springfield Tool and Die Co., Inc. Airflow control unit for aquariums. 3,092,141, 6-4-63, Cl. 137—608.

Stark, Martin H. Multi-wall fiber can. 3,093,287, 6-11-63, Cl. 229—3.1.

Stark, Martin H. Staggered ply tube body. 3,093,288, 6-11-63, Cl. 229—4.5.

Stark, Orlando A., to Star Machinery Co. Ltd. Shake sawing machine. 3,079,961, 3-5-63, Cl. 143—8.

Stark, Robert A.: *See*—
Carmichael, Mead S., Jr., and Stark. 3,087,499.

Stark, Robert E.: *See*—
Drengler, George R., Clark, Stark, and Beatty. 3,087,003

Stark, Robert E., to The Gleason Works. Chuck for shank-type pinions and the like. 3,083,976, 4-2-63, Cl. 279—51.

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Stark, Thomas M., C. W. Siegmund, and J. Sosnowski, to Esso Research and Engineering Co. Regeneration process. 3,076,755, 2-5-63, Cl. 208—216.

Stark, Walter H.: *See*—
Anderson, Edmund B. Re. 25,489.

Stark, William E., to International Business Machines Corp. Snap-in housing. 3,115,308, 12-24-63, Cl. 240—8.16.

Stark, William J.: *See*—
Horeth, John M., Skelton, and Stark. 3,110,878.

Stark, William J., to Jersey Production Research Co. Jet shot hole device. 3,100,542, 8-13-63, Cl. 175—1.

Stark, William M., W. J. Kleinschmidt, and G. W. Probst, to Eli Lilly and Co. Statolon production by submerged culture fermentation. 3,108,047, 10-22-63, Cl. 195—36.

Starke Albert C., Jr.: *See*—
Hosmer, William A., and Starke. 3,087,853.

Starkey, Walter L.: *See*—
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Starks, Cecil K., and N. L. Carroll, to Westinghouse Electric Corp. Method and means for photographing areas of limited accessibility. 3,079,502, 2-26-63, Cl. 250—65.

Starks, Fred W., to The Samuel Roberts Noble Foundation Inc. Novel amide derivative and process of producing same. 3,073,833, 1-15-63, Cl. 260—293.4.

Starkstrom Schaltgeratefabrik E. Spendler & O. Deissler: *See*—
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Starkweather, Bruce C., to Westbar Stamping Corp. Portable nursery chair. 3,105,665, 10-1-63, Cl. 248—101.

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Ferris, Robert G. 3,105,093.

Starn, Charles H. Signaling system control for a modulator. 3,098,203, 7-16-63, Cl. 332—44.

Starner, Verner C.: *See*—
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Starnes, William C.: *See*—
Kline, Robert E., and Starnes. 3,095,367.
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Staron, Edward: *See*—
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Starp, Franz W. R., to Alfred Gauthier G.m.b.H. Photographic intra-lens shutter and coupled exposure meter. 3,089,397, 5-14-63, Cl. 95—10.

Starp, Franz W. R., to Alfred Gauthier, G.m.b.H. Photographic camera. 3,093,046, 6-11-63, Cl. 95—53.

Starp, Franz W. R., to Alfred Gauthier, G.m.b.H. Photographic camera escapement mechanism. 3,093,048, 6-11-63, Cl. 95—63.

Starp, Franz W. R., to Alfred Gauthier, G.m.b.H. Photographic intra-lens shutter construction. 3,093,049, 6-11-63, Cl. 95—64.

Starp, Franz W. R., to Alfred Gauthier, G.m.b.H. Photographic camera. 3,115,817, 12-31-63. Cl. 95—63.

Starr, Arthur T.: *See*—
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Starr, Chauncey, to United States of America, Atomic Energy Commission. Nuclear reactor. 3,072,553, 1-8-63, Cl. 204—193.2.

Starr, Clifford R., to Accessory Products Co., a division of Textron Inc. Sealing device. 3,078,110, 2-19-63, Cl. 285—336.

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Starr, James E., to The Budd Co. Adjustable resistors and method of making the same. 3,071,740, 1-1-63, Cl. 338—314.

Starr, James E., to The Budd Co. Load measuring devices. 3,075,160, 1-22-63, Cl. 338—5.

Starr, James H.: *See*—
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Starr, James O. Target-throwing device. 3,093,127. 6-11-63, Cl. 124—8.

Starre, Gerrit: *See*—
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Starre, Gerrit, to North American Philips Co., Inc. Carbon brush for the collector current of electrical machines. 3,075,111, 1-22-63, Cl. 310—248.

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Starr, Louis, Kaplan, Greenberg, and Cox. 3,100,986.

Starr, Louis, A. L. Kaplan, M. L. Greenberg, and L. J. Cox, to Starr-Kap Engineering Co. Leakage indicator. 3,100,986, 8-20-63, Cl. 73—40.

Starr, Ralph T.: *See*—
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Starr, Samuel S.: *See*—
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Starre, Gerrit: *See*—
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Starrett, Forest, Jr.: *See*—
French, Alfred W., and Starrett. 3,111,080.

Starrett, L. S., Co., The: *See*—
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Plante, Robert A. 3,115,711.

Starrett, Rupert M. Electrically powered keyboard and transfer mechanism for ten key adding or calculating machine. 3,093,304, 6-11-63, Cl. 235—60.

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Starrfrasmaschinenn A.G.: *See*—
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Starry, James E., to Nalco Chemical Co. Coagulation process. 3,101,317, 8-20-63, Cl. 210—52.

Stary, Jan: *See*—
Kybal, Jan, Protiva, Strnadova, Stary, and Cekan. 3,110,651.

Stasiuk, Mitchell D. Apparatus comprising connected ring units for use in playing hopping games. 3,115,340, 12-24-63 Cl. 273—1.

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Stasse, Alex C., to UCB (Union Chimique-Chemische Bedrijven) S.A. Process for the treatment of polyamide fabrics. 3,081,193, 3-12-63, Cl. 117—68.

Stastny, Edwin O., D. F. Reinertson, and R. W. Krolopp, to Motorola, Inc. Receiver assembly. 3,087,013, 4-23-63, Cl. 178—7.9.

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Stata, Stanley S. Floor gratings for motor vehicles. 3,082,032, 3-19-63, Cl. 296—1.

State Bank and Trust Co.: *See*—
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States, William H., to Midway Fishing Tool Co. Liner hanger. 3,097,697, 7-16-63, Cl. 166—138.

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Statham Instrument, Inc.: *See*—
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Di Giovanni, Mario. 3,086,185.
Dumas, Roger E., and Hughes. 3,076,343.
Dumas, Roger E., and Hughes. 3,076,927.
Helmerl, Anthony F. 3,101,630.
Perino, Peter R. 3,085,193.
Statham, Louis D. 3,084,542.
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Stedman, Cecil K. 3,072,807.
Stedman, Cecil K. 3,090,238.
Stedman, Cecil K. 3,091,971.
Stedman, Cecil K. 3,113,640.

Statham, Louis D., to Statham Instruments, Inc. Load cell. 3,084,542, 4-9-63, Cl. 73—141.

Stathoplos, Anthony, and L. A. Wills, to United Nuclear Corp. Nuclear reactor shield. 3,108,052, 10-22-63, Cl. 204—193.2.

Statla, Edwin V., Sr. Grate-rotating device for portable brazier. 3,085,497, 4-16-63, Cl. 99—340.

Statni vyzkumny ustav materinlu a technologie: *See*—
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Statz, Hermann, to Raytheon Co. Semiconductor devices utilizing injection of carriers into space-charge regions. 3,083,342, 3-26-63, Cl. 331—111.

Statz, Hermann, to Raytheon Co. High frequency response transistors. 3,091,701, 5-28-63, Cl. 307—88.5.

Statz, Hermann, to Raytheon Co. Semiconductor devices utilizing carrier injection into a space charge region. 3,091,703, 5-28-63, Cl. 307—88.5.

Stau, Elvert H., and R. F. Kolec, to Olympic Screw & Rivet Corp. Blind rivet and mandrel with ribs for notching engagement with a pulling tool. 3,072,009, 1-8-63, Cl. 85—40.

Staub, Donald F., and E. T. Kantarian. Remotely set marking system and apparatus therefor. 3,080,813, 3-12-63, Cl. 101—43.

Staudhammer, Peter: *See*—
Miller, Joseph, and Staudhammer. 3,076,697.

Staudte, Albert L.: *See*—
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Stauffer, Ammon W. Barrel washing apparatus. 3,082,776, 3-26-63, Cl. 134—152.

Stauffer, Arthur L., to Continental Copper & Steel Industries, Inc. (Hanover Wire Cloth Division). Wire screen sealing system. 3,094,302, 6-18-63, Cl. 245—10.

Stauffer, Arthur L., and G. E. Meckley, to Continental Copper & Steel Industries, Inc. (Hanover Wire Cloth Division). Apparatus for weaving wire cloth. 3,081,798, 3-19-63, Cl. 139—127.

Stauffer Chemical Co.: *See*—
Beck, Thomas M., and Walsh. 3,076,010.
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Donlevy, Alfred L., and Hum. 3,075,840.
Fancher, Llewellyn W., Imel, and Maxwell. 3,076,807.
Hanks, Charles W. 3,080,626.
Hanks, Charles W. 3,101,515.
Hanks, Charles W. 3,105,275.
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Lauck, Robert M., Vanstrom, and Tucker. 3,097,949.
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Miller, George, and Colclough. 3,080,572.
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Pitt, Harold W., Stauffer, and Bender. 3,076,042.
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Price, Glenn R., Walsh, and Hallett. 3,094,548.
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Szabo, Karoly, and Brady. 3,105,001.
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Tilles, Harry, and Antognini. 3,078,155.
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Stauffer-Hewitt, Inc.: *See*—
Einhorn, Stanley C., and Memering. 3,114,722.

Stauffer, John E.: *See*—
Pitt, Harold W., Stauffer, and Bender. 3,076,042.

Stauffer, William O., and J. E. Dore, to Kaiser Aluminum & Chemical Corp. Apparatus for controlling the flow of molten metal. 3,084,925, 4-9-63, Cl. 266—42.

Staunt, Martin. Air driven dental handpieces. 3,084,439, 4-9-63, Cl. 32—27.

Staunt, Martin. Plastic bur sleeve for dental handpieces. 3,088,745, 5-7-63, Cl. 279—102.

Staunton, Frederic J., to International Telephone and Telegraph Corp. Electro-magnetic motion converting rotary actuator. 3,105,915, 10-1-63, Cl. 310—37.

Staunton, John J. J., to Coleman Instruments, Inc. Ultra-micro cuvette assembly. 3,097,928, 7-16-63, Cl. 23—292.

Staver, Robert B. Cake of material and handle. 3,100,363, 8-13-63, Cl. 45—28.

Stavis, Gus: *See*—
Gamertsfelder, George R., and Stavis. 3,111,664.

Stavis, Gus, to General Precision, Inc. Microwave beaming system. 3,083,362, 3-26-63, Cl. 343—100.

Stavis, Gus, to International Standard Electric Corp. Radio direction indicator. 3,101,471, 8-20-63, Cl. 343—16.

Stavis, Gus, to General Precision, Inc. Radar and television navigation aid. 3,111,663, 11-19-63, Cl. 343—6.

Stavis, Gus, to General Precision, Inc. Frequency modulated altimeter. 3,111,667, 11-19-63, Cl. 343—14.

Stavis, Gus, to General Precision Inc. Apparatus for measuring doppler frequency differences. 3,113,308, 12-3-63, Cl. 343—8.

Stavrolakis, J. A.: *See*—
Henderson, Courtland M., and Stavrolakis. 3,087,876.

Stawinski, Benjamin S.: *See*—
Frayliek, James A., Machek, and Stawinski. 3,077,251.
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Brown, Malcolm W., and Stead. 3,093,442.

Steadman, Thomas R., and F. Jaffe, to W. R. Grace & Co. Initiator for preparation of trioxane polymers and copolymers. 3,115,480, 12-24-63, Cl. 260—67.

Stealy, Arthur J., and A. P. Rice. Pivotally mounted fishing reel with motor drive. 3,075,722, 1-29-63, Cl. 242—84.2.

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Holden, Orloff W. 3,082,988.

Stearns, Charles F., to United Aircraft Corp. Isochronous-droop governor. 3,071,009, 1-1-63, Cl. 73—521.

Stearns, Duane L.: *See*—
Wheeler, Edward N., Stearns, Melaas, and Gesting. 3,102,905.

Stearns Mfg. Co.: *See*—
O'Link, Maurice H. 3,077,618.

Stearns, R. H.: *See*—
Hanson, Quinten A. 3,095,068.

Stearns, Reid F., to Esso Research and Engineering Co. System and method for filling closed containers with volatile liquids. 3,109,295, 11-5-63, Cl. 62—55.

Stearns, Richard S., to The Firestone Tire & Rubber Co. New polymerization catalyst, its preparation and use. 3,078,-263, 2-19-63, Cl. 260—94.3

Stearns-Roger Mfg. Co.: *See*—
Handwerk, Glenn E. 3,079,238.

Stearns, Sanford W., to Continental Laboratories, Inc. Gas separator for drilling mud. 3,078,649, 2-26-63, Cl. 55—206.

Stearns, Thomas H., and T. A. Nalette, to Sanders Associates, Inc. Printed circuit automotive dashboard. 3,074,043, 1-15-63, Cl. 339—148.

Stearns, William M., to North American Aviation, Inc. Combination spring-piston vibration isolator. 3,101,937, 8-27-63, Cl. 267—1.

Stease, Ralph E., to The Mead Corp. Reinforced shipping carton. 3,099,379, 7-30-63, Cl. 229—23.

Stebbins, Larry O., to Automation Industries, Inc. Apparatus for inspection of metal pipe. 3,105,380, 10-1-63, Cl. 73—67.8

Stebbins, Larry O., and T. C. Sato, to Automation Industries, Inc. Means and techniques for eliminating effects of varying water path lengths in metal inspection. 3,114,258, 12-17-63, Cl. 73—67.9.

Stebbins, Leo A. Lowerable compartment for cabinets. 3,081,138, 3-12-63, Cl. 312—319.

Stebbins, Mark C., to Mark C. Stebbins & Sons, Inc. Locking device. 3,073,142, 1-15-63, Cl. 70—92.

Stebbins, Mark C., & Sons, Inc.: *See*—
Stebbins, Mark C. 3,073,142.

Stebbins, Ray M. Puller for universal joints. 3,076,259, 2-5-63, Cl. 29—259.

Steber, Joseph F., to Green Bay Foundry and Machine Works. Fruit and vegetable peeler. 3,115,915, 12-31-63, Cl. 146—47.

Stec, Joseph P., R. E. Gerhardt, and W. R. Lynch, to Republic Industrial Corp. Weather sealing strips and mounting means therefor. 3,108,338, 10-29-63, Cl. 20—69.

Steck, Edgar A., to Sterling Drug Inc. Triazolo [b] pyridazines. 3,096,329, 7-2-63, Cl. 260—250.

Steck, Edgar A., to Sterling Drug Inc. 6-methoxy-8-(5-N-propylaminopentylamino) quinoline, its salts and its preparation. 3,096,334, 7-2-63, Cl. 260—286.

Steck, James W.: *See*—
Albertson, Jonathan Y., Lange, Lord, Schempp, and Steck. 3,086,428.

Stecker, Herbert C. Organic mercury compounds. 3,076,832, 2-5-63, Cl. 260—431.

Stedefeder, Joachim: *See*—
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Stedman, Cecil K., to Statham Instruments, Inc. Pressure sensitive diaphragms with stress null zone oriented bridge patterns. 3,071,745, 1-1-63, Cl. 338—2.

Stedman, Cecil K., to Statham Instruments, Inc. Angular accelerometer. 3,072,807, 1-8-63, Cl. 310—11.

Stedman, Cecil K., to Statham Instruments, Inc. Motion sensing device. 3,090,238, 5-21-63, Cl. 73—515.

Stedman, Cecil K., to Statham Instruments, Inc. Damped vibrational systems. 3,091,971, 6-4-63, Cl. 73—515.

Stedman, Cecil K., to Statham Instruments, Inc. Inertia coupled vibration damper mechanisms and fabrication thereof. 3,113,640, 12-10-63, Cl. 188—1.

Stedman, Cresswell E., to U.S. Perlite Corp. Acoustical tile and method of producing the same. 3,103,254, 9-10-63, Cl. 181—33.

Stedman Mfg. Co., Inc.: *See*—
Stedman, Sarah W. and W. D. 3,088,121.

Stedman, Sarah W. and W. D., to Stedman Mfg. Co., Inc. Men's wearing apparel. 3,088,121, 5-7-63, Cl. 2—226.

Stedman, William D.: *See*—
Stedman, Sarah W. and W. D. 3,088,121.

Stedt, Tore per Gustav, and A. A. H. Dolph; said Dolph assor. to said Stedt. Process of making a corrosion inhibiting composition. 3,087,897, 4-30-63, Cl. 252—391.

Steeb, Karl. Snow shovel. 3,082,554, 3-26-63, Cl. 37—123.

Steed, Charles O. Bit grab. 3,081,123, 3-12-63, Cl. 294—86.29.

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Schroer, Charles A., Swanson, and Steedly. 3,111,732.

Steel Co. of Canada, Ltd., The: *See*—
Swick, Michael V., Ward, and Douglas. 3,092,532.
Ward, Frederick W. A. 3,092,534.
Ward, Frederick W. A. 3,094,295.

Steel Co of Wales Ltd., The: *See*—
Mackay, Ronald P. A. 3,071,363.

Steel Construction & Engineering Co. (Notts.) Ltd.: *See*—
Savory, Frederick R. 3,103,965.

Steel, Harold J. Sports apparatus. 3,083,967, 4-2-63, Cl. 273—54.

Steel Heddle Mfg. Co.: *See*—
Parks, Robert F. 3,087,516.
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Steel, Homer J. Pipe rack. 3,098,567, 7-23-63, Cl. 211—49.

Steel Improvement & Forge Co., The: *See*—
Faust, Charles L., and Gurklis. 3,095,364.

Steel Slides, Inc.: *See*—
Manson, Morris. 3,084,639.

Steel, Thomas: *See*—
McLean, Donald, Kent, and Steel. 3,095,010.

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Steele, Arthur R., Jr., E. J. Mills, Jr., and D. G. Leis, to Union Carbide Corp. Polyoxyalkylene products 3,078,-315, 2-19-63, Cl. 260—615.

Steele, Carlton A.: *See*—
Pitts, Thomas E., and Steele. 3,081,045.

Steele, Carroll M.: *See*—
Merritt, Philip E., and Steele. 3,092,809.

Steele, Clarence R., and F. B. Price, to Silver Corp. Seed planting apparatus. 3,100,462, 8-13-63, Cl. 111—77

Steele, Clellie T.: *See*—
King, Laurence F., and Steele. 3,080,436.

Steele, Dale L., to National Instrument Laboratories, Inc. Mass flowmeter. 3,103,119, 9-10-63, Cl. 73—210.

Steele, Duane R.: *See*—
Andersen, Holger C., Romeo, and Steele. 3,084,023.

Steele, Floyd G., to Litton Systems, Inc. Acceleration measuring system. 3,071,008, 1-1-63, Cl. 73—504.

Steele, Glen R., to Bathey Mfg. Co. Shelf panel for storage racks. 3,086,660, 4-23-63, Cl. 211—153.

Steele, Henry J., to Joseph Lucas (Industries) Ltd. False-twisting devices for fibres or filaments. 3,091,910, 6-4-63, Cl. 57—77.33.

Steele, Robert: *See*—
Steele, Thomas. 3,114,389.

Steele, Roger C., and E. L. Rule, to Hexcel Products Inc. Method of forming flat sections of honeycomb structure from paper stock. 3,082,141, 3-19-63, Cl. 156—189.

Steele, Thomas, deceased, by R. Steele, executor, to Morton Machine Co. Ltd. Valves. 3,114,389, 12-17-63, Cl. 137—583.

Steels Engineering Products Ltd.: *See*—
Hallsworth, Arnold. 3,099,779.

Steeman, Johannes W. M.: *See*—
Hoek, Berend J., Von den Hoff, and Steeman. 3,093,635.

Steen, Harford K., to Interstate Bag Co., Inc. Method of making shopping bags having reinforced top and bottom. 3,081,674, 3-19-63, Cl. 93—35.

Steen, James B., to Chicago Pneumatic Tool Co. Jetting device for rock bit. 3,096,834, 7-9-63, Cl. 175—340.

Steen, Richard C., to Western Electric Co., Inc. Strand tension control apparatus. 3,113,746, 12-10-63, Cl. 242—155.

Steen, Stephen N., and F. L. Grissman, to St. Barnabas Hospital For Chronic Diseases. Apparatus for measuring systolic and diastolic blood pressures. 3,101,082, 8-20-63, Cl. 128—2.05.

Steen, William E., to A. O. Smith Corp. Temperature and coefficient expansion compensators for liquid flow recorders. 3,088,317, 5-7-63, Cl. 73—233.

Steen, William E., to A. O. Smith Corp. Liquid blending control. 3,092,129, 6-4-63, Cl. 137—100.

Steeneck, Robert, to The Western Union Telegraph Co. Keypunch jam detector. 3,101,893, 8-27-63, Cl. 234—32.

Steenfeld, Joseph, and G. V. Zito, to The Bendix Corp. Ion air density sensor for atmospheric pressure and altitude measurements. 3,093,792, 6-11-63, Cl. 324—33.

Steer, David C., and N. R. Smith, to The Procter & Gamble Co. Liquid detergent composition. 3,085,982, 4-15-63, Cl. 252—137.

Steer, Donald E., to National Distillers and Chemical Corp. Reverse core check valve. 3,104,676, 9-24-63, Cl. 137—234.5.

Steer, Inez, and V. B. Hinman. Decorative wearing apparel. 3,106,721, 10-15-63, Cl. 2—209.1.

Steeves, Robert W.: *See*—
Baer, Charles A., Clough, and Steeves. 3,084,060.

Stefan, Russell O., and A. G. Lang; said Lang assor. to said Stefan. Rocket signal device. 3,102,477, 9-3-63, Cl. 102—37.6.

Stefani, Andrew P.: *See*—
Park, Joseph D., and Stefani. 3,072,705.

Stefanick, William F. Stone cutter. 3,100,481, 8-13-63, Cl. 125—23.

Stefanov, Boris: *See*—
Vinson, Billy H., and Stefanov. 3,099,800.

Steffel, La Verne G. Water ski construction. 3,077,617, 2-19-63, Cl. 9—310.

Steffen, Arnold M. Work holder. 3,103,352, 9-10-63, Cl. 269—45.

Steffen, Walter: *See*—
Bourquin, Jean-Pierre, Brack, Schenker, Griot, and Steffen. 3,100,175.

Steffenssen, Otto: *See*—
Beyer-Olsen, Knut, and Steffenssen. 3,081,493.

Stegall, Claude D.: *See*—
Price, Berry G., Placke, and Stegall. 3,107,064.

Stegeman, Raymond F. E.: *See*—
Radziwon, Norman J., and Stegeman. 3,071,042.

Stegen, Robert J.: *See*—
McCann, Joe G., Stegen, and Falstrom. 3,092,834.

Steger, William C., Jr.: *See*—
Gerbore, Alexander E., Plyer, and Steger. 3,099,719.

Steggerda, Johannes J., to Stamicarbon, N.V. Preparation of melamine. 3,093,644, 6-11-63, Cl. 260—249.7.

Steghart, Fritz L. F., P. L. Kershaw, and J. P. Harvey, to The Rheostatic Co. Ltd. Burner control means. 3,083,-758, 4-2-63, Cl. 158—28.

Stegler, Richard E., and C. Raphael, to Republic Aviation Corp. Method and means for making lap joints. 3,107,195, 10-15-63, Cl. 161—36.

Stegmaier, Louis T.: *See*—
Humpage, Harold A., and Stegmaier. 3,075,164.

Stegman, Raymond V., and W. E. Gren, to Brunswick Corp. Control system for bowling balls and the like. 3,099,446, 7-30-63, Cl. 273—49.

Stelan Mfg.: *See*—
Feland, Duane E. 3,104,722.

Steichele, Joseph, to SKF Kugellagerfabriken Gesellschaft mit beschrankter Haftung. Spindle drive arrangement for a spinning or twisting frame. 3,098,346, 7-23-63, Cl. 57—103.

Steidlinger, Donald J., to Uarco, Inc. Multi ply fully-fastened continuous-form stationery. 3,092,401, 6-4-63, Cl. 282—11.5.

Steidlinger, Donald J., to Uarco, Inc. Envelope assembly. 3,104,799, 9-24-63, Cl. 229—69.

Steidlinger, Gebrueder: *See*—
Zimmermann, Heinrich, and Hermann. 3,111,323.

Steidlinger, Oskar: *See*—
Zimmermann, Heinrich, and Hermann. 3,111,323.
Zimmermann, Heinrich, and Schwer. 3,113,783.

Steidlinger, Siegfried: *See*—
Zimmermann, Heinrich, and Hermann. 3,111,323.
Zimmermann, Heinrich, and Schwer. 3,113,783.

Steidl, Robert H., to The Boeing Co. Fin-tip mounted horizontal control surface for airplanes. 3,109,614, 11-5-63, Cl. 244—87.

Steidley, Roy B., to Harbor Boat Building Co. Pontoon. 3,083,665, 4-2-63, Cl. 114—.5.

Steidley, Virgil K.: *See*—
Smith, Edward M., and Steidley. 3,075,551.

Steierman, Bernard L., to Owens-Illinois Glass Co. Glass rod and tube cutter. 3,084,431, 4-9-63, Cl. 30—164.9

Steiger, Fred H., and H. A. Alps, to Rohm & Haas Co. Process for shrink-proofing proteinaceous textile materials and the product therefrom. 3,100,674, 8-13-63, Cl. 8—127.6.

Steiger, Norbert, to Hoffmann-La Roche Inc. Formamidines of primary amines. 3,073,851, 1-15-63, Cl. 260—397.6.

Steiger, Werner, to Hughes Aircraft Co. Magnetic deflection apparatus for cathode ray type tube. 3,092,753, 6-4-63, Cl. 315—27.

Steigerwald, Karl H.: *See*—
Scherzer, Otto, and Steigerwald. 3,101,430.

Steigerwald, Karl H. Process and apparatus for treating synthetic plastic materials. 3,081,485, 3-19-63, Cl. 18—1.

Steigerwald, Karl H. Method and means for continuous casting employing compartmented molds. 3,085,303, 4-16-63, Cl. 22—139

Steigerwalt, Oliver L.: *See*—
Lewis, Dwight C., and Steigerwalt. 3,094,672.

Steijn, Roelof P., to E. I. du Pont de Nemours and Co. Textile apparatus. 3,080,135, 3-5-63, Cl. 242—157.

Steil, Irvin W. Liquid level gauge for underground tanks. 3,088,318, 5-7-63, Cl. 73—321.

Steiman, Wolf, and W. R. O'Donnell, to VCA Inc. Valve construction for aerosol-producing device. 3,109,625, 11-5-63, Cl. 251—353.

Steimen, Lawrence E.: *See*—
Hidden, William P., Steimen, and Sandberg. 3,103,142.

Stein, Alfred E. Method of lubricating thread and textile machinery surfaces. 3,097,561, 7-16-63, Cl. 87—4.

Stein, Alvin W., and T. E. Lloyd. Display fixtures. 3,082,-920, 3-26-63, Cl. 223—67.

Stein, Clyde R. Hydraulic motor. 3,106,871, 10-15-63, Cl. 91—103.

Stein et Roubaix: *See*—
Gross, Pierre. 3,104,956.

Stein, Fred, Laboratories, Inc.: *See*—
Stein, Frederick W. 3,079,053.

Stein, Frederick W., to Fred Stein Laboratories, Inc. Test cell release loading device. 3,079,053, 2-26-63, Cl. 222—502.

Stein, Gerhard M., to Westinghouse Electric Corp. Electrical inductive apparatus. 3,074,037, 1-15-63, Cl. 336—199.

Stein, Gerhard M., to Westinghouse Electric Corp. Electrical inductive apparatus. 3,090,022, 5-14-63, Cl. 336—70.

Stein, Herbert A.: *See*—
Murdock, John B., and Stein. 3,097,832.

Stein, Herbert W., to Oneida Paper Products, Inc. Method of making litter bags. 3,110,231, 11-12-63, Cl. 93—35.

Stein, John E., and R. T. Ingram, to Rochester Ropes, Inc. Apparatus for coating a splice. 3,103,704, 9-17-63, Cl. 18—36.

Stein, Josephine: *See*—
Stein, Sanford W. and J. 3,098,247.

Stein, Laurence B., Jr., to Sigma Instruments, Inc. Power factor correction apparatus for alternating current power distribution systems. 3,091,731, 5-28-63, Cl. 323—102.

Stein, Laurence B., Jr., and R. G. McDonald, to Sigma Instruments, Inc. Photosensitive control circuit. 3,091,723, 5-28-63, Cl. 317—124.

Stein, Philip A., to American Drill Bushing Co. Tool for placement of bushings in a drill jig. 3,099,079, 7-30-63, Cl. 29—275.

Stein, Richard J. Multi-unit package. 3,113,673, 12-10-63, Cl. 206—65.

Stein, Sanford W. and J. Water craft. 3,098,247, 7-23-63, Cl. 9—310.

Stein, Sidney J., and L. B. Allen, to International Resistance Co. Method of bonding a metal to a plastic and the article produced thereby. 3,107,197, 10-15-63, Cl. 161—189.

Stein, Werner: *See*—
Raecke, Bernhard, Blaser, Schirp, Stein, and Schutt. 3,093,683.

Stein, William A.: *See*—
Brittain, Edward G., and Stein. 3,107,320.

Steinacker, Peter, to Westfalia Separator A.G. Periodic sludge discharging centrifugal drum separators. 3,081,-028, 3-12-63, Cl. 233—20.

Steinacker, Peter, to Westphalia Separator, A.G. Safety device for centrifuges. 3,108,954, 10-29-63, Cl. 233—21.

Steinacker, Peter, and H. Henifort, to Westphalia Separator A.G. Sludge discharging centrifugal separators. 3,085,743, 4-16-63, Cl. 233—20.

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Gotte, August, Noll, Steinbach, and Zappel. 3,072,256.

Steinbach, Hermann J. Conveyor. 3,098,556, 7-23-63, Cl. 198—189.

Steinback, Clarence I.: *See*—
Bieber, Frederick J., and Steinback. Re. 25,330.
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Davis, Jerome I., Steinback, and Enyeart. 3,089,557.

Steinberg, Bernard D., to Philco Corp. Clutter elimination system. 3,078,458, 2-19-63, Cl. 343—7.7.

Steinberg, George M.: *See*—
Hackley, Brennie E., Jr., Poziomek, and Steinberg. 3,077,476.
Hackley, Brennie E., Jr., Poziomek, and Steinberg. 3,093,538.
Hackley, Brennie E., Jr., Poziomek, and Steinberg. 3,093,539.
Hackley, Brennie E., Jr., Poziomek, and Steinberg. 3,093,540.
Hackley, Brennie E., Jr., Poziomek, and Steinberg. 3,093,541.
Hackley, Brennie E., Jr., Poziomek, and Steinberg. 3,093,542.

Steinberg, Hyman A., to Carmer Industries, Inc. Solar oven construction. 3,106,201, 10-8-63, Cl. 126—270.

Steinberg, Irwin: *See*—
D'Onofrio, Joseph V., Weisman, Steinberg, and Valavanis. 3,087,156.

Steinberg, John C.: *See*—
Farnsworth, Daniel W., and Steinberg. 3,105,111.

Steinberger, Samuel, to Onyx Chemical Corp. Chemical treatment of flood waters used in secondary oil recovery. 3,111,-492, 11-19-63, Cl. 252—8.55.

Steinbichler, Josef. Composite tubular support, particularly tubular pole. 3,071,214, 1-1-63, Cl. 189—26.

Steinbock G.m.b.H.: *See*—
Becker, Hans. 3,072,418.

Steinbrunner, Alexander H. Silk screen printing ink. 3,086,-873, 4-23-63, Cl. 106—24.

Steinbuch, Karl W., to International Standard Electric Corp. Method for the automatical recognition of characters. 3,088,096, 4-30-63, Cl. 340—146.3.

Steinbuch, Karl, to International Standard Electric Corp. Method for the automatic identification of characters, in particular printed characters (figures, letters, and the like). 3,104,368, 9–17–63, Cl. 340—146.3.

Steinbuch, Karl, and H. Reiner, to International Standard Electric Corp. Cryogenic bistable device. 3,081,406, 3–12–63, Cl. 307—88.5.

Steinbuch, Karl, and H. Endres, to International Standard Electric Corp. Postage stamp detecting circuit arrangement. 3,087,141, 4–23–63, Cl. 340—146.3.

Steinbuch, Karl, H. Endres, and U. Zorll, to International Standard Electric Corp. Evaluation of characters. 3,088,097, 4–30–63, Cl. 340—146.3.

Steineck, Rudolf. Photographic flash unit. 3,080,804, 3–12–63, Cl. 95—11.5.

Steineck, Rudolf. Photographic camera. 3,081,678, 3–19–63, Cl. 95—12.

Steinemann, Ulrich, A.G. Maschinenfabrik: *See*—
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Stevens, Don J., and G. W. Forman, to United States of America, Atomic Energy Commission. Vibration damping and shock mount. 3,113,755, 12-10-63, Cl. 248—358.

Stevens, Du Wayne E., to Bell & Howell Co. Numerical control system. 3,075,095, 1-22-63, Cl. 307—106.

Stevens, Du Wayne E., to Bell & Howell Co. Backlash compensation position control servosystem. 3,104,349, 9-17-63, Cl. 318—22.

Stevens, Edward P., and R. J. Aul, to William Lowell Thomas, Inc. Reclosable integral package. 3,082,903, 3-26-63, Cl. 220—30.

Stevens, Edwin L.: *See*—
Karlsson, Elof K., and Stevens. 3,101,579.

Stevens, Francis D.: *See*—
McGrath, William L., and Stevens. 3,094,916.

Stevens, Francis E., and L. Nelson, to Coastal Valley Canning Co. Canned material cooling apparatus. 3,083,547, 4-2-63, Cl. 62—374.

Stevens, Franklyn E., Jr.: *See*—
Evans, Richard C., Stevens, and Cowles. 3,082,691.

Stevens, George, Mfg., Inc.: *See*—
Sadorf, John. 3,101,180.

Stevens, Gerald R.: *See*—
Larlham, Roy, and Stevens. 3,107,437.

Stevens, Glenn M. Cutting gate. 3,072,099, 1-8-63, Cl. 119—155.

Stevens, Harold E.: *See*—
Bird, James R., and Stevens. 3,095,454.

Stevens, Hilbert L., to Armstrong Cork Co. Polyvinyl fluoride film capable of being adhesively secured and method. 3,111,-450, 11-19-63, Cl. 161—189.

Stevens, Howard C., Jr., and W. A. Paulssen, to Manning, Maxwell & Moore, Inc. Mobile bridge. 3,105,251, 10-1-63, Cl. 14—1.

Stevens, J. P., & Co., Inc.: *See*—
Cobb, James L. 3,114,156.
Eble, Joseph H., Musser, and Ward. 3,102,379.
Floyd, Sherman H., and Smith. 3,103,319.
Ranton, Leslie A. 3,077,655.
Taylor, Winfred P., and Tillman. 3,091,909.
Tesoro, Giuliana C. 3,115,383.
Trammell, William H., Jr., Wallace, and Heyward. 3,078,516.

Stevens, James L., and J. E. Cottle, to Phillips Petroleum Co. Purification of solvents used in the polymerization of olefins. 3,084,149, 4-2-63, Cl. 260—94.9

Stevens, Kenneth, to The Distillers Co. Ltd. Polyethylene irradiation process. 3,099,611, 7-30-63, Cl. 204—154.

Stevens, Lewis F., to Pittsburgh Plate Glass Co. Preparation of wettable powders of 2-heptadecyl 2-imidazoline. 3,100,174, 8-6-63, Cl. 167—33.

Stevens, Lloyd L., to United States Steel Corp. Cam-follower selector device. 3,099,170, 7-30-63, Cl. 74—569.

Stevens, Louis D., to International Business Machines Corp. Decoding device. 3,082,406, 3-19-63, Cl. 340—172.5.

Stevens, Louis D., and J. R. Clark, to International Business Machines Corp. Transducer positioning system. 3,105,-963, 10-1-63, Cl. 340—174.1.

Stevens Mfg. Co., Inc.: *See*—
Bletz, Howard W. 3,083,282.
Mertler, Charles S. 3,107,288.
Mertler, Charles S., and Jessen. 3,086,399.
Mertler, Charles S., and Jordan. 3,088,016.

Stevens, Marcus A.: *See*—
Brenner, Carl M., and Stevens. 3,107,239.

Stevens, Myron E. Article holder for automobile floors. 3,104,040, 9-17-63, Cl. 224—29.

Stevens, Myron C., to McGraw-Edison Co. Air deflector. 3,076,402, 2-5-63, Cl. 98—40.

Stevens, Myron T., to Outboard Marine Corp. Walk-through seat. 3,093,232, 6-25-63, Cl. 296—65.

Stevens, Peter A., to Brunswick Corp. Needle hub and sheath structure. 3,073,307, 1-15-63, Cl. 128—221.

Stevens, Raymond R. to The Felters Co. Felt tipped marking pen with composite ink reservoir. 3,080,600, 3-12-63, Cl. 15—563.

Stevens, Richard W., and P. T. Rodd, to Thorn Electrical Industries Ltd. Decorative light. 3,111,276, 11-19-63, Cl. 240—10.

Stevens, Robert J.: *See*—
English, James F., Jr., and Stevens. 3,073,163.
Mogensen, Allan O., and Stevens. 3,089,748.

Stevens, Robert M., to Curtiss-Wright Corp. Supersonic diffuser and control therefor. 3,073,109, 1-15-63, Cl. 60—35.6.

Stevens, Roger W., to United States Steel Corp. Wire rope. 3,104,515, 9-24-63, Cl. 57—146.

Stevens, Ronald G.: *See*—
Godycki, Ludwig E., Stevens, and Tsu. 3,098,803.

Stevens, Stanford S. Means for preparing urinary drainage collection bottle. 3,092,279, 6-4-63, Cl. 215—38.

Stevens, Stanford S., to Zylon Products Co., Inc. Surgical hand brush. 3,093,855, 6-18-63, Cl. 15—160.

Stevens, Thomas F.: *See*—
Backer, William R., Kirk, Wespi, and Stevens. 3,107,550.

Stevens & Thompson Paper Co.: *See*—
Metcalf, Walter W. 3,090,572.

Stevens, Walter R. Rainproof ventilating window structure. 3,084,737, 4-9-63, Cl. 160—91.

Stevens, Wayne E.: *See*—
Dotts, Walter M., Jr., and Stevens. 3,097,917.

Stevens, William E. Bumper jack support with interchangeable blocks. 3,096,060, 7-2-63, Cl. 248—170.

Stevens, William F., and G. R. Bauer, to Salem-Brosius, Inc. Rotary hearth furnace control. 3,112,918, 12-3-63, Cl. 263—7.

Stevenson, Albert E.: *See*—
Delf, George A., and Stevenson. 3,087,206.

Stevenson, Danold L., to Consolidated Vacuum Corp. Vacuum pump. 3,075,689, 1-29-63, Cl. 230—101.

Stevenson, Derek A., to R. W. Crabtree & Sons Ltd. Sheet register mechanism. 3,071,372, 1-1-63, Cl. 271—53.

Stevenson, Donald E. Delivery system for flat objects. 3,076,649, 2-5-63, Cl. 271—71.

Stevenson, Donald E. Electromagnet motor with crankshaft drive. 3,105,162, 9-24-63, Cl. 310—23.

Stevenson, Donald H., to Air Products and Chemicals, Inc. Dehydrogenation method. 3,088,986, 5-7-63, Cl. 260—680.

Stevenson, Donald L. Diffusion vacuum pump. 3,075,687, 1-29-63, Cl. 230—101.

Stevenson, Donald L., to Consolidated Vacuum Corp. Heater for a diffusion pump. 3,113,717, 12-10-63, Cl. 230—101.

Stevenson, George G., to Semco Research, Inc. Portable fluid mixer. 3,073,577, 1-15-63, Cl. 259—37.

Stevenson, Mayne B., to Arvey Corp. Compartmented envelope. 3,116,010, 12-31-63, Cl. 229—72.

Stevenson, Robert W.: *See*—
Berardinelli, Frank M., and Stevenson. 3,072,609.

Stevenson, Thomas. Spotting rifle ignition for larger caliber gun. 3,097,561, 7-16-63, Cl. 89—1.7.

Stevenson, Thomas, and J. J. Caven, to United States of America, Army. Combination fragmentation structural incendiary damage projectile. 3,101,053, 8-20-63, Cl. 102—57.

Stevenson, Thomas, W. W. Cavell, and W. A. Dischert, to United States of America, Army. Electrically initiated spotter tracer bullet. 3,101,054, 8-20-63, Cl. 102—60.

Steward, Jerry H.: *See*—
Double, Plummer E., and Steward. 3,091,843.

Steward, Jerry H., to Multifastener Corp. Feed head. 3,089,-360, 5-14-63, Cl. 78—46.

Steward, Jerry H., to Multifastener Corp. Electronically controlled feed head. 3,098,576, 7-23-63, Cl. 218—2.

Steward, Jerry H., to Multifastener Corp. Method of sizing and installing a pierce nut in a panel. 3,108,368, 10-29-63, Cl. 29—432.

Steward, Loren K.: *See*—
Landrum, Ira T., Kennedy, Shanklin, Cummings, Steward, Bonlware, Kleypas, and Evans. 3,106,735.

Steward, Merril F.: *See*—
Robins, Milton. 3,091,958.

Stewart, Aberdeen W.: *See*—
Bryant, Glenn D., and Stewart. 3,109,613.

Stewart, Alfred W., to Varifab Inc. Mercury switch. 3,088,-014, 4-30-63, Cl. 200—152.

Stewart, Aubrey F., Jr., and G. A. Guckel, to said A. F. Stewart, Jr. Diaphragm-type valve. 3,083,943, 4-2-63, Cl. 251—61.

Stewart, Basil O., to National Gypsum Co. Humidification of wood fiber sheets. 3,101,105, 8-20-63, Cl. 144—327.

Stewart Bolling & Co., Inc.: *See*—
Matsuoka, James T. 3,099,040.

Stewart, Byron: *See*—
La Combe, Edward M., and Stewart. 3,076,838
La Combe, Edward M., Stewart, and Miller. 3,114,767.

Stewart, Charles C.: *See*—
Healy, Francis P., Stewart, and Groll. 3,080,686.

Stewart, David G.: *See*—
Barclay, John L., Hadley, and Stewart. 3,089,909.
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Hadley, David J., and Stewart. 3,086,041.

Stewart, David O.: *See*—
Mann, Leonard J., and Stewart. 3,099,139.

Stewart Engineering & Equipment Co., Inc.: *See*—
Stewart, Harold H., and Johns. 3,094,206.

Stewart, Floyd D.: *See*—
McCarty, John C., and Stewart. 3,103,497.

Stewart, Frank C., Jr., and H. D. Dewhirst, to Esso Research and Engineering Co. Hydrofining process. 3,072,564, 1-8-63, Cl. 208—210.

Stewart, George H. Sterile package. 3,112,031, 11-26-63, Cl. 206—63.2.

Stewart, George M.: *See*—
Sinha, Shyamal K., Marshall, and Stewart. 3,080,291.

Stewart, Harold H., and H. S. Johns, to Stewart Engineering & Equipment Co., Inc. Conveyor systems. 3,094,206, 6-18-63, Cl. 198—189.

Stewart, Hugh R.: *See*—
Paget, John A., Kontz, Stone, and Stewart. 3,115,453

Stewart, Hugh T. Method of manufacture of silicone rubber. 3,107,234 10-15-63, Cl. 260—46.5.

Stewart Iron Works Co., Inc., The: *See*—
Young, Charles F. 3,082,847.

Stewart, James R., and C. H. Willyard, to Motorola, Inc. Radio telephone system. 3,087,998, 4-30-63, Cl. 179—41.

Stewart, James R., and C. H. Willyard, to Motorola, Inc. Mobile dialing system. 3,087,999, 4-30-63, Cl. 179—84.

Stewart, Joe W., and C. E. Bulloch, to Dowsmith Inc. Arc extinguisher containing molybdenum disulfide. 3,111,567, 11-19-63, Cl. 200—120.

Stewart, John A.: *See*—
Sprague, Robert H., Stewart, and Lewis. 3,113,024.

Stewart, John F., to Radio Corp. of America. Apparatus for processing cathode ray tubes. 3,115,732, 12-31-63, Cl. 53—88.

Stewart, John K., to Canada Iron Foundries, Ltd. Mounting means for infra-red transmitters and receivers. 3,098,302, 7-23-63, Cl. 33—46.

Stewart, John K. Track aligning device. 3,105,306, 10-1-63, Cl. 33—214.

Stewart, John K., to Canada Iron Foundries, Ltd. Tie remover and spike puller. 3,105,674, 10-1-63, Cl. 254—18.

Stewart, John T. Journal bearing wear detector. 3,102,759, 9-3-63, Cl. 308—1.

Stewart, Kenneth C.: *See*—
Honey, Charles C., Toothman, and Stewart. 3,102,246.
Michael, Paul L., Strange, and Stewart. 3,089,561.

Stewart, Kenneth K. Water ski tow rope reel. 3,113,547, 12-10-63, Cl. 114—235.

Stewart, Leonard F.: *See*—
Zubaty, Joseph G., Stewart, and Gabriel. 3,103,543.

Stewart, Meredith M., to Gulf Research & Development Co. Method for preparing beta-alumina trihydrate. 3,096,154, 7-2-63, Cl. 23—143.

Stewart, Merritt G., to Hadley, Inc. Composing machine improvements. 3,071,383, 1-1-63, Cl. 276—8.

Stewart, Paul H., to Eastman Kodak Co. Merocyanine sensitized photoconductive compositions comprising zinc oxide. 3,110,591, 11-12-63, Cl. 96—1.

Stewart, Ralph H. Combination picture frame stand and hanger. 3,074,680, 1-22-63, Cl. 248—224.

Stewart, Raymond A., and L. A. McLeod, to Polymer Corp. Ltd. Polymerization of butadiene with a TiI4-AlRx-organic compound catalyst. 3,116,272, 12-31-63, Cl. 260—94.3.

Stewart, Richard F., to Texas Instruments Inc. Light sensitive solid state relay device. 3,096,442, 7-2-63, Cl. 250—211.

Stewart, Robert S.: *See*—
Kyle, William K., and Stewart. 3,103,793.
Kyle, William K., and Stewart. 3,103,794.

Stewart, Robert S., to Westinghouse Electric Corp. Controls for refrigeration systems having air cooled condensers. 3,112,620, 12-3-63, Cl. 62—183.

Stewart, Ross E.: *See*—
Hufferd, George H., and Stewart. 3,114,059.

Stewart, Thomas E., Jr.: *See*—
Burks, Howard L., and Stewart. 3,075,324.

Stewart, Trigg, and J. L. Helminen, deceased (by V. I. Helminen, executrix). Underwater spear gun. 3,090,151, 5-21-63, Cl. 43—6.

Stewart, Tyler P. Foot exercising appliance. 3,088,458, 5-7-63, Cl. 128—57.

Stewart-Warner Corp.: *See*—
Allen, Arthur C., Magerl, Sadoff, and Wertheimer. 3,089,501.
Anderson, Gilbert G. 3,096,871.
Anderson, Raymond A. 3,095,081.
Bjorn, Thomas E., Hosking, and Szymber. 3,061,007.
Burtness, Roger W. 3,071,239.
Campbell, Thomas A., Luna, and Meinardus. 3,106,320.
Cornelius, Richard T. 3,071,153.
Dew, Robert L. 3,071,646.
Fairbanks, Gordon J. 3,071,187.
Fairbanks, Gordon J. 3,094,142.
Fisher, John T. 3,096,071.
Hanebuth, Paul N. 3,085,406.
Hosking, Paul C. 3,071,221.
Jennings, William G. 3,095,903.
Kolanowski, Stanley C., Plaza, and Ernst. 3,106,706.
Mather, Irwin E. 3,071,692.
Martz, Roger G. 3,096,810.
Maudlin, Wendell E. 3,111,009.
Miles, Marshall 3,094,656.
Rasch, Leroy L S, Woodcock, and Womack. 3,071,208.
Sheahan, Robert E. 3,102,298.
Smoll, Allen E. 3,105,601.
Szymber, Oleg. 3,115,604.
Wertheimer, Harry P. 3,071,105.
Zargarpur, Reuholah. 3,094,970.

Stewart, Warren A., to Koppers Co., Inc. Misalignment device for flexible couplings. 3,102,402, 9-3-63, Cl. 64—14.

Stewart, Warren A., and J. W. Drenning, to Koppers Co., Inc. Device for detecting the linear speed of a moving web of single-face corrugated paper. 3,104,997, 9-24-63, Cl. 156—378.

Stewart, William D.: *See*—
Rainer, William C., Redding, Hitov, Sloan, and Stewart. 3,097,150.

Stewart, William D., and R. O. Thomas, to Atlantic Research Corp. Foamed polyurethane plastics and process for making same. 3,075,926, 1-29-63, Cl. 260—2.5.

Stewart, William D., and R. O. Thomas, to Atlantic Research Corp. Expanded polyurethane plastic containing zein and process for preparing same. 3,075,930, 1-29-63, Cl. 260—2.5.

Stewart, William H., Jr. Rodding machine. 3,098,251, 7-23-63, Cl. 15—104.3.

Stewart, William R.: *See*—
Dillon, Paul W., Stewart, Bosco, and Robinson. 3,078,-325.

Stewart, William R., to International Business Machines Corp. Fluid control means. 3,115,012, 12-24-63, Cl. 60—54.6.

Stewart, William T.: *See*—
Stuart, Frank A., Stewart, Lowe, and Kavanagh. 3,073,-807.
Stuart, Frank A., Stewart, Lowe, and Kavanagh. 3,083,187.
Stuart, Frank A., Stewart, Lowe, and Kavanagh. 3,083,188.

Steyr-Daimler-Puch Aktiengesellschaft: *See*—
Gotz, Gerhard L. M. 3,111,117.

Stibbe, G., & Co., Ltd.: *See*—
Brown, Albert M. 3,093,985.
Brown, Albert M. 3,097,510.

Stich, Eugen. Fermentation apparatus. 3,114,677, 12-17-63, Cl. 195—142.

Stichting Reactor Centrum Nederland: *See*—
Hermans, Marie E. A., and van der Plas. 3,097,062.
Van der Schee, Bernard L. A. 3,092,562.

Stickel, Carl A., to General Motors Corp. Defrosting control for refrigerating apparatus. 3,107,501, 10–22–63, Cl. 62—156.

Stickel, Herbert P., to Smith-Corona Marchant, Inc. Fanfold card guide. 3,081,015, 3–12–63, Cl. 226—168.

Stickel, LeRoy: *See*—
DeTemple, Richard R., and Stickel. 3,115,345.

Stickelmeyer, Jerome H.: *See*—
Soderquist, Frederick J., Stickelmeyer, and Amos. 3,091,651.

Stickles, Arthur R. Inner sole having low frictional portions. 3,071,877, 1–8–63, Cl. 36—44.

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Timmermann, Karl G. 3,092,048.

Stickney, Palmer B., to W. R. Grace & Co. Polymerization of ethylene with aluminum alkyl-rare earth halide catalysts. 3,111,511, 11–19–63, Cl. 260—94.9.

Stiebel, Ariel L.: *See*—
Pitts, Kennard, and Stiebel. 3,103,630.

Stiebel, Ariel L., to Rockwell-Standard Corp. Multi-channel signal transmission system. 3,079,595, 2–26–63, Cl. 340—183.

Stieber, Fred. Game apparatus. 3,073,600, 1–15–63, Cl. 273—120.

Stieber, Joseph A., and J. B. Weldon. Methods for forming a color impregnation of transparent geometrical shapes. 3,077,040, 2–12–63, Cl. 35—4.3.

Stiebling, Ewald: *See*—
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Stiefel, Ludwig, to United States of America, Army. Gas generator for guided missiles. 3,089,418, 5–14–63, Cl. 102—39.

Stiefel, Werner K.: *See*—
Saperstein, Rose B., and Stiefel. 3,092,111.

Stiefelmeier, Wilhelm, to G. M. Pfaff, AG. Method of making piped openings for pockets or the like. 3,105,973, 10–8–63, Cl. 2—247.

Stiegler, Elwood A.: *See*—
Tourtellotte, Frederick, and Stiegler. 3,071,179.

Stieler, Jurz, and D. Munch, to Metallgesellschaft Aktiengesellschaft. Sintering apparatus. 3,102,153, 8–27–63, Cl. 266—21.

Stieringer, Albert, to Alfred Gauthier, G.m.b.H. Photographic camera. 3,085,485, 4–16–63, Cl. 95—10.

Stierli, Robert F., to W. R. Grace & Co. Adjustment of the rheological properties of a dispersion of rubber in an organic solution of rubber by adding water. 3,079,359, 2–26–63, Cl. 260—29.7.

Stiffel, Theophile A. Diffusing means for use in connection with lighting fixtures. 3,076,892, 2–5–63, Cl. 240—81.

Stiffel, Theophile A. Means for supporting a lighting fixture. 3,104,067, 9–17–63, Cl. 240—81.

Stiffler, Harold F.: *See*—
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Brauns, Otto L. J., and Jordansson. 3,093,535.

Stiglic, Paul M., to Thompson Ramo Wooldridge Inc. Control actuator mechanism. 3,083,695, 4–2–63, Cl. 121—41.

Stiglin, Vincent. Canopy. 3,101,731, 8–27–63, Cl. 135—5.

Stihl, Andreas, and A. Caspari, to Andreas Stihl Firma. Portable bark peeling device. 3,088,504, 5–7–63, Cl. 144—208.

Stihl, Andreas, Firma: *See*—
Stihl, Andreas, and Caspari. 3,088,504.

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Douwes, Cornelis T., and Stijntjes. 3,116,233.

Stijntjes, Gerardus J. F., to Shell Oil Co. Process for the selective hydrogenation of dien-containing gasoline. 3,108,947 10–29–63, Cl. 208—144.

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Hellstern, Vernon. 3,106,378.
Scluto, Carl C., and Hellstern. 3,106,379.

Stiles, Alan R.: *See*—
Ward, Loyal F., Jr., and Stiles. 3,101,364.

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Stiles, John C., and J. F. Emerson, to General Precision, Inc. Two-axis accelerometer. 3,077,783, 2–19–63, Cl. 73—517.

Stiles, Marion R.: *See*—
Langdon, Lawrence E., and Stiles. 3,083,953.

Stiles, Melvin S.: *See*—
Peach, John A., and Stiles. 3,115,632.

Stiles, Morrison N.: *See*—
Latimer, Kenneth B., and Stiles. 3,071,869.

Stiles, Vernon E., and N. L. Kay, to Union Oil Co. of California. Hydrocarbon conversion process. 3,071,536, 1–1–63, Cl. 208—60.

Still, Ernest W., to Normalair Ltd. Pressure garment inflation means. 3,107,678, 10–22–63, Cl. 137—64.

Still-Man Mfg. Corp.: *See*—
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Stiller, Benjamin. Vacuum cup holding device. 3,071,886, 1–8–63, Cl. 45—28.

Stiller, Benjamin. Device for molding suction cups on articles. 3,075,246, 1–29–63, Cl. 18—42.

Stiller, Benjamin, to Quikey Mfg. Co. Inc. Vacuum cup holding device. 3,101,566, 8–27–63, Cl. 45—28.

Stiller, Benjamin, to Quikey Mfg. Co. Inc. Vacuum cup holding device having improved holding means. 3,101,567, 8–27–63, Cl. 45—28.

Stiller, Bertram, and F. I. Louckes, Jr., to United States of America, Navy. Multifilar measuring device. 3,095,650, 7–2–63, Cl. 33—46.

Stiller, Michael: *See*—
Bermingham, Peter D., and Stiller. 3,101,762.

Stiller, Paul: *See*—
Altman, Bernard, and Stiller. 3,076,886.

Stilley, Herschel H., to Clark Equipment Co. Tractor with boom attachment. 3,071,254, 1–1–63, Cl. 212—8.

Stilley, Herschel H., to Clark Equipment Co. Lift bucket assembly. 3,104,771, 9–24–63, Cl. 214—140.

Stilling, Niels M. Model making device. 3,100,911, 8–20–63, Cl. 18—5.7.

Stillings, Warner E., to International Business Machines Corp. Slewing motor servosystem with null sensing relay circuit. 3,089,988, 5–14–63, Cl. 318—19.

Stillman, Allyn N.: *See*—
Netzler, Kenneth C., and Stillman. 3,085,917.

Stillman, Jerome L.: *See*—
Scapple, Robert Y., and Stillman. 3,103,454.

Stillwagon, Crawford K. Disc valve with removable seat and unitary stem and disc, and seat and stem bushing unit therefor. 3,100,500, 8–13–63, Cl. 137—375.

Stillwagon, George B., Jr., ½ to K. G. Fraser. Shield for universal joints. 3,111,825, 11–26–63, Cl. 64—32.

Stillwagon, James E., to Aluminum Co. of America. Coating composition comprising microcrystalline wax, polyisobutylene, polyethylene and a resin, and aluminum foil coated therewith. 3,084,128, 4–2–63, Cl. 260—4.

Stillwell, Francis H.: *See*—
Stillwell, William E., Jr. 3,088,593.

Stillwell, John W. Composition and method for cleaning and stripping metals. 3,114,657, 12–17–63, Cl. 134—28.

Stillwell, Robert E., to FMC Corp. Wheel mount for a portable irrigation system. 3,086,798, 4–23–63, Cl. 287—52.04.

Stillwell, Robert E., to FMC Corp. Drive means for a portable irrigation system. 3,088,350, 5–7–63, Cl. 81—90.

Stillwell, Robert E., and R. W. Fitzmaurice, to FMC Corp. Sequential irrigation valve. 3,080,881, 3–12–63, Cl. 137—119.

Stillwell, William E., Jr., deceased; F. H. Stillwell, executrix, to The Murray Corp. of America. Leveling and stabilizing apparatus. 3,088,593, 5–7–63, Cl. 210—134.

Stillwell, William E., Jr., to The Murray Corp. of America. Apparatus for the complete laundering of fabrics. 3,089,327, 5–14–63, Cl. 68—139.

Stillwell, William E., Jr., to Hupp Corp. Fabric laundering machine. 3,102,407, 9–3–63, Cl. 68—17.

Stilz, Walter, H. Pommer, R. Gehm, O. Schmidt, H. Mertens, M. Hehl, and W. Grunwald, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. New derivatives of 1,4-bis-styrylbenzene and optical brightening therewith. 3,076,020, 1–29–63, Cl. 260—475.

Stimmel, Vincent W., to Square D Co. Automatic control for pneumatic counterbalance of mechanical press. 3,115,086, 12–24–63, Cl. 100—48.

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Sussle, Joseph F. 3,092,175.

Stimson, Allen G., to Eastman Kodak Co. Viewfinder indicators for photographic cameras. 3,073,223, 1–15–63, Cl. 95—10.

Stimson, Allen G., to Eastman Kodak Co. Zoom photometric system. 3,091,162, 5–28–63, Cl. 95—10.

Stimson, Allen G., and G. F. Pickens. Photoelectric exposure control in camera. 3,071,055, 1–1–63, Cl. 95—10.

Stimson, Glen H., to United-Greenfield Corp. Surface measurement apparatus and control. 3,090,171, 5–21–63, Cl. 51—165.

Stine, Howard E., Jr.: *See*—
Hammell, Kemper M., and Stine. 3,107,560.

Stine, Ralph M., and J. K. Thoman, to Western Electric Co., Inc. Automatic apparatus for soldering conductors to terminals. 3,110,083, 11–12–63, Cl. 29—33.

Stine, William H., Jr.: *See*—
Matray, Otto J., and Stine. 3,114,192.

Stinsheifer, Harold E., to Bell Telephone Laboratories, Inc. Method of making waveguide. 3,092,896, 6–11–63, Cl. 29—155.5.

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Stinson, Mary L., to Goodman Mfg. Co. Tool for installing troughing roller assemblies. 3,101,192, 8–20–63, Cl. 254—77.

Stipan, Edward. Rope placing apparatus. 3,072,429, 1–8–63, Cl. 294—19.

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Stirling, Harold T., and H. F. Hartzell, Jr., to Koppers Co., Inc. Method and apparatus for moistening dust. 3,089,791, 5–14–63, Cl. 134—18.

Stirling, James. Apparatus for making rope strand. 3,097,472, 7–16–63, Cl. 57—15.

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Stivers, David A., and D. L. Peterson, to Minnesota Mining and Mfg. Co. Scorch resistant, thermally curable polymeric compositions and their curing. 3,116,266, 12–31–63, Cl. 260—45.7.

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Strader, Don S., to The Frank G. Hough Co. Reciprocating hydraulic motor. 3,115,071, 12–24–63, Cl. 92—257.

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Strnad, Frank J., to Link-Belt Speeder Corp. Hydraulic crowd and retarding control systems for trench hoe attachments or the like. 3,073,465, 1–15–63, Cl. 214—140.

Strnad, Josef, and J. Jakl, to Strojosvit, narodni podnik. Device for coating animal hides. 3,099,148, 7–30–63, Cl. 69—28.

Strnadova, Karin: *See*—
Kybal, Jan, Protiva, Strnadova, Stary, and Cekan. 3,110,651.

Strobel, Albert F., and S. C. Catino, to General Aniline & Film Corp. α-cyannocinnamic acid esters. 3,074,971, 1–22–63, Cl. 260—347.4.

Strobel, Albert F., and S. C. Catino, to General Aniline & Film Corp. α-Cyano, 2-alkoxy-1-naphthalene-acrylic acid esters. 3,085,097, 4–9–63, Cl. 260—347.4.

Strobel, Albert F., and S. C. Catino, to General Aniline & Film Corp. New ultra-violet light stabilized compositions, processes for preparing same and uses thereof. 3,111,417, 11–19–63, Cl. 106—195.

Strobel, Charles W.: *See*—
Zelinski, Robert P., and Strobel. 3,108,994.
Zelinski, Robert P., Heleh, and Strobel. 3,109,871.

Stroburg, Clark E. and E. L. Twine tensioner. 3,076,621, 2–5–63, Cl. 242—154.

Stroburg, Clark E. and E. L. Grain deflector and leveler for combines. 3,092,116, 6–4–63, Cl. 130—27.

Stroburg, Eldon L.: *See*—
Stroburg, Clark E. and E. L. 3,076,621.
Stroburg, Clark E. and E. L. 3,092,116.

Strock, Darrell A.: *See*—
Nees, John C., and Strock. 3,112,094.

Stroebel, Hermann, to Richard Hirschmann Radiotechnisches Werk. Small tap-off terminal. 3,090,029, 5–14–63, Cl. 339—255.

Stroh, Rudolf: *See*—
Dietz, Karl, Lorentz, and Stroh. 3,080,253.
Gerber, Hanns, and Stroh. 3,107,261.
Nutzel, Karl, Stroh, Himmen, and Lohmar. 3,080,221.
Oltay, Ernst, and Stroh. 3,086,062.

Strohm, Robert D., F. J. Kraft, and W. M. Kartman, to Lear Siegler, Inc. Method for using plastic end turn cups for potting windings of electric motors. 3,075,250, 1–29–63, Cl. 18—59.

Strohmeier, Clem A., to Master Mfg. Co., Inc. Caster. 3,084,376, 4–9–63, Cl. 16—21.

Strohmeier, Walter, and D. Shansky, to Minneapolis-Honeywell Regulator Co. Electrical pulse producing apparatus. 3,089,035, 5–7–63, Cl. 307—88.

Strojny, Edwin J., and D. E. Keeler, to The Dow Chemical Co. Process for making M-hydroxybenzoates. 3,094,558, 6–18–63, Cl. 260—521.

Strojosvit, narodni podnik: *See*—
Bucek, Adolf. 3,085,421.
Strnad, Josef, and Jakl. 3,099,148.

Strolee of California, Inc.: *See*—
Smith, Paul C., Hyde, and Teague. 3,076,628.

Strom, Albert P., to Westinghouse Electric Corp. Circuit interrupters. 3,075,060, 1–22–63, Cl. 200—148.

Strom, Albert P., and W. H. Fischer, to Westinghouse Electric Corp. Hydraulically operated circuit breaker. 3,110,783, 11–12–63, Cl. 200—82.

Strom, Robert S.: *See*—
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Stromag G.m.b.H., Maschinenfabrik: *See*—
Schlotmann, Karl. 3,095,714.

Stromberg, Clinton V., to Borg-Warner Corp. Vibration dampeners. 3,101,600, 8–27–63, Cl. 64—27.

Stromberg, Nils E. Bundle binding machine. 3,099,204, 7–30–63, Cl. 100—28.

Strömberg, Nils E., and G. Jorfeldt. Wrapper folding apparatus. 3,078,633, 2–26–63, Cl. 53—378.

Stromberg, Olof E. E. Auxiliary control for automobile brakes. 3,076,313, 2–5–63, Cl. 60—54.5.

Stromberg, Olof E. E. Auxiliary control for automobile brakes. 3,076,314, 2–5–63, Cl. 60—54.5.

Stromberg, Olof E. E. Surge brake operating mechanism for trailers and the like. 3,080,949, 3–12–63, Cl. 188—112.

Strome, Thomas H., to Continental Can Co., Inc. Method of bonding polyethylene to corona discharge treated polyethylene terephthalate. 3,081,214, 3–12–63, Cl. 156—272.

Stromeyer, Charles F., ⅓ to G. F. Ropes. Process for conditioning carbonaceous material. 3,092,471, 6–4–63, Cl. 34—10.

Strommer, John A.: *See*—
Elchorn, Roger H., and Strommer. 3,099,856.

Strong, Allen K., to American Cyanamid Co. Lifting sling. 3,105,600, 10–1–63, Cl. 214—10.5.

Strong, Bernard, to **E. Shipton & Co. Ltd.** Manufacture of hollow articles from organic plastic materials. 3,075,-239, 1-29-63, Cl. 18—5.

Strong-Cobb-Arner Co. Inc.: *See*—
Gaunt, William E., and Tansey. 3,101,293.
Ulicky, Paul, and Kslonzak. 3,091,067.

Strong, Douglas H.: *See*—
Cerness, Joseph F., and Strong. 3,096,565.

Strong, Edward B.: *See*—
Miller, Warren S., and Strong. 3,109,179.

Strong Electric Corp., The: *See*—
Chellis, Fred F., Glaser, and Ayling. 3,103,574.
Hatch, Arthur J. 3,104,066.

Strong, Grant H., and M. L. Faught, to United States of America, Atomic Energy Commission. Logic circuit. 3,115,451, 12-24-63, Cl. 204—193.2.

Strong, Herbert M., to **General Electric Co.** Two-terminal end cap for high pressure, high temperature reaction vessels. 3,088,170, 5-7-63, Cl. 18—16.5.

Strong, Michael D., to **Dorr-Oliver Inc.** Treatment of unbleached cellulose pulps. 3,074,842, 1-22-63, Cl. 162—66.

Strong, Richard V. D., to **F. J. Stokes Corp.** Vacuum coating apparatus. 3,086,496, 4-23-63, Cl. 118—49.

Strong, Richard V. D., to **F. J. Stokes Corp.** Method and apparatus for coating a continuous sheet of material. 3,086,889, 4-23-63, Cl. 117—227.

Strong-Scott Mfg. Co., The: *See*—
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Langsetmo, Peder K. 3,074,293.

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Jones, Llewellyn. 3,085,694.

Stronstorff, Albert H., and J. B. Arpin, Jr. Fruit juicing, storing and dispensing apparatus. 3,073,237, 1-15-63, Cl. 100—108.

Stroop, John H., to **Crompton & Knowles Corp.** Feed mechanism for strip package machine. 3,077,063, 2-12-63, Cl. 53—180.

Stropki, George T.: *See*—
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Strotmann, Werner: *See*—
Esser, Heinrich, and Strotmann. 3,100,409.

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Stroup, Earl L., and D. P. Jones, to **Overhead Door Corp.** Upwardly acting door assembly. 3,090,427, 5-21-63, Cl. 160—40.

Stroup, Robert C.: *See*—
Carter, Morris B., Stroup, Vadla, and McGhee. 3,092,437.

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Fox, Thomas G., Jr., Goode, and Stroupe. 3,103,503.

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Yablonski, Leon, and Strouse. 3,075,746.

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Strout, Raymond D., and L. W. Staples, to **Saginaw Wire Products, Inc.** Springs for seats and backs. 3,081,076, 3-12-63, Cl. 267—107.

Strube, Richard E., to **The Upjohn Co.** Substituted and unsubstituted salicylanilide N-lower aliphatic carbonator. 3,091,633, 5-28-63, Cl. 260—480.

Struben, Francis L., ½ to **J. C. Struben.** Trailer awning. 3,084,479, 4-9-63, Cl. 50—58.

Struben, Jean C.: *See*—
Struben, Francis L. 3,084,479.

Struble, Albert, and M. L. Moffitt, Jr. Head rest cover. 3,113,803, 12-10-63, Cl. 297—220.

Struble, Arthur D., Jr. Variable volume balloon. 3,110,457, 11-12-63, Cl. 244—31.

Struble, Arthur D., Jr. Balloon. 3,113,748, 12-10-63, Cl. 244—31.

Struble, Glenn E., to **Diamond National Corp.** Collapsible paperboard spool. 3,104,077, 9-17-63, Cl. 242—118.8.

Strubler, Gordon. Device for agglomerating microscopic particles. 3,110,580, 11-12-63, Cl. 55—120.

Struck, Charles W. Short luminescence delay time phosphors. 3,104,226, 9-17-63, Cl. 252—301.4.

Structural Clay Products Research Foundation: *See*—
Allen, Malcolm H., Balinski, Garton, Hubbard, and Olson. 3,101,184.

Structural Fibers, Inc.: *See*—
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Strufe, Reimer, E. Schraufstatter, and R. Gonnert, to **Farbenfabriken Bayer Aktiengesellschaft.** Alkanolamine salts of salicyl anilides and process for their production. 3,113,067, 12-3-63, Cl. 167—30.

Strugala, Alfred, W. Sporenberg, and H. Schmidt, to **Wagner & Co., Werkzeugmaschinen m.b.H.** Forging press. 3,105,-399, 10-1-63, Cl. 78—96.

Struger, Odo J.: *See*—
Moser, Joseph R., and Struger. 3,114,870.

Struijk, Antony A. Pot burners. 3,089,537, 5-14-63, Cl. 158—91.

Struijs, Louis C., to **Exploitatiemaatschappij "Elkabe," N.V.** Control of nematodes with the aid of alkali and alkaline earth metal formates. 3,109,771, 11-5-63, Cl. 167—22.

Strull, Gene: *See*—
Szikiai, George C., and Strull. 3,097,336.

Strull, Gene, to **Westinghouse Electric Corp.** Pulse generator. 3,089,967, 5-14-63, Cl. 307—88.5.

Strully, Leonard V. Composition of matter and process for the control of drug resistant micro-organisms. 3,075,879, 1-29-63, Cl. 167—65.

Strumor, Mathew A. Advertising letter and reply member. 3,083,486, 4-2-63, Cl. 40—65.

Strumpf, Richard. Fishing clip. 3,077,048, 2-12-63, Cl. 43—43.12.

Strumwasser, Eric: *See*—
Berk, Aristid D., and Strumwasser. 3,099,805.

Strunck, H., & Co.: *See*—
Pechmann, Wilhelm. 3,090,296.

Strunck, H., & Co., Maschinenfabrik: *See*—
Fischer, Andreas, and G. and H. Kaiser. 3,083,683.

Strunk, Justin R. Golf practice device. 3,107,920, 10-22-63, Cl. 273—186.

Strunk, Warren L.: *See*—
Christensen, Lars N., and Strunk. 3,074,656.

Struthers-Dunn, Inc.: *See*—
Marley, James E. 3,106,625.

Struthers, Ralph C.: *See*—
Allemann, Ray S., Baker, Daniel, and Struthers. 3,108,-211.

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Svanoe, Hans. 3,098,734.

Strycker, Stanley J., to **The Dow Chemical Co.** 2-acyl-oxophenoxathiins. 3,072,675, 1-8-63, Cl. 260—327.

Strycker, Stanley J., to **The Dow Chemical Co.** Phenoxarsinyl-phosphonates. 3,108,129, 10-22-63, Cl. 260—440.

Stryker, Edwin M., Jr., to **Collins Radio Co.** Automatic direction finder system. 3,099,009, 7-23-63, Cl. 343—119.

Strzalkowski, Charles W. Eyeglass hearing aid and method of manufacture. 3,091,020, 5-28-63, Cl. 29—20.

Strzoda, Joseph J., to **Ram Tool Corp.** Sickle bar grinder. 3,088,248, 5-7-63, Cl. 51—98.

Stuart, Alfred A., to **United States of America, Navy.** Multicurve graph reader. 3,079,072, 22-26-63, Cl. 235—58.

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Suid, George, and Stuart. 3,100,036.
Thompson, William E., Stuart, and Jezl. 3,107,236.
Voltz, Sterling E., Griffin, and Stuart. 3,080,432.

Stuart, Charles J., and W. K. McGinty, to **Thomas Industries Inc.** Recessed lighting fixture. 3,104,833, 9-24-63, Cl. 240—78.

Stuart, Frank A.: *See*—
Goldschmidt, Alfred, and Stuart. 3,095,402.

Stuart, Frank A., W. T. Stewart, W. Lowe, and F. W. Kavanagh, to **California Research Corp.** Copolymers of olefins with sulfonyloxy compounds. 3,073,807, 1-15-63, Cl. 260—79.3.

Stuart, Frank A., and C. D. Gordon, to **California Research Corp.** Lubricants containing lead dithiophosphates. 3,081,-261, 3-12-63, Cl. 252—32.7.

Stuart, Frank A., W. T. Stewart, W. Lowe, and F. W. Kavanagh, to **California Research Corp.** Detergent polyesters. 3,083,187, 3-26-63, Cl. 260—75.

Stuart, Frank A., W. T. Stewart, W. Lowe, and F. W. Kavanagh, to **California Research Corp.** Detergent condensation polymers. 3,083,188, 3-26-63, Cl. 260—78.

Stuart, Frank A., and A. Goldschmidt, to **California Research Corp.** Lubricant composition. 3,114,711, 12-17-63, Cl. 252—32.7.

Stuart, James N. Record cabinet. 3,084,983, 4-9-63, Cl. 312—13.

Stuart, James W.: *See*—
Fowler, Max J., Smith, Stuart, and Nagel. 3,086,348.

Stuart, Joseph, III: *See*—
Matteson, Frederick H., and Stuart. 3,107,882.

Stuart, Joseph, III, to **The Electric Auto-Lite Company.** Control system for interconnected propellers. 3,107,881, 10-22-63, Cl. 244—7.

Stuart, Robert W., Jr., to **Computer Control Co., Inc.** Indicating counter. 3,109,928, 11-5-63, Cl. 235—92.

Stuart, Russell A.: *See*—
Wright, William L., and Stuart. 3,107,324.

Stuart, Sidney A., to **United Kingdom Atomic Energy Authority.** Servosystem for regulating magnetic fields. 3,089,-068, 5-7-63, Cl. 318—28.

Stuart, William G.: *See*—
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Stubbins, Hugh, and Associates, Inc.: *See*—
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Stubblefield, Thomas A., ⅛ to **J. F. Brooks**, and ⅛ to **J. H. Hancock.** Drapery supporting and pleating apparatus, 3,090,431, 5-21-63, Cl. 160—345.

Stubbs, Allan H. Apparatus for prestressed concrete construction. 3,089,215, 5-14-63, Cl. 25—118.

Stubler, Earl W. Drink mixer attachment. Re. 25,490, 11-26-63, Cl. 259—122.

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Stuchbery, Arthur L., to **The Metal Box Co. Ltd.** Manufacture of hollow articles. 3,084,382, 4-9-63, Cl. 18—5.

Stuchbery, Arthur L., and J. Franek, to **The Metal Box Co. Ltd.** Manufacture of cans. 3,083,663, 4-2-63, Cl. 113—121.

Stuchbery, Arthur L., and J. Franek, to **The Metal Box Co. Ltd.** Reading thin metal cylinders. 3,089,533, 5-14-63, Cl. 153—70.

Stuchbery, Arthur L., and F. D. Brookes, to **The Metal Box Co. Ltd.** Can body-making apparatus. 3,094,092, 6-18-63, Cl. 113—115.

Stuchbery, Arthur L., and J. E. Cook, to **The Metal Box Co. Ltd.** Drying liquid-coated thin metal coil stock. 3,098,-725, 7-23-63, Cl. 34—13.

Stucka, Edward P., to **Minneapolis-Honeywell Regulator Co.** Pneumatic thermostat with pressure compensated valving. 3,100,079, 8-6-63, Cl. 236—87.

Stucke, Charles G., to **Garlock Inc.** Expansion-compensating sealing device. 3,084,944, 4-9-63, Cl. 277—26.

Stuckens, Leo J., to **American Photocopy Equipment Co.** Sheet separating device. 3,112,920, 12-3-63, Cl. 271—64.

Stucker, Richard O.: *See*—
Boyer, Thomas W., Stucker, and Ries. 3,099,650.

Stuckert, Robert H., to **Crown Zellerbach Corp.** Spacer insert in a container. 3,107,780, 10-22-63, Cl. 206—46.

Stuckey, Albert D. C., to **The Cincinnati Milling Machine Co.** Precision grinding machine. 3,109,263, 11-5-63, Cl. 51—100.

Stucki, Frank F., to **Lockheed Aircraft Corp.** Tunnel diode switched to low-state by discharging capacitor, pulse sensing device charged by coincidently applied high-state producing inputs. 3,096,449, 7-2-63, Cl. 307—88.5.

Studebaker Corp.: *See*—
Dawkins, Kenneth. 3,098,188.
Pugh, Merlin L. 3,101,227.
Turner, Arthur A. 3,092,018.
Warnken, Elmer P. 3,081,705.
Warnken, Elmer P. 3,095,138.
Warnken, Elmer P. 3,115,988.

Studebaker-Packard Corp.: *See*—
Nemeth, John K. 3,075,605.
Warnken, Elmer P. 3,070,844.
Warnken, Elmer P. 3,077,002.
Warnken, Elmer P. 3,095,156.

Studer, Lewis O.: *See*—
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Studer, Lewis O., to **The Bauer Mfg. Co.** Ladder leveling apparatus. 3,083,788, 4-2-63, Cl. 182—205.

Studer, Philip A.: *See*—
Van Zyl, Bernard, and Studer. 3,101,002.

Studer, Richard R.: *See*—
Kirkpatrick, James S., and Studer. 3,103,294.

Studer, Victor V.: *See*—
Mitchell, William A., and Studer. 3,077,411.

Studer, Walter, to **Brac AG.** Guarantee closure. 3,112,838, 12-3-63, Cl. 215—41.

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Koster, Roland. 3,087,953.
Köster, Roland. 3,092,648.
Koster, Roland. 3,111,372.
Koster, Roland, Bruno, and Lehmkuhl. 3,097,066.
Koster, Roland, and Larbig. 3,100,219.
Schneider, Kurt, and Schnell. 3,076,045.
Wilke, Günther. 3,088,985.
Wilke, Günther, Müller, and Stedefeder. 3,076,038.

Studio Gesellschaft fur Industrie- und Modephotographie: *See*—
Von Stwolinski, Helmuth. 3,080,806.

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Stuebe, Carl W.: *See*—
Le Suer, William M., and Stuebe. 3,084,203.

Stueck, David D.: *See*—
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Stuerzl, Henry C., and H. D. Wright, to **General Motors Corp.** Laminated panel device having electroluminscent indicating areas. 3,110,882, 11-12-63, Cl. 340—52.

Stuessel, John K., to **Flexiflor Electrical Systems, Inc.** Wiring ducts. 3,091,657, 5-28-63, Cl. 174—68.

Stuessel, John K., and G. K. Segerlund, to **Flexiflor Electrical Systems, Inc.** Adapter for use in an access passage for electrical wiring systems. 3,115,539, 12-24-63, Cl. 174—48.

Stuffing Equipment Corp.: *See*—
Bavers, Elliott. 3,099,407.

Stuhl, Arthur H.: *See*—
Anetsberger, Frank A., Winterfeldt, and Stuhl. 3,115,-084.

Stuhldreher, Earl D., to **Triangle Mold & Machine Co., Inc.** Die block holder. 3,075,416, 1-29-63, Cl. 78—44.

Stuijts, Andreas L., to **North American Philips Co., Inc.** Method of manufacturing monocrystalline bodies. 3,102,-099, 8-27-63, Cl. 252—62.5.

Stukane, Michael M.: *See*—
Baxter, Thomas R., and Stukane. 3,081,003.

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Eckhardt, Wolfgang. 3,079,006.

Stull, Morton B. Turn-to-open tamper-proof closure for containers. 3,081,011, 3-12-63, Cl. 222—541.

Stull, Morton B. Roll-on dispensing cap. 3,103,691, 9-17-63, Cl. 15—572.

Stull, Morton B. Multi-position snap cap for containers. 3,113,693, 12-10-63, Cl. 220—60.

Stults, John O., to **Dayton Machine Tool Co.** Perforating apparatus. 3,087,366, 4-30-63, Cl. 83—145.

Stultz, Posy G., Jr.: *See*—
Phillips, Clifford F., and Stultz. 3,103,063.

Stulz, Albert: *See*—
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Stummer, Wilfried. Device for translating axial motion into swinging motion. 3,097,750, 7-16-63, Cl. 212—66.

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Stump, Eugen, to **Daimler-Benz Aktiengesellschaft.** Cylinder liner construction particularly for internal combustion engines. 3,073,290, 1-15-63, Cl. 123—41.69.

Stump, Eugen, to **Daimler-Benz Aktiengesellschaft.** Steering arrangement for automotive vehicles. 3,073,616, 1-15-63, Cl. 280—95.

Stump, Eugen, to **Daimler-Benz Aktiengesellschaft.** Transmission. 3,090,254, 5-21-63, Cl. 74—710.5.

Stump, Fred, to **White Sewing Machine Corp.** Thermostatic valve. 3,075,704, 1-29-63, Cl. 236—66.

Stump, Harry B., to **True Temper Corp.** Hand tools. 3,090,-653, 5-21-63, Cl. 306—33.

Stump, Homer C. Carpet fastener with contouring surface. 3,092,869, 6-11-63, Cl. 16—7.

Stump, Joseph H., Jr., and O. G. Wilson, to **Newport Industries Co.** Method of making a glycol from an ocimene peroxide. 3,088,981, 5-7-63, Cl. 260—635.

Stump, Paul W., to **The Cleveland Container Corp.** Fluid container. 3,072,312, 1-8-63, Cl. 229—3.1.

Stump, Paul W., to **The Cleveland Container Co.** Container. 3,113,714, 12-10-63, Cl. 229—51.

Stumpers, Frans L. H. M.: *See*—
Van Hurck, Nicolaas, and Stumpers. 3,087,993.

Stumpf, Hans-Rainer: *See*—
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Stumph, Richard V., and H. A. Williamson, to **General Motors Corp.** Detachable core pin with elongated hollow space. 3,075,265, 1-29-63, Cl. 22—152.

Stupar, Wesley E., to **General Precision, Inc.** Analogue-to-digital converter. 3,111,660, 11-19-63, Cl. 340—347.

Stupfel, Clifford L., to **Crown Zellerbach Corp.** Sawmill lumber sorting apparatus. 3,101,754, 8-27-63, Cl. 143—157.

Stupfel, Clifford L., and E. H. McClane, to **Crown Zellerbach Corp.** Lumber edging and separating apparatus. 3,101,-755, 8-27-63, Cl. 143—157.

Stuppy, Mark L., to **F. B. Leopold Co., Inc.** Filter bottom. 3,110,667, 11-12-63, Cl. 210—275.

Sturdevant Mfg. Corp.: *See*—
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Sturla, Peter L., to **Sperry Rand Corp.** Hay baler. 3,082,-684, 3-26-63, Cl. 100—142.

Sturm, Bernard J., to **United States of America, Atomic Energy Commission.** Method for preparation of sinterable beryllium oxide. 3,100,686, 8-13-63, Cl. 23—183.

Sturm, Edward L.: *See*—
Horton, William H., Sturm, and Michatek. 3,081,683.

Sturm, Justin. Temperature sensing device. 3,105,229, 9-24-63, Cl. 340—227.

Sturm, Ronald E.: *See*—
Ryan, Matthew G., Webb, Sturm, and Lindsay. 3,082,-609.

Sturm & Scheinberg, Inc.: *See*—
Garfinkel, Julius. 3,077,197.

Sturni, Walter, to **Quarzlampen Gesellschaft m.b.H.** Remote control apparatus for moving an operating lamp. 3,110,-815, 11-12-63, Cl. 250—217.

Sturmberg, Paul, to **Bochumer Verein fur Gusstahlfabrikation Aktiengesellschaft.** Device for the drilling of steel plant ingot molds. 3,110,200, 11-12-63, Cl. 77—61.

Sturrock, Donald G., ½ to **Graviner Mfg. Co. Ltd.**, and ½ to **Wilkinson Sword Ltd.** Missile fuzes. 3,078,802, 2-26-63, Cl. 102—72.

Sturrock, Murray G., E. L. Cline, and K. R. Robinson; said Robinson assor. to **Koppers Co., Inc.** Process for preparing 3,8-dihydroxy-4,5,6,7-benzo-1,2-dioxacyclooctane. 3,091,620, 5-28-63, Cl. 260—340.3.

Sturrock, Peter A., to **Varian Associates.** Adiabatic beam condenser method and apparatus. 3,102,211, 8-27-63, Cl. 313—84.

Sturtevant Mill Co.: *See*—
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Sturzinger, Oskar: *See*—
Hagelin, Boris C. W., and Sturzinger. 3,083,263.

Stutrud, Theodore O.: *See*—
Martin, John C., Brubaker, Bullock, and Stutrud. 3,091,-108.

Stutsman, Paul W., to **Raytheon Co.** Gaseous discharge indicator devices. 3,114,860, 12-17-63, Cl. 315—169.

Stuttgarter Karosserlewerk Reutter & Co. G.m.b.H.: *See*—
Belerbach, Walter, Heinl, Strien, and Von Sass. 3,099,-485.

Stutts, Joseph W.: *See*—
Gaunt, John A., and Stutts. 3,107,245.

Stutz, Richard G., to **United Aircraft Corp.** Compound helicopter. 3,105,659, 10-1-63, Cl. 244—7.

Stutz, Sherla L., to **United States of America, Air Force.** Direction finding antenna. 3,093,828, 6-11-63, Cl. 343—118.

Stutzke, Robert E., and A. B. Cox, to **Vermont American Corp.** Sheet metal file. 3,077,024, 2-12-63, Cl. 29—78.

Stutzke, Robert E., and A. B. Cox, to **Vermont American Corp.** Apparatus for making sheet metal files. 3,077,126, 2-12-63, Cl. 76—12.

Stutzke, Robert E., and A. B. Cox, to Vermont American Corp. Method of making sheet metal files. 3,077,127, 2–12–63, Cl. 76—24.

Stuver, Paul M. Fluid motor. 3,090,363, 5–21–63, Cl. 121—121.

Style-Crafters, Inc.: *See*—
Martin, Clarence B., Jr. 3,094,725.

Styler, John M., to Potlatch Forests, Inc. Automatic bottom hexagonal carton. 3,101,167, 8–20–63, Cl. 229—41.

Stylls, Stanley C.: *See*—
Strazdins, Atis, and Stylls. 3,101,712.

Styner & Bienz A.G.: *See*—
Styner, Rudolf. 3,088,357.

Styner, Rudolf, to Styner & Bienz A.G. Apparatus for cutting to size photographic pictures. 3,088,357, 5–7–63, Cl. 83—247.

Stypulkowski, Walter C., and K. C. Jacobs, to Aeronad Electronic Corp. Air rescue transmission apparatus. 3,102,982, 9–3–63, Cl. 325—112.

Styra, Gerd A., to I. Behrens. Frames, specifically window-frames, door-frames, and kindred frames, as well as apparatus and processes for the manufacture thereof. 3,087,207, 4–30–63, Cl. 20—11.

Süberkrüb, Franz. Otter boards for trawl nets. 3,079,720, 3–5–63, Cl. 43—9.

Subilia, Maurice H.: *See*—
Rose, Frank L., and Subilia. 3,075,199.

Subklew, Hermann, to Berkley Machine Co. Roll changing apparatus. 3,085,762, 4–16–63, Cl. 242—58.

Sublett, C. C., Jr.: *See*—
Mallard, James R. 3,078,879.

Submarine Cables, Ltd.: *See*—
Cooke, Edward L., and Donelan. 3,095,643.
Oswald, Thomas. 3,089,004.

Submarine Trenching, Inc.: *See*—
Popich, Nicholas P. 3,103,790.

Submerged Combustion, Inc.: *See*—
Heinze, Robert V. 3,104,650.
Rogers, Gail C., and Williams. 3,080,302.

Suburban Appliance Co.: *See*—
Vaughn, Charles O. 3,101,897.

Sucha, Joseph: *See*—
Van Sickle, Roswell C., Florschutz, and Sucha. 3,082,355.

Sucher, Joseph R., to Emsig Mfg. Co. Process for compression molding embossed articles. 3,075,249, 1–29–63, Cl. 18—55.

Sucker G.m.b.H., Gebruder: *See*—
Kabelitz, Hans, Lennartz, and Bongartz. 3,074,178.

Suckling, Charles W., and J. Raventos, to Imperial Chemical Industries Ltd. Anaesthetic 1:1:1:3:3:3-hexafluoro-2-halopropane. 3,097,133, 7–9–63, Cl. 167—52.

Sucro, Jost S.: *See*—
Armentrout, Everett C., and Sucro. 3,113,818.

Suda, Teruo, and S. Miyazaki, ¼ to Air Reduction Co. Inc., and ¾ to Kurashiki Rayon Co., Ltd. Method for preparing polyvinyl alcohol fibers employing wet spinning techniques. 3,091,509, 5–28–63, Cl. 18—54.

Sudarsky, Jerry M., and R. A. Fisher, to Bioferm Corp. Yeast-bioflavonoid composition and process of producing the same. 3,112,248, 11–26–63, Cl. 195—16.

Sud-Atlas Werke: *See*—
Ernst, Richard, and Albrecht. 3,086,086.

Sud-Aviation Societe Nationale de Constructions Aeronautiques: *See*—
André, Joseph G. E., and Rech. 3,097,484.
Martin, Georges J. R. 3,085,196.
Negroni, Pierre. 3,103,977.

Suddarth, Jack M., to Coburn Mfg. Co., Inc. Lens de-blocking device. 3,091,062, 5–28–63, Cl. 51—277.

Suddeutsche Kalkstickstoff-Werke A.G.: *See*—
Fischer, Thomas, and Knoblauch. 3,093,454.
Kaess, Franz, Vogel, and Bauer. 3,094,412.
Röck, Heinrich. 3,092,460.

Suddeutsche Kuhlerfabrik Julius Fr. Behr: *See*—
Adamek, Karl-Heinz. 3,079,509.

Sudeck, Norman H.: *See*—
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Suderow, George E., to Delong Corp. Mobile apparatus for placing and driving marine piling or the like. 3,107,496, 10–22–63, Cl. 61—46.5.

Sudman, Charles F., to The Goodyear Tire & Rubber Co. Seat cushion and method of making same. 3,081,077, 3–12–63, Cl. 267—111.

Sudmeier, Gustav H. Compressor apparatus. 3,080,495, 3–5–63, Cl. 310—104.

Sudmeier, Gustav H. Temperature-stabilized plumbing system. 3,089,514, 5–14–63, Cl. 137—563.

Sudo, Kazuhiko: *See*—
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Sudrabin, Leon P., to Electro Rust-Proofing Corp. Cathodic protection of metal surfaces exposed to aqueous liquid. 3,074,862, 1–22–63, Cl. 204—147.

Sudrow, Lyle K. V., to Helipod, Inc. Ducted rotor with pressure balancing and lift augmenting means. 3,101,917, 8–27–63, Cl. 244—23.

Sudrow, Lyle K. V., to Helipod, Inc. Stabilizing and forward thrust augmenting means for rotor sustained aircraft. 3,106,370, 10–8–63, Cl. 244—17.19.

Sudrow, Lyle K. V., to Helipod, Inc. Forward thrust means for ducted rotor sustained aircraft. 3,108,764, 10–29–63, Cl. 244—23.

Sued-West-Chemie G.m.b.H.: *See*—
Von Riegen, Johannes, and Bauer. 3,094,452.

Suen, Tzeng J., and M. T. Burgess, to American Cyanamid Co. Composition comprising a polymethyl ether of a polymethylol melamine and an amine salt of a copolymer of an unsaturated monocarboxylic acid and an alkyl ester of such an acid. 3,107,227, 10–15–63, Cl. 260—45.2.

Suessle, Joseph F., to Edwin B. Stimpson Co., Inc. Fastening device. 3,092,175, 6–4–63, Cl. 160—390.

Suetsugu, Kenji, to Sony Corp. Magnetic tape recorder. 3,107,280, 10–15–63, Cl. 179—100.2.

Sugar Chemical Co. Etablissement: *See*—
Moebes, Erich. 3,090,707.

Sugarman, Edward, and C. F. Cable. Pipe hanger. 3,110,465, 11–12–63, Cl. 248—74.

Sugarman, Meyer L., Jr., to American Photocopy Equipment Co. Electrophotographic photocopy machine. 3,088,386, 5–7–63, Cl. 95—1.7.

Sugg, John W.: *See*—
Hall, Lewis D., and Sugg. 3,112,864.

Suggs, Thomas F.: *See*—
Freese, William L., Cocker, and Suggs. 3,076,724.
Rosenstein, Abraham J. and R. N., and Suggs. 3,101,521.

Suggs, Thomas F., to Cocker Machine & Foundry Co. Textile treating apparatus. 3,070,898, 1–1–63, Cl. 34—87.

Suggs, Thomas F., to Cocker Machine & Foundry Co. Textile treating apparatus. 3,110,169, 11–12–63, Cl. 68—5.

Suggs, Thomas F., G. H. Browne, and L. R. Brumby, to Cocker Machine & Foundry Co. Textile packaging and handling apparatus. 3,081,511, 3–19–63, Cl. 28—21.

Sugihara, Takashi F.: *See*—
Kline, Leo, Meehan, and Sugihara. 3,115,413.

Sugimura, Kazuo. Protecting apparatus for gas reservoir of oil accumulator. 3,082,793, 3–26–63, Cl. 138—30.

Sugino, Kiichiro, and K. Shiral, to Nippon Carbide Industries Co., Ltd. Manufacturing process for melamine. 3,073,825, 1–15–63, Cl. 260—249.7.

Suhovecky, Albert J.: *See*—
Beaver, David J., Jaworski, and Suhovecky. 3,085,043.

Suhr, Fred W.: *See*—
Goss, Wesley R., and Suhr. 3,088,044.

Suhr, Robert N., and R. M. Goodman, Jr., to Pioneer Heddle and Reed Co., Inc. Loom harness. 3,096,793, 7–9–63, Cl. 139—92.

Suhrmann, Robert, to North American Philips Co., Inc. Automatic brightness and contrast control circuit. 3,112,424, 11–26–63, Cl. 315—10.

Suigussaar, Vello: *See*—
Bushman, Stephen F., and Suigussaar. 3,085,486.

Suits, Chauncey G., to General Electric Co. Flash apparatus. 3,106,080, 10–8–63, Cl. 67—31.

Suits, Elva F. U.: *See*—
Suits, Irvin U., and Thompson. 3,104,547.

Suits, Franklin H., Sr.: *See*—
Suits, Irvin U., and Thompson. 3,104,547.

Suits, Irvin U., and D. J. Thompson, 30% to F. H. Suits, Sr., and E. F. U. Suits, jointly, and of 10% to H. R. Bauer. Air speed indicator. 3,104,547, 9–24–63, Cl. 73—181.

Sukai, Kiyoshi: *See*—
Nagata, Hirofumi, Takikawa, Kurioka, and Sukai. 3,112,161.

Sukala, Justin G., Jr. Pay-off reel adapter. 3,106,362, 10–8–63, Cl. 242—68.

Sukala, Justin G., Jr. Arrowhead cover. 3,110,336, 11–12–63, Cl. 150—52.

Sukala, Justin G., Jr. Magnetically mounted resilient bumper protector. 3,110,516, 11–12–63, Cl. 293—65.

Sukoff, Louis: *See*—
Werwin, Charles D., and Sukoff. 3,102,635.

Suld, George, and A. P. Stuart, to Sun Oil Co. Isomerization of dimethylnaphthalenes. 3,109,036, 10–29–63, Cl. 260—668.

Suleski, Anthony C.: *See*—
Bedson, Donald E., Di Nuzzo, and Suleski. 3,102,213.

Sulfio, Inc.: *See*—
Lange, Alfred R. 3,102,095.

Sulkie, Thomas A. Rubber stamp device. 3,090,304, 5–21–63, Cl. 101—333.

Sulkoske, Thomas C.: *See*—
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Sullivan, Arthur M., to Lamkin Leather Co. Slip-on handle grip. 3,087,729, 4–30–63, Cl. 273—81.5.

Sullivan, Daryl D.: *See*—
Crosby, William F., and Sullivan. 3,112,893.
Dorman, William H., and Sullivan. 3,113,730.

Sullivan, Edward J.: *See*—
Lesinski, Chester A., and Sullivan. 3,085,853.

Sullivan, Edward J., ½ to M. M. Hanson. Fire-fighting system and apparatus. 3,104,720, 9–24–63, Cl. 169—25.

Sullivan, Edward M., and W. A. Boucher, to The Electro-Temp Corp. Heating and/or cooling system. 3,105,137, 9–24–63, Cl. 219—40.

Sullivan, Edward M., E. W. Wise, and F. P. Reding, to Union Carbide Corp. Solid poly(3,3,3-trifluoropropene). 3,110,705, 11–12–63, Cl. 260—92.1.

Sullivan, Edward W. Method and means for aging alcoholic beverages. 3,083,098, 3–26–63, Cl. 99—48.

Sullivan, Elbert P., Jr.: *See*—
Rumbel, Keith E., Burton, and Sullivan. 3,082,659.

Sullivan, Gregory B.: *See*—
McElvenny, Robert T., Snyder, and Sullivan. 3,115,138.

Sullivan, Herbert D., B. L. Bledsoe, and C. G. Barfield, to International Harvester Co. Knotter hook for balers. 3,101,963, 8–27–63, Cl. 289—11.

Sullivan, Hubert C., and R. W. Prichard, to Plasmadyne Corp. High-temperature spray apparatus. 3,114,826, 12–17–63, Cl. 219—76.

Sullivan, James D., to A. O. Smith Corp. Vitreous enamel-coated ferrous article and method of making the same. 3,098,758, 7–23–63, Cl. 117—70.

Sullivan, John F.: *See*—
Alexander, Ben, and Sullivan. 3,104,377.

Sullivan, John H.: *See*—
Gaudin, Antoine M., Spedden, and Sullivan. 3,094,485.

Sullivan, Lawrence J. Disposable, collapsible urinal. 3,099,017, 7–30–63, Cl. 4—110.

Sullivan, Leo P., to Consolidated Engineering Service, Inc. Coiled wire nut fastener and conductor. 3,074,046, 1–15–63, Cl. 339—256.

Sullivan, Leo S., Jr., to General Motors Corp. Bearing structure and method of manufacture therefor. 3,097,060, 7–9–63, Cl. 18—59.

Sullivan, Melvin. Screw driver for bending wire. 3,095,912, 7–2–63, Cl. 140—124.

Sullivan, Miles V., to Bell Telephone Laboratories, Inc. Process for electropolishing semiconductor surfaces. 3,073,764, 1–15–63, Cl. 204—140.5.

Sullivan, Norman M., to The Alvey-Ferguson Co. Conveyor stop. 3,104,749, 9–24–63, Cl. 193—35.

Sullivan, Philip W.: *See*—
Shannon, Richard F., and Sullivan. 3,081,269.

Sullivan, Raymond F., to Preformed Line Products Co. Appliance for linear bodies. 3,089,567, 5–14–63, Cl. 189—31.5.

Sullivan, Richard A.: *See*—
Parker, Herbert E., Sullivan, and Whipple. 3,076,230.

Sullivan, Robert H., to E. I. du Pont de Nemours and Co. Process for the preparation of trans, cis, trans-1,2,4-tricarboxy-cis-3-carboxymethylcyclopentane. 3,080,418, 3–5–63, Cl. 260—514.

Sullivan, Robert H., to E. I. du Pont de Nemours and Co. Resolution of racemic aminoisopropanol. 3,116,332, 12–31–63, Cl. 260—584.

Sullivan, Robert L., to Weyerhaeuser Co. Safety device for saws. 3,101,104, 8–20–63, Cl. 143—159.

Sullivan, Robert T., to Polaroid Corp. Folding camera. 3,091,163, 5–28–63, Cl. 95—40.

Sullivan, Russell C.: *See*—
Koenig, Herbert, and Sullivan. 3,071,222.

Sullivan, Timothy J., to Sullivan Valve and Engineering Co. Two-stage valve having floating switches. 3,112,876, 12–3–63, Cl. 237—1.

Sullivan Valve and Engineering Co.: *See*—
Schrader, Harold D. 3,105,541.
Sullivan, Timothy J. 3,112,876.

Sullivan, Warren W., to Electro-Mechanical Research, Inc. Position sensing apparatus. 3,113,300, 12–3–63, Cl. 340—347.

Sullivan, Wilbur M., and L. A. Carlson, to Union Carbide Corp. Aqueous polyvinylacetate compositions producing hammer effect coating. 3,080,332, 3–5–63, Cl. 260—29.6.

Sullivan, Wilbur M., and L. A. Carlson, to Union Carbide Corp. Latex coating compositions. 3,092,601, 6–4–63, Cl. 260—29.6.

Sullivan, William J.: *See*—
Morris, Rupert C., and Sullivan. 3,081,335.

Sullivan, William J., to Shell Oil Co. Hydroxyalkanal sulfonates. 3,093,682, 6–11–63, Cl. 260—513.

Sullivan, William J., and P. H. Williams, to Shell Oil Co. Substituted dithiolanes. 3,081,311, 3–12–63, Cl. 260—327.

Sulphates Ltd.: *See*—
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Sultan, Robert. Conical shell heel construction. 3,086,302, 4–23–63, Cl. 36—34.

Sulzer Freres, S.A.: *See*—
Boshard, Ernst. 3,101,953.
Brunner, Alfred. 3,100,987.
Brunner, Alfred. 3,111,936.
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Gerber, Hans R. 3,106,380.
Grossmann, Ugo C. 3,083,545.
Guidi, Eugen. 3,098,811.
Hanny, Jost. 3,105,631.
Hofstetter, Hermann. 3,071,918.
Kägi, Jakob. 3,087,327.
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Kuhn, Werner, and Thurkauf. 3,109,870.
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Pfarrwaller, Erwin. 3,076,483.
Pfarrwaller, Erwin. 3,095,909.
Pfarrwaller, Erwin. 3,101,745.
Pfarrwaller, Erwin. 3,101,746.
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Pfarrwaller, Erwin. 3,111,144.
Pfarrwaller, Erwin. 3,114,398.
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Profos, Paul. 3,081,750.
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Trepp, Christian. 3,092,283.
Vogeli, Ernst. 3,107,895.
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Vogler, Hans. 3,105,357.
Wolf, Gottlieb. 3,095,692.

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Maeder, Arthur, and Sulzer. 3,090,762.

Sulzer, Peter, to Sulzer Freres, S.A. Fuel elements for nuclear reactors. 3,104,219, 9–17–63, Cl. 204—193.2.

Sulzer, Robert I., to Advance Transformer Co. Ballast canister construction. 3,113,694, 12–10–63, Cl. 220—62.

Sumegi, Lawrence W. Golf indoor practice device. 3,083,016, 3–26–63, Cl. 273—35.

Sumerford, Simpson D., and W. J. Porter, Jr., to Esso Research and Engineering Co. Telomerization of alkoxy boron compounds. 3,091,628, 5–28–63, Cl. 260—462.

Sumida, Kunio A. Sheet-separating and feeding means for addressing machines. 3,077,833, 2–19–63, Cl. 101—132.5.

Sumina, Ikuo: *See*—
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Sumiya, Shinzo. Multiple vacuum effect evaporator. 3,075,578, 1–29–63, Cl. 159—17.

Summerfield, David N., to Skil Corp. Brush holder assembly. 3,108,201, 10–22–63, Cl. 310—247.

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Summers, Agnes C.: *See*—
Hardy, Herbert L., Harrington, Collier, and Summers. 3,102,429.

Summers, Basil. Fluid circulation system. 3,103,914, 9–17–63, Cl. 119—73.

Summers, Charles G., to Monsanto Chemical Co. Isomerization of 2,6-dimethylmorpholine. 3,083,202, 3–26–63, Cl. 260—247.

Summers, Floyd K.: *See*—
Summers, Samuel D. and F. K. 3,083,542.

Summers, Gerald C., to PGAC Development Co. Acoustic bore hole logging systems and apparatus. 3,082,837, 3–26–63, Cl. 181—.5.

Summers, James W.: *See*—
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Summers, Joe N., Sr. Pallet fork. 3,088,614, 5–7–63, Cl. 214—653.

Summers, John E., J. C. Boyer, and K. B. Foard. Brick mason mortar applicator. 3,108,313, 10–29–63, Cl. 15—528.

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Summers, Lionel M. Water's edge holding device. 3,111,693, 11–26–63, Cl. 9—8.

Summers, Robert F. Load-sensing booster for mechanical governors. 3,098,935, 7–23–63, Cl. 290—40.

Summers, Samuel D. and F. K. Device for installing soil drainage means. 3,083,542, 4–2–63, Cl. 61—72.1.

Sumner, Robert J., W. A. Hardwick, R. D. Seeley, and H. F. Ziegler, Jr. to Anheuser-Busch, Inc. Method of producing a baker's yeast. 3,089,774, 5–14–63, Cl. 99—96.

Sumrall, Thomas D. Convertible vehicle body. 3,093,403, 6–11–63, Cl. 296—10.

Sun, Kuan-Han: *See*—
Ruby, Stanley L., Sun, and Fahrner. 3,101,410.

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May, Richard K., Sunafrank, and Powell. 3,093,370.

Sunagawa, Genshun, A. Ito, M. Nagawa, and M. Kataoka. New process for preparing acylated thiamine. 3,090,785, 5–21–63, Cl. 260—256.6.

Sunagawa, Genshun, and Y. Sato. N-substituted cyclohepta(b)-pyrrol-8-ones. 3,106,559, 10–8–63, Cl. 260—268.

Sunagawa, Genshun, and N. Soma, to Sankyo Co. Ltd. Process for the preparation of cyclohepta[b]pyrrol-8(1H)-one derivatives. 3,113,950, 12–10–63, Cl. 260—326.3.

Sunbeam Corp.: *See*—
Clowers, Earl R. 3,105,297.
Hanzel, Richard W. 3,090,118.
Jepson, Ivar. 3,078,605.
Jepson, Ivar. 3,083,871.
Jepson, Ivar. 3,090,119.
Jepson, Ivar. 3,091,226.
Jepson, Ivar. 3,096,566.
Jepson, Ivar. 3,097,318.
Jepson, Ivar. 3,098,921.
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Jepson, Ivar, and Ernstberger. 3,102,292.
Jepson, Ivar, Ernstberger, and Wolter. 3,071,799.
Jepson, Ivar, Ernstberger, and Wolter. 3,107,378.
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Jepson, Ivar, O'Quinn, and Wickenberg. 3,108,531.
Jepson, Ivar, and Ottosen. 3,082,313.
Kocl, Ludvik J., Andersen, and Jepson. 3,098,918.
Metko, Earl D. 3,077,547.
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Wickenberg, Chester H. 3,081,395.
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Sunbeam Lighting Co.: *See*—
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La Vigne, Paul G., Roberts, and Stahl. 3,093,058.
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Langstroth, Theodore A. 3,111,528.
Sunday, Andrew V. Extrusion head. 3,106,746, 10–15–63, Cl. 18—12.
Sunday, James J., to Thermo-Temp Industries, Inc. Heater. 3,072,176, 1–8–63, Cl. 158—28.
Sunday, Richard K., B. B. Van Dolsen, R. P. Moore, and F. R. Jennings, to Perfect Equipment Corp. Die casting machine. 3,078,528, 2–26–63, Cl. 22—68.
Sunday, William, to Super Mold Corp. of California. Power-adjusted hinge unit for a tire retreading mold. 3,109,197, 11–5–63, Cl. 18—18.
Sundberg, Alfred A., to The Bendix Corp. Phase shifting bridge apparatus. 3,108,219, 10–22–63, Cl. 323—123.
Sundberg, Erik G., to Aktiebolaget Tudor. Method and apparatus for electrolyte circulation. 3,083,253, 3–26–63, Cl. 136—160.
Sundberg, Erik G., and B. G. Ousback, to Tudor, Aktiebolaget. Lead accumulator electrode construction. 3,082,280, 3–19–63, Cl. 136—43.
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Sundblad, Helmer A., and O. C. Nystul. Tub filler faucet unit valve mount. 3,084,349, 4–9–63, Cl. 4—192.
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Sunden, Olof, to Stockholms Superfosfat Fabriks Aktiebolag. Textile fabrics and felts for technical purposes. 3,089,218, 5–14–63, Cl. 28—78.
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Svenska Sockerfabriks Aktiebolaget: *See*—
Birch-Jensen, Ake H. G., and Bjork. 3,111,066.
Tvelt, Martin T. 3,105,015.
Tvelt, Martin T. 3,105,799.

Svenska Tandsticks Aktiebolaget: *See*—
Grahn, Karl M. R. 3,074,327.

Svenska Turbin Aktiebolaget Ljungstrom: *See*—
Larsson, Nils E. B., and Lundvik. 3,074,619.

Svensk Toroforadling, Aktiebolaget: *See*—
Hägglund, Sven E. 3,098,429.

Svenson, Ilror N. A.: *See*—
Svensson, Nils V., and Svenson. 3,083,541.

Svenson, Ernest J., to Odin Corp. Automatic assembling machine. 3,076,257, 2–5–63, Cl. 29—156.4.

Svenson, Ernest J., ½ to W. F. and John Barnes Co., and ½ to Odin Corp. Metal working apparatus. 3,078,742, 2–26–63, Cl. 77—32.5.

Svenson, Ernest J., to Odin Corp. Apparatus for assembling and testing pump parts. 3,088,198, 5–7–63, Cl. 29—208.

Svenson, Ernest J., ½ to Odin Corp. and ½ to W. F. and John Barnes Co. Hydraulically actuated machine tool. 3,100,450, 8–13–63, Cl. 103—4.

Svensson, Assar N. and B. Brandt, to Skelleftea Gummifabriks A.-B. Wear lining. 3,107,867, 10–22–63, Cl. 241—102.

Svensson, Birger O., ½ to E. Martin. Laterally and angularly adjustable coupling for tool reciprocating mechanism. 3,111,053, 11–19–63, Cl. 83—124.

Svensson, Nils V., to Aktiebolaget Gotaverken. Conveyor track for heavy loads. 3,105,583, 10–1–63, Cl. 193—38.

Svensson, Nils V., and B. N. A. Svenson, to Gotaverken, Aktiebolaget. Building-bed for large structures, such as ships or parts thereof. 3,083,541, 4–2–63, Cl. 61—67.

Svenason, Stig A. G., to Separator, Aktiebolaget. Clothes washing machine. 3,085,420, 4–16–63, Cl. 68—173.

Svensson, Stig A. G., to Separator, Aktiebolaget. Automatic shut-off device. 3,096,784, 7–9–63, Cl. 137—463.

Svit, narodni podnik: *See*—
Richter, Jiri, and Cernoch. 3,088,143.
Richter, Jiri, and Cernoch. 3,089,162.
Richter, Jiri, and Cernoch. 3,113,843.

Svoboda, Ernst. Floats for fishing. 3,087,275, 4–30–63, Cl. 43—44.87.

Svoboda, James, to Caterpillar Tractor Co. Multi-purpose loader bucket. 3,077,999, 2–19–63, Cl. 214—145.

Svoboda, Vladimir: *See*—
Kubelka, Alois, and Svoboda. 3,079,778.

Swaim, Frank H., to United States of America, Navy. Elastic fin erector. 3,114,287, 12–17–63, Cl. 89—1.7.

Swaim, Frank H., and D. W. Rabenhorst, to United States of America, Navy. Low torque rotary seal. 3,109,661, 11–5–63, Cl. 277—70.

Swain, Arthur B.: *See*—
Beck, Basil D., and Swain. 3,104,967.

Swain, Frank E., to David F. Wiseman & Sons Ltd. Butterfly valves. 3,080,145, 3–5–63, Cl. 251—306.

Swain, Joseph H.: *See*—
Homegood, Puffett, and Swain. 3,105,025.

Swainson, Edward L., to Northrop Corp. Transverse supported torsion bar. 3,081,991, 3–19–63, Cl. 267—1.

Swainson, Edward L., to Northrop Corp. Linear motion, signal-producing, magnetic transducer. 3,101,462, 8–20–63, Cl. 336—75.

Swakon, Edward A., to Standard Oil Co. Aromatic acid purification. 3,115,521, 12–24–63, Cl. 260—525.

Swallert, Sven A. Indicating assembly for container. 3,073,272, 1–15–63, Cl. 114—5.

Swalm, Calvin D. Anti-theft grocery cart caster. 3,083,398, 4–2–63, Cl. 16—18.

Swan, Allan H. B., to The British Oxygen Co. Ltd. Turning roll apparatus. 3,094,232, 6–18–63, Cl. 214—340.

Swan, Charles M., to Crown Zellerback Corp. Printable sheet and method. 3,090,014, 7–2–63, Cl. 229—87.

Swan, Harold A. Fire hose nozzle. 3,082,960, 3–26–63, Cl. 239—383.

Swanberg, Edward W.: *See*—
Swanberg, Harry W. and E. W. 3,100,946.

Swanberg, Harry W. and E. W., said E. W. Swanberg assor. of ¾ to C. B. Messenger. Tumbling device. 3,100,946, 8–20–63, Cl. 46—1.

Swanberg, Melvin E., to General Precision, Inc., Link Division. Electronic training apparatus. 3,071,876, 1–8–63, Cl. 35—19.

Swaney, C. R., Co., Inc.: *See*—
Milsner, David M. 3,082,750.

Swann, Robert T.: *See*—
Anderson, Roger A., and Swann. 3,090,212.

Swanson, Albert S., Jr. Back scrubbing bath accessory. 3,085,276, 4–16–63, Cl. 15—244.

Swanson, Alex O. Detachable hoisting boom for powered vehicle. 3,092,259, 6–4–63, Cl. 212—35.

Swanson, Allan C., to Nu-Matic Nailer International Corp. Foot-guided nailing machine. 3,107,355, 10–22–63, Cl. 1—106.

Swanson, Arthur F.: *See*—
Schinske, William G., and Swanson. 3,107,273.

Swanson, Arthur M., and C. H. Amundson, to Wisconsin Alumni Research Foundation. Agglomeration process. 3,083,099, 3–26–63, Cl. 99—56.

Swanson, Carl E., to Duro-Test Corp. Multiple arc fluorescent lamp. 3,084,271, 4–2–63, Cl. 313—1.

Swanson, Dale C.: *See*—
Schroer, Charles A., Swanson, and Steedly. 3,111,732.

Swanson, Donald F.: *See*—
Hanson, Warren A., Winkler, and Swanson. 3,084,519.

Swanson, Edwin C., to Unit Rail Anchor Corp. Rail anchor applicator. 3,095,826, 7–2–63, Cl. 104—2.

Swanson, Elmer G., and W. C. Hyland, to St. Regis Paper Co. Carrying handle construction for cartons. 3,094,268, 6–18–63, Cl. 229—52.

Swanson-Erie Corp.: *See*—
Merchant, Chester O. 3,077,095.

Swanson, Floyd A., to National Automatic Tool Co., Inc. Honing apparatus. 3,097,453, 7–16–63, Cl. 51—34.

Swanson, Fred R., and C. F. Erikson, to Sundstrand Corp. Multi-speed transmission. 3,073,174, 1–15–63, Cl. 74—354.

Swanson, Fred R., and C. F. Erikson, to Sundstrand Corp. Machine tool. 3,083,617, 4–2–63, Cl. 90—17.

Swanson, George J., to The Bendix Corp. Electrical connector. 3,076,951, 2–5–63, Cl. 339—91.

Swanson, Harry G.: *See*—
Lewis, Mayland P., Jr., and Swanson. 3,111,038.

Swanson, James R.: *See*—
Smoot, Charles H., Berger, Adams, and Swanson. 3,115,778.

Swanson, Kermit E., C. E. Thompson, and E. H. Wilk, to R. R. Donnelley & Sons Co. Flystick packer box for signatures. 3,111,312, 11–19–63, Cl. 271—87.

Swanson, Linwood B.: *See*—
Sloan, Harry E., and H. E. Sloan, Jr., and Swanson. 3,086,784.

Swanson, Norman F. Multiple cutter power mower. Re. 25,379, 5–7–63, Cl. 56—25.4.

Swanson, Robert D.: *See*—
Pennington, Kermit M., and Swanson. 3,100,915.

Swanson, Robert K., C. E. Jameson, and G. W. Dingus. Method of and apparatus for radioactivity well logging. 3,090,867, 5–21–63, Cl. 250—83.3.

Swanson, Roger W., to General Electric Co. AFC with search sweep control. 3,076,151, 1–29–63, Cl. 331—4.

Swanson, Victor E., to Procon Pump & Engineering Co. Pump and motor construction. 3,097,610, 7–16–63, Cl. 103—118.

Swanton, Charles L.: *See*—
Abendroth, Karl W., and Swanton. 3,110,462.

Swarner, John L.: *See*—
Van Der Sluys, William, and Swarner. 3,094,604.

Swarofsky, Walter, and F. Renneberg, to Voigtlander A.G. Photographic camera with scanner for exposure meter indicator. 3,076,394, 2–5–63, Cl. 95—10.

Swarofsky, Walter, and F. Renneberg, to Voigtlander A.G. Photographic camera with interchangeable objectives. 3,082,672, 3–26–63, Cl. 95—10.

Swarofsky, Walter, and F. Renneberg, to Voigtlander A.G. Single lens reflex camera with exposure meter. 3,109,356, 11–5–63, Cl. 95—10.

Swarr, John H., and L. A. Hurwitz, to Hamilton Watch Co. Heat treatment of stainless steel. 3,097,980, 7–16–63, Cl. 148—135.

Swart, Gilbert H.: *See*—
Dean, Emert S., Swart, and Weinstock. 3,074,902.

Swarthout, Earl J., to Miles Laboratories, Inc. Process for lycopene production. 3,097,146, 7–9–63, Cl. 195—78.

Swarthout, Kassele E., to Challenge-Cook Bros., Inc. Piston head. 3,104,619, 9–24–63, Cl. 103—204.

Swarthout, Richard J., and R. E. Klauss, to Eastman Kodak Co. Housing for photoelectric sensing unit. 3,099,750, 7–30–63, Cl. 250—239.

Swartout, Willson C., to Westinghouse Electric Corp. Voltage regulating servomechanism. 3,078,399, 2–19–63, Cl. 318—28.

Swartwood, Ira T.: *See*—
McAndrew, John B. 3,086,806.

Swartz, Charles A. Can crusher. 3,079,856, 3–5–63, Cl. 100—50.

Swartz, George A., to Radio Corp. of America. Plasma heating apparatus and process. 3,090,737, 5–21–63, Cl. 204—154.2.

Swartz, Henry D., to Thermoplastic Industries, Inc. Self-sealing container. 3,089,636, 5–14–63, Cl. 229—62.5.

Swartz, Paul C., to Eitel-McCullough, Inc. Apparatus for applying a metallizing coating to ceramic parts. 3,080,846, 3–12–63, Cl. 118—66.

Swartz, Paul C., to Eitel-McCullough, Inc. Electron tube assembly apparatus. 3,081,531, 3–19–63, Cl. 29—203.

Swartz, William E., and W. L. Krayer, to Calgon Corp. Detachable actuator for valves. 3,112,761, 12–3–63, Cl. 137—382.5.

Swartz, William P., Jr. Envelopes. 3,088,653, 5–7–63, Cl. 229—68.

Swartzwelder, John. Adjustable motor vehicle transport. 3,104,127, 9–17–63, Cl. 296—1.

Swasey, Samuel E.: *See*—
Dick, Herbert K., Kulberg, and Swasey. 3,115,233.

Swasey, Samuel E., and L. J. Ward, to Sylvania Electric Products Inc. Lead-wire feeding apparatus. 3,088,498, 5–7–63, Cl. 140—71.6.

Swayne, Kenneth G.: *See*—
Ashby, William C., Bunting, Meagher, Nelson, and Swayne. 3,094,262.

Sweadner, Emma J.: *See*—
Sloan, Theodore H. 3,083,507.

Swearingen, Ernest W., to Boyte Colostom-Ease Inc. Colostomy appliance. 3,083,704, 4–2–63, Cl. 128—1.

Swed, James P.: *See*—
Chapman, Donald D., and Swed. 3,089,230.

Swed, James P., to E. I. du Pont de Nemours and Co. Compaction process. 3,084,398, 4–9–63, Cl. 18—59.3.

Sweden Freezer Mfg. Co.: *See*—
Cary, James E., and Walker. 3,112,656.
Clark, Charles W., Jr. 3,086,675.
Patten, Leigh M., and Ridgway. 3,086,563.

Sweely, Donald B.: *See*—
Fuka, Otto J., and Sweely. 3,108,671.

Sweeney, B. K., Mfg. Co.: *See*—
Able, Edward T. 3,076,362.
Blackwell, Lyman L. 3,109,141.

Sweeney, Edward A., and J. B. Carr, to General Motors Corp. Process for the manufacture of laminated magnetic cores. 3,095,333, 6–25–63, Cl. 148—121.

Sweeney, Francis M., to Armstrong Cork Co. Method of forming fine polyethylene powders. 3,101,329, 8–20–63, Cl. 260—94.9.

Sweeney, Francis R., to A. J. Rose Mfg. Co. Battery terminal and cable cleaning brush. 3,088,150, 5–7–63, Cl. 15—106.

Sweeney, George J.: *See*—
O'Day, Cortland N., and Sweeney. 3,101,690.

Sweeney, Harold E., to Westinghouse Electric Corp. Stereophonic receiving method and apparatus. 3,103,555, 9–10–63, Cl. 179—15.

Sweeney, Harold L., and J. Faneros. Cleaning pads. 3,085,372, 4–16–63, Cl. 51—185.

Sweeney, James R.: *See*—
Dunn, Lyman D. 3,073,703.

Sweeney, John L., to International Business Machines Corp. Closed loop control system. 3,108,272, 10–22–63, Cl. 343—10.

Sweeney, John L., to International Business Machines Corp. Raster scanning system. 3,116,436, 12–31–63, Cl. 315—18.

Sweeney, Maxwell P. Conversion process and apparatus. 3,094,479, 6–18–63, Cl 208—176.

Sweeney, Maxwell P., to United Engineers & Constructors Inc. Apparatus for the pyrolysis of hydrocarbonaceous materials. 3,111,395, 11–19–63, Cl. 23—284.

Sweeney, Patrick M., and L. L. Eberhart, to Consolidated Kinetics Corp. Apparatus for isolating vibrations. 3,095,187, 6–25–63, Cl. 267—1.

Sweeney, William A., to California Research Corp. Purification of aromatic carboxylic acids. 3,078,303, 2–19–63, Cl. 260—525.

Sweeney, William M.: *See*—
Huttenlocher, Dietrich F., and Sweeney. 3,096,285.

Sweeney, William M., to Texaco Inc. Preparation of tertiary amines. 3,091,641, 5–28–63, Cl. 260—583.

Sweeney, William M., and J. A. Patterson, to Texaco Inc. Sulfonic acid purifying treatment. 3,083,146, 3–26–63, Cl. 202—39.5.

Sweeny, Herbert W. Piano playing attachment. 3,115,802, 12–31–63, Cl. 84—160.

Sweeny, Wilfred: *See*—
Hill, Harold W., Jr., Kwolek, and Sweeny. 3,094,511.

Sweet, Corlise M. Lathe cutting tools. 3,078,547, 2–26–63, Cl. 29—97.

Sweet, Corlise M. Reduction of saw dust in cutting wood by bending the wood. 3,089,524, 5–14–63, Cl. 144—312.

Sweet, Corlise M. Roller skate with heel brake. 3,112,119, 11–26–63, Cl. 280—11.2.

Sweet, Donald H. Ram jet unit. 3,076,308, 2–5–63, Cl. 60—35.3.

Sweet, Floyd H.: *See*—
Young, Merrill A., and Sweet. 3,081,056.

Sweet, George B.: *See*—
Bailey, William A. 3,082,576.

Sweet, Harold S.: *See*—
Fromm, Frederick W., and Sweet. 3,081,971.

Sweet, Monroe H., deceased; R. Easton and First-City National Bank, Binghamton, N.Y., administrators, to General Aniline & Film Corp. Photometric instruments. 3,102,202, 8–27–63, Cl. 250—207.

Sweet, Roger G., to Chilean Nitrate Sales Corp. Scraper-condenser unit. 3,079,993, 3–5–63, Cl. 165—94.

Sweetman, William G. Chemical cutting method and apparatus for use in wells. 3,076,507, 2–5–63, Cl. 166—35.

Sweeton, Kenneth W. Circuit assembly board. 3,078,596, 22–63, Cl. 35—19.

Sweetser, Donald A., to Lightolier Inc. Ceiling light and air diffusing fixture. 3,108,529, 10–29–63, Cl. 98—40.

Sweger, Theodore J., to Illinois Railway Equipment Co. Safety support for brake beams. 3,094,196, 6–18–63, Cl. 188—210.

Sweger, Theodore J., to Illinois Railway Equipment Co. Journal box construction for railway cars. 3,097,894, 7–16–63, Cl. 308—40.

Sweger, Theodore J., to Illinois Railway Equipment Co. Journal box construction for railway cars. 3,104,919, 9–24–63, Cl. 308—40.

Swenck, George F., to Reynolds Metals Co. Sectional container having nestable sections. 3,113,690, 12–10–63, Cl. 220—1.5.

Swengel, Robert C., to AMP Inc. Spring clip terminal for printed circuit board. 3,079,578, 2–26–63, Cl. 339—17.

Swengel, Robert C., to AMP Inc. Printed circuit multiple connector block. 3,112,145, 11–26–63, Cl. 339—17.

Swenker, Martin D. P.: *See*—
Breuers, Theo P. C., and Swenker. 3,083,959.

Swenker, Martin D. P., and J. C. A. Vercoulen, to Chemische Fabriek L. von der Grinten N.V. Device for collecting sheets of laminar material. 3,096,089, 7–2–63, Cl. 271—64.

Swenson, Armound R., to Continental Carbon Co. Weighing mechanism. 3,075,595, 1–29–63, Cl. 177—120.

Swenson, Armound R., to Continental Carbon Co. Bag-filling and handling machine. 3,083,780, 4–2–63, Cl. 177—52.

Swenson, Charles. Timer with reversible motor. 3,087,103, 4–23–63, Cl. 318—265.

Swenson, Edward G.: *See*—
Barton, Raymond W., and Swenson. 3,105,613.

Swenson, Eskil W., and B. A. Wilder, to Swenson Spreader & Mfg. Co. Truck with hydraulic spreader apparatus. 3,113,784, 12–10–63, Cl. 275—8.

Swenson, Gust M. Folding multiple row cultivator. 3,088,526, 5–7–63, Cl. 172—297.

Swenson, Henry F. Picnic griddle. 3,095,869, 7–2–63, Cl. 126—25.

Swenson, Howard S.: *See*—
Koch, Paul H., Pirsh, and Swenson. 3,088,494.

Swenson, Oscar J. Manually actuated linear action impact tool. 3,071,994, 1–8–63, Cl. 81—52.35.

Swenson, Oscar J. Rotary impact tools. 3,108,506, 10–29–63, Cl. 81—52.3.

Swenson, Reuben A., and S. J. Zajac, to Standard Oil Co. Grease composition. 3,100,193, 8–6–63, Cl. 252—40.5.

Swenson Spreader & Mfg. Co.: *See*—
Swenson, Eskil W., and Wilder. 3,113,784.

Swensson, Malte: *See*—
Kerr, Kingdon, and Swensson. 3,072,833.

Swerdloff, Jack, E. B. Larsen, and A. J. Troeleman, to Celanese Corp. of America. Cigarette filter. 3,093,142, 6–11–63, Cl. 131—10.

Swern, Daniel: *See*—
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Swern, Daniel, and R. Sasin, to United States of America, Agriculture. Trialkyl 9 (10)-phosphonostearates as plasticizers for vinyl chloride polymers. 3,101,325, 8–20–63, Cl. 260—30.6.

Swetlitz, Myron, to General Electric Co. Pliant surface heating unit. 3,083,286, 3–26–63, Cl. 219—19.

Swett, Alton P., to Ingersoll-Rand Co. Safety circuit. 3,094,646, 6–18–63, Cl. 317—13.

Swett, Leo R.: *See*—
Close, Warren J., and Swett. 3,078,270.
Horrom, Bruce W., and Swett. 3,112,344.

Swezey, Edwin W., to Union Bag-Camp Paper Corp. Apparatus for packaging articles. 3,075,330, 1–29–63, Cl. 53—184.

Swezey, Edwin W., and D. F. Wilkins, to Union Bag-Camp Paper Corp. Apparatus for packaging articles. 3,075,329, 1–29–63, Cl. 53—184.

Swezey, Edwin W., and R. J. McKnight, to The Rapids-Standard Co., Inc. Conveyor. 3,104,007, 9–17–63, Cl. 198—37.

Swick, Edwin G., to Illinois Tool Works Inc. Thermally isolating spacer bracket. 3,074,522, 1–22–63, Cl. 189—88.

Swick, George E., Jr.: *See*—
Ross, William A., and Swick. 3,088,546.

Swick, Michael V., F. W. A. Ward, and J. Douglas, to The Steel Co. of Canada, Ltd. Automatic tape applying machine for sheet metal strips and method. 3,092,532, 6–4–63, Cl. 156—157.

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Teggelaar, Claude J., and Swierbut. 3,098,647.

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Anderson, George M., Swietlik, and Whitney. 3,087,991.

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Brouer, Orville A., and Meckel. 3,084,636.
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Connick, Francis G., Brendle, Strandine, and Bonamt. 3,112,531.
Denton, Arnold E., Beuk, Hogan, and McBrady. 3,098,014.
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Goeser, Paul A. 3,108,883.
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Hertwig, Henry F. 3,115,917.
Hlavacek, Robert J., Sauvage, and Dillehay. 3,115,670.
Hlavacek, Robert J., Sauvage, Dillehay, and Swift. 3,112,519.
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Merker, Dwight R. 3,085,016.
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Schreuder, Thomas R., and Reichel. 3,075,289.
Silliker, John H., Koonz, and Jansen. 3,075,887.
Steiner, Charles S., and Atwater. 3,095,120.
Watt, Desmond B. 3,112,203.
Withers, Burleigh. 3,104,621.
Withers, Burleigh, Jr., and Mueller. 3,084,635.
Young, Harland H., Majka, and Eshbaugh. 3,116,200.

Swift, Gilbert, to Dresser Industries, Inc. Directional survey computer. 3,104,809, 9–24–63, Cl. 235—61.

Swift, Hallock F., to United States of America, Navy. Blast switch. 3,102,936, 9–3–63, Cl. 200—118.

Swift, Harvey C., to Kelsey-Hayes Co. Brake construction with anti-friction bearing means. 3,108,659, 10–29–63, Cl. 188—78.

Swift, Howard R., and E. F. Best, to Libbey-Owens-Ford Glass Co. Polishing compositions. 3,080,224, 3–5–63, Cl. 51—309.

Swift, John F.: *See*—
Johnson, Arnold E. W., Swift, and Kariba. 3,110,152.

Swift, John G.: *See*—
Hays, Edwin E., and Swift. 3,096,241.

Swift, Norman: *See*—
Hlavacek, Robert J., Sauvage, Dillehay, and Swift. 3,112,519.

Swift Spinning Mills, Inc.: *See*—
Alston, Otis B. 3,097,399.

Swift, Thomas G., to Armstrong Cork Co. Emulsions stabilized against freezing. 3,085,889, 4–16–63, Cl. 106—219.

Swigart, John E., to General Motors Corp. Accessory drive mechanism. 3,088,327, 5–7–63, Cl. 74—230.17.

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Burr, Robert P., and Swiggett. 3,084,420.

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Swim, George E.: *See*—
Kelso, Buytte W., and Swim. 3,101,581.

Swimmer, Albert T.: *See*—
Machingo, William J., and Swimmer. 3,073,314.

Swincicki, Konrad: *See*—
Petersen, Siegfried, Swincicki, and Wirth. 3,097,203.

Swindells, Harry, and C. R. Forrester, to Moxey Ltd. Reclaiming and blending machines for bulk materials. 3,108,700, 10–29–63, Cl. 214—10.

Swindler, Rollin L., to Libbey-Owens-Ford Glass Co. Apparatus for pressing glass-plastic assemblies. 3,089,408, 5–14–63, Cl. 100—49.

Swinehart, Frank, and R. J. Doblas, to The Turner Co. High sensitivity piezoelectric microphone. 3,100,821, 8–13–63, Cl. 179—110.

Swinehart, Richard W.: *See*—
Greminger, George K., Jr., Swinehart, and Weaver. 3,094,491.

Swingle, George E. T-handle for tools. 3,113,479, 12–10–63, Cl. 81—177.

Swingline, Inc.: *See*—
Kohen, Sheldon I., and Ruskin. 3,103,012.
Newman, Hugo. 3,087,356.
Newman, Hugo. 3,106,191.

Swingspout Measure Co.: *See*—
Allen, Scott E. 3,097,674.

Swinney, Geneva D. Shirt sleeve. 3,111,682, 11–26–63, Cl. 2—270.

Swire, Edwin A. Mounting structure. 3,075,369, 1–29–63, Cl. 64—30.

Swisher, Rolla D. Exerciser device. 3,107,914, 10–22–63, Cl. 272—57.

Switlick, Anton A., to Valley Pre-Cast Bunks, Inc. Forms for sectional precast feed bunkers. 3,089,216, 5–14–63, Cl. 25—121.

Switlik Parachute Co., Inc.: *See*—
Moran, Harold J. Re. 25,398.

Switzer Brothers, Inc.: *See*—
Switzer, Joseph L. 3,114,039.

Switzer, Erwin D. Basement window buck. 3,092,887, 6–11–63, Cl. 25—131.

Switzer, George W., Jr., and A. F. Smith, III, to Gilbert Associates, Inc. Thermometer well for pipes. 3,081,631, 3–19–63, Cl. 73—343.

Switzer, Joseph L., to Switzer Brothers, Inc. Self-developing penetrant method of flaw detection and penetrant therefor. 3,114,039, 12–10–63, Cl. 250—71.

Switzer, Robert L., W. C. Lieffers, and C. H. O. Berg, to Collier Carbon and Chemical Corp. Apparatus for submerged combustion heating of liquids. 3,073,683, 1–15–63, Cl. 23—275.

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Biggs, Orrick H., Wroblewski, and Dayton. 3,096,805.
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Carlzen, Carl P., Helda, and Lehner. 3,081,885.
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Delachapelle, Richard P., and Hidler. 3,109,959.
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Duval, Leo E. 3,094,642.
Eldred, Edwin C., and Temple. 3,093,183.
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Hultquist, Albert. 3,072,411.
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Humphrey, Watts S., Jr., Terzian, and Bosch. 3,094,610.
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Litt, Benjamin. 3,071,526.
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Mason, Lee E. 3,098,952.
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Medina, Marlowe A. 3,108,236.
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Mooney, Richard W., and Comstock. 3,099,627.
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Palmer, William F. 3,105,170.
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Perkins, Richard E. 3,100,254.
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Sante, Daniel P. 3,085,205.
Schefer, Eli I. 3,074,299.
Skomal, Edward N. 3,075,159.
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Specht, John K. 3,074,113.
Spencer, Donlina E., and Peek. 3,115,309.
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Edwards, John. 3,080,396.
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Bowers, Albert, Edwards, and Orr. 3,077,485.
Bowers, Albert, and Orr. 3,086,012.
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Halpern, Otto. 3,102,117.
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Iriarte, Jose, Djerassi, and Ringold. 3,096,350.
Kinel, Fred A. 3,074,933.
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Zderic, John A. 3,102,892.
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Zderic, John A., Halpern, and Iriarte. 3,071,603.
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Szady, Leopold T., M. R. Marsh, and W. K. Fuelberth, to General Motors Corp. Fluid pressure supply system. 3,107,621, 10–22–63, Cl. 103—4.
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Szekely, Michael E., to Radio Corp. of America. Binary full adder utilizing integrated unipolar transistors. 3,100,838, 8–13–63, Cl. 235—176.
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Szuba, Walter D., and J. M. Bensing, to The Singer Mfg. Co. Means for limiting amplitude adjustment of the zigzag mechanism for sewing machines. 3,094,085, 6–18–63, Cl. 112—158.
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Rappaport, Maximiliano, and Bernardo, and Szuehman. 3,096,233.
Szuic, Alfred B., to American Pipe and Construction Co. Method of making prestressed concrete pipe. 3,078,561, 2–26–63, Cl. 29—452.
Szumski, John P.: *See*—
Joiner, Edgar E., and Szumski. 3,100,678.
Szwargulski, Alex N.: *See*—
Carlson, Harold A., and Szwargulski. 3,086,750.
Szwargulski, Alex N., to ACF Industries, Inc. Fuel filter. 3,071,251, 1–1–63, Cl. 210—349.
Szwargulski, Alex N., R. F. Smith, and E. W. Niemeyer, to ACF Industries, Inc. Fuel filter. 3,072,260, 1–8–63, Cl. 210—223.
Szwargulski, Jesse L., O. J. Eickmann, H. A. Carlson, and A. C. Korte, to ACF Industries, Inc. Carburetor. 3,076,639, 2–5–63, Cl. 261—34.
Szydlowski, Joseph. Gas turbine control method and system. 3,097,700, 7–16–63, Cl. 170—135.72.
Szymanowski, Albert J. Bowling ball buffing machine. 3,104,408, 9–24–63, Cl. 15—97.
Szymber, Oleg: *See*—
Bjorn, Thomas E., Hosking, and Szymber. 3,061,007.
Szymber, Oleg, to Stewart-Warner Corp. Electric tachometer using biased pulse transformer. 3,115,604, 12–24–63, Cl. 324—70.
Szypulski, Raymond W., to United States of America, Navy. Marine location marker. 3,105,979, 10–8–63, Cl. 9—8.3.
T.A.D. Trucking Corp.: *See*—
Carfizzi, Joseph A. 3,080,096.
T.I. (Group Services) Ltd.: *See*—
Gordon, James E., Evans, and Parratt. 3,096,155.
T.M.M. (Research) Ltd.: *See*—
Nutter, Walter, Cole, Denson, and Slater. 3,111,718.
T.O. Plastics, Inc.: *See*—
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TRG, Inc.: *See*—
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Le Clear, Robert L. 3,071,790.
T. & T. Vicars Ltd.: *See*—
Clements, Ronald B. 3,113,660.
Tabachnick, Howard: *See*—
Hedley, Norman, and Tabachnick. 3,110,666.
Tabberer, George, and D. H. Wallace, to Associated Electrical Industries Ltd. Monofuel reaction chamber apparatus. 3,095,705, 7–2–63, Cl. 60—39.46.
Taber, Samuel J., and R. J. Hutchinson; said Hutchinson assor. to H. O. McPheeters. Bracing. 3,077,009, 2–12–63, Cl. 20—9.
Tabet, Georges E.: *See*—
Berres, Clifford R., Tabet, and Wilder. 3,088,928.
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Koci, Jerry C. 3,072,756.
Tabet, Michael A. Light sensitive control device. 3,093,744, 6–11–63, Cl. 250—239.
Tabikh, Ali A., to California Portland Cement Co. X-ray fluoroscopic analysis. 3,075,079, 1–22–63, Cl. 250—51.5.
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Sparks, Marvin. 3,075,520.
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Taccone, Russell W. 3,103,717.
Taccone, Russell W., to Taccone Corp. Automatic installation for the continuous fabrication of sand molds and castings. 3,083,421, 4–2–63, Cl. 22—20.
Taccone, Russell W., to Taccone Corp. Molding machine with two shuttling pattern plates. 3,103,717, 9–17–63, Cl. 22—20.
Tachiki, Kenkichi: *See*—
Katakura, Sampei, Tachiki, and Sata. 3,107,995.
Tachiki, Kenkichi, and M. Sata. Atomization apparatus. 3,093,315, 6–11–63, Cl. 239—424.
Tachizawa, Hiroshi, and A. Sato, to Nippon Electric Co., Ltd. Travelling-wave tube oscillator. 3,104,359, 9–17–63, Cl. 331—82.
Tack, Carl E., to Amsted Industries Inc. Side frame-bolster interlocking arrangement for snubbed trucks. 3,109,387, 11–5–63, Cl. 105—197.
Tack, Carl E., and A. F. Seelig, Jr., to Amsted Industries Inc. Universal side frame for snubbed railway car trucks. 3,079,873, 3–5–63, Cl. 105—206.
Tack, Carl E., and J. A. Henkel. Railway car trucks. 3,080,828, 3–12–63, Cl. 105—197.
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Vertrees, Paul C., and Hackenberger. 3,090,496.
Tado, Hiroshi, to Yanmar Diesel Engine Co., Ltd. Fuel injection system for rotary engines. 3,096,747, 7–9–63, Cl. 123—8.
Taft, George H. Combination can opener and drinking cup. 3,103,297, 9–10–63, Cl. 220—90.2.
Taft, Millens W., Jr., to Milton Bradley Co. Game device of the jackstraws type. 3,114,548, 12–17–63, Cl. 273—1.
Taft, William K.: *See*—
Clark, Sheldon L., Duke, Larchar, and Taft. 3,093,687.
Taggart, Robert E., and W. S. Becher, to American Can Co. Apparatus for heat sealing. 3,114,226, 12–17–63, Cl. 53—375.
Taggert, Wilmer R., to Riley Stoker Corp. Steam generating unit. 3,088,444, 5–7–63, Cl. 122—459.
Tagliaferri, Aldo. Forehearth or holding furnace for heating molten metals, equipped with stirrer and induction heater. 3,095,464, 6–25–63, Cl. 13—29.
Tagliasacchi, Ercole, to Officine Meccaniche Cigardi S.p.A.-O.M.C.S.A. Multi-units sheet-fed printing machine. 3,073,997, 1–15–63, Cl. 318—85.
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Braun, Philip N., and Filsinger. 3,114,667.
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Taicher, Leonard L., to Caressa, Inc. Women's open heel shoe. 3,081,561, 3-19-63, Cl. 36—2.5.

Taillie, Gordon P.: *See*—
Hunt, Robert A., and Taillie. 3,071,370.
Hunt, Robert A., and Taillie. 3,078,770.

Taillie, Gordon P., to Xerox Corp. Sheet guiding apparatus. 3,095,194, 6-25-63, Cl. 271—79.

Taini, John, and E. S. Johnson, to Ditto, Inc. Automatic photoprinting machine. 3,091,169, 5-28-63, Cl. 95—77.5.

Tait, Robert, R. H. Hall, and C. J. MacFarlane, to United Kingdom Atomic Energy Authority. Servicing equipment for nuclear reactors. 3,077,361, 2-12-63, Cl. 294—66.

Tait, Robert, and A. E. Wright, to United Kingdom Atomic Energy Authority. Cable winding apparatus. 3,106,368, 10-8-63, Cl. 242—107.1.

Tait, William O., and N. A. Wilkes, to Reeves Instrument Corp. Captive fastener with shoulder to prevent engagement of the screw head with the work. 3,111,405, 12-17-63, Cl. 151—69.

Tajima, Kiyoshi: *See*—
Hayasaka, Toshio, Masuzawa, Araki, and Tajima. 3,092,693.

Tajima, Shigeru: *See*—
Oda, Ryohei, Tajima, Muraoka, and Matsumoto. 3,079,356.

Takacs, Albert S., to Vitramon, Inc. Apparatus for cutting sheets of soft semi-plastic material. 3,108,349, 10-29-63, Cl. 25—108.

Takacs, Robert J., to The Owen Bucket Co. Bucket. 3,103,753, 9-17-63, Cl. 37—187.

Takada, Koji, to Tokyo Kinzokukagaku Kabushikikaisha. Process for the electro-plating of cadmium-titanium alloy. 3,083,150, 3-26-63, Cl. 204—43.

Takagi, Hisao: *See*—
Nishiyama, Shizuo, Takagi, Anzai, and Haga. 3,114,654

Takagi, Tatsuya. Oil damper. 3,085,661, 4-16-63, Cl. 188—96.

Takagi Toyoko: *See*—
Watanabe, Shinnosuke. 3,088,503.

Takahama, Sho, to Yashica Co., Ltd. Photographic light responsive diaphragm mechanism. 3,073,221, 1-15-63, Cl. 95—10.

Takahama, Sho, to Yashica Co., Ltd., and Kabushiki Kaisha Konan Kamera Kenkyu-Jo. Shutter for photographic cameras. 3,082,673, 3-26-63, Cl. 95—55.

Takahashi, Hidetoshi, E. Goto, and S. Oshima, to Kokusai Denshin Denwa Co., Ltd. Amplifier comprising time dependent reactors. 3,101,450, 8-20-63, Cl. 330—7.

Takahashi, Masao: *See*—
Akashi, Tsuneo, Tobita, Takahashi, and Takamizawa. 3,106,534.

Takahashi, Noborn, and K. Ashinuma, to Kabushikikaisha Nihondenshi Kogaku Kenkyusho. Electron microscope. 3,090,864, 5-21-63, Cl. 250—49.5.

Takahashi, Shiro: *See*—
Kano, Hideo, Kikkawa, Makisumi, Takahashi, and Ogata. 3,073,839.

Takahashi, Shizuo: *See*—
Yasawa, Masahide, Kojima, Takahashi, and Doi. 3,107,971.

Takahashi, Torizo, K. Ogiu, H. Fujimura, I. Satoda, T. Fukui, and Y. Yamamoto, to Nippon Shinyaku Co., Ltd. Method of preparing alkoxybenzoyl di-alkyl glycineamides. 3,076,844, 2-5-63, Cl. 260—559.

Takahashi, Toru: *See*—
Otsuka, Eiji, Takahashi, and Watanabe. 3,090,811.

Takahashi, Toshio, to Kikuna Electric Co., Ltd. Method of laminating metal plates with a plastic film. 3,078,207, 2-19-63, Cl. 156—247.

Takahashi, Yoshiaki. Game racket construction. 3,083,968, 4-2-63, Cl. 273—73.

Takamatsu, Hideji, S. Umemoto, S. Kanoh, and T. Sozaki, to Dainippon Pharmaceutical Co., Ltd. N-phenylacetyl-N'-acylureas. 3,110,728, 11-12-63, Cl. 260—553.

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Takamizawa, Minoru: *See*—
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Takanashi, Yukio: *See*—
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Takao, Zenichiro, S. Inoumata, and K. Nakano, to Kobe Steel Works, Ltd. Surface hardening of metal body consisting of or containing titanium or zirconium. 3,111,434, 11-19-63, Cl. 148—13.1.

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Takata Seiichiro, to Nippon Flavour Kogyo Co., Ltd. Method and machine for citrus oil extraction. 3,078,788, 2-26-63, Cl. 100—73.

Takats, Zoltan, to General Aniline & Film Corp. Apparatus for splicing film. 3,074,467, 1-22-63, Cl. 156—505.

Takats, Zoltan, to General Aniline & Film Corp. Apparatus for rapid development of photographic film. 3,081,687, 3-19-63, Cl. 95—89.

Takats, Zoltan, to General Aniline & Film Corp. Portable rapid photographic film processor. 3,086,438, 4-23-63, Cl. 95—94.

Takatsy, Gyula, to Metrimpex Magyar Muszeripari Kulkereskedelmi Vallalat. Volumetric liquid-transfer device. 3,077,780, 2-19-63, Cl. 73—425.4.

Takaya, Nagatake. Tachometers. 3,103,628, 9-10-63, Cl. 324—70.

Takayama, Gozo: *See*—
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Takayama, Kazuo, and S. Ohara, to Nippon Telegraph and Telephone Public Corp. Electrical discharge tube. 3,101,426, 8-20-63, Cl. 313—152.

Takazawa, Ietsugu. Curtain hanger. 3,105,265, 10-1-63, Cl. 16—87.4.

Takeda Chemical Industries, Ltd.: *See*—
Isono, Masao, and Abe. 3,086,919.
Morita, Katsura. 3,088,944.
Shimazono, Hirao, and Tomoda. 3,097,145.

Takeda, Kenichi, and T. Komeno, to Shionogi & Co., Ltd. 16β - mercapto - 17β - hydroxy - 2 - androsten - 3 - one 16, 17-cyclic acetals and intermediates thereof. 3,112,306, 11-26-63, Cl. 260—239.55.

Takeda Pharmaceutical Industries, Ltd.: *See*—
Isono, Masao, and Abe. 3,086,920.
Kinugawa, Jiro, Yamamoto, Ochiai, and Sumina. 3,089,809.
Nakazawa, Koiti, Shibata, Higashide, Kanzaki, Yamamoto, Miyake, Hitomi, Horii, Yamaguchi, Araki, Nishikawa, Masamoto, and Noguchi. 3,094,465.
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Sakieki, Ikuo, and Nomura. 3,086,970.
Tanaka, Kuniyoshi, and Honjo. 3,079,379.
Tatsuoka, Sueo, Kanazawa, Araki, Nakazawa, Miyake, Hitomi, Ueyanagi, Shibata, Hiraiwa, Tsuchiya, Iwasaki, and Yamaguchi. 3,112,341.

Takehara, Kokuji. Fiber feeding and cutting device. 3,110,209, 11-12-63, Cl. 83—322.

Takehara, Kokuji. Fiber cutting device. 3,111,875, 11-26-63, Cl. 83—174.

Takeo, Kenji: *See*—
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Taken, Donald E., and M. W. Boyd, to General Dynamics Corp. Electrical connector. 3,091,748, 5-28-63, Cl. 339—65.

Takeuchi, Kazumi, to Hitachi Ltd. System for demodulating chrominance signal in color television. 3,078,339, 2-19-63, Cl. 178—5.4.

Takeuchi, Shoichi. Process and apparatus for manufacturing floating soap. 3,097,057, 7-9-63, Cl. 18—55.

Takikawa, Masahiko: *See*—
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Talaat, Mostafa E., to Carrier Corp. Thermoelectric generators. 3,082,275, 3-19-63, Cl. 136—4.

Talaat, Mostafa E., to Carrier Corp. Thermoelectric generators. 3,116,167, 12-31-63, Cl. 136—4.

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Gordon, Bernard M., and Talambiras. 3,108,266.

Talarico, Lawrence J., to Adolph Gottscho, Inc. Marking apparatus. 3,112,690, 12-3-63, Cl. 101—35.

Talb Industries, Inc.: *See*—
Greenblatt, Joseph. 3,073,750.

Talbert, Abner P. Combination weeding and cultivating attachment for a towing vehicle. 3,106,968, 10-15-63, Cl. 172—78.

Talbert, John E., to American Machine and Foundry Co. Cartons for elongated articles. 3,099,382, 7-30-63, Cl. 229—44.

Talbot, Howard H.: *See*—
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Talbot, James E., and D. H. Blatt, to American Viscose Corp. Closure for car doors and the like. 3,099,314, 7-30-63, Cl. 160—368.

Talbot, Richard C.: *See*—
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Talbot, Richard C., G. K. Bahr, and E. Rose, to Peters Machinery Co. Carton gluing and forming machine. 3,105,418, 10-1-63, Cl. 93—44.

Talbot, William Y., and J. Chess. Rotary valve. 3,096,788, 7-9-63, Cl. 137—625.11.

Talbott, Edmond L., to Pittsburgh Plate Glass Co. Diaphragm type electrolytic cell. 3,116,228, 12-31-63, Cl. 204—266.

Talboys, Doris C.: *See*—
Talboys, Henry H. 3,071,082.
Talboys, Henry H. 3,101,214.

Talboys, Henry H.: *See*—
Beyerstedt, John M., Erickson, and Talboys. 3,101,274.

Talboys, Henry H., deceased, D. C. Talboys, executrix, to Nordberg Mfg. Co. Tamper jack for railway track maintenance. 3,071,082, 1-1-63, Cl. 104—12.

Talboys, Henry H., to Nordberg Mfg. Co. Impact deflector for track work. 3,084,362, 4-9-63, Cl. 15—55.

Talboys, Henry H., to Nordberg Mfg. Co. Brush for track and right-of-way. 3,087,179, 4-30-63, Cl. 15—55.

Talboys, Henry H., deceased (D. C. Talboys, executrix), to Nordberg Mfg. Co. Insulated flanged wheel. 3,101,214, 8-20-63, Cl. 295—1.

Talboys, Henry H. Method of and means for making rail joints. 3,107,054, 10-15-63, Cl. 238—151.

Talge, Foster L.: *See*—
McLean, Robert E., Chappell, and Briar. 3,078,568.

Talge, Henry J.: *See*—
McLean, Robert E. Chappell, and Briar. 3,078,568.

Tallet, Joseph, and A. Ben-Ezra, to General Aniline & Film Corp. Photographic film and process of producing same. 3,080,317, 3-5-63, Cl. 252—49.6.

Talley, Robert M.: *See*—
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Tallis, Ernest E., and J. Singleton, to Courtaulds Ltd. Production of yarns or irregular denier. 3,110,059, 11-12-63, Cl. 18—8.

Tallman, Charles V.: *See*—
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Tallman, Ralph C., to Monsanto Chemical Co. Conversion of cyclohexane to cyclohexene. 3,108,143, 10-22-63, Cl. 260—666.

Tallman, Ralph C., to Monsanto Chemical Co. Conversion of cyclohexane to cyclohexene. 3,108,144, 10-22-63, Cl. 260—666.

Talmo, Robert E.: *See*—
Gong, Howard, Sanchez, and Talmo. 3,089,108.

Talon, Inc.: *See*—
Poux, Roland J. 3,091,024.
Roda, Dominick A. 3,078,600.
Stone, George R. 3,086,246.
Streicher, Kurt. 3,106,749.

Talongmaskiner, Aktiebolaget: *See*—
Bilde, Tord E. D. 3,073,520.

Talton, Roland T., Jr.: *See*—
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Tama, Manuel, and W. E. Sherman, to Ajax Magnethermic Corp. Submerged resistor type induction furnaces and method and processes therefor. 3,092,682, 6-4-63, Cl. 13—29.

Tama, Mario, and W. E. Shearman, to Ajax Magnethermic Corp. Furnace. 3,088,182, 5-7-63, Cl. 22—79.

Tamagawa, Yoshio: *See*—
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Tamar Electronics, Inc.: *See*—
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Overholser, John S. 3,101,459.

Tamar Electronics Industries Inc.: *See*—
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Mills, Allan K. 3,114,269.

Tambaugh, Roy W., to Westinghouse Electric Corp. Lubricating composition and method for the hot extrusion of metals. 3,096,881, 7-9-63, Cl. 207—10.

Tamblyn, John W.: *See*—
Devaney, Richard G., and Tamblyn. 3,082,109.
Kibler, Charles J., Knowles, and Tamblyn. 3,075,850.
Kibler, Charles J., and Tamblyn. 3,100,716.
Lappin, Gerald R., Tamblyn, and Van Allan. 3,097,100.
Long, Selma H., and Tamblyn. 3,100,717.

Tamborski, Christ, and H. Gilman; said Gilamn assor. to United States of America, Air Force. Method of preparing heterocyclic compounds containing metals or metalloids. 3,079,414, 2-26-63, Cl. 260—429.

Tamborski, Christ, and H. Gilman; said Gilman assor. of ½ to United States of America, Air Force. Phenazasilines and preparation thereof. 3,103,529, 9-10-63, Cl. 260—448.2.

Tamburini, Fioraldo: *See*—
Zoppi, Bruno, Premoli, and Tamburini. 3,094,652.

Tamburro, Peter J.: *See*—
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Tamm, Christoph, to Sandoz, A.G. Process for the reduction of cardenolide and bufadienolide steroids. 3,080,362, 3-5-63, Cl. 260—239.57.

Tamm, Christoph, and G. Volpp, to Sandoz Ltd. 1α,11α-epoxy-3β,5,14,19-tetrahydroxy-carden-(20,22)-olide. 3,073,818, 1-15-63, Cl. 260—239.57.

Tamm, Emil S., to Baldor Electric Co. Bearing seal for electric motor. 3,112,417, 11-26-63, Cl. 310—90.

Tamm, Richard F.: *See*—
Bendix, Gordon H., and Tamm. 3,080,967.

Tamm, Rudolf: *See*—
Müller, Paul, and Tamm. 3,110,598.

Tamminen, Pentti J., to A. A. B. Oy. Method used in the manufacture of galvanic batteries. 3,076,052, 1-29-63, Cl. 136—175.

Tamny, Simon, to Borg-Warner Corp. Oil well line tensioning indicators. 3,082,733, 3-26-63, Cl. 116—67.

Tamny, Simon, to Wayne Mfg. Co. Power sweeper broom chamber. 3,093,853, 6-18-63, Cl. 15—83.

Tamplen, Jack W., to Sun Oil Co. Flow control devices for flow conductors. 3,079,996, 3-5-63, Cl. 166—115.

Tamplen, Jack W., to Otis Engineering Corp. Well tools for plugging a well flow conductor. 3,100,532, 8-13-63, Cl. 166—125.

Tamplen, Jack W., to Otis Engineering Corp. Anchoring and sealing device. 3,100,536, 8-13-63, Cl. 166—185.

Tamplen, Jack W., to Otis Engineering Corp. Perforator for well flow conductors. 3,111,989, 11-26-63, Cl. 166—55.3.

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Tamura, Kihachi, Y. Yoshikawa, I. Ito, and M. Takamizawa, to Shin-Etsu Chemical Industry Co., Ltd. Method for preparing monomethyldichlorosilane. 3,109,014, 10-29-63, Cl. 260—448.2.

Tamura, Mitsugu. Shoe polishing machine. 3,099,850, 8-6-63, Cl. 15—35.

Tanabe, Kenichi: *See*—
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Ohno, Yasuji, Abe, and Tanabe. 3,071,429.
Osugi, Tetsuro, Matsumoto, Tanabe, Hirano, Ohno, and Matsubayashi. 3,105,058.

Tanabe, Kenichi, and Y. Ohno, ¾ to Kurashiki Rayon Co., Ltd., and ¼ to Air Reduction Co. Inc. Preparation of polyvinyl alcohol bodies having improved knot strength. 3,080,207, 3-5-63, Cl. 8—115.5.

Tanabe, Kenichi, and K. Matsubayashi, ¾ to Kurashiki Rayon Co., Ltd. and ¼ to Air Reduction Co. Inc. Nitrogen-containing polyvinyl alcohol shaped articles. 3,095,257, 6-25-63, Cl. 8—115.5.

Tanabe, Masato, to Schering Corp. 20-keto-17,21-alkylidenedioxy steroids and processes for their manufacture and transformation. 3,116,289, 12-31-63, Cl. 260—239.55.

Tanabe Seiyaku Co., Ltd.: *See*—
Chibata, Ichiro, Kisumi, Ashikaga, and Kato. 3,086,918.
Kawasaki, Chikataro, Utsumi, Fujita, and Kobayashi. 3,109,000.
Okuda, Tomoharu, Egawa, Suzuki, and Ashino. 3,074,855.
Utsumi, Isama, Ida, Kishi, and Hashimoto. 3,073,748.

Tanaka, Katsunobu: *See*—
Kinoshita, Shukuo, Tanaka, and Kimura. 3,086,917.

Tanaka, Kuniyoshi and M. Honjo, to Takeda Pharmaceutical Industries, Ltd. Method for the preparation of adenosine 5'-triphosphate. 3,079,379, 2-26-63, Cl. 260—211.5.

Tanaka, Masao: *See*—
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Tanaka, Tetsuro, and S. Miura, to Murata Mfg. Co., Ltd. Mechanical filter. 3,105,208, 9-24-63, Cl. 333—71.

Tanaka, Yukio, to To-a Kako Kabushiki Kaisha. Method of quick nitrification in which fluidized particles are employed. 3,096,221, 7-2-63, Cl. 148—20.3.

Tanaka, Yukio, to To-a Kako Kabushiki Kaisha. Method of cementation in which fluidized carbon power particles are employed. 3,099,589, 7-30-63, Cl. 148—20.3.

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Tanatex Chemical Corp., The: *See*—
Weinstein, Sidney M., and Scott. 3,097,047.

Tanchuk, Nicholas R. Stamp hinge moistener. 3,095,328, 6-25-63, Cl. 118—268.

Tancig, William J., to Standard Oil Co. Comparison instrument. 3,090,993, 5-28-63, Cl. 18—14.

Tanczyn, Harry, to Armco Steel Corp. Stainless steel composition. 3,071,460, 1-1-63, Cl. 75—124.

Tanczyn, Harry, to Armco Steel Corp. Alloy steel and method. 3,083,095, 3-26-63, Cl. 75—125.

Tandler, William S., and M. Grossman, to The Warner & Swasey Co. Twist measuring apparatus. 3,101,552, 8-27-63, Cl. 33—174.

Tanenbaum, Joseph. Long load vehicle. 3,087,744, 4-30-63, Cl. 280—404.

Tanenbaum, Morris: *See*—
Spitzer, William G., and Tanenbaum. 3,099,579.

Tanenbaum, Morris, to Bell Telephone Laboratories, Inc. Uniform N-type silicon. 3,076,732, 2-5-63, Cl. 148—1.5.

Tanenbaum, Morris, to Bell Telephone Laboratories, Inc. Ferrimagnetic crystals. 3,085,981, 4-16-63, Cl. 252—62.5.

Tang, Hamburg, to Alloys Unlimited Inc. Gold silicon alloy. 3,099,539, 7-30-63, Cl. 29—183.5.

Tangorra, Louis D., to United States of America, Navy. Map transparency curvature device. 3,103,702, 9-17-63, Cl. 18—19.

Tanguy, Lewis L., Jr.: *See*—
Klehm, William G., Jr., and Tanguy. 3,080,560.

Tanguy, Lewis L., Jr., to Burroughs Corp. Item transport monitoring system. 3,114,902, 12-17-63, Cl. 340—259.

Tanimura, Katsuo, S. Kawamura, H. Suzumura, S. Sakakibara, and K. Nagano, to Kurashiki Rayon Co., Ltd. Method of manufacturing polyvinyl alcohol films. 3,080,249, 3-5-63, Cl. 117—9.

Tanke, Willard H., to Allis-Chalmers Mfg. Co. Implement bearing mounting. 3,111,351, 11-19-63, Cl. 308—181.

Tankersley, James A., and P. A. Driscoll; said Tankersley assor. to The Bendix Corp. Combination adjuster and reset mechanism. 3,095,064, 6-25-63, Cl. 188—72.

Tankus, Harry, to Crane Packing Co. Tandem seal. 3,090,627, 5-21-63, Cl. 277—85.

Tann Corp., The: *See*—
Abel, Martin L. 3,074,768.
Ovshinsky, Herbert C. 3,086,094.
Tann, David. 3,073,656.

Tann, David, to The Tann Corp. Self-lubricated ball bearing. 3,073,656, 1-15-63, Cl. 308—187.

Tann, David. Vibrating electric razor. 3,077,663, 2-19-63, Cl. 30—34.

Tannenberger, Helmuth, to Institut Dr. Ing. Reinhard Straumann A.G. Lubrication of totally enclosed mechanisms. 3,091,917, 6-4-63, Cl. 58—90.

Tanner, David: *See*—
Cairns, Theodore, Graham, and Tanner. 3,101,275.
Cline, Edward T., and Tanner. 3,088,791.
Cline, Edward T., and Tanner. 3,090,664.
Magat, Eugene E., and Tanner. 3,092,512.

Tanner, David, to E. I. du Pont de Nemours and Co. Nitrogenous condensation polymer containing grafted acid. 3,099,631, 7-30-63, Cl. 260—2.5.

Tanner, Francis A., Jr.: *See*—
Stacy, Stanley L., and Tanner. 3,095,159.

Tanner, Hans, to Georg Fischer Aktiengesellschaft. Pipe cutting device. 3,088,352, 5–7–63, Cl. 82—59.

Tanner, Herbert G. Coordination compounds and use thereof. 3,093,670, 6–11–63. Cl. 260—431.

Tanner, Hugh W.: *See*—
Forster, Milton P., Peck, and Tanner. 3,084,949.

Tanner, Maurice C.: *See*—
Lowes, Leonard, and Tanner. 3,097,071.

Tanner, Maurice C., to United Kingdom Atomic Energy Authority. Liquid-liquid contacting apparatus. 3,089,756, 5–14–63, Cl. 23—270.5.

Tanner, Robert L., to Granger Associates. Low-noise corona discharge devices. 3,106,663, 10–8–63, Cl. 317—2.

Tanner, Selig: *See*—
Troup, Alexander, Tanner, and Goode. 3,083,624.

Tanner, Stephen B.: *See*—
Komulainen, Maija-Liisa. 3,072,435.

Tanner, Troy B. Aeration apparatus. 3,080,154, 3–5–63, Cl. 261—30.

Tansey, Richard G. Single point screw thread cutting tool having means for feeding the tool after successive cuts. 3,088,141, 5–7–63, Cl. 10—101.

Tansey, Robert P.: *See*—
Gaunt, William E., and Tansey. 3,101,293.

Tantillo, Alfred, and J. Nelson, to General Bathroom Products Corp. Bathroom cabinet. 3,081,397, 3–12–63, Cl. 240—4.1.

Tantlinger, Keith W., to Sea-Land Service Inc. Freight containers adapted to be stacked. 3,085,707, 4–16–63, Cl. 220—1.5.

Tantlinger, Keith W., and H. Locker, to Fruehauf Trailer Co. Longitudinally adjustable trailer suspension. 3,085,816, 4–16–63, Cl. 280—80.

Tantlinger, Keith W., and G. A. Wooldridge, to Fruehauf Trailer Co. Container tie. 3,086,673, 4–23–63, Cl. 220—1.5.

Tantlinger, Keith W., and G. Chieger, to Fruehauf Trailer Co. Landing gear. 3,089,711, 5–14–63, Cl. 280—150.5.

Tantlinger, Keith W., and R. T. Fujioka, to Fruehauf Trailer Co. Automatic container tie. 3,092,282, 6–4–63, Cl. 220—1.5.

Tantlinger, Keith W., and R. G. Flagan, to Fruehauf Trailer Co. Trailer wheel suspension and landing gear removable as a unit. 3,101,202, 8–20–63, Cl. 280—30.

Tantlinger, Keith W., R. T. Fujioka, and A. F. Hulverson, to Fruehauf Trailer Co. Separable equalized tandem axle wheel suspension. 3,108,822, 10–29–63, Cl. 280—104.5.

Tantram, Anthony D. S.: *See*—
Chambers, Hubert H., and Tantram. 3,099,587.

Tantram, Anthony D. S., and B. S. Harris, to National Research Development Corp. Fuel cells. 3,101,285, 8–20–63, Cl. 136—120.

Tanuma, Kazuo. Tool or utensil fastening means. 3,100,057, 8–6–63, Cl. 220—48.

Tanzberger, Eric W., to Dresser Industries. High pressure centrifugal compressor. 3,105,632, 10–1–63, Cl. 230—130.

Taormina, Anthony J. Wire brush chain. 3,086,235, 4–23–63, Cl. 15—201.

Tap, Jan W., to North American Philips Co., Inc. Direct-voltage converter. 3,079,525, 2–26–63, Cl. 321—2.

Tapas, John C., and I. J. Dissen, to Velsicol Chemical Corp. Flame retardant cellular product. 3,098,047, 7–16–63, Cl. 260—2.5.

Tape, Robert L., to C. B. Harris. Razor blade for hair trimmer. 3,106,020, 10–8–63, Cl. 30—336.

Taplin, Howard A. Lint removing means for vacuum cleaner nozzles. 3,089,179, 5–14–63, Cl. 15—371.

Taplin, John F. Rolling seal diaphragm. 3,083,734, 4–2–63, Cl. 137—795.

Tappan Co., The: *See*—
Perl, Richard L. 3,089,479.
Perl, Richard L. 3,107,824.
Warner, Elmer L. 3,081,392.

Tappan, Gene F.: *See*—
Duane, John J., and Tappan. 3,096,290.

Tappan, Peter W., A. C. Vaccaro, and B. R. Kuhl, to Warwick Mfg. Corp. Whistle. 3,103,911, 9–17–63, Cl. 116—137.

Tappe, Gustav: *See*—
Tsunoda, Kenneth, and Tappe. 3,103,768.

Tapper, Samuel. Tablet or capsule dispenser. 3,073,433, 1–15–63, Cl. 206—42.

Tapper, Samuel. Tablet storage case with dispensing control unit. 3,077,261, 2–12–63, Cl. 206—42.

Taramasso, Marco, and A. Guerra, to Laboratori Riuniti Studi e Ricerche S.p.A. Microsyringe for gas-chromatography. 3,094,155, 6–18–63, Cl. 141—329.

Taras, Andrew, to International Business Machines Corp. Apparatus for effecting concurrent record, read and checking operations. 3,096,511, 7–2–63, Cl. 340—174.1.

Tarascon, Jean P. Seat or other articles such as couch, etc. 3,095,238, 6–25–63, Cl. 297—306.

Tarasevich, Michael, to American Bosch Arma Corp. Composite piezoelectric element. 3,093,760, 6–11–63, Cl. 310—9.1.

Tarasov, Arthur: *See*—
Shansky, Albert, and Tarasov. 3,109,778.

Tarazona, Jose A. Q. Device for mounting and dismounting pneumatic tires. 3,074,468, 1–22–63, Cl. 157—1.24.

Tarbox, John P., to Sperry Rand Corp. Wire tier. 3,086,450, 4–23–63, Cl. 100—22.

Tarbox, Robert H., to Dana Corp. Shift knob switch. 3,073,918, 1–15–63, Cl. 200—6.

Tarczy-Hornoch, Zoltan, to W. H. Rosenberry. High resolution ring-type counter. 3,105,195, 9–24–63, Cl. 328—43.

Tardy, Pierre A., M. Bruma, and M. Magat, to Compagnie Francaise de Raffinage and Centre National de la Recherche cientifique (C.N.R.S.). Electro-discharge machining of metals and the like. 3,084,245, 4–9–63, Cl. 219—69.

Tarez S.A.: *See*—
Bergonzo, Pierre. 3,089,160.
Lanz, Alfred. 3,106,727.

Tariello, Paul J.: *See*—
Nuchbar, Henry D., Biggs, Tariello, and George. 3,073,961.

Tarifa, Carlos S., and J. V. Pedrosa. Hydraulic pumps. 3,093,080, 6–11–63, Cl. 103—5.

Tarin, Benjamin: *See*—
Clayton, Robert G., Halberstadt, and Tarin. 3,072,944.

Tarkington, Terry W., and C. D. Whitt, to Monsanto Chemical Co. Acrylonitrile polymer composition and stabilized with zinc oxalate, zinc acetate, or chromium acetate. 3,088,932, 5–7–63, Cl. 260—45.75.

Tarkoey, Niklaus: *See*—
Wettstein, Albert, Heusler, Meystre, Tarkoey, and Wieland. 3,072,687.

Tarlow, Elvin. Mattress construction. 3,111,690, 11–26–63, Cl. 5—351.

Tarlton, Edward J.: *See*—
McKay, Arthur F., Podesva, and Tarlton. 3,101,373.

Tarlton, Edward J., and A. F. McKay, to Monsanto Canada Ltd. Arylmethyl isothiocyanates. 3,111,536, 11–19–63, Cl. 260—154.

Tarrant, James H., and R. B. Anderson, to Farmer Bros. Co. Means for supplying brewing water to coffee urns. 3,074,341, 1–22–63, Cl. 99—305.

Tarrson, Sidney A., Co.: *See*—
Broman, Cyrus R., and Hardison. 3,110,497.

Tarson, Frank A. Spaghetti fork. 3,083,458, 4–2–63, Cl. 30—322.

Tartter, Arnold: *See*—
Hensel, Hans R., Baumann, Tartter, and Weissauer. 3,108,103.

Tartter, Arnold, W. Rohland, D. Ludsteck, and R. Schroedel, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. New phthalocyanine dyes. 3,096,340, 7–2–63, Cl. 260—314.5.

Tarwater, James P., and J. A. Griesemer, to International Business Machines Corp. Method of curing magnetic tape binder comprising butadiene-acrylonitrile and phenolic resin with subatomic radiation. 3,104,983, 9–24–63, Cl. 117—93.31.

Tasca, Angelo G., to Aerojet-General Corp. Fluid storage vessel. 3,097,768, 7–16–63, Cl. 222—389.

Taschek, Walter G., to United States of America, Army. Electrode for fuel cell. 3,098,772, 7–23–63, Cl. 136—120.

Taschinger, Otto, to Vereinigte Leichtmetall-Werke Gesellschaft mit beschrankter Haftung. Method of spot welding light-gage metallic stock. 3,115,572, 12–24–63, Cl. 219—127.

Tasi, Vasil: *See*—
Goodell, John D., Irvins, Wistrand, and Tasi. 3,100,090.

Task Corp., The: *See*—
Acosta, Allan J. 3,111,142.
Ward, Howard E. 3,088,083.

Tasker Instruments Corp.: *See*—
Daspit, John L., and Thomas. 3,096,433.
Hollowich, Garrison G., and McCullough. 3,096,512.

Tasope Co., The: *See*—
Martz, Charles S. 3,072,133.

Tassie, Douglas P., to United States of America, Army. Flexible mount for remote-controlled sight. 3,070,886, 1–1–63, Cl. 33—47.

Tassie, Douglas P., and L. K. Wetzel, to General Electric Co. Turret mount. 3,115,062, 12–24–63, Cl. 89—37.

Tate, Charles G., Jr. Adjustable toothbrush. 3,110,918, 11–19–63, Cl. 15—167.

Tate, Clarence R. Magnetic writing materials set. Re. 25,363, 4–2–63, Cl. 35—66.

Tate, Francis E. G., and J. H. Wild, to Imperial Chemical Industries Ltd. Polymerization of organic isocyanates with organic hydroxides. 3,108,100, 10–22–63, Cl. 260—248.

Tate, James D.: *See*—
Smith, Maineard L., and Tate. 3,085,616.

Tate, John E., to Monsanto Chemical Co. Apparatus for melt spinning of synthetic filaments. 3,108,322, 10–29–63, Cl. 18—8.

Tate, Lawrence A., to International Business Machines Corp. Core code translator. 3,086,198, 4–16–63, Cl. 340—347.

Tate, Orphus O. Slide covers for hay balers. 3,084,619, 4–9–63, Cl. 100—19.

Tate, Russell S. Pressurized fountain pen. 3,075,497, 1–29–63, Cl. 120—42.4.

Tate, William H.: *See*—
Meeker, Jess, and Tate. 3,100,712.

Tate, William M. Window muntin bar elements. 3,108,336, 10–29–63, Cl. 20—56.

Tateishi, Arthur K. Audio-amplifier-radio tuner combination and low drain tuner therefor. 3,090,919, 5–21–63, Cl. 325—356.

Tateishi, Kazuma. Tumbler switch. 3,090,846, 5–21–63, Cl. 200—67.

Tateishi, Kazuma. Magnetic switch. 3,099,730, 7–30–63, Cl. 200—104.

Tateishi, Toshio, to Nihon Mishin Seizo Kabushiki Kaisha. Stitch-forming mechanism of a sewing machine. 3,082,722, 3–26–63, Cl. 112—181.

Tatel, Howard E., deceased; M. Tatel, executrix, 15% to J. H. Sreb, 21.25% to W. L. Abramowitz, 21.25% to W. Epstein, and 15% to J. Zallen. Anti-collision system for ships and planes. 3,091,764, 5–28–63, Cl. 343—101.

Tatel, Howard E., deceased; M. Tatel, executrix, 15% to J. H. Sreb, 21.25% to W. L. Abramowitz, 21.25% to W. Epstein, and 15% to J. Zallen. Anti-collision system for ships and planes. 3,091,765, 5–28–63, Cl. 343—102.

Tatel, Molly: *See*—
Tatel, Howard E. 3,091,764.
Tatel, Howard E. 3,091,765.

Tatelman, Harvey J., to Originals By Claire, Inc. Reversible handbag. 3,108,627, 10–29–63, Cl. 150—28.

Tatge, Robert B., to General Electric Co. Resilient mounting for motor and fan unit. 3,101,889, 8–27–63, Cl. 230—117.

Tatham, Thomas H., Jr., to General Dynamics Corp. Matrix for a character display tube. 3,111,598, 11–19–63, Cl. 313—86.

Tatlow, John C.: *See*—
Buxton, Michael W., and Tatlow. 3,113,976.

Tatnall, George J., A. F. Scarcelli, and G. A. Gimber, to United States of America, Navy. Air-dropped miniature sonobuoy. 3,093,808, 6–11–63, Cl. 340—2.

Tatone, John. Model airplane fuel and flight timer. 3,074,204, 1–22–63, Cl. 46—78.

Tatsch, Richard. Method of forming passages through concrete floors, and the like. 3,082,504, 3–26–63, Cl. 25—155.

Tatsumi, Takeji: *See*—
Fukita, Eiji, Tatsumi, and Adachi. 3,113,851.

Tatsuoka, Shuo, K.-I. Kanazawa, T. Araki, K. Nakazawa, A. Miyake, H. Hitomi, J. Ueyanagi, M. Shibata, F. Hiraiwa, K. Tsuchiya, H. Iwasaki, and T. Yamaguchi, to Takeda Pharmaceutical Industries, Ltd. L-5-hydroxy-γ-oxonorvaline. 3,112,341, 11–26–63, Cl. 260—534.

Tatter, Charles W.: *See*—
Noznick, Peter P., and Tatter. 3,098,748.
Noznick, Peter P., Tatter, and Obenauf. 3,098,746.

Tatusko, Philip A.: *See*—
Bock, Jorgen, Hartman, and Tatusko. 3,113,901.

Taub, Alvin, M. M. Feldman, and C. E. Le Bell, to General Electric Co. Adjustable jet propulsion nozzle with secondary air flow control. 3,098,352, 7–23–63, Cl. 60—35.6.

Taub, Bernard, to Allied Chemical Corp. Esters of N-carboalkoxy-E aminocaproic acid. 3,078,301, 2–19–63, Cl. 260—482.

Taub, David: *See*—
Wendler, Norman L., and Taub. 3,084,175.

Taub, David, N. L. Wendler, and C.-H. Kuo, to Merck & Co., Inc. Hydrolysis of 3-semicarbazido steroids. 3,079,409, 2–26–63. Cl. 260—397.45.

Taub, David, N. L. Wendler, and H. L. Slates, to Merck & Co., Inc. 16β-alkyl steroids and processes. 3,116,303, 12–31–63, Cl. 260—397.45.

Taub, David, and N. L. Wendler, to Merck & Co., Inc. 15-alkyl steroids. 3,116,304, 12–31–63, Cl. 260—397.45.

Taub, Robert S. Ash tray. 3,101,753, 8–27–63, Cl. 141—248.

Taub, Ronald H., to Creative Displays Inc. Display sign fixture. 3,071,880, 1–8–63, Cl. 40—11.

Tauber, Andrey G.: *See*—
Kolenko, Evgeny A., Tauber, and Czerbina. 3,097,425.

Taubman, Samuel. Bathtub enclosure. 3,074,077, 1–22–63, Cl. 4—149.

Taubman, Samuel. Rolling panel closure means. 3,075,255, 1–29–63, Cl. 20—19.

Taubner, Fred R.: *See*—
Homer, Horace H., and Taubner. 3,097,103.

Tauch, Ernest J., to E. I. du Pont de Nemours and Co. Process for preparing aqueous silicate solutions. 3,090,679, 5–21–63, Cl. 23—312.

Taunt, James E., to International Business Machines Corp. Single transistor magnetic multivibrator amplifier. 3,114,115, 12–10–63, Cl. 331—113.

Tausch, Gilbert H., to Camco, Inc. Safety valve for wells. 3,078,923, 2–26–63, Cl. 166—224.

Tausch, Harry W., to The Goodyear Tire & Rubber Co. Heat treatment of a blend of butadiene-acrylonitrile copolymer and vinyl chloride polymer latices and resulting coalesced latex product. 3,097,180, 7–9–63, Cl. 260—29.7.

Tauschinski, Stephan, and F. Woyrsch, to J. Pfrimmer & Co. Containers for medicinal liquids. 3,081,002, 3–12–63, Cl. 222—105.

Tauser, Charles H. Punching apparatus. 3,112,666, 12–3–63, Cl. 83—133.

Tausig, Fred: *See*—
Stoudt, Thomas H., and Tausig. 3,113,077.

Taussig, Frederick, to Arundale Mfg. Co. Screen. 3,107,991, 10–22–63, Cl. 55—511.

Tautner, Erwin, and T. H. J. de Laat, to North American Philips Co., Inc. Circuit arrangements for frequency modulation. 3,088,080, 4–30–63, Cl. 332—24.

Tauty, René L., to Etudes et Fabrications Aeronautiques. Quick-release fastening device for a parachute harness. 3,115,321, 12–24–63, Cl. 244—151.

Tavis, John R., to Edcliff Instruments. Pressure adapter for pressure transducers. 3,106,095, 10–8–63, Cl. 73—407.

Tawney, Pliny O., to United States Rubber Co. Bonding butyl rubber to nylon. 3,111,448, 11–19–63, Cl. 161—92.

Tax, Edward J. Wild fowl call. 3,100,948, 8–20–63, Cl. 46—189.

Tax, Hans, and H. Biedermann; said Biedermann assor. to said Tax. Vehicle for movement on curved tracks. 3,093,091, 6–11–63, Cl. 105—215.

Tay, John. Audible fish lures. 3,112,576, 12–3–63, Cl. 43—42.14.

Tayco Development, Inc.: *See*—
Taylor, Paul H. 3,115,003.

Tayler, Frederick M., to Imperial Chemical Industries Ltd. Iron hydroxide complexes and process for their preparation. 3,103,528, 9–10–63, Cl. 260—439.

Tayler, Frederick M., and J. Dewing, to Imperial Chemical Industries Ltd. Production of boron compounds. 3,103,417, 9–10–63, Cl. 23—204.

Taylor, Alan F.: *See*—
Stockdale, James T., and Taylor. 3,079,322.

Taylor, Albert J.: *See*—
McNees, Robert A., Jr., and Taylor. 3,116,106.

Taylor, Alton R.: *See*—
Brandon, Frank B., and Taylor. 3,105,012.
Lo Grippo, Gerald A., Timin, and Taylor. 3,076,748.

Taylor, Anthony J., to Babcock & Wilcox Ltd. Nuclear reactors. 3,075,910, 1–29–63, Cl. 204—193.2.

Taylor, Anthony J., to Babcock & Wilcox Ltd. Heat exchanger construction. 3,104,653, 9–24–63, Cl. 122—32.

Taylor, Arthur L. Domestic carving and slicing knives or cutters. 3,103,745, 9–17–63, Cl. 30—283.

Taylor, Arthur S.: *See*—
Cooper, Murray S., Taylor, and Place. 3,074,403.

Taylor, Arthur S., and W. P. Konazewski, to American Cyanamid Co. Machine for slitting tissues. 3,076,365, 2–5–63, Cl. 83—63.

Taylor, Athos J. Broaching machine having means for laterally positioning a plurality of punch mechanisms. 3,089,374, 5–14–63, Cl. 83—560.

Taylor, Bert S., to FMC Corp. Veneer finishing method. 3,108,030, 10–22–63, Cl. 156—332.

Taylor, Bert S., J. L. Thomas, and C. A. Heiberger, to FMC Corp. New allylic resin compositions. 3,093,619, 6–11–63, Cl. 260—78.5.

Taylor, Billy W., to Fisher Scientific Co. Apparatus for blood gas analysis. 3,111,390, 11–19–63, Cl. 23—253.

Taylor, Billy W., and A. A. Poll, Jr., to Fisher Scientific Co. Apparatus for gas analysis. 3,097,518, 7–16–63, Cl. 73—23.

Taylor, Charles B., to Continental Can Co., Inc. Gravure printing surface. 3,093,071, 6–11–63, Cl. 101—401.

Taylor, Charles P., to Ideal Stencil Machine Co. Tube marking machine. 3,082,686, 3–26–63, Cl. 101—37.

Taylor, Charles H. Sweeper. 3,097,383, 7–16–63, Cl. 15—41.

Taylor, Charles W., to Taylor, Pallister & Co. Ltd. Bollards. 3,073,276, 1–15–63, Cl. 114—230.

Taylor, Charles W., to Taylor, Pallister & Co. Ltd. Fairleads for cables and ropes. 3,112,097, 11–26–63, Cl. 254—190.

Taylor, Charles W., Jr., and J. J. Wadlinger, to The Goodyear Tire & Rubber Co. Method and apparatus for laminating. 3,081,212, 3–12–63, Cl. 156—164.

Taylor, Charles W., Jr., and K. N. Remita, to The Goodyear Tire & Rubber Co. Wood products and method. 3,085,920, 4–16–63, Cl. 154—43.

Taylor, Clarence R. Lead sharpening device. 3,099,253, 7–30–63, Cl. 120—94.

Taylor, Clarence R. Dispensing device having shifted top portion. 3,099,372, 7–30–63, Cl. 222—490.

Taylor, Clement F., to General Electric Co. Frequency compensated mass flowmeter. 3,084,544, 4–9–63, Cl. 73—194.

Taylor, Clement F., J. R. Macintyre, and H. D. Oakley, to General Electric Co. Frequency compensated mass flowmeter. 3,110,180, 11–12–63, Cl. 73—194.

Taylor, Clyde E.: *See*—
Post, Richard F., and Taylor. 3,090,894.
Post, Richard F., and Taylor. 3,100,730.

Taylor Corp.: *See*—
Hildebrand, Harry L. 3,112,084.

Taylor, Dana L. Helicopter control system. 3,108,641, 10–29–63, Cl. 170—160.16.

Taylor, Daniel G., to Minneapolis-Honeywell Regulator Co. Velocity sensing apparatus. 3,094,693, 6–18–63, Cl. 343—7.

Taylor, Dennis G.: *See*—
Favill, William A., and Taylor. 3,075,383.

Taylor, Don A. Measuring tape tension holder. 3,100,941, 8–20–63, Cl. 33—189.

Taylor, Don A. Detachable ventilating seat cover for automobile seats. 3,101,037, 8–20–63, Cl. 98—2.

Taylor, Don A. Ventilating hood for seat cushions. 3,101,660, 8–27–63, Cl. 98—2.

Taylor, Don A. Finger grip pad for bowling balls. 3,113,775, 12–10–63, Cl. 273—63.

Taylor, Donald O., to Scovill Mfg. Co. Top stops for zipper fasteners. 3,086,269, 4–23–63, Cl. 24—205.11.

Taylor, Douglas C.: *See*—
Johnson, Paul B. 3,115,849.

Taylor, Edward L., to KVP Sutherland Paper Co. Watermarked vegetable parchment. 3,076,689, 2–5–63, Cl. 8—119.

Taylor, Edward L., to KVP Sutherland Paper Co. Parchmentized paper. 3,108,847, 10–29–63, Cl. 8—119.

Taylor, Edwin A.: *See*—
Moore, Donald C., and Taylor. 3,083,448.

Taylor, Elmer A., Jr., to Daystrom Inc. Display chart mechanism. 3,077,043, 2–12–63, Cl. 40—95.

Taylor, Elmore C., to FMC Corp. Fluid seal. 3,112,113, 11–26–63, Cl. 277—95.

Taylor, Ernest A., Jr., to Monsanto Chemical Co. Transferring and cutting apparatus. 3,083,923, 4–2–63, Cl. 242—19.

Taylor, Ernest A., Jr., to Monsanto Chemical Co. Electrical apparatus for producing a variable frequency. 3,093,787, 6–11–63, Cl. 321—61.

Taylor, Ernest A., Jr., to Monsanto Chemical Co. Apparatus for texturizing filaments. 3,113,366, 12–10–63, Cl. 28—1.

Taylor, Ewart W. E.: *See*—
Brockbank, Robert A., Piggott, Clarke, Jury, and Taylor. 3,105,676.

Taylor, Floyd E.: *See*—
Mason, Roy C. 3,082,563.

Taylor, Francis A., and G. S. Flanders. Well packing devices. 3,082,824, 3–26–63, Cl. 166—134.

Taylor, Frank F., Co., The: *See*—
Gill, Donald W. 3,083,050.

Taylor, Frank W., to Westinghouse Electric Corp. Apparatus for dispensing articles alternately from two adjacent columns. 3,107,030, 10–15–63, Cl. 221—116.

Taylor, Frederick J. D., to Her Majesty's Postmaster General. Automatically actuated gate cut-off valve, responsive to pressure drop, with gate sealing means, useful in pressurized waveguides. 3,089,511, 5–14–63, Cl. 137—456.

Taylor, Geoffrey L., K. C. Logan, and J. Mardon, to Anglo Paper Products Ltd. Wet end drainage system for paper machines. 3,079,990, 3–5–63, Cl. 162—350.

Taylor, George A.: *See*—
Anderberg, Axel W., Reid, and Taylor. 3,085,797.

Taylor, George H., Jr. Acoustical enclosure and low frequency sound amplifier for a loudspeaker. 3,097,720, 7–16–63, Cl. 181—31.

Taylor, George W.: *See*—
Goodings, Eric P., O'Neill, and Taylor. 3,099,515.
Goodings, Eric P., Taylor, and O'Neill. 3,082,053.

Taylor, George W., ½ to W. F. Wessendorf, Jr. Control system for warp knitting machine. 3,098,367, 7–23–63, Cl. 66—164.

Taylor, Glenn. Saboted-projectile, obturator. 3,111,902, 11–26–63, Cl. 102—94.

Taylor, Halsey W., Co., The: *See*—
Freer, Clyde P. 3,086,373.

Taylor, Harvey C., to Dorr Sales & Engineering Co., Inc. Printing cylinder with improved means for securing flexible dies thereto. 3,103,169, 9–10–63, Cl. 101—415.1.

Taylor, Herbert E., G. C. Rannenberg, and M. R. Macklin, to United Aircraft Corp. Liquid vapor separator. 3,107,988, 10–22–63, Cl. 55—311.

Taylor, Howard N. Simulated golf cup. 3,086,779, 4–23–63, Cl. 273—177.

Taylor Instrument Companies: *See*—
Cefaly, Ralph. 3,109,508.

Taylor, Jack A.: *See*—
Vadius, Joseph R., and Taylor. 3,080,555.

Taylor, James M.: *See*—
Farris, Ralph J., and Taylor. 3,092,188.

Taylor, James S. Support for gas and oil strings. 3,094,852, 6–25–63, Cl. 175—200.

Taylor, Jennie M.: *See*—
Allan, Charles G. 3,106,335.

Taylor, John, to Columbia Products Co. High Q loading coil having plural interleaved paralleled windings in combination with axial antenna. 3,099,010, 7–23–63, Cl. 343—749.

Taylor, John A., and H. R. Tuck, to General Motors Corp. Combination clothes washer and drier. 3,091,955, 6–4–63, Cl. 68—19.

Taylor, John A. M. Device for measuring, indicating and adding time increments. 3,078,413, 2–19–63, Cl. 324—68.

Taylor, John H.: *See*—
Hauser, Richard, and Taylor. 3,072,765.

Taylor, John J.: *See*—
Ryan, Edmund C., and Taylor. 3,076,868.

Taylor, John R., to General Motors Corp. Parts feeding device. 3,099,339, 7–30–63, Cl. 214—8.

Taylor, John S., to The Budd Co. Method of stress-relieving free-sintered polytetrafluoroethylene. 3,076,233, 2–5–63, Cl. 18—55.

Taylor, John S., to The Budd Co. Suction box cover for Fourdrinier machines. 3,096,235, 7–2–63, Cl. 162—374.

Taylor, John S., to Tifcon Co. Tobacco curing apparatus. 3,109,637, 11–5–63, Cl. 263—19.

Taylor, John W., to United States of America, Navy. Ionizing radiation detector of the scintillation photoconductive type. 3,101,408, 8–20–63, Cl. 250—71.5.

Taylor, Keith M., to Monsanto Chemical Co. Preparation of chloroacrolein. 3,100,227, 8–6–63, Cl. 260—601.

Taylor, Keith M., to Monsanto Chemical Co. Preparation of α-chloroacrylonitrile. 3,114,765, 12–17–63, Cl. 260—465.7.

Taylor, Kelley G., to A. E. Staley Mfg. Co. Method of preparing a starch carboxyl alkyl ether derivative. 3,071,573, 1–1–63, Cl. 260—233.3.

Taylor, Kelley G., to A. E. Staley Mfg. Co. Modified starch product for coating cellulosic webs. 3,081,199, 3–12–63, Cl. 117—156.

Taylor, Kenneth M.: *See*—
Lenie, Camille A., and Taylor. 3,108,887.

Taylor, Kenneth M., to The Carborundum Co. Bearing combination. 3,097,879, 7–16–63, Cl. 308—188.

Taylor, Kirman, and C. E. Millstead, Jr., to Diamond Alkali Co. Chromic chloride complexes. 3,076,833, 2–5–63, Cl. 260—438.

Taylor, La Vern L.: *See*—
Keatley, Lawrence E. 3,115,212.

Taylor, Le Roy M. Game apparatus. 3,091,461, 5–28–63, Cl. 273—95.

Taylor, Leta E.: *See*—
Johnson, Paul B. 3,115,849.

Taylor, Leta S.: *See*—
Johnson, Paul B. 3,115,849.

Taylor, Louis H., to The Youngstown Research and Development Co. Apparatus and method for detecting and compensating for roll deflection on a rolling mill. 3,077,800, 2–19–63, Cl. 80—32.

Taylor, Max W. Underwater breathing apparatus. 3,082,766, 3–26–63, Cl. 128—145.

Taylor, Milford J., to Erving Paper Mills. Dispenser for paper products. 3,071,289, 1–1–63, Cl. 221—59.

Taylor, Milford J., to Erving Paper Mills. Dispenser for paper products. 3,071,290, 1–1–63, Cl. 221—59.

Taylor, Norman W., to Harris-Intertype Corp. Sheet separating and lifting sucker. 3,076,648, 2–5–63, Cl. 271—31.

Taylor, Olin C., to Barter Laboratories, Inc. Dispensing closure. 3,096,915, 7–9–63, Cl. 222—495.

Taylor, Pallister & Co. Ltd.: *See*—
Taylor, Charles W. 3,073,276.
Taylor, Charles W. 3,112,097.

Taylor, Paul E.: *See*—
Bookout, Charles C., and Taylor. 3,085,645.

Taylor, Paul H., to Tayco Development, Inc. Accumulator for vehicle suspension. 3,115,003, 12–24–63, Cl. 60—23.

Taylor, Ralph E., to United States of America, Army. Thyratron firing circuit. 3,088,410, 5–7–63, Cl. 102—70.2.

Taylor, Ray D.: *See*—
Morris, Roger E., and Taylor. 3,112,286.

Taylor, Raymond G., Jr., to Borg-Warner Corp. Hinged casing protector transfer sleeve. 3,099,877, 8–6–63, Cl. 29—236.

Taylor, Raymond L.: *See*—
Harting, Horace E., and Taylor. 3,093,883.

Taylor-Reed Corp., The: *See*—
Reed, Charles M. D. 3,082,906.

Taylor, Richard E.: *See*—
Hickman, Carl V., Taylor, Butterworth, Miller, Young, and Powell. 3,075,434.

Taylor, Richard L.: *See*—
Gray, Edward E., Pappas, and Taylor. 3,113,989.

Taylor, Robert B., to Rocket Pogo Stick Co. Pogo stick. 3,074,715, 1–22–63, Cl. 272—57.

Taylor, Robert B., and R. G. Walker, to H. & A. Selmer, Inc. Apparatus for and method of testing wind instruments for leakage. 3,101,607, 8–27–63, Cl. 73—40.

Taylor, Robert C. Rural mailbox. 3,081,023, 3–12–63, Cl. 232—24.

Taylor, Robert S. Heat placement. 3,094,301, 6–18–63, Cl. 244—134.

Taylor, Roger K., to W. R. Grace & Co. Trap for mercury retention. 3,107,534, 10–22–63, Cl. 73—401.

Taylor, Roger K., to W. R. Grace & Co. Apparatus for maintaining uniform humidity. 3,110,442, 11–12–63, Cl. 236—44

Taylor, S Blackwell. Hydraulic windshield wiper and washer. 3,114,168, 12–17–63, Cl. 15—250.02.

Taylor, Samuel K.: *See*—
Cool, Kenneth A., and Taylor. 3,104,146.

Taylor, Santford G.: *See*—
Allan, Charles G. 3,106,335.

Taylor, Smith & Taylor Co.: *See*—
Elliott, Walter L. 3,074,138.

Taylor, Taylor & Hobson: *See*—
Adams, John R. 3,074,176.
Cook, Gordon H. 3,081,671.
Rawstron, George O. 3,072,014.
Rawstron, George O. 3,079,739.
Rawstron, George O., and Reason. 3,079,731.
Rawstron, George O., and Reason. 3,079,732.

Taylor, Thomas D., deceased, by G. Brueggenjohann, executrix, to Union Special Machine Co. Thread control mechanism for chainstitch blindstitch machines. 3,099,236, 7–30–63, Cl. 112—176.

Taylor, Thomas D., deceased, by G. Brueggenjohann, executrix, to Union Special Machine Co. Blindstitch sewing machine with eccentric mounting for work support. 3,100,468, 8–13–63, Cl. 112—178.

Taylor, Thomas D., deceased, by G. Brueggenjohann, executrix, to Union Special Machine Co. Blindstitch sewing machine with selectable node former. 3,105,450, 10–1–63, Cl. 112—178.

Taylor, Thomas I., to Isomet Corp. Electrolytic production of O from Co. 3,079,237, 2–26–63, Cl. 23—209.5.

Taylor, Thomas I., to Isomet Corp. Reversed fuel cell and oxygen generator. 3,085,053, 4–9–63, Cl. 204—60.

Taylor, Thomas I., to Isomet Corp. Production of O_3 from CO_2 by electric arc or radiant energy. 3,113,086, 12–3–63, Cl. 204—164.

Taylor, Thomas & Sons, Inc.: *See*—
Yuryan, Joseph B. 3,082,808.

Taylor, Walter J. Handkerchief pocket formed with folded corner portion thereof. 3,110,334, 11–12–63, Cl. 150—37.

Taylor, Walter P., Jr. Hand winder for flexible material. 3,096,040, 7–2–63, Cl. 242—85.1.

Taylor, Warren C.: *See*—
Altice, Maryland V., Waldin, and Taylor. 3,074,286.

Taylor, Wilfred K., to International Business Machines Corp. Optimizing automatic control servosystem. 3,096,471, 7–2–63, Cl. 318—448.

Taylor, William C., to Owens-Corning Fiberglas Corp. Thermal insulating materials and method of making. 3,116,158, 12–31–63, Cl. 106—120.

Taylor, William E., to United States of America, Air Force. Pivot support for miniature floated units. 3,072,446, 1–8–63, Cl. 308—59.

Taylor, William E., to Motorola, Inc. Transistor. 3,087,098, 4–23–63, Cl. 317—234.

Taylor, William E., to American Can Co. Can package. 3,113,668, 12–10–63, Cl. 206—47.

Taylor-Wilson Mfg. Co.: *See*—
McConnell, William M. 3,095,729.

Taylor-Winfield Corp., The: *See*—
Cooper, Joseph H., and Secloff. 3,088,020.
Jones, Raymond C., and Woodward. 3,102,189.
Secloff, Melvin M. 3,102,502.
Secloff, Melvin M. 3,105,728.

Taylor, Winfred P., and L. A. Tillman, to J. P. Stevens & Co., Inc. Intermittent control apparatus. 3,091,909, 6–4–63, Cl. 57—34.

Taylor Wyman Co.: *See*—
Wyman, Floyd H. 3,080,165.

Taysum, Derek H.: *See*—
Graham, David J., and Taysum. 3,100,235.

Tawney, Pliny O., to United States Rubber Co. Condensation products of trinitromethane and dimethylolurea. 3,097,239, 7–9–63, Cl. 260—553.

Tazaki, Ichiro: *See*—
Fujisaki, Yoshisato, Kobayashi, Hidehiko, and Tazaki. 3,073,669.

Tazuma, James J., and R. Miller, to FMC Corp. Preparation of trialkyl isocyanurates. 3,075,979, 1–29–63, Cl. 260—248.

Tchelitcheff, Serge, R. J. Horclois, and J. G. Robert, to Societe des Usines Chimiques Rhone-Poulenc. Phenthiazine derivatives. 3,113,131, 12–3–63, Cl. 260—243.

Te Co., The: *See*—
Baum, Custer C. 3,088,037.

Tea Corp.: *See*—
Bonotto, Michele. 3,080,237.
Soderbaum, Carl G. 3,113,181.

Teacher, Victor: *See*—
Prestige, Harry T., Eade, Hale, Lee, Lovelock, Smith, and Teacher. 3,093,887.

Teaching Machines, Inc.: *See*—
Cornell, Dudley E., III. 3,105,307.

Teachworth, Oswald A., ½ to G. J. and ¼ to O. T. Fulkerson. Power lawn mower guards. 3,098,337, 7–23–63, Cl. 56—25.4.

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Teaf, John H., to Thompson Ramo Wooldridge Inc. Push button slide assembly for tuners. 3,074,284, 1–22–63, Cl. 74—10.33.

Teague, Alan J.: *See*—
Smith, Paul C., Hyde, and Teague. 3,076,628.

Teague, Ernest D., to Norton Co. Coated flame holder for jet engines. 3,113,885, 12–10–63, Cl. 117—46.

Teague, James, Jr., D. L. Painter, and V. A. Petertil; said Painter assor. to J. Teague, and V. Petertil. Record storage and dispensing device. 3,107,816, 10–22–63, Cl. 221—88.

Teague, Marvin A. Collar support. 3,107,830, 10–22–63, Cl. 223—83.

Teague, Walter D.: *See*—
Kille, Leonard A., and Teague. 3,077,152.

Teasel, Richard C., and E. D. Buckley, to Champion Spark Plug Co. Apparatus for measuring elevated temperatures. 3,095,743, 7–2–63, Cl. 73—339.

Tebb, Bernard, to Mastabar Mining Equipment Co. Ltd. Belt fasteners. 3,107,406, 10–22–63, Cl. 24—33.

Tebb, Bernard, and C. H. Perry, to Mastabar Mining Equipment Co. Ltd. Hydraulic supports. 3,073,562, 1–15–63, Cl. 248—354.

Tebboth, John A.: *See*—
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Tecalemit Ltd.: *See*—
Jackson, Harold E. 3,074,346.
Jackson, Harold E., Stripp, and Farnfield. 3,076,555.

Tech Art, Inc.: *See*—
Lloyd, Allen H., and Runyan. 3,102,374.

Tech Development, Inc.: *See*—
Flatt, Joseph. 3,104,803.

Techmation Corp.: *See*—
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Technical Animations, Inc.: *See*—
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Technical Appliance Corp.: *See*—
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Technical Industries, Inc.: *See*—
Jaquith, Burton K. 3,111,113.

Technical Oil Tool Corp.: *See*—
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Gossland, John K. 3,101,454.
Suter, Oswald. 3,087,385.
Suter, Oswald, and De Lacy. 3,076,966.

Technicolor Corp. of America: *See*—
Brake, David G. 3,095,475.
Gundelfinger, Alan M. 3,090,289.

Technicon Chromatography Corp.: *See*—
Ferrari, Andrés, Jr. 3,074,784.
Isreeli, Jack. 3,088,714.

Technicon Co., Inc., The: *See*—
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Ferrari, Andres. 3,098,718.
Ferrari, Andres. 3,107,536.
Ferrari, Andres, Jr. 3,098,717.
Ferrari, Andres, and Isreeli. 3,109,713.
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Isreeli, Jack. 3,072,296.
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Skeggs, Leonard T. 3,098,719.
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Technifax Corp.: *See*—
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Sollberger, Hans, and Roth. 3,089,411.

Technion Research and Development Foundation Ltd.: *See*—
Nathan, Amos, and Katzenelson. 3,100,839.
Nathan, Amos, and Katzenelson. 3,103,583.

Technirservice Corp.: *See*—
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Techno-Components Corp.: *See*—
Tumbusch, Edward H. 3,096,498.

Techno Corp.: *See*—
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Technograph Printed Circuits Ltd.: *See*—
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Technograph Printed Electronics Inc.: *See*—
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Tectum Corp.: *See*—
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Tedeschi, Robert J., A. W. Casey, and J. P. Russell, to Air Reduction Co., Inc. Preparation of acetylenic alcohols. 3,082,260, 3–19–63, Cl. 260—638.

Tedesco, Anthony J., ½ to J. Goan. Utility cable splice cover. 3,087,216, 4–30–63, Cl. 24—123.

Tedstrom, John E., Jr.: *See*—
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Bridgeford, Douglas J. 3,083,118.
Firth, John W. 3,106,471.
Ives, Clifford E. 3,112,517.

Teeple, Frank A., Jr., to H. K. Porter Co., Inc. Expansion unit for mine ceiling support. 3,115,056, 12–24–63, Cl. 85—2.4.

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Teer, Hubert O., Jr.: *See*—
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Teetor, Ralph R., to Perfect Circle Corp. Speed control device for an automotive vehicle. 3,090,460, 5–21–63, Cl. 180—82.1.

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Teggelaar, Claude J., and M. N. Swierbut, to Grand Rapids Hardware Co. Operator for windows, ventilators, and the like. 3,098,647, 7–23–63, Cl. 268—105.

Tegner, Claes P.: *See*—
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Te Grotenhuis, Theodore A. Compositions for forming films with hydrophobic pigment and method. 3,102,822, 9–3–63, Cl. 106—238.

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Teichert, Conrad A., to General Motors Corp. Accessory drive mechanism. 3,104,530, 9–24–63, Cl. 60—53.

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Telautograph Corp.: *See*—
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Kramer, Theodore A., Leavitt, and Thom. 3,092,984.
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Smith, La Vergne L. 3,089,424.

Telecontrol Corp.: *See*—
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Borner, Manfred. 3,086,182.
Burkhardt, Gisbert, and Kirsch. 3,105,908.
Grust, Gerhard, and Kaiser. 3,116,174.
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Ruppersberg, Hans-Klaus. 3,072,901.
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Schweizerhof, Sigfrid. 3,100,295.
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Fay, James P. 3,114,062.

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Telle, Otto, and F. Grewe, to Farbenfabriken Bayer Aktiengesellschaft. Fungicidal copper sprays. 3,086,908, 4–23–63, Cl. 167—42.

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Tellefsen, Walter G., ¼ to G. L. Ritter, ¼ to J. C. Kopf, and ¼ to P. C. Trotta. Tooth brush holder and sterilizer. 3,100,842, 8–13–63, Cl. 250—51.

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Teller, Joseph D., to Worthington Biochemical Corp. Process for the determination of blood glucose. 3,099,606, 7–30–63, Cl. 195—103.5.

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Tempe, Andre. Apparatus for the production of fertilizer from organic waste materials. 3,092,467, 6–4–63, Cl. 23—259.1.

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Temple, Hiram E., to Baker Perkins Inc. Pan transfer apparatus. 3,108,677, 10–29–63, Cl. 198—21.

Temple, Norman S., and A. T. Martin, to Economics Laboratory, Inc. Defoaming rinse composition. 3,082,172, 3–19–63, Cl. 252—89.

Temple, Robert, and J. R. Wilson; said Temple assor. to Mine Safety Appliances Co. Method for removing signal bond terminals from rails. 3,109,233, 11–5–63, Cl. 29—427.

Temple, Robert A., deceased; V. N. Temple, administratrix, to V. N. Temple. Apparatus for inverting loads. 3,089,598, 5–14–63, Cl. 214—1.

Temple, Robert, J. Glebel, and E. E. Temple, to Mine Safety Appliances Co. Cartridge for multiple mine-anchor cutter. 3,111,927, 11–26–63, Cl. 114—221.

Temple, Sidney J., to Edwin L. Wiegand Co. Electric heater assembly. 3,102,248, 8–27–63, Cl. 338—274.

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Templeton, John B. Hoisting apparatus. 3,104,764, 9–24–63, Cl. 212—145.

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Templeton, William R., to Burroughs Corp. Line find device. 3,107,772, 10–22–63, Cl. 197—127.

Templeton, William R., and M. Siegel, to Burroughs Corp. Electrical apparatus for multiple factor storage. 3,077,304, 2–12–63, Cl. 235—160.

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Ten Bosch, Maurits, and Lang. 3,071,977.
Ten Bosch, Maurits, and Lang. 3,111,035.

Ten Bosch, Maurits, and P. Lang, to M. Ten Bosch Inc. Gyroscope system. 3,071,977, 1–8–63, Cl. 74—5.34.

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Ten Brink, Karl C., to Texaco Inc. Treating underground formations. 3,078,920, 2–26–63, Cl. 166—33.

Ten Brink, Karl C., and R. H. Widmyer, to Texaco Inc. Subsurface exploration. 3,100,258, 8–6–63, Cl. 250—43.5

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Tenconi, Riccardo, to M. S. Moretta. Pneumatic tensioning and everting arrangements for cylindrical stocking knitting machines. 3,108,462, 10–29–63, Cl. 66—149.

Tendick, Frank H., Jr., to Bell Telephone Laboratories, Inc. Plural stage selector system including "NOT" and "AND-NOT" circuits in each stage thereof. 3,113,273, 12–3–63, Cl. 328—103.

Ten Eyck, Robert R., to Gulton Industries, Inc. Piezoelectric electromechanical transducer. 3,093,710, 6–11–63, Cl. 179—110.

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Tengler, Harvey N., and A. O. Radke, to Boetrom Mfg. Co. Fore and aft shock absorber. 3,100,618, 8–13–63, Cl. 248—430.

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Tennis, Francis H., to Hydraulic Unit Specialties Co. Pilot operated pressure and vacuum relief valve. 3,100,503, 8–13–63, Cl. 137—491.

Tennis, Francis H., and D. G. Bethke, to Hydraulic Unit Specialties Co. Combined high pressure relief and void control valve. 3,112,763, 12–3–63, Cl. 137—493.5.

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Tenniswood, Howard J., to Revco, Inc. Temperature congelation apparatus. 3,080,726, 3–12–63, Cl. 62—138.

Tenniswood, Howard J., and L. W. Dunbar, to Revco Inc. Hinge mechanism. 3,103,693, 9–17–63, Cl. 16—190.

Tennyson, Curtis J. Holding a fish to remove hooks. 3,106,035, 10–8–63, Cl. 43—53.5.

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Teot, Arthur S., to The Dow Chemical Co. Warp size comprising high molecular weight styrene/maleic anhydride copolymer. 3,084,070, 4–2–63, Cl. 117—139.5.

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Terrel, Garland C., and S. E. Loy, III, to Jersey Production Research Co. Apparatus to prevent fouling of wire lines when using pumpdown tools. 3,104,714, 9–24–63, Cl. 166—153.

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Milewski, John V., and Egbert. 3,103,406.
Monroe, Joseph W., and Neal. 3,083,422.
Pearlman, Bernard, Bohr, and Thompson. 3,092,965.
Saffer, Charles M., Jr. 3,109,373.
Schaeffer, Paul F., and Perry. 3,086,895.
Sherman, Arthur, Ferris, and Youngquist. 3,094,837.
Wood, Memnon J. 3,092,962.
Youngquist, Robertson, and Pedersen. 3,091,921.

Thirsk, James H., to Amchem Products, Inc. Method of applying a chromate conversion coating to the surface of aluminum. 3,098,775, 7–23–63, Cl. 148—6.2.

3435 Inc.: *See*—
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Thode, Lester. Liner for window and like openings. 3,070,854, 1–1–63, Cl. 20—56.5.

Thoen, Roy M., and L. Kassuelke. Fence row mower attachment for farm tractors. 3,115,739, 12–31–63, Cl. 56—6.

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Tholstrup, Clarence E., to Eastman Kodak Co. Poly-α-olefin compositions containing dialkyl-3,3'-thiodipropionates and a nitrogen containing compound. 3,072,604, 1–8–63, Cl. 260—45.85.

Tholstrup, Clarence E., and G. R. Lappin, to Eastman Kodak Co. Polyoletins heat stabilized with 2-alkyl-6-mercapto-p-cresols. 3,103,500, 9–10–63, Cl. 260—45.95.

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Thoma, Hans. Piston type hydrostatic power units. 3,106,138, 10–8–63, Cl. 92—156.

Thoma, Hans J. Transmission with hydrostatic control. 3,095,757, 7–2–63, Cl. 74—687.

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Thoma, Richard W., and J. Fried, to Olin Mathieson Chemical Corp. 1-dehydro-11α-hydroxy-progesterone. 3,105,842, 10–1–63, Cl. 260—397.45.

Thoma, Wilhelm: *See*—
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Thoma, Wilhelm, and H. Genth, to Farbenfabriken Bayer Aktiengesellschaft. Preservatives consisting of mixed anhydrides of alkylcarbonic acids. 3,097,996, 7–16–63, Cl. 167—22.

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Thomander, Veron S., to Westinghouse Electric Corp. Filar suspended instrument movement. 3,111,623, 11–19–63, Cl. 324—154.

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Thomas, Boyd F., to Young Spring & Wire Corp. Apparatus for forming sheet metal. 3,091,836, 6–4–63, Cl. 29—33.

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Thomas, David F., and R. C. Ewing, to Waterous Co. Centrifugal pump with double mechanical seal. 3,079,605, 2–26–63, Cl. 277—27.

Thomas, David G., to Lord Mfg. Co. Fifth wheel coupler. 3,073,624, 1–15–63, Cl. 280—438.

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Thomas, David G., to Lord Mfg. Co. Railway journal bearing. 3,099,682, 7–23–63, Cl. 308—54.

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Thomas, Eugene P., C. H. Jennings, and C. R. Griffith, to Westinghouse Electric Corp. Radiation beam saping device. 3,114,043, 12–10–63, Cl. 250—105.

Thomas, Everett V., to Universal Controls, Inc. Electrical interlock system for fare collection apparatus. 3,108,741, 10–29–63, Cl. 232—1.

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Thomas, Glen H., and E. R. Lucka, to International Research and Development Corp. Balancing apparatus. 3,115,042, 12–24–63, Cl. 73—466.

Thomas, Glenn R., and R. H. Flick, to Westinghouse Electric Corp. Circuit breaker. 3,073,925, 1–15–63, Cl. 200—88.

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Thomas, Gordon H., and J. Fried, to Olin Mathieson Chemical Corp. Synthesis of steroids of the 12-alkylidenepregnene. 3,080,388, 3–5–63, Cl. 260—397.3.

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Thomas, Harry M. Railroad car floor panel latch. 3,080,623, 3–12–63, Cl. 20—92.4.

Thomas, Hollis M., deceased, by G. S. Thomas, administratrix, to United States Steel Corp. Hinged stake for flat-car loading. 3,091,193, 5–28–63, Cl. 105—386.

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Thomas, Jacob E., Jr., to The Bendix Corp. Semiconductor and unitary connector structure comprising alternately stacked base and emitter leads. 3,114,865, 12–17–63, Cl. 317—234.

Thomas, James C., III, to Young Spring & Wire Corp. Tracer valve mechanism. 3,081,060, 3–12–63, Cl. 251—3.

Thomas, James G. Removable power and manually operated outriggers for carrier frames. 3,096,887, 7–9–63, Cl. 212—145.

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Thomas, Jesse B., to Reynolds Metals Co. Passageway panel expansion apparatus. 3,095,843, 7–2–63, Cl. 113—44.

Thomas, Jesse B., and J. A. Hall, to Reynolds Metals Co. Method of expanding passageway panel on one side. 3,098,290, 7–23–63, Cl. 29—157.3.

Thomas, John C.: *See*—
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Thomas, John C., and L. W. Morgan, to Phillips Petroleum Co. System for metering flow. 3,083,569, 4–2–63, Cl. 73—194.

Thomas, John F. Lock and key construction. 3,112,637, 12–3–63, Cl. 70—258.

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Thomas, Paul P., to American Metal Products Co. Method of construction of low friction elements. 3,094,376, 6–18–63, Cl. 18—59.

Thomas, Philip R., to The Carborundum Co. Method for dressing grinding wheels. 3,078,835, 2–26–63, Cl. 125—11.

Thomas, Ralph B., to Sylvania Electric Products Inc. Apparatus for staking and forming tabs. 3,112,786, 12–3–63, Cl. 153—16.

Thomas, Ralph H., to Bristol-Myers Co. Safety cap. 3,071,271, 1–1–63, Cl. 215—9.

Thomas, Ralph H., to Bristol-Myers Co. Dispensing closure. 3,076,573, 2–5–63, Cl. 215—6.

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Thomas, Roy, to McGraw-Edison Co. Suds depresser. 3,070,984, 1–1–63, Cl. 68—17.

Thomas, Thomas R., to Auto Research Corp. Solenoid operated pump. 3,072,300, 1–8–63, Cl. 222—333.

Thomas, Thomas R., to Auto Research Corp. Lubrication. 3,074,510, 1–22–63, Cl. 184—55.

Thomas, Thomas R., to Auto Research Corp. Lubrication. 3,075,615, 1–29–63, Cl. 184—7.

Thomas, Thomas R., to Auto Research Corp. Lubrication. 3,076,526, 2–5–63, Cl. 184—55.

Thomas, Thomas R., to Auto Research Corp. Lubricant feeding means. 3,078,959, 2–26–63, Cl. 184—55.

Thomas, Thomas R., to Auto Research Corp. Centralized rotary lubricating pump. 3,079,867, 3–5–63, Cl. 103—123.

Thomas, Thomas R., to Auto Research Corp. Lubrication. 3,080,016, 3–5–63, Cl. 184—7.

Thomas, Thomas R., to Auto Research Corp. Lubrication system. 3,084,762, 4–9–63, Cl. 184—6.

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Thomas, Thomas R., to Auto Research Corp. Lubrication system. 3,085,653, 4–16–63, Cl. 184—7.

Thomas, Thomas R., to Auto Research Corp. Lubrication system. 3,086,616, 4–23–63, Cl. 184—55.

Thomas, Thomas R., to Auto Research Corp. Lubrication spray device. 3,086,617, 4–23–63, Cl. 184—56.

Thomas, Thomas R., to Auto Research Corp. Lubrication pump. 3,091,306, 5–28–63, Cl. 184—27.

Thomas, Thomas R., to Auto Research Corp. Lubrication. 3,096,023, 7–2–63, Cl. 239—424.

Thomas, Thomas R., to Auto Research Corp. System for distributing fluids. 3,106,346, 10–8–63, Cl. 239—366.

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Thomas, Wilford H., and S. E. Cook, to Ethyl Corp. Stable lead alkyl compositions and a method for preparing the same. 3,097,223, 7–9–63, Cl. 260—437.
Thomas, Wilford H., and S. E. Cook, to Ethyl Corp. Stable lead alkyl compositions and a method of preparing the same. 3,098,090, 7–16–63, Cl. 260—437.
Thomas, William A. Archery bow and arrow rack. 3,082,878, 3–26–63, Cl. 211—60.
Thomas, William A., to General Electric Co. Manually and thermally operable switching device having removable heater element. 3,112,385, 11–26–63, Cl. 200—122.
Thomas, William B., to Massachusetts Mohair Plush Co., Inc. Method of producing a composite yarn. 3,070,950, 1–1–63, Cl. 57—157.
Thomas, William C. Aircraft with high lift airfoil construction. 3,108,768, 10–29–63, Cl. 244—45.
Thomas, William E. Roller guide. 3,087,665, 4–30–63, Cl. 226—190.
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Thompson, Earl A. Tappet with cast iron base and tubular steel body. 3,078,194, 2–19–63, Cl. 148—31.
Thompson, Earl A. Automatic wheel dresser. 3,079,906, 3–5–63, Cl. 125—11.
Thompson, Earl A. Mechanical lash adjuster. 3,087,475, 4–30–63, Cl. 123—90.
Thompson, Earl A. Mechanical lash adjuster. 3,087,479, 4–30–63, Cl. 123—90.
Thompson, Earl A. Centrifugal pump. 3,099,221, 7–30–63, Cl. 103—108.
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Thompson, Francis T., to the United States of America, Navy. Conducting data take-off pencil. 3,106,707, 10–8–63, Cl. 343—7.3.
Thompson, Gene D., and D. E. Smink, to Jersey Production Research Co. Plural completion of wells. 3,095,038, 6–25–63, Cl. 166—46.
Thompson, Gene D., H. M. Hibbs, and E. W. Hough, to Jersey Production Research Co. Treatment of subsurface earth formations. 3,098,038, 7–16–63, Cl. 252—8.55.
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Thompson, Harris A. Artificial respirator apparatus. 3,094,274, 6–18–63, Cl. 230—224.
Thompson, Henry E., L. C. Ebel, and G. Feick, III, to Anaconda Wire and Cable Co. Electric cable. 3,105,872, 10–1–63, Cl. 174—120.
Thompson, Henry H. Machine for making wire garment hangers. 3,071,167, 1–1–63, Cl. 140—81.5.
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Osmond, Desmond W. J., and Thompson. 3,095,388.
Thompson, Howard E., Jr. Valve device comprising resilient walled nipple with slitted aperture normally biased closed. 3,104,787, 9–24–63, Cl. 222—490.
Thompson, Howard H., to FMC Corp. Lawn mower axle mounting. 3,086,790, 4–23–63, Cl. 280—43.
Thompson Industries, Inc.: *See*—
Buechler, William R. 3,074,134.
Buechler, William R. 3,083,061.
Buechler, William R. 3,100,574.
Fitzgerald, Albert J. 3,095,241.
Kafoure, Lewis, and Huffman. 3,097,888.
Thompson, James D.: *See*—
Parker, Roy A., and Thompson. 3,096,908.
Thompson, James E., and J. L. Van Meter, to Westinghouse Electric Corp. Rapid discharging of charged capacitor through triggered hyperconductive (four-layer) diode in computer circuit. 3,071,698, 1–1–63, Cl. 307—88.5.

Thompson, James W., and R. E. Gerber, to Caterpillar Tractor Co. Vehicle brake cooling system. 3,101,815, 8-27-63, Cl. 188—264.

Thompson, Jesse C., Jr. Anchor apparatus. 3,115,226, 12-24-63, Cl. 189—82.

Thompson, John, (Australia) Pty. Ltd.: *See*—
Clark, Edwin W. 3,089,468.

Thompson, John E. Separation process. 3,099,561, 7-30-63, Cl. 99—7.

Thompson, John E. Sausage stuffer. 3,108,319, 10-29-63, Cl. 17—39.

Thompson, John H., to General Motors Corp. Ring grinding fixture. 3,104,504, 9-24-63, Cl. 51—215.

Thompson, Joseph C. Chiropractic table. 3,092,102, 6-4-63, Cl. 128—70.

Thompson, Josephus R., to Joseph Rogers, Inc. Snare drum. 3,113,481, 12-10-63, Cl. 84—415.

Thompson, Junior W. Method of forming a tooth protector. 3,107,668, 10-22-63, Cl. 128—136.

Thompson, Kenneth: *See*—
Rice, John C., and Thompson. 3,076,720.

Thompson, Kenneth W., E. Schapiro, R. T. Price, M. M. Vincent, and F. C. Jensen, to Organon, Inc. Process for culturing altered human secretory pituitary cells. 3,073,746, 1-15-63, Cl. 167—74.

Thompson, Langham J., Ltd.: *See*—
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Thompson, Lee L. Pumping and mixing devices for drilling mud. 3,110,263, 11-12-63, Cl. 103—87.

Thompson, Lionel D., and E. A. Tsakiris, to Curtiss-Wright Corp. Engine. 3,087,473, 4-30-63, Cl. 123—41.84.

Thompson, Lloyd M.: *See*—
Yates, Claire H. and Thompson. 3,076,028.
Yates, Claire H., and Thompson. 3,076,029.

Thompson, Lyle G., to Burroughs Corp. Waveform techniques. 3,090,872, 5-21-63, Cl. 307—88.

Thompson, Lyle G., to Burroughs Corp. Static memory system. 3,104,378, 9-17-63, Cl. 340—174.

Thompson, Malcolm W. and D. C., to Southwest Filter Co. Filter cartridge system for corrosive fluids. 3,080,976, 3-12-63, Cl. 210—232.

Thompson, Marion L. Tappet. 3,089,472, 5-14-63, Cl. 123—90.

Thompson, Michael W.: *See*—
Cottrell, Alan H., and Thompson. 3,105,804.

Thompson, Mortimer S., to United States Rubber Co. Gum plastic material comprising alpha-methyl styrene acrylonitrile resin and graft copolymer of styrene and acrylonitrile on polybutadiene. 3,111,501, 11-19-63, Cl. 260—45.5.

Thompson, Norris J., to National Carts, Inc. Market basket cart with child's support. 3,093,385, 6-11-63, Cl. 280—33.99.

Thompson, Oliver F. Thermally controlled door-checks. 3,089,568, 5-14-63, Cl. 189—49.

Thompson, Orville. Combination mattress. 3,096,529, 7-9-63, Cl. 5—345.

Thompson, Orville L., to De Vry Technical Institute, Inc. Device for facilitating construction of electrical apparatus. 3,085,177, 4-9-63, Cl. 317—101.

Thompson, Orville L., to De Vry Technical Institute, Inc. Answer checking device. 3,089,255, 5-14-63, Cl. 35—9.

Thompson, Paige W., and J. E. Baciawski, to General Electric Co. Cooling system for dynamoelectric machines. 3,109,947, 11-5-63, Cl. 310—64.

Thompson, Ralph. Crop processing machine. 3,088,263, 5-7-63, Cl. 56—119.

Thompson, Ralph B.: *See*—
Gleim, William K. T., and Thompson. 3,071,548.

Thompson, Ralph B., to Universal Oil Products Co. Reducing corrosion in plant equipment. 3,078,223, 2-19-63, Cl. 208—348.

Thompson, Ralph B., to Universal Oil Products Co. Corrosion inhibition. 3,114,702, 12-17-63, Cl. 208—348.

Thompson, Ralph B., J. A. Chenicek, and W. J. Faust, to Universal Oil Products Co. Method of reducing surface ignition requirements. 3,090,681, 5-21-63, Cl 44—76.

Thompson, Ralph N., to Hagan Chemicals & Controls, Inc. Inhibiting bacterial growth. 3,089,847, 5-14-63, Cl. 252—8.55.

Thompson Ramo Wooldridge Inc.: *See*—
Baker, Melvin L. 3,103,009.
Baker, Stuart C. 3,074,641.
Bell, Leo R., and Britton. 3,105,361.
Birchfield, John R., and Gulaian. 3,072,086.
Brooks, William O. 3,096,475.
Carlton, Stuart S. 3,110,631.
Clark, George L. 3,096,484.
Clark, Hubert M., and Drutchas. 3,101,673.
Clary, Harry E. 3,080,718.
Clary, Harry E. 3,102,488.
Corbett, Marshall J. 3,098,387.
Corbett, Marshall J. 3,105,352.
Cummings, Robert L., and Lance. 3,080,716.
Dier, Stephen A., and Gair. 3,079,680.
Donaldson, Coleman Du P. 3,110,843.
Drutchas, Gilbert H., and Clark. 3,079,864.
Drutchas, Gilbert H., and Clark. 3,081,706.
Eichenberger, Hans P. 3,075,489.
Eichenberger, Hans P. 3,105,350.
Fomenko, Sergei M. 3,086,119.
Fomenko, Sergei M. 3,086,120.
Forney, Harry B. 3,079,755.
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Thompson Ramo Wooldridge Inc.: *See*—Continued
Genung, William E., and Chulick. 3,110,756.
Giles, William S. 3,110,298.
Gillespie, Paul M. 3,083,870.
Dillingham, Edward. 3,093,749.
Gogia, Jugal K., and Gnyeska. 3,085,166.
Grill, Raymond J., and Barish. 3,105,441.
Hallmark, Clyde E. 3,109,974.
Hamilton, William L. 3,077,078.
Hamilton, William L. 3,105,356.
Hamrick, Joseph T. 3,081,095.
Hamrick, Joseph T., and Rose. 3,101,589.
Herbenar, Edward J. 3,086,801.
Herbenar, Edward J. 3,101,132.
Herrick, George Q., Fredrick, and Greig. 3,110,891.
Hogan, James D. 3,082,950.
Horner, John W. 3,088,406.
Horton, Edward C. 3,086,401.
Horton, Edward C., and Teaf. 3,077,119.
Humpal, Harold H., and Kitaoka. 3,094,638.
Jiu, Richard. 3,094,628.
Knocke, Louis T. 3,115,955.
King, Paul E., and Mallina. 3,079,159.
Kragle, Ralph J. 3,097,333.
Lakatos, Emory. 3,112,480.
Lazo, Luis R., and Barish. 3,073,512.
Lazo, Luis R., and Barish. 3,112,096.
Lewis, Richard B. 3,092,004.
MacInnes, Hugh. 3,072,389.
MacIntyre, Robert M. 3,105,230.
Mallina, Rudolph F. 3,085,843.
Matt, Richard J. 3,091,469.
Matt, Richard J. 3,097,895.
Matt, Richard J., and Nasvytis. 3,084,003.
Matthael, George L. 3,104,362.
May, Michael, and Schmidlin. 3,116,422.
McCorkle, Max. 3,070,957.
McCorkle, Max. 3,115,887.
McGarrell, Paul H. 3,079,522.
McKinnon, Roy A. 3,084,504.
McKinnon, Roy A., and Smreker. 3,088,274.
Mellott, Robert N. 3,109,104.
Mellott, Robert N., and Scarbrough. 3,080,487.
Mozic, Joseph D. 3,070,958.
Nyberg, James J. 3,113,216.
Ono, George Y. 3,095,712.
Phister, Montgomery, Jr., Laspe, and Stout. 3,079,079.
Pidhayny, Denny D., and Lakatos. 3,112,479.
Pidhayny, Denny D., Lakatos, and Goodell. 3,074,061.
Ridgway, Stuart L. 3,086,353.
Ridgway, Stuart L. 3,106,821.
Robertson, Anthony E., and Hamrick. 3,101,592.
Rose, Leslie C. 3,081,595.
Sampietro, Achilles C. 3,092,970.
Sampietro, Achilles C. 3,112,740.
Sampietro, Achilles C., and Grigsby. 3,084,324.
Schaffer, Allan B., and Ridgway. 3,106,820.
Scibbe, Harold R., and Hilgendorf. 3,079,904.
Self, Richard E., and Allan. 3,088,442.
Shelton, Haywood, and Sellen. 3,096,456.
Shiley, Donald P. 3,102,490.
Shramo, Daniel J., and Mayer. 3,110,228.
Slate, Matthew W. 3,104,384.
Smeltzer, Jack C., and Rech. 3,082,332.
Sprague, Harold E., and Olson. 3,089,425.
Stiglic, Paul M. 3,083,695.
Stoermer, William F. 3,072,323.
Teaf, John H. 3,074,284.
Thielman, Russell F. 3,079,752.
Thielman, Russell F. 3,098,625.
Thielman, Russell F. 3,116,038.
Thrap, John E. 3,115,662.
Thrap, John E., and Farr. 3,099,284.
Tilson, Robert R. 3,115,841.
True, Donovan B. 3,112,123.
Trueblood, Harold C. 3,083,333.
Wanlass, Cravens L. 3,098,158.
Williams, Cecil E. 3,096,501.
Wise, James C. 3,101,591.
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Zellznak, Emil, and Ledel. 3,112,766.

Thompson, Raymond: *See*—
Quelle, Gerrit, Redfarn, and Thompson. 3,077,458.

Thompson, Raymond E.: *See*—
Greisl, Don H., Thompson, and Spurgeon. 3,087,874.
Hazen, Norval F., and Thompson. 3,087,559.
McClintock, Rosa A., Thompson, and Waggener. 3,097,000.

Thompson, Richard G., to Union Tank Car Co. Float valve mechanism. 3,095,005, 6-25-63, Cl. 137—268.

Thompson, Richard G., to Union Tank Car Co. Multiple port valve. 3,112,768, 12-3-63, Cl. 137—625.5.

Thompson, Robert E., to Armour Pharmaceutical Co. Substained action zinc-borine corticotropintannic acid preparation. 3,080,289, 3-5-63, Cl. 167—74.

Thompson, Robert G.: *See*—
Collins, Robert J., and Thompson. 3,090,704.

Thompson, Robert Q.: *See*—
Kline, Granville B., and Thompson. 3,098,745.

Thompson, Robert R. Skiing apparatus. 3,114,158, 12-17-63, Cl. 9—347.

Thompson, Ronald E. High-capacity pump of tube-compression type. 3,103,178, 9-10-63, Cl. 103—149.

Thompson, Roscoe L., to Callaway Mills Co. Tufting machine. 3,093,100, 6-11-63, Cl. 112—79.

Thompson, Ruth M. Skipping toy and exerciser. 3,110,493, 11-12-63, Cl. 272—74.

Thompson, Standish F. Rotary engine. 3,096,745, 7-9-63, Cl. 123—8.

Thompson, Stuart W., to Lever Brothers Co. Shortening. 3,102,814, 9-3-63, Cl. 99—118.

Thompson, Stuart W., to Lever Bros. Co. Anti-stick pan coating. 3,108,015, 10-22-63, Cl. 117—134.

Thompson, Theodore F., ½ to W. D. Hewit. Dual-action displacement pump. 3,078,807, 2-26-63, Cl. 103—126.

Thompson, Theos J. Visible light transparent nuclear scintillation detector for fluent material. 3,114,834, 12-17-63, Cl. 250—71.

Thompson, Thomas A., to Societe d'Exploitation des Materiels Hispano Suisa. Indexing table. 3,085,452, 4-16-63, Cl. 74—822.

Thompson, Thomas E. Swimming device. 3,107,371, 10-22-63, Cl. 9—303.

Thompson, Thomas W.: *See*—
Pearlman, Bernard, Bohr, and Thompson. 3,092,965.

Thompson, Thomas W., to International Business Machines Corp. Tape carriage control. 3,094,261, 6-18-63, Cl. 226—9.

Thompson, Vernon L.: *See*——
Enright, James H., and Thompson. 3,083,922.

Thompson, Walter V. E. Hearing aid. 3,076,061, 1-29-63, Cl. 179—107.

Thompson, Walter V. E. Half-circle sprinkler head. 3,085,754, 4-16-63, Cl. 239—523.

Thompson, William. Console seat for musicians. 3,104,139, 9-17-63, Cl. 312—235.

Thompson, William, and F. R. Berry, to United Kingdom Atomic Energy Authority. Measuring apparatus. 3,109,308, 11-5-63, Cl. 73—432.

Thompson, William C., Jr., to Plantation Pipe Line Co. Meter calibration. 3,092,991, 6-11-63, Cl. 73—3.

Thompson, William E., to Sun Oil Co. Reducing flammability of polypropylene by blending the same with titanium dioxide. 3,078,250, 2-19-63, Cl. 260—41.

Thompson, William E., A. P. Stuart, and J. L. Jeal, to Sun Oil Co. Preparation of polypropylene. 3,107,236, 10-15-63, Cl. 260—93.7.

Thompson, William J.: *See*—
Werner, Robert V., Zable, and Thompson. 3,085,242.
Werner, Robert V., Zable, and Thompson. 3,111,665.

Thompson, William J., to Cubic Corp. Aircraft landing system. 3,111,671, 11-19-63, Cl. 343—112.

Thompson, William N.: *See*—
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Thompson, Wilmer R., to Union Carbide Corp. Reducing thermal upsets in fluid measuring cells. 3,097,520, 7-16-63, Cl. 73—27.

Thompson, Wilmer R., and L. J. Rogers, to Union Carbide Corp. Servo system for peak signal storage. 3,098,957, 7-23-63, Cl. 318—19.

Thompson, Woodford R., Jr.: *See*—
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Thoma, Floyd A. Paint can supporting attachment for ladders. 3,103,334, 9-10-63, Cl. 248—238.

Thomsen, Alfred M. Method of processing a cellulose-lignin complex. 3,079,304, 2-26-63, Cl. 195—31.

Thomsen, Howard J. Double unit spiral spring drive. 3,091,947, 6-4-63, Cl. 64—15.

Thomsen, Max M., and E. G. Johnson, to Sylvania Electric Products, Inc. Fixture reflector aligner. 3,100,086, 8-6-63, Cl. 240—103.

Thomsen Supply, Inc.: *See*—
Bennett, Marvin D. and R. D. 3,077,204.

Thomsen, Svend, to Charcoal Industries, Inc. Carbonizing unit. 3,110,652, 11-12-63, Cl. 202—114.

Thomsen, Theodore R., to Robatron Corp. Pulse producing circuit from A.C. source. 3,086,158, 4-16-63, Cl. 320—1.

Thomson, Byron C., to Lamb Industries, Inc. Process for harvesting and piling cane. 3,090,183, 5-21-63, Cl. 56—1.

Thomson, Byron C., to Lamb Industries, Inc. Cane harvester and pilers and process for harvesting and piling cane. 3,090,185, 5-21-63, Cl. 56—17

Thomson, Byron C., to Lamb Industries, Inc. Process and machine for forming and cleaning quarter drains in sugar cane growing squares. 3,102,349, 9-3-63, Cl. 37—195.

Thomson, David P. McD. Devices for use in cleaning golf balls. 3,077,626, 2-19-63, Cl. 15—97.

Thomson, Elihu C., to Farrington Machines, Inc. Scale. 3,078,936, 2-26-63, Cl. 177—210.

Thomson, Kenneth W.: *See*—
Martin, William A., Easterly, Thomson, Babcock, and Jenkins. 3,106,125.

Thomson, Marvin G.: *See*—
Musschoot, Albert, and Thomson. 3,089,582.

Thomson, Robert F., to General Motors Corp. Treatment of metals. 3,115,422, 12-24-63, Cl. 117—132.

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Moreau, Jean R., and Alfandari. 3,102,265.
Rostas, Ernest. 3,081,020.

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Carruthers, Robert, and Thonemann. 3,105,027.

Thonemann, Peter C., to United Kingdom Atomic Energy Authority. Gas discharge apparatus. 3,105,806, 10-1-63, Cl. 204—193.2.

Thonemann, Peter C., to United Kingdom Atomic Energy Authority. Gas discharge apparatus. 3,109,801, 11-5-63, Cl. 204—193.2.

Thonemann, Peter C., W. T. Cowhig, and P. A. Davenport, to United States of America, Atomic Energy Commission. Energy-transfer systems. 3,085,189, 4-9-63, Cl. 321—32.

Thonemann, Peter C., A. E. Robson, and R. N. Hall, to United Kingdom Atomic Energy Authority. Gas discharge apparatus. 3,105,031, 9-24-63, Cl. 204—193.2.

Thor Mills Ltd.: *See*—
Chandler, Norman H. 3,093,867.

Thor Power Tool Co.: *See*—
Kaman, Frank A. 3,097,571.
Rebechini, Peter G., and Larson. 3,099,905.

Thor, Robert C., and R. S. Webb, to General Electric Co. Phase comparison radar receiver means for measuring the angle of arrival of an echo signal. 3,080,559, 3-5-63, Cl. 343—119.

Thorburn, David H., to The Powers Regulator Co. Pressure compensated valve. 3,084,901, 4-9-63, Cl. 251—61.

Thorburn, David H., to The Powers Regulator Co. Relay valve. 3,107,680, 10-22-63, Cl. 137—85.

Thorburn, Frederick M.: *See*—
Blake, Frederick H., and Thorburn. 3,099,037.

Thoren, Robert E. Striding toy horse. 3,096,990, 7-9-63, Cl. 280—1.182.

Thoren, Theodore R., and D. C. Marsh, to Borg-Warner Corp. Booster pumps. 3,107,626, 10-22-63, Cl. 103—113.

Thorens S.A.: *See*—
Thevenaz, Louis. 3,074,260.

Thorildsson, Karl-John T., to Bofors, Aktiebolaget. Power driven, mine clearing explosive snake. 3,087,427, 4-30-63, Cl. 102—34.1.

Thorman, Walther M. A., to Wright Products, Inc. Door closer. 3,078,501, 2-26-63, Cl. 16—66.

Thorn Electrical Industries Ltd.: *See*—
Henderson, Stanley T. 3,114,067.
Kember, Raymond C., and Barker. 3,088,766.
Mash, Derek H. 3,114,045.
Ranby, Peter W., and Burrus. 3,110,560.
Stevens, Richard W., and Rodd. 3,111,276.

Thorn, Harry F., to Koppers Co., Inc. Cut-off control apparatus. 3,071,999, 1-8-63, Cl. 83—76.

Thorn, John P., and J. A. Hinlicky, to Esso Research and Engineering Co. Method of activating a fresh, porous alumina supported platinum-containing catalyst. 3,089,844, 5-14-63, Cl. 208—139.

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Thornbury, Sydney G., to Purex Corp. Flaw detection method using fluorescent penetrant and a fluorescent developer. 3,108,187, 10-22-63, Cl. 250—71.

Thorne, Charles L., to The Singer Mfg. Co. Feed dog and throat plate for compound feed sewing machines. 3,094,087, 6-18-63, Cl. 112—206.

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Thorner, Robert H. Fluid pressure sensing governor mechanism. 3,084,758, 4-9-63, Cl. 180—82.1.

Thorner, Robert H. Governor device. 3,092,084, 6-4-63, Cl. 121—42.

Thorner, Robert H. Control apparatus for motor vehicle regulator. 3,114,427, 12-17-63, Cl. 180—82.1.

Thorness, Rudolph B.: *See*—
Howard, Robert L., Thorness, and Winckler. 3,092,825.
Ney, Edward P., Thorness, and Winckler. 3,093,351.

Thornhill-Craver Co., Inc.: *See*—
Nordin, Obert L., and Hall. 3,104,121.
Thornhill, Homer E. 3,083,043.

Thornhill, Fred S., and R. S. Chisholm, to Pittsburgh Plate Glass Co. Preparation of siliceous pigment. 3,085,861, 4-16-63, Cl. 23—182.

Thornhill, Homer E., to Thornhill-Craver Co., Inc. Taper thread system for coupling or joint. 3,083,043, 3-26-63, Cl. 285—333.

Thornhill, Jay W.: *See*—
Cornelison, Boyd, Thornhill, and Wolff. 3,092,893.

Thornhill, Jay W., to Texas Instruments Inc. Method for thermally etching silicon surfaces. 3,102,061, 8-27-63, Cl. 156—17.

Thornhill, John H. R. Apparatus for extracting soluble constituents from vegetable matter. 3,088,394, 5-7-63, Cl. 99—283.

Thornhill, Philip G., to Falconbridge Nickel Mines Ltd. Recovery of nickel. 3,085,054, 4-9-63, Cl. 204—113.

Thornhill, Philip G., to Falconbridge Nickel Mines Ltd. Recovery of metals from solutions. 3,103,414, 9-10-63, Cl. 23—138.

Thornley, Joseph H. Artificial island and method of constructing the same. 3,115,013, 12-24-63, Cl. 60—46.5.

Thornsberry, Landell, ½ to Coal Bit Co. Rotary drill bit for stone or the like. 3,106,972, 10-15-63, Cl. 175—398.

Thornton, Clarence G., to Philco Corp. Semiconductor unit. 3,095,526, 6-25-63, Cl. 317—235.

Thornton, Isaiah V. Masonary block machines. 3,081,509, 3-19-63, Cl. 25—41.

Thornton, James C., to E.C.K. Mfg. Co. Ltd. Means for disinfecting and/or deodorizing waste pipes. 3,112,499, 12-3-63, Cl. 4—222.

Thornton, James C., to J. Goddard & Sons Ltd. Liquid applicators. 3,112,513, 12-3-63, Cl. 15—532.

Thornton, James E., to Sperry Rand Corp. Magnetic core memory. 3,110,017, 11-5-63, Cl. 340—174.

Thornton, Paul, and R. G. McCarthy. Article-forcing tool. 3,102,333, 9–3–63, Cl. 29—257.

Thornton Products Co.: *See*—
Saurer, Curt. 3,109,323.

Thornton, Ray F. Locking differential. 3,089,349, 5–14–63, Cl. 74—710.5.

Thornton, Ross: *See*—
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Thornton, Samuel A. Cane stalk gathering, topping, detrashing and severing means. 3,095,680, 7–2–63, Cl. 56—17.

Thornton, William A., Jr., to Westinghouse Electric Corp. Electroluminescent phosphor, method of improving electroluminescent phosphor and electroluminescent lamp. 3,075,118, 1–22–63, Cl. 313—108.

Thornton, William A., Jr., to Westinghouse Electric Corp. Electroluminescent device. 3,078,382, 2–19–63, Cl. 313—108.

Thornton, William A., Jr., to Westinghouse Electric Corp. Method of improving electroluminescent phosphor. 3,082,175, 3–19–63, Cl. 252—301.6.

Thornton, William A., Jr., to Westinghouse Electric Corp. Method for improving electroluminescent phosphor and electroluminescent lamp. 3,082,344, 3–19–63, Cl. 313—108.

Thorp, James T., to Lambert Engineering Co. Rockets and seat ejecting apparatus. 3,079,111, 2–26–63, Cl. 244—122.

Thorp, Jeffrey M., to Imperial Chemical Industries Ltd. Hypocholesterolaemia compositions. 3,097,139, 7–9–63, Cl. 167—65.

Thorpe, Shirley, ½ to T. Laszlo. Turnabout dickey. 3,099,013, 7–30–63, Cl. 2—103.

Thorpe, Walter H. Automatic transmission assembly. 3,099,926, 8–6–63, Cl. 74—752.

Thorsell, Richard S., and E. W. Pietrusza, to Allied Chemical Corp. Process and apparatus for the propagation of tropical fish. 3,083,686, 4–2–63, Cl. 119—3.

Thorsen Mfg. Co.: *See*—
Skarsten, Norman E. 3,096,877.

Thorsheim, Joseph O., to Minneapolis-Honeywell Regulator Co. Pressure regulator control system for a fuel cell. 3,087,004, 4–23–63, Cl. 136—86.

Thorsheim, Joseph O., to Minneapolis-Honeywell Regulator Co. Supervisory system. 3,103,652, 9–10–63, Cl. 340—213.

Thorsheim, Joseph O., to Minneapolis-Honeywell Regulator Co. Differential pressure regulator control system. 3,106,494, 10–8–63, Cl. 136—86.

Thorson, Arne E., and A. E. Helm, to Auto-Magic Industries Ltd. Automatic vehicle washing plant. 3,107,676, 10–22–63, Cl. 134—58.

Thorson, John R., to ACF Industries, Inc. Trailer. 3,095,981, 7–2–63, Cl. 214—1.

Thorson, Ole A. Table and chair set. 3,083,052, 3–26–63, Cl. 297—140.

Thorson, Ole A. Convertible toy. 3,109,645, 11–5–63, Cl. 272—54.

Thorson, Ralph E., L. Goldman, W. S. Wallace, and A. E. Lanzilotti, to American Cyanamid Co. Methods of removing helminths employing halogenated nitrophenols and their derivatives. 3,081,224, 3–12–63, Cl. 167—53.

Thorsson, Matthew T.: *See*—
Green, Joseph G., Settles, and Thorsson. 3,077,236.

Thorsson, Matthew T., to Fairbanks, Morse & Co. Weighing scale with removed material indicator. 3,081,831, 3–19–63, Cl. 177—12.

Thorwaldson, Waldemar S. Signature applying apparatus. 3,115,830, 12–31–63 Cl. 101—287.

Thrap, John E., to Thompson Ramo Wooldridge Inc. Hydraulic windshield wiper motor and system. 3,115,662, 12–31–63, Cl. 15—250.16.

Thrap, John E., and H. D. Farr, to Thompson Ramo Wooldridge Inc. Flow divider valve. 3,099,284, 7–30–63, Cl. 137—117.

Threlkeld, Roscoe S. Mowing machine. 3,114,228, 12–17–63, Cl. 56—23.

Throckmorton, Morford C.: *See*—
Brandenburg, John T., and Throckmorton. 3,076,840.
Heisler, Robert Y., Hess, Eckert, and Throckmorton. 3,096,365.
Leak, Robert J., and Throckmorton. 3,111,494.

Throop, Frank H., Jr. Foot positioner apparatus. 3,104,446, 9–24–63, Cl. 27—21.

Thrush, Teddy O. L.: *See*—
Harris, Harold D., and Thrush. 3,073,686.

Thuillier, Andre A. A., to Olivier Gaudin. Process for preparing A1,2-dithiole-3-thione. 3,110,718, 11–12–63, Cl. 260—327.

Thuillier, Germaine: *See*—
Rumpf, Paul, and Thuillier. 3,084,101.

Thuillier, Marie C. A. Method of manufacturing bits for soldering irons. 3,099,084, 7–30–63, Cl. 29—528.

Thule, Bernt A.: *See*—
Jurs, Peter C., Champion, and Thule. 3,074,590.

Thumim, Carl, to Miehle-Goss-Dexter, Inc. Vibrating blade cutting machine. 3,073,201, 1–15–63, Cl. 83—647.5.

Thumim, Carl, to Miehle-Goss-Dexter, Inc. Spacing tool for predetermining back gauge movements of paper cutting machines. 3,081,887, 3–19–63, Cl. 214—1.6.

Thumim, Carl, to Miehle-Goss-Dexter, Inc. Cutting knife-stack support. 3,097,752, 7–16–63, Cl. 214—1.

Thumm, Wilhelm, and R. Becker, to Gesellschaft fur Linde's Eismaschinen A.G. Production of SO_3 and O_2 containing gases suitable for the production of elemental sulfur. 3,102,015, 8–27–63, Cl. 62—12.

Thunberg, Sigurd F., to Electrolux, Aktiebolaget. Brush holder. 3,080,496, 3–5–63, Cl. 310—247.

Thurber, Elmer A.: *See*—
Godfrey, James, and Thurber. 3,083,320.

Thuresson af Ekenstam, Bo, F. Henn, and N. E. N. Johansson, to Hofors, Aktiebolaget. Esters of nicotinic acid. 3,106,562, 10–8–63, Cl. 260—295.5.

Thurkauf, Max: *See*—
Kuhn, Werner, and Thurkauf. 3,109,870.

Thürlings, Hermann, to Hamac-Hansella Aktiengesellschaft. Apparatus for exhausting air from packages made of tubular material. 3,113,409, 12–10–63, Cl. 53—112.

Thurlow, John F., to Fitchburg Paper Co. Process for making planographic printing plates. 3,083,639, 4–2–63, Cl. 101—149.2.

Thurlow, John F., to Virginia Chemicals & Smelting Co. Method and composition for dispersing of pitch. 3,102,065, 8–27–63, Cl. 162—175.

Thurnauer, Hans: *See*—
Tierney, Hubert J., and Thurnauer. 3,089,801.

Thurston, Ernest B., to Toledo Scale Corp. Late car dispatching from high call. 3,112,815, 12–3–63, Cl. 187—29.

Thurston, Paul L., to Textile Machine Works. Method of knitting. 3,089,320, 5–14–63, Cl. 66—43.

Thurston, Paul L., to Kayser-Roth Corp. Circular knitting machine. 3,089,321, 5–14–63, Cl. 66—43.

Thurston, Raymond L., and H. M. Smith, to Republic Industrial Corp. Clamp structure for metal bands. 3,106,757, 10–15–63, Cl. 24—20.

Thwaites, George A.: *See*—
Hansen, Ralph C., and Thwaites. 3,079,874.

Thwaites, Herman L.: *See*—
Weisgerber, George A., Thwaites, and Farnham. 3,085,026.

Thwreatt, Robert M., to Aberdeen Welding Service Inc. Boat trailer. 3,077,276, 2–12–63, Cl. 214—84.

Thyen, Eberhard H., to Container Corp. of America. Dual depth bottle carrier. 3,111,254, 11–19–63, Cl. 229—41.

Thylefors, Henric W., to Separator, Aktiebolaget. Self-opening sludge centrifuge. 3,079,089, 2–26–63, Cl. 233—20.

Thylefors, Henric W., to Separator, Aktiebolaget. Centrifugal separator. 3,079,070, 2–26–63, Cl. 233—22.

Thym, Gordon L. Aerial ladder. 3,097,721, 7–16–63, Cl. 182—2.

Ti-All Fasteners, Inc.: *See*—
Anderan, Emil G. 3,106,506.

Tibbetts, Lloyd D., Sr.: *See*—
Frye, Ellsworth W., and Tibbetts. 3,097,429.

Tibbetts, Willis E.: *See*—
Hutchison, Frank C., Ratcliffe, Tibbets, and Weeks. 3,031,172.

Tibbs, David J., and W. G. Leslie, to National Research Development Corp. Sewing device. 3,073,311, 1–15–63, Cl. 128—340.

Tiberghien, Pierre F.: *See*—
Merritt, Henry E., Tiberghien, and Gongelot. Re. 25,415.

Tice, Arthur J., and A. D. Wallace, to SMC Corp. Scrubbing and drying machine for flexible sheets. 3,098,249, 7–23–63, Cl. 15—4.

Tice, Frederick E., to Esso Research and Engineering Co. Wire rope lubricant. 3,108,968, 10–29–63, Cl. 252—55.

Tice, Harry S., Jr., to Controls Co. of America. Inverser switch. 3,078,405, 2–19–63, Cl. 318—285.

Tice, John D.: *See*—
Cassar, Richard D., and Tice. 3,071,566.

Tichelaar, George R.: *See*—
Cafcas, Thomas H., and Tichelaar. 3,073,781.

Tichelaar, George R., and R. E. Karll, to Standard Oil Co. Process for neutralizing dihydrocarbon dithiophospheric acid. 3,086,939, 4–23–63, Cl. 252—18.

Tichenor, Robert L.: *See*—
Ryan, James F., Jr., and Tichenor. 3,092,892.

Ticino, John. Machine for grinding and polishing facets of precious stones. 3,073,085, 1–15–63, Cl. 51—229.

Tickner, Arthur L.: *See*—
Jones, Glyn C. W., and Tickner. 3,071,998.

Tickner, Edward W., and J. B. Fleming. Fluid level indicator for batteries. 3,080,753, 3–12–63, Cl. 73—306.

Tickner, Leland B.: *See*—
Carter, Mary E., and Tickner. 3,102,112.

Ticktin, George B. Body supported time internal indicator with collapsible timing means. 3,103,660, 9–10–63, Cl. 340—407.

Tico, Inc.: *See*—
Martinich, Thomas J. Jr. 3,074,583.

Tidball, Lloyd C.: *See*—
Martin, Harold F., Tidball, and Goddard. 3,092,823.

Tidd, Edwin B., to Bell & Gossett Co. Air separator fitting for hydronic system. 3,074,646, 1–22–63, Cl. 237—63.

Tidd, Victor S., to Root-Lowell Mfg. Co. Compression sprayer. 3,091,372, 5–28–63, Cl. 222—401.

Tidewater Oil Co.: *See*—
Harrison, Robert D. 3,098,000.
Harrison, William M. 3,105,014.

Tidland, Charles R.: *See*—
Williams, Arthur T. 3,097,808.
Williams, Arthur T., and Smith. 3,095,634.
Williams, Arthur T., and Tidland. 3,108,757.

Tidman, Charles H., to Columbus Iron Works Co. Cooking grill. 3,099,951, 8–6–63, Cl. 99—446.

Tidridge, William A., and L. E. Cohen, to FMC Corp. Creamy high-foam liquid built detergent composition. 3,072,578, 1–8–63, Cl. 252—137.

Tidwell, Abraham O., to Centre Circuits, Inc. Photocell position control system. 3,093,778, 6–11–63, Cl. 318—31.

Tiede, Ralph L., to Owens-Corning Fiberglas Corp. Composite fibers. 3,073,005, 1–15–63, Cl. 28—82.

Tiede, Ralph L., to United States Atomic Energy Commission, Grantee. Glass composition. 3,084,054, 4–2–63, Cl. 106—52.

Tiedemann, Claus: *See*—
Forquignon, Werner, and Tiedemann. 3,081,701.

Tiedemann, Claus, to WEFO Pyrotechnische Fabrik Wistedt W. Forquignon. Flare cartridge. 3,111,899, 11–26–63, Cl. 102—37.6.

Tiedemann, James B., and D. E. Wall, to The Kansas University Endowment Association. Impact vibration damper and control means therefor. 3,091,307, 5–28–63, Cl. 188—1.

Tiedemann, Richard A., to A. O. Smith Corp. Mechanical lock, brake and coupling apparatus. 3,102,619, 9–3–63, Cl. 192—8.

Tiedje, John L.: *See*—
Butler, Roger M., Macleod, and Tiedje. 3,105,809.
Hnycky j, Stephan, and Tiedje. 3,087,800.

Tiedtke, Karl-Heinz, to Electroacustic Gesellschaft mit beschrankter Haftung. Record changing device. 3,081,093, 3–12–63, Cl. 274—10.

Tiegel, Ralph, to Philco Corp. Mounting structure for sensitive instruments which must be exposed to widely changing conditions. 3,079,132, 2–26–63, Cl. 165—53.

Tielens, Theo A., and J. Kunnen, to North American Philips Co., Inc. Resistor. 3,109,754, 11–5–63, Cl. 117—217.

Tieman, James E. Apparatus for salvaging waste cotton. 3,092,948, 6–11–63, Cl. 56—28.

Tiemann, Jerome J., to General Electric Co. Temperature responsive system. 3,083,319, 3–26–63, Cl. 317—132.

Tiemann, Jerome J., to General Electric Co. Tunnel diode majority logical element. 3,097,311, 7–9–63, Cl. 307—88.5.

Tiemann, Jerome J., to General Electric Co. Voltage regulator employing a narrow junction degenerate semiconductor diode. 3,104,352, 9–17–63, Cl. 321—47.

Tiemann, Jerome J., to General Electric Co. Amplifier having variable input impedance. 3,116,459, 12–31–63, Cl. 330—24.

Tien, Jack M. Acyl hydrazine derivatives of bis(4-methylamino-3-methylphenyl)methane. 3,073,836, 1–15–63, Cl. 260—295.

Tiepolo, Ugo: *See*—
Felder, Ernst, and Tiepolo. 3,108,099.

Tierney, Hubert J., and H. Thurnauer, to Minnesota Mining and Mfg. Co. Ultra-thin glass sheet. 3,089,801, 5–14–63, Cl. 154—47.

Tierney, Paul A.: *See*—
Sattler, Frank A., and Tierney. 3,089,787.

Tierney, Paul A., to Westinghouse Electric Corp. Ceramic potting composition and method of encapsulating an electrical article therewith. 3,078,186, 2–19–63, Cl. 117—201.

Tierney, Raymond B., and R. H. Krug, to Texaco Inc. Lubricating composition. 3,074,886, 1–22–63, Cl. 252—49.8.

Tiers, George V. D.: *See*—
Carlson, Norman G., and Tiers. 3,075,953.

Tietze, Artur: *See*—
Reichenbaecher, Hans. 3,106,855.

Tietze, Ernst, S. Petersen, and F. Hoffmeister, to Farbenfabriken Bayer Aktiengesellschaft. Novel, water-soluble benzazimide and quinazolone salts and a process for producing the same. 3,075,982, 1–29–63, Cl. 260—256.4.

Tifcon Co.: *See*—
Taylor, John S. 3,109,637.

Tiffany Stand Co.: *See*—
Simpkins, William. 3,099,233.
Simpkins, William. 3,102,616.

Tigerschiold, Bo M., to Degerfors Jamverks AB. Process for producing hot tops. 3,077,646, 2–19–63, Cl. 22—192.

Tighe, Charles L., Jr.: *See*—
Mendelson, Hans, and Tighe. 3,071,639.

Tighe, Donald L.: *See*—
Darbie, Arthur M., Harrison, and Tighe. 3,101,442.

Tightpat, Inc.: *See*—
Rice, Ernest G. Re. 25,360.

Tikkainen, Olaf A. Loop antenna with impedance matching. 3,096,518, 7–2–63, Cl. 343—742.

Tikkainen, Veikko V. Game apparatus. 3,073,598, 1–15–63, Cl. 273—95.

Tilbury, James R., to Protectomatic, Inc. Time delay safety interlock for machines. 3,103,270, 9–10–63, Cl. 192—131.

Tilden, Carl V. Apparatus for forming sheet plastic material. 3,072,964, 1–15–63, Cl. 18—19.

Tilden, Carl V. Phone dial aid accessory. 3,073,909, 1–15–63, Cl. 179—90.

Tilden, Carleton D., to Cleveland Technical Center, Inc. Vortex water cooler. 3,074,243, 1–22–63, Cl. 62—5.

Tile Council of America, Inc.: *See*—
Kastenbein, Ernest L. 3,070,866.
Wagner, Herman B. 3,111,427.

Tiley, Gerald L.: *See*—
Boesel, Walter F., Carter, Oldfield, and Tiley. 3,075,133.

Tilgner, Ralph F., to Pittsburgh Plate Glass Co. Power driven brush. 3,105,261, 10–1–63, Cl. 15—180.

Tilgner, Ralph F., to Pittsburgh Plate Glass Co. Corrugated tube for rotary brushes. 3,107,381, 10–22–63, Cl. 15—182.

Tilgner, Ralph F., to Pittsburgh Plate Glass Co. Brush strip for power-driven brush. 3,107,382, 10–22–63, Cl. 15—182.

Till, Derek E., and W. Wade, to American Viscose Corp. Method for producing filters. 3,073,735, 1–15–63, Cl. 156—38.

Tillatson Mfg. Co., The: *See*—
Phillips, Bernard C. 3,085,791.

Tillequin, Jean F., and H. B. Blampin, to Babcock & Wilcox Ltd. Tubulous vapour generators. 3,104,652, 9–24–63, Cl. 122—32.

Tiller, James A., to American Radiator & Standard Sanitary Corp. Drain plug mechanism. 3,099,019, 7–30–63, Cl. 4—200.

Tiller, James A., to American Radiator & Standard Sanitary Corp. Lavatory fixture. 3,101,486, 8–27–63, Cl. 4—170.

Tiller, Milton, to Concrete Pipe Machinery Co. Machine for making concrete pipe. 3,083,433, 4–2–63, Cl. 25—39.

Tilles, Harry. Chlorothiolformate pesticide. 3,093,537, 6–11–63, Cl. 167—22.

Tilles, Harry, and J. Antognini, to Stauffer Chemical Co. Method of combatting weeds. 3,078,155, 2–19–63, Cl. 71—2.7.

Tilles, Harry, and J. Antognini, to Stauffer Chemical Co. Herbicidal method. 3,101,263, 8–20–63, Cl. 71—2.3.

Tillet, Pierre A., to Usines Chimiques Rhone-Poulenc, Societe des. Aqueous vinyl acetate polymer emulsion containing N-n-butyl-benzamide and food product coated with same. 3,090,689, 5–21–63, Cl. 99—166.

Tilley, Colin G.: *See*—
Stephen, William E., Tilley, and Vellins. 3,087,924.

Tilley, Colin G., and F. A. Waite, to Imperial Chemical Industries Ltd. 1-(dihalogen-triazinylaminophenyl)-4-(β-naphthylazo)-pyrazolone dyestuffs. 3,097,197, 7–9–63, Cl. 260—153.

Tillman, Harry L.: *See*—
Herndon, William B., Jr., and Tillman. 3,107,502.

Tillman, Henry R.: *See*—
Fuchs, Francis J., Jr., and Tillman. 3,078,906.

Tillman, Linton A.: *See*—
Taylor, Winfred P., and Tillman. 3,091,909.

Tillotson Mfg. Co., The: *See*—
Phillips, Bernard C. 3,072,390.
Phillips, Bernard C. 3,090,608.

Tillotson, Richard D., to Arthur D. Little, Inc. Apparatus and method for prevention of skin blister in domestic fowl. 3,083,688, 4–2–63, Cl. 119—143.

Tillson, Robert S., to General Electric Co. Enclosed multipole switch with removable contact carrier. 3,114,024, 12–10–63, Cl. 200—168.

Tilney, Ralph B., to Alco Valve Co. Condenser pressure regulating system. 3,103,795, 9–17–63, Cl. 62—196.

Tilney, Ralph B., and J. A. Schenk, to Alco Valve Co. Thermostatic expansion valve with compound pressure regulating override. 3,111,816, 11–26–63, Cl. 62—212.

Tilson, Robert R., to Thompson Ramo Wooldridge Inc. Pump assembly. 3,115,841, 12–31–63, Cl. 103—87.

Tilton, Alva R. Stepladder. 3,109,512, 11–5–63, Cl. 182—120.

Tilton, Charles J., to International Business Machines Corp. Asynchronous multiplier. 3,085,747, 4–16–63, Cl. 235—165.

Timax Associates: *See*—
Slatin, Harvey L. 3,087,873.
Slatin, Harvey L. 3,103,472.

Timberlake, John R.: *See*—
Morkoski, James, and Timberlake. 3,114,227.

Time, Inc.: *See*—
Faeber, Harry W. 3,071,865.
Faeber, Harry W. 3,113,506.
Latimer, Kenneth B., and Stiles. 3,071,869.
Leekley, Robert M., and Sorensen. 3,081,168.
Moe, William W. 3,108,265.
Moe, William W. 3,109,888.
Robinson, David E. 3,076,502.
Sieber, Herman L. 3,098,787.

Timefax Corp.: *See*—
Dalton, Harold R. 3,079,859.

Timely Service, Inc.: *See*—
Frois, Mauricio S., and Sherman. 3,111,781.

Timken Roller Bearing Co., The: *See*—
Baker, John B. 3,077,798.
Baker, John B. 3,080,009.
Cornish, Robert F., and Logan. 3,115,790.
Holsing, Robert H. 3,075,593.
Jatczak, Chester F. 3,099,556.
Vincent, David B. 3,079,012.

Timko, Donald J.: *See*—
Albright, James C., Sutton, Timko, and Bohor. 3,075,142.

Timko, Joseph W.: *See*—
Pruden, David H., and Timko. 3,109,128.

Timm, Emmert A., to Hoefer Mfg. Co., Inc. Feed mechanism for machine tools. 3,071,989, 1–8–63, Cl. 77—33.5.

Timm, Robert A.: *See*—
Kristen, Frank. 3,071,206.

Timmer, Robert L.: *See*—
Esler, David H., and Timmer. 3,105,323.

Timmerman, Jan, A. Kooistra, G. Starre, and H. J. Driessen, to North American Philips Co., Inc. Cutting head for use in a dry shaving apparatus having an oval shape movable cutter. 3,078,571, 2–26–63, Cl. 30—43.

Timmerman, Julius W.: *See*—
Peek, Henry L., and Timmerman. 3,105,126.

Timmerman, Merle J., and W. F. Behm, to Houdaille Industries, Inc. Shaker-cleaner assembly. 3,082,775, 3–26–63, Cl. 134—111.

Timmerman, Robert: *See*—
Saller, Erik, Timmerman, and Wenzke. 3,081,359.

Timmerman, Robert W.: *See*—
Saller, Erik, Timmerman, Bennetts, and Armstrong. 3,109,866.

Timmerman, Walter C., Jr.: *See*—
Crawford, William B., W. C. Timmerman, Sr., W. C. Timmerman, Jr., Pekor, and Hanna. 3,113,699.

Timmerman, Walter C., Sr.: *See*—
Crawford, William B., W. C. Timmerman, Sr., W. C. Timmerman, Jr., Pekor, and Hanna. 3,113,699.

Timmermann, Karl G., to L. B. Stickley. Adjustable table. 3,092,048, 6–4–63, Cl. 108—138.

Timmington, Herbert: *See*—
Roty, Stephen P., Linnell, and Timmington. 3,108,044.

Timmler, Helmut: *See*—
Hellmann, Heinrich, Piechota, Henecka, and Timmler. 3,094,553.

Timmons, Henry A. Automobile tire chains. 3,106,949, 10–15–63, Cl. 152—218.

Timney, Mary M.: *See*—
D'Errico, Michael J., and Timney. 3,096,289.

Timothy, Patrick H., to Southern Natural Gas Co. Pipe coating composition comprising asphalt and a filler graded to maximum density. 3,078,324, 2–19–63, Cl. 260—758.

Timpner, Fred F.: *See*—
Campbell, Edgar C., and Timpner. 3,103,210.

Tims, Donald E., M. E. Shrader, and H. G. Livingston, to M. E. Shrader and H. G. Livingston. Apparatus for bottom hole orientation. 3,100,019, 8–6–63, Cl. 175—45.

Timson, William J., to W. R. Grace & Co. Method and apparatus for lining container closures. 3,074,810, 1–22–63, Cl. 117—43.

Timsons Ltd.: *See*—
Harris, John W. 3,095,810.

Tindale, John, to Elliott Brothers (London) Ltd. Latching device for use with elongated articles of rod or tube form. 3,107,109, 10–15–63, Cl. 287—58.

Tindall, John M. Sliced food package. 3,083,107, 3–26–63, Cl. 99—171.

Tindall, John M. Sliced food package and clip therefor. 3,086,264, 4–23–63, Cl. 24—30.5.

Tine, Sebastian D., to Watts Regulator Co. Injection lubricator. 3,112,013, 11–26–63, Cl. 184—18.

Tindlow, Lionel. Weather resistant door saddle. 3,083,420, 4–2–63, Cl. 20—64.

Tingstad, James E.: *See*—
Spoonoble, Harry and Tingstad. 3,075,882.

Tinius Olsen Testing Machine Co.: *See*—
Gruber, Warren M. 3,076,603.
Strimel, Robert S. 3,076,331.
Strimel, Robert S. 3,092,072.

Tinker, Charles D., to Ohio Kilns, Inc. Kilns. 3,091,444, 5–28–63, Cl. 263—40.

Tinker, Charles D. Kiln. 3,091,832, 6–4–63, Cl. 25—142.

Tinker, Charles D. Heat treating furnace. 3,102,720, 9–3–63, Cl. 263—43.

Tinker, George H., and W. B. Winkler, to T. F. Washburn Co. Method for end point determination in the production of thixotropic polyamide-modified vehicles. 3,096,193, 7–2–63, Cl. 106—287.

Tinker, Malcolm L.: *See*—
Merrill, Richard D., and Tinker. 3,080,681.

Tinkey, Otto G., ½ to Mrs. B. E. Runde. Refrigerating apparatus including heat exchange stabilizer means. 3,108,453, 10–29–63, Cl. 62—200.

Tinnerman, George A. Hanger for structural elements. 3,076,536, 2–5–63, Cl. 189—88.

Tinnerman, George A. Plastic nut having metallic insert imbedded therein. 3,082,807, 3–26–63, Cl. 151—41.75.

Tinnerman, George A. Apparatus for making nuts having wire clips. 3,108,297, 10–29–63, Cl. 10—72.

Tinnerman Products Inc.: *See*—
Buttriss, Albert T. 3,081,853.
Holton, Robert J. 3,108,666.

Tinney, Joseph F. Omnidirectional "G" switch. 3,103,120, 9–10–63, Cl. 73—492.

Tinnon, John M., and M. W. Leeds, to Air Reduction Co., Inc. Cleaning compositions. 3,095,381, 6–25–63, Cl. 252—161.

Tinsley, Charles W., to Du Page Mfg. Co. Worm drive hose clamp. 3,087,220, 4–30–63, Cl. 24—274.

Tinsley, Frederick E., to Clairol Inc. Manicuring stand. 3,070,906, 1–1–63, Cl. 35—59.

Tinsley, Samuel W.: *See*—
Starcher, Paul S., Tinsley, McGary, and Patrick. 3,075,955.
Starcher, Paul S., Tinsley, and Phillips. 3,072,680.

Tinsley, Samuel W., to Union Carbide Corp. 3-oxatricyclo [3.2.1.0^{2,4}] octane-6,7-diol. 3,071,600, 1–1–63, Cl. 260—348.

Tinsley, Samuel W., and D. L. MacPeek, to Union Carbide Corp. 1-(1,2-epoxyethyl)-2-vinylcyclobutane and polymers thereof. 3,096,315, 7–2–63, Cl. 260—88.3.

Tinsley, Samuel W., Jr., and D. L. MacPeek, to Union Carbide Corp. Polyepoxy-1,3-dioxolanes. 3,086,025, 4–16–63, Cl. 260—340.9.

Tipiitz, Charles L., to Kearfott Co., Inc. Self-compensated flexure pivot. 3,092,424, 6–4–63, Cl. 308—2.

Tipper, Ernest: *See*—
Anniss, Charles H., Kestell, and Tipper. 3,095,589.

Tipper, Maynard J. G. Casing pressure packer and sealer. 3,115,733, 12–31–63, Cl. 53—124.

Tippett, Charles E.: *See*—
Marsh, Byron E., and Tippett. 3,113,113.

Tipping, Roderick G.: *See*—
Spreitzer, William M., Tipping, Fisher, Copeland, and Alexander. 3,093,010.

Tippmann, Gerhard: *See*—
Köhler, Hellfried, Güldner, Teli, Tippmann, and Heerklotz. 3,072,325.

Tippmann, Joseph R., L. E., and L. E., Jr., to Chicago Stock Yards Turbo Refrigerating Co. Ice making apparatus. 3,074,252, 1–22–63, Cl. 62—347.

Tippmann, Lawrence E.: *See*—
Tippmann, Joseph R., L. E., and L. E., Jr. 3,074,252.

Tippmann, Lawrence E., Jr.: *See*—
Tippmann, Joseph R., L. E., and L. E., Jr. 3,074,252.

Tipton, Catherine A. Disposable cake pan and method of making same. 3,107,587, 10–22–63, Cl. 93—36.

Tipton, Virgil W., to Tempromatic Corp. Refrigeration system with jet injector nozzle. 3,103,106, 9–10–63, Cl. 62—196.

Tip-Top Products Co.: *See*—
Renstrom, Carl W., and Sherwin. 3,082,773.

Tiraspolsky, Wladimir. Axial pumps. 3,071,076, 1–1–63, Cl. 103—93.

Tiraspolsky, Wladimir. Drill bit tool for well drilling. 3,084,752, 4–9–63, Cl. 175—404.

Tiraspolsky, Wladimir, and R. F. Rouviere. Drilling turbine. 3,077,937, 2–19–63, Cl. 175—107.

Tisch, Josef. Cleaning and feeding apparatus for match-making machines. 3,106,291, 10–8–63, Cl. 209—83.

Tischler, Edward J., and T. J. Schoenecker, to Union Tank Car Co. Valve closure means. 3,079,125, 2–26–63, Cl. 251—333.

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Tischler, Henry J., to American Motors Corp. Control mechanism for reclining seat back. 3,079,199, 2–26–63, Cl. 297—367.

Tischler, Morris, to Electronic Aids, Inc. Cardiac nerve control device. 3,109,430, 11–5–63, Cl. 128—422.

Tischler, Nathaniel, to Heyden Newport Chemical Corp. Controlling bindweed with 2,3,6-trichlorobenzoic acid and salts thereof. 3,081,162, 3–12–63, Cl. 71—2.6.

Tisdale, Norman F., to Molybdenum Corp. of America. Production of columbium containing steels. 3,102,831, 9–3–63, Cl. 148—12.

Tisdale, Norman F. and R. A., to Molybdenum Corp. Molds and stools. 3,109,733, 11–5–63, Cl. 75—123.

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Titchenal, Oliver R., to St. Regis Paper Co. Flexible conveyor. 3,092,233, 6–4–63, Cl. 193—35.

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Tits, Agnes M. L.: *See*—
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Titterington, William A., and R. H. Blackmer, to General Electric Co. Fuel gas system for fuel cells. 3,098,768, 7–23–63, Cl. 136—86.

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Averill, Eugene F. 3,087,410.
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Tobari, Riichi. Artificial cotton. 3,080,580, 3–12–63, Cl. 5—361.

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Toczylowski, Henryk S. Rangefinder sights. 3,073,211, 1–15–63, Cl. 88—2.7.

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Todd, George W. Closure for shipping containers. 3,099,364, 7–30–63, Cl. 220—24.5.

Todd, Harold E., and G. W. Onksen, to General Motors Corp. Apparatus for aiming headlamps. 3,077,139, 2–12–63, Cl. 88—14.

Todd, Leslie J., to E. I. du Pont de Nemours and Co. Treatment of catalyst in the chlorination of partially chlorinated hydrocarbons. 3,083,239, 3–26–63, Cl. 260—654.

Todd, Paul H., to Farmers' Chemical Co. Treatment of peppermint oil. 3,083,105, 3–26–63, Cl. 99—140.

Todd, Wallace M.: *See*—
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Todd, William L., to FMC Corp. Underwater well completion assembly. 3,099,317, 7–30–63, Cl. 166—66.5.

Todoran, Ambro, F. E. Poling, and R. A. Motter, to The Yoder Co. Ring coiling and cut-off machine. 3,083,751, 4–2–63, Cl. 153—3.

Todt, Gerhard, and W. R. Bernhardt, to Airmatic Systems Corp. Automatic ejector for pneumatic tube systems. 3,101,182, 8–20–63, Cl 243—1.

Todt, Joachim. Sub-miniature transducer. 3,116,377, 12–31–63, Cl. 179—115.

Todtenhaupt, Erich K. Driving device for an agitator shaft. 3,076,684, 2–5–63, Cl. 308—187.1.

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Toennies, Owe M., to The Grove Research and Development Co. Device for transferring a carcass from one conveyor to another. 3,077,997, 2–19–63, Cl. 214—59.

Toensing, James W., to Minnesota Mining and Mfg. Co. Taping apparatus. 3,081,815, 3–19–63, Cl. 156—521.

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Tofflemire, Benjamin F. Dental retainer with crimping device for matrix band retaining clamp. 3,105,301, 10–1–63, Cl. 32—63.

Toffelmire, Benjamin F. Dental instrument for crimping retaining clamp on matrix band. 3,105,402, 10–1–63, Cl. 81—15.

Toffolo, Dominic S., to United States of America, Navy. Regulated transformer rectifier power supply. 3,107,325, 10–15–63, Cl. 321—25.

Toffolo, Dominic S., and L. R. Larson. Flux switching transformer. 3,087,108, 4–23–63, Cl. 323—56.

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Tolbert, Nathan E., to Michigan State University of Agriculture and Applied Science. Method of controlling bacterial diseases of fruit trees. 3,102,068, 8–27–63, Cl. 167—22.

Tolbert, William P., Sr., to Anthes Force Oiler Co. Road reflector. 3,108,510, 10–29–63, Cl. 88—79.

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Tolin, Ernest D., and D. A. Fluegel, to Phillips Petroleum Co. Measurement and control of polymerization reactions. 3,105,896, 10–1–63, Cl. 235—151.

Tolin, Ernest D., and D. E. Berger, to Phillips Petroleum Co. Fluid analyzer for control system. 3,108,929, 10–29–63, Cl. 202—160.

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Tolkmith, Henry, to The Dow Chemical Co. N,N'-bis (pentamethylene), and N,N'-bis (tetramethylene), isothiouronium halides. 3,087,931, 4-30-63, Cl. 260—293.4.

Tölle, Hans G., to Kochs Adlernahmaschinenwerke AG. Zigzag sewing machine for producing different fancy-stitch seams. 3,103,904, 9-17-63, Cl. 112—158.

Tolles, Walter E., to Cutler-Hammer, Inc. Apparatus for measuring the electrical response of living tissue. 3,085,566, 4-16-63, Cl. 128—2.1.

Tolles, Walter E., to Cutler-Hammer, Inc. Blood pressure measurement. 3,095,872, 7-2-63, Cl. 128—2.05.

Tolley, Howard B., to National Biscuit Co. Process for producing a filled doughnut. 3,104,976, 9-24-63, Cl. 99—86.

Tolmie, Robert J., to Sperry Rand Corp. Motor for ladies' shavers. 3,086,133, 4-16-63, Cl. 310—36.

Toma, John W., to General Electric Co. Automatic washing machine including dispensing means. 3,080,742, 3-12-63, Cl. 68—12.

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Tomanek, Martha, and W. Neugebauer, to Azoplate Corp. Process for the removal of unfixed developer powder from powdered electro-photographic reproduction coatings. 3,100,726, 8-13-63, Cl. 134—7.

Tomarkin, Leandro W. Tractive compositions. 3,115,178, 12-24-63, Cl. 152—211.

Tomaro, Patrick M., Jr., to Walter E. Heller & Co., (Inc.). Electronmagnetic stepping switch. 3,115,563, 12-24-63, Cl. 200—105.

Tomasko, Howard M., and R. A. Hill, to Waterous Co. Pretimed three-lobed rotary pump. 3,106,166, 10-8-63, Cl. 103—126.

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Tomatis, Alfred A. A., to Societe Civile d'Etudes et de Brevets Mota. Apparatus for the conditioning of the auditory lateralization. 3,101,081, 8-20-63, Cl. 128—1.

Tomatis, Alfred A. A., to Societe Civile d'Etudes et de Brevets Mota. Apparatus for the acoustic-ambience conditioning of a medium. 3,101,391, 8-20-63, Cl. 179—1.

Tomayer, Robert L. Electronic moisture sensing control system. 3,079,089, 2-26-63, Cl. 239—63.

Tomberlin, Bill M., to Petro-Electronics Corp. Method and apparatus for cleaning and thawing flow lines and the like. 3,092,514, 6-4-63, Cl. 134—1.

Tomcik, Daniel J., to Electro-Voice, Inc. Electrical musical instrument. 3,098,888, 7-23-63, Cl. 84—1.17.

Tomcufcik, Andrew S., S. D. Willson, and A. W. Vogel, to American Cyanamid Co. N,N'-methylene-bis-amindes for the suppression of tumors. 3,085,940, 4-16-63, Cl. 167—65.

Tomcufcik, Andrew S., S. D. Willson, and A. W. Vogel, to American Cyanamid Co. Acrylamide derivatives for the suppression of tumors. 3,085,941, 4-16-63, Cl. 167—65.

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Tomlinson, George H., II. Method for separating dirt from aqueous suspensions of pulp fibers. 3,096,275, 7-2-63, Cl. 209—2.

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Tomlinson, Judson B., ½ to Joseph Tomalczyk. Portable pickle slicer. 3,107,710, 10-22-63, Cl. 146—151.

Tomlinson, Kenneth J., to Sprague Engineering Corp. Coupling means. 3,085,407, 4-16-63, Cl. 64—6.

Tomlinson, Kent. Fingers for removing feathers from poultry. 3,108,317, 10-29-63, Cl. 17—11.1.

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Tompkins, Edwin H.: *See*—
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Tompkins, Edwin H., to Armour Research Foundation of Illinois Institute of Technology. Method of applying an oxide coating onto a non-porous refractory substrate. 3,081,200, 3-12-63, Cl. 117—213.

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Tone, Waldo E. and R. D. Sand shroud. 3,103,181, 9-10-63, Cl. 103—219.

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Toney, John J., to Sunbeam Corp. Method and apparatus for measuring and controlling the constituent potentials of gases. 3,072,792, 1-8-63, Cl. 250—83.6.

Toney, John J., to Sunbeam Equipment Corp. Combined furnace heater and circulator. 3,091,445, 5-28-63, Cl. 263—43.

Tong, Duncan. Artificial garland or wreath assembly. 3,110,647, 11-12-63, Cl. 161—31.

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Tongue, Ben H., to Blonder Tongue Electronics. Phase-shift-reducing apparatus. 3,071,735, 1-1-63, Cl. 330—79.

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Tonna, Arthur J., and V. A. Sariotti, to Burgermeister Brewing Corp. Tapping valve for beer kegs. 3,115,149, 12-24-63, Cl. 137—240.

Tonner, Francis L., and G. F. Dison, to The Glidden Co. Curable and cured resinous products combining epoxy resin esters and acidic acrylate ester copolymers. 3,107,226, 10-15-63, Cl. 260—23.

Tookey, Harvey L., and V. F. Pfeifer, to United States of America, Agriculture. Crotalaria intermedia endosperm product and method of preparing the same. 3,116,281, 12-31-63, Cl. 260—209.

Tookey, James R., to Illinois Tool Works Inc. Hobbing machine. 3,105,412, 10-1-63, Cl. 90—4.

Tooley, Michael D., to General Precision Systems Ltd. Navigation aids. 3,114,912, 12-17-63, Cl. 343—105.

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Tooper, Edward B., and J. R. Greenfield, to The Diversey Corp. Tank cleaners. 3,079,937, 3-5-63, Cl. 134—166.

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Toorell, Sture E., to Aktiebolaget Atvidaberg Facit. Keyboards for power-operated calculating machines. 3,092,315, 6-4-63, Cl. 235—62.

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Topazio, William J., and J. D. Weir, to Sperry Rand Corp. Pressure rebalancing and measuring servosystem. 3,100,858, 8-13-63, Cl. 318—28.

Tope, Paul H., and R. B. Sherer, to Whirlpool Corp. Adjustable post mounted lint filter. 3,111,831, 11-26-63, Cl. 68—18.

Topf, Sam B., to Jordan Industries, Inc. Combination spacer anchor having a frangible head portion. 3,094,892, 6-25-63, Cl. 85—2.4.

Topfer, Richard. Device for sharpening double-edged razor blades by hand. 3,082,579, 3-26-63, Cl. 51—80.

Topham, Arthur: *See*—
Todd, William, and Topham. 3,075,006.

Topham, Michael J., and W. S. Miller, to The Calico Printers' Assn. Ltd. Process for removing organic solvent from wet material. 3,106,460, 10-8-63, Cl. 34—23.

Topham, William H., to The British Petroleum Co. Ltd. Apparatus for use in the control of distillation. 3,094,468, 6-18-63, Cl. 202—160.

Topol, George J., to Bowser, Inc. Method and apparatus for decontaminating hydraulic fluids. 3,112,190, 11-26-63, Cl. 55—46.

Toporcer, Louis H., to Dow Corning Corp. Bissilylcyclohexadienes, their preparation and use. 3,105,085, 9-24-63, Cl. 260—448.2.

Topp, Ivor B.: *See*—
Burroughs, Cyril E., Topp, and Kingsland. 3,089,642.

Topper, Bernard, to B. Kaufman. Toy fungo bat. 3,111,314, 11-19-63, Cl. 273—26.

Topping, Ernest W.: *See*—
Brock, George D., and Topping. 3,096,408.

Top-Scor Products Corp., Inc.: *See*—
Jackson, George R., and Livingston. 3,111,409.

Torell, Bruce N.: *See*—
White, James N., and Torell. 3,082,599.

Torelli, Vesperto: *See*—
Amiard, Gaston, Torelli, and Cerede. 3,104,246.

Toren, Paul E., to Phillips Petroleum Co. Purification of fluid streams. 3,106,592, 10-8-63, Cl. 260—677.

Torgerson, Arnold T., to The Electric Storage Battery Co. Hand lantern construction. 3,087,052, 4-23-63, Cl. 240—10.61.

Torgow, Eugene N., to Polytechnic Institue of Brooklyn. Hybrid-junction cut-off waveguide filter. 3,114,119, 12-10-63, Cl. 333—11.

Torigian, Puzant C. Treatment of vegetable and other leaves. 3,106,209, 10-8-63, Cl. 131—2.

Torlo Co., Ltd.: *See*—
Yokoyama, Kozo. 3,104,394.

Toriumi, Noboru, S. Ogawa, S. Ogata, and T. Yamura; said Toriumi, Ogawa, and Ogata assors. to said Yamura. Apparatus for selecting and typing the letter in the Chinese letter printing telegraph, electrical Chinese letter typewriter or the like machine. 3,100,036, 8-6-63, Cl. 197—1.

Torjesen Inc.: *See*—
Lapof, Ray. 3,086,261.

Torluemke, Keith R. Thermal centrifugal compressor. 3,098,602, 7-23-63, Cl. 230—1.

Torn, William R., to Dukane Corp. Inertialess transducer. 3,105,124, 9-24-63, Cl. 179—113.

Toro Mfg. Corp.: *See*—
Ertsgaard, Byron L., and Worrel. 3,078,603.
Samways, Alfred J., and Ertsgaard. 3,077,065.
Weir, Hugh R. 3,096,606.

Torok, Julius J., to Kimble Glass Co. Plunger for forming glass articles. 3,078,690, 2-26-63, Cl. 65—356.

Torongo, Albert H., Jr., C. D. Frederickson, and C. R. Hood, to The Procter & Gamble Co. Dispenser for fabric softener. 3,108,722, 10-29-63, Cl. 222—463.

Toronto Brick Co. Ltd.: *See*—
Moldovan, Andrew. 3,085,698.

Toronto Iron Works, Ltd. The: *See*—
King, Terence C. 3,107,810.

Torossi, Louis A., 50% to R. A. Ward. Rolled strip ticket dispenser. 3,116,029, 12-31-63, Cl. 242—55.3.

Torrance, Geoffrey P.: *See*—
Morley, Frederick W. W., Anley, and Torrance. 3,108,434.

Torre, Alton J.: *See*—
Stark, John, Jr., and Torre. 3,114,794.
Stark, John, Jr., and Torre. 3,114,796.

Torre, Pier L., to Bundy Marine S.p.A. Outboard motor tilt release. 3,096,058, 7-2-63, Cl. 248—4.

Torrence, James A., to Motorola, Inc. Tuner with single knob clutchable to either turret or individual channel verniers. 3,090,932, 5-21-63, Cl. 334—51.

Torrence, James A., to Motorola, Inc. Remote control apparatus. 3,092,761, 6-4-63, Cl. 317—149.

Torres, Clemente. Deceleration indicating switch. 3,108,252, 10-22-63, Cl. 340—71.

Torres, David, by the Vendo Co., assignee. Vending machine for cylindrical objects having jam preventing means. Re. 25,321, 1-15-63, Cl. 221—67.

Torres, Jorge, to On Mark Couplings, Inc. Fluid conduit coupling. 3,113,588, 12-10-63, Cl. 137—614.06.

Torres, Joseph, to Hamilton Watch Co. Apparatus for lapping thin articles. 3,105,328, 10-1-63, Cl. 51—3.

Torresen, Robert, to Brunswick Corp. Pin detecting and indicating system. 3,109,650, 11-5-63, Cl. 273—52.

Torresen, Robert, and A. J. Gretzky, to Brunswick Corp. Pin detecting and indicating apparatus. 3,094,325, 6-18-63, Cl. 273—42.

Torresen, Robert, and M. E. Brown, to Brunswick Corp. Pin detecting and indicating apparatus. 3,094,326, 6-18-63, Cl. 273—42.

Torrey, Anthony J. Supporting stand for snow plows or the like vehicle attachments. 3,104,893, 9-24-63, Cl. 280—475.

Torrey Henry C.: *See*—
Poindexter, Edward H., and Torrey. 3,096,476.

Torrey, Robert D.: *See*—
Bonn, Theodore H., and Torrey. 3,071,694.

Torrington Co., The: *See*—
Benson, Carl F. 3,083,549.
Lobeck, John H. 3,113,813.
Moroney, John J. 3,103,394.
Shepard, Richard W. 3,074,618.
White, Robert H. 3,086,827.
White, Robert H., and Carullo. 3,090,109.

Torrington Mfg. Co., The: *See*—
Delaney, Vincent N. 3,091,384.
Klonoski, Stephen W. 3,111,173.
Merz, Kenneth A. 3,080,105.
Vogt, Werner, and Cavagnero. 3,092,709.

Torrubiano, Jose L.: *See*—
De la Cuadra, Jimenez, and Torrubiano. 3,102,971.

Torsion Balance Co., The: *See*—
Richardson, Robert L. 3,075,596.
Richardson, Robert L. 3,075,597.

Torti, Emanuel. Trench shoring machine. 3,089,310, 5-14-63, Cl. 61—41.

Torti, Maurice L., Jr.: *See*—
Ham, John L., and Torti. 3,107,165.

Toscanni, Walfredo: *See*—
Turoff, Allan D. 3,109,539.

Toschkoff, Dimitar: *See*—
Zubaty, Joseph G., Toschkoff, and Haven. 3,108,437.

Tosi, Roberto. Process for forming the folded-back border of pieces worked of a hide or skin and the like. 3,101,602, 8-27-63, Cl. 69—21.

Toski, John W., and R. F. Spain, to General Motors Corp. Constant current supply apparatus. 3,076,128, 1-29-63, Cl. 320—39.

Totaro, Thomas C., and K. J. King, to Hercules Galion Products, Inc. Refuse collection system. 3,071,264, 1-1-63, Cl. 214—82.

Tote-Cart Co.: *See*—
Carpenter, Robert J. 3,097,887.
Sides, Harold I. 3,078,102.
Sides, Harold I. 3,083,030.

Toth, John S. Headrest. 3,101,973, 8-27-63, Cl. 297—391.

Toth, Paul: *See*—
Holwart, George, and Toth. 3,082,015.
Holwart, George, and Toth. 3,099,457.
Holwart, George, and Toth. 3,104,886.

Toth, Peter, Jr.: *See*—
Hinkle, James O., and Toth. 3,114,400.

Toti, Andrew J., to International Rectifier Corp. Fowl picking apparatus. 3,090,073, 5-21-63, Cl. 17—11.1.

Totman, Millard C.: *See*—
Rowe, Lester M., and Totman. 3,114,617.

Totten, Edward F., to The Photo-Marker Corp. Pattern grading machine. 3,083,465, 4-2-63, Cl. 33—12.

Totten, Gilbert P., to Advance Engineering Co. Beverage brewing apparatus. 3,115,822, 12-31-63, Cl. 99—289.

Totten, John A., to Rock-Ola Mfg. Corp. Coffee brewing apparatus. 3,086,446, 4-23-63, Cl. 99—283.

Totz, Robert C., to Automatic Electric Laboratories, Inc. Code conversion arrangement. 3,102,259, 8-27-63, Cl. 340—347.

Touey, George P.: *See*—
Kiefer, John E., and Touey. 3,082,107.
Kiefer, John E., and Touey. 3,113,674.

Touey, George P., and J. E. Kiefer, to Eastman Kodak Co. Sulfation of alcohols and polyols with salts of acetyl sulfuric acid. 3,075,965, 1-29-63, Cl. 260—234.

Touey, George P., and J. E. Kiefer, to Eastman Kodak Co. Water soluble cellulose acetate propionate sulfate salts and films thereof. 3,086,007, 4-16-63, Cl. 260—215.

Touey, George P., and J. E. Kiefer, to Eastman Kodak Co. Glucose isobutyral. 3,096,323, 7-2-63, Cl. 260—209.

Touhey, Edward A. Apparatus for reducing air pollution. 3,107,484, 10-22-63, Cl. 60—30.

Toulis, William J. Apparatus for measuring sound speed and attenuation characteristics in liquid media. 3,087,138, 4-23-63, Cl. 340—5.

Toulmin, Harry A., Jr., to Union Carbide Corp. Continuous metal production and continuous gas plating. Re. 25,424, 7-23-63, Cl. 29—417.

Toulmin, Harry A., Jr., to Union Carbide Corp. Apparatus for making metalized porous refractory material. 3,075,494, 1-29-63, Cl. 118—49.5.

Toulmin, Harry A., Jr., to Union Carbide Corp. Method and apparatus for dehydration. 3,079,761, 3-5-63, Cl. 62—58.

Toulmin, Harry A., Jr., to The Commonwealth Engineering Co. of Ohio. Method and apparatus for refrigeration. 3,087,309, 4-30-63, Cl. 62—3.

Toulmin, Harry A., Jr. Method and apparatus for gas plating of metal on glass fibers. 3,097,941, 7-16-63, Cl. 65—3.

Toulmin, Harry A., Jr., to The Commonwealth Engineering Co. of Ohio. Propulsion means and method for space vehicles employing a volatile alkene and metal carbonyl. 3,107,485, 10-22-63, Cl. 60—35.4.

Toulmin, Harry A., Jr., to The Commonwealth Engineering Co. of Ohio. Process of splitting steroids. 3,112,249, 11-26-63, Cl. 195—51.

Toulmin, Virginia B., to The Commonwealth Engineering Co. of Ohio. Hair drier. 3,108,862, 10-29-63, Cl. 34—99.

Tour, Sam., to Metallizing Engineering Co., Inc. Metallizing wire. 3,088,196, 5–7–63, Cl. 29—196.3.

Toureille, Daniel C., to Societe Rhodiaceta. Process for improving the affinity for dyes of shaped polyolefine articles. 3,101,989, 8–27–63, Cl. 8—55.

Tourtellot, John A., to Radio Corp. of America. Stereophonic phonograph pickup. 3,108,161, 10–22–63, Cl. 179—100.41.

Tourtellotte, Dee, and E. M. Marks, to Charles B. Knox Gelatine Co., Inc. Method of modifying type A gelatin and product thereof. 3,108,995, 10–29–63, Cl. 260—117.

Tourtellotte, Frederick, and E. A. Stiegler, to United States Rubber Co. Tire building apparatus and method. 3,071,179, 1–1–63, Cl. 156—405.

Tousignant, Roland A., and H. S. Crane, to Diamond National Corp. Continuously-operating molded article-removing means for drying forms. 3,096,873, 7–9–63, Cl. 198—185.

Tousignant, William F.: *See*—
Moore, Carl, and Tousignant. 3,108,992.
Walles, Wilhelm E., and Tousignant. 3,087,804.
Walles, Wilhelm E., Tousignant, and Axelson. 3,097,048.
Walles, Wilhelm E., Tousignant, and Cloninger. 3,097,046.

Toussaint, Jean E. J. G., to International Standard Electric Corp. Decoding and printing system. 3,081,446, 3–12–63, Cl. 340—172.5.

Touton, Rush D., to Wurton Machine Co. Cigar. Re. 25,355, 3–19–63, Cl. 131—11.

Touton, Rush D. Method for curing green tobacco. 3,086,533, 4–23–63, Cl. 131—140.

Touvay, Robert, to Saint-Gobain Compagnie de. Transparent wall-element. 3,085,464, 4–16–63, Cl. 88—1.

Towell, Billy H.: *See*—
Clements, Roy J., Lee, Towell, McEvers, and Havlik. 3,109,693.

Towers, Russell S., to Stauffer Chemical Co. Processes for preparing organo-metallic compounds. 3,094,546, 6–18–63, Cl. 260—448.

Towey, John P.: *See*—
Zuschek, Fred, Towey, and Jungk. 3,086,009.

Towle, Philip H.: *See*—
Baldwin, Richard H., and Towle. 3,095,445.

Towler, William R., to Sperry Rand Corp. Exclusive radio communication between stations at selected locations. 3,104,392, 9–17–63, Cl. 343—178.

Towlsaver, Inc.: *See*—
Layton, J. C. and Perrin. 3,073,541.
Perrin, Jack L. 3,080,659.

Town, Clinton D. Feathered paddle mechanism with eccentric. 3,099,319, 7–30–63, Cl. 170—151.

Towne, Charles C.: *See*—
Echert, George W., Hess, and Towne. 3,097,171.
Vermillion, Herbert E., Towne, and Eckert. 3,089,539.

Townend, Robert V., H. Q. Trout, and J. E. Wilkalis, to Allied Chemical Corp. Purification of uranium ore concentrates. 3,100,681, 8–13–63, Cl. 23—14.5.

Towner Mfg. Co.: *See*—
Heckathorn, Loyd E. 3,080,931.

Towns, Edward J. Non-refillable closure devices for bottles. 3,073,469, 1–15–63, Cl. 215—22.

Towns, Edward J. Suppository mold and container. 3,104,665, 9–24–63, Cl. 128—271.

Townsend Engineering Co.: *See*—
Townsend, Ray T. 3,115,668.

Townsend, George R., to General Electric Co. Contactor. 3,076,073, 1–29–63, Cl. 200—87.

Townsend, Gordon H.: *See*—
Horton, Walter, and Townsend. 3,112,022.

Townsend, Harold J., and D. G. Grenley, to The Dow Chemical Co. Vinylidene chloride copolymer latex containing oxyethylated castor oil. 3,097,178, 7–9–63, Cl. 260—23.

Townsend, Mark A., to Bell Telephone Laboratories, Inc. Switching circuit. 3,113,183, 12–3–63, Cl. 179—18.

Townsend, Ray T., to Townsend Engineering Co. Machine for encasing sausage and the like. 3,115,668, 12–31–63, Cl. 17—33.

Townsend, Reed W. Brush cleaning devices. 3,080,591, 3–12–63, Cl. 15—38.

Townsend, Richard W.: *See*—
De Corte, Michael A., and Townsend. 3,085,449.

Towzey, Hugh E., Jr. Airfoil design for jet engined aircraft. 3,097,817, 7–16–63, Cl. 244—15.

Toy, Arthur D. F., E. N. Walsh, and J. R. Froll, Jr., to Stauffer Chemical Co. Defoliant methods using thio esters of chloromethyl phosphonous and chloromethyl phosphonic acids. 3,094,405, 6–18–63, Cl. 71—2.3.

Toy, Arthur D. F., R. B. Fearing, and C. L. Dewald, to Stauffer Chemical Co. Boron trifluoride S,S,S-tributyl trithiophosphate defoliant. 3,103,433, 9–10–63, Cl. 71—2.7.

Toy, Arthur D. F., and E. H. Uhing, to Stauffer Chemical Co. Method of producing methylphosphonic acid and derivatives. 3,110,727, 11–12–63, Cl. 260—500.

Toy, Walter W.: *See*—
Scott, Joseph D., Toy, and Madge. 3,083,172.

Toyama, Yoshiyuki, H. Murata, and K. Machashi, to Asahidenka Kogyo Kabushiki Kaisha. Method for processing tallow, palm oil and other similar fats. 3,105,844, 10–1–63, Cl. 260—409.

Toymaker Inc.: *See*—
Neal, James S. 3,102,362.

Toyo Boseki Kaubshiki Kaisha: *See*—
Hashimoto, Tsuruyoshi. 3,083,416.
Osaki, Iwao, Fukui, and Nishimura. 3,083,415.
Tsukumo, Zenzaburo, Izutsu, and Sato. 3,088,267.

Toyo Kagaku Co., Ltd.: *See*—
Okamura, Seizo, Murol, Asakura, and Chimura. 3,111,370.

Toyo Koatsu Industries, Inc.: *See*—
Fujise, Seiichi, Otsuka, Nagai, and Numata. 3,112,177.
Inaba, Yanosuke, and Kimoto. 3,113,935.
Otsuka, Eiji, Takahashi, and Watanabe. 3,090,811.
Sasaki, Kazuo. 3,107,146.

Toyo Kogyo Co. Ltd.: *See*—
Koshobu, Isato. 3,108,513.

Toyo Nylon Nenshi Kako Kabushiki Kaisha: *See*—
Kobayashi, Takatatoshi. 3,108,430.

Toyo Rayon Co. Ltd.: *See*—
Fujiyoshi, Tsuguhide, and Kodama. 3,074,227.

Toyo Rayon Kabushiki Kaisha: *See*—
Ito, Yoshikazu 3,090,739.
Kobayashi, Takatoshi. 3,108,430.
Uchiyama, Hiroshi, Murakami, and Sakai. 3,112,162.

Toyo Spinning Co., Ltd.: *See*—
Morimoto, Saichi, Ishihara, Yamamoto, Hamada, Imai, and Otsuka. 3,104,154.

Toyoda Automatic Loom Works, Ltd.: *See*—
Kondo, Seiji, and Okajima. 3,108,618.

Trabish, Robert. Hair curl winder. 3,083,715, 4–2–63, Cl. 132—33.

Trabish, Robert, to Gaylord Products, Inc. Lock-on hair curler. 3,103,223, 9–10–63, Cl. 132—41.

Trabon Engineering Corp.: *See*—
Robson, Norman S. 3,074,509.

Trace, James C., and G. T. Edds, to American Home Products Corp. Anthelmintic composition and method of using same. 3,111,457, 11–19–63, Cl. 167—53.

Tracey, John E., and E. L. Wheeler, to The Bendix Corp. Cutting die assembly. 3,091,986, 6–4–63, Cl. 83—128.

Tracey, William J. Religious sick call set. 3,113,664, 12–10–63, Cl. 206—19.

Trachtenberg, Sam Z. Metal siding for buildings. 3,110,130, 11–12–63, Cl. 50—245.

Trachtman, Mendel I.: *See*—
Mertwoy, Abraham, Trachtman, and Glsser. 3,112,273.

Trachtman, Morris, to Choker Machinery Corp. Ham curing apparatus. 3,113,508, 12–10–63, Cl. 100—232.

Tracy, Charles H. Garment hanger. 3,109,568, 11–5–63, Cl. 223—93.

Tracy, Herbert E., to Borg-Warner Corp. Sectional mechanical seal assembly. 3,101,200, 8–20–63, Cl. 277—93.

Tracy, John A., to The Loewy Engineering Co. Ltd. Coller drum for metal strip. 3,086,727, 4–23–63, Cl. 242—72.1.

Tracy, John M. Vehicle fender and mounting assembly. 3,073,641, 1–15–63, Cl. 293—48.

Tracy, John M. and W. R., to Architectural Products Corp. Louvered sun shield. 3,113,355, 12–10–63, Cl. 20—62.

Tracy, Oliver H.: *See*—
Jones, Eynon, Tracy, and Deffenbaugh. 3,093,487.

Tracy, Robert A.: *See*—
Chen, Tung C., and Tracy. 3,102,239.

Tracy, William R.: *See*—
Tracy, John M. and W. R. 3,113,355.

Trademan, Leo, and F. R. Yagelowich, to Chemagro Corp. Stable thiophosphate and thiophosphite composition. 3,089,807, 5–14–63, Cl. 167—22.

Trader, Frederick W., Jr.: *See*—
McLean, I. William, Jr., and Trader. 3,100,178.

Traeder, Howard F., to General Motors Corp. Positionally stable mechanical assembly. 3,104,553, 9–24–63, Cl. 74—5.

Trafalgar Engineering Co. Ltd.: *See*—
Williams, Ernest J., and Anthony. 3,093,956.

Traffic Control, Inc.: *See*—
Gelpey, Kenneth. 3,082,867.

Trafton, Warren L., to United-Carr Fastener Corp. Molding fastener. 3,098,274, 7–23–63, Cl. 24—73.

Trager, Herbert: *See*—
Weinrich, Hellmut, Peltner, Muller, and Trager. 3,075,410.

Tragert, William E.: *See*—
Spaeth, Henry S., and Tragert. 3,109,118.

Tragert, William E., and A. Gatti, to General Electric Co. Sintered aluminum composition. 3,078,553, 2–26–63, Cl. 29—182.5.

Trageser, Georg: *See*—
Schlecht, Leo Trageser, and Staeger. 3,082,068.

Trägner, Erich: *See*—
Siebel, Gustav, Müller, and Trägner. 3,093,459.

Traber, Albert D. Electrical plug adaptor. 3,072,873, 1–8–63, Cl. 339—14.

Traid Corp.: *See*—
Cartwright, Victor F. 3,095,564.

Traiger, Harry A. Intraoral traction apparatus. 3,092,907, 6–11–63, Cl. 32—14.

Traiger, Harry A. Unilateral orthodontic device for repositioning a molar tooth. 3,096,584, 7–9–63, Cl. 32—14.

Trailmobile, Inc.: *See*—
Hanner, Thomas E., and Turnbull. 3,115,541.

Train, David B.: *See*—
Donahue, Gary M., Scher, and Train. 3,093,240.

Traina, Vincent P., to Republic Steel Corp. Furnace door frame. 3,106,911, 10–15–63, Cl. 122—499.

Trainer Associates Inc.: *See*—
Newbold, Albert G. 3,094,178.

Traino, Fred A.: *See*—
Davis, Dee C., Traino, and Dichtiar. 3,078,972.

Tralie, Max: *See*—
Welkowitz, Walter, and Tralie. 3,088,323.

Traitements Chimiques des Textiles, S.A.: *See*—
Kocher, Francis. 3,076,688.

Trak Electronics Co.: *See*—
Smith-Vaniz, William R. 3,091,739.
Smith-Vaniz, William R., Jr. 3,074,012.
Smith-Vaniz, William R., and Lee. 3,110,864.
Smith-Vaniz, William R., and Lee. 3,110,869.
Southeimer, Carl G. 3,094,668.

Traksel, Johan, and W. F. Hammond III, to Lockheed Aircraft Corp. Propulsion system for a hydrofoil vessel. 3,106,179, 10–8–63, Cl. 114—66.5.

Trammel, Earl M., Jr. Safety door lock. 3,096,114, 7–2–63, Cl. 292—336.3.

Trammell, William H., Jr., C. N. Wallace, Jr., and W. B. Heyward, to J. P. Stevens & Co., Inc. Apparatus for forming automobile floor mats. 3,078,516, 2–26–63, Cl. 18—19.

Trampe, Robert E.: *See*—
Maglaughlin, Edward P., and Trampe. 3,097,233.

Trana, Valdemar E. Scraping assembly for road planer. 3,090,140, 5–21–63, Cl. 37—143.

Tranbarger, Glen E., L. Murray, K. W. Young, and J. G. Mehagan, to General Motors Corp. Parking brake release. 3,110,355, 11–12–63, Cl. 180—82.

Trancon Chemical Corp.: *See*—
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Trane Co., The: *See*—
Doolittle, Marcus C. 3,086,443.
Frank, Arne. 3,101,891.
Hackbart, Reuben J. 3,071,309.
Hackbart, Reuben J., and Rosch. 3,073,510.
Hammann, Paul E., Nelson, and Wagner. 3,093,299.
Lohman, Harry C. 3,092,169.
McClure, Arthur W. 3,094,272.
Miner, Robert G. 3,110,160.
Van Den Berge, Dick, and Miner. 3,091,944.

Transformers, Inc.: *See*—
Kornbluh, Abraham J., and Bruyning. 3,114,874.

Transistor Devices, Inc.: *See*—
Weiss, Walter I. 3,106,436.

Transistor Electronics Corp.: *See*—
Fernquist, Cyril L. 3,116,480.

Transitron Electronic Corp.: *See*—
Mitchell, Walter B. 3,084,326.
Rudenberg, Hermann G. 3,112,230.

Trans-Lux Corp.: *See*—
Curtis, Nicholas, and Robertella. 3,108,156.
Meyerhoefer, Carl E. 3,104,587.

Transogram Co., Inc.: *See*—
Benkoe, Erwin. 3,080,859.

Transolite Corp.: *See*—
Lester, Robert W. 3,094,287.

Transport, Felix: *See*—
Grossman, Aaron, and Transport. 3,075,683.

Transport Industries, Inc.: *See*—
Hoppenstand, David. 3,090,359.
Hoppenstand, David. 3,096,858.

Transportpatent, AB: *See*—
Hellner, Karl G. 3,094,941.

Tranter Mfg., Inc.: *See*—
Smith, Clarence C. 3,101,780.

Trap, Hendrikus J. L., to North American Philips Co., Inc. Glass for dielectric uses. 3,072,493, 1–8–63, Cl. 106—53.

Trapp, George E., to United Engineering and Foundry Co. Reel for coiling strip material. 3,093,338, 6–11–63, Cl. 242—72.1.

Trapp, Walter B., and J. D. Doedens, to The Dow Chemical Co. Method for making ar-poly(hydroxymethyl) diphenyl ethers. 3,100,796, 8–13–63, Cl. 260—488.

Trask, Russell F. Hydraulic door closer and hold-open device. 3,093,858, 6–18–63, Cl. 16—54.

Trask, Russell L., S. Sage, and I. G. Nadel, to United States of America, Army. Nitroguanidini propellant composition and process of preparation. 3,086,896, 4–23–63, Cl. 149—92.

Tratt, Phil. Painting or drawing implement. 3,101,568, 8–27–63, Cl. 45—131.

Trattler, Jeanne. Combination tube holder. 3,085,716, 4–16–63, Cl. 222—93.

Traub, Donald W.: *See*—
Barnett, Irwin, and Traub. 3,077,696.

Traut, Bernard E., to Deznrik Corp. Sealing means for gate valves. 3,081,974, 3–19–63, Cl. 251—172.

Trautman, Charles E.: *See*—
Ambrose, Henry A., and Trautman. 3,100,185.
Humphrey, Earl L., and Trautman. 3,073,782.
Rocchini, Albert G., and Trautman. 3,078,662.
Rocchini, Albert G., and Trautman. 3,078,663.
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Trautman, Walter C., to Liberty Mfg. Corp. Loud-speaker. 3,074,504, 1–22–63, Cl. 181—32.

Trautman, Walter C., to Link-Belt Co. Pilot operated flow modulating valve and mounting means. 3,106,936, 10–15–63, Cl. 137—269.

Trautmann, John H., and P. W. R. Johnson, to R. E. Deutsch, d.b.a. Products For Industry. Modular work bench with stringers connecting frame elements. 3,082,712, 3–26–63, Cl. 108—153.

Trautner, Wagn, and D. R. Armacost, to Peterson Mfg. Co. Lamp assembly. 3,114,182, 12–17–63, Cl. 240—8.2.

Trautner, Wagn, and D. R. Armacost, to Peterson Mfg. Co. Shock resisting lamp mounting. 3,114,508, 12–17–63, Cl. 240—7.1.

Trautschold, Ivar: *See*—
Werle, Eugen, and Trautschold. 3,100,736.

Travaglio, Dalny. to Dymo Industries, Inc. Hand operated embossing device. 3,083,807, 4–2–63, Cl. 197—6.7.

Travel-Ray Corp.: *See*—
Arvanetakis, Kiryako, and Donzis. 3,087,058.

Traver, Alfred E., to Socony Mobil Oil Co., Inc. Analyzer for internal combustion engines. 3,101,611, 8–27–63, Cl. 73—116.

Traver, George W., to E. I. du Pont de Nemours and Co. Apparatus for and method of conditioning plastic surfaces for the adhesion of materials coated thereon. 3,113,208, 12–3–63, Cl. 250—49.5.

Travers, Douglas N., to United States of America, Navy. Three loop direction finder antenna for shipboard use. 3,093,827, 6–11–63, Cl. 343—114.

Traverso, John J., and C. W. Whitehead, to Eli Lilly and Co. Novel 2,4,6-tris(N-alkoxysulfamyl)aniline. 3,111,531, 11–19–63, Cl. 260—397.7.

Travilla, James C., and J. J. Zach, to General Steel Industries, Inc. Two-wheel railway truck. 3,081,714, 3–19–63, Cl. 105—174.

Travis, Ernest M., to J. W. Orton. Vise-held chain saw sharpener. 3,083,591, 4–2–63, Cl. 76—31.

Travis, John W.: *See*—
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Tray, Paul A., to Central Bag and Burlap Co. Textile bolt splicing apparatus. 3,110,645, 11–12–63, Cl. 156—502.

Traylor, Samuel W., Jr. Air pump. 3,096,932, 7–9–63, Cl. 230—154.

Traylor, Teddy G.: *See*—
Murdock, Stanley A., and Traylor. 3,086,959.
Murdock, Stanley A., and Traylor. 3,094,504.
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Trayvou, R., Les Successeurs de: *See*—
Rouban, Basile. 3,076,516.

Tray-Wa Corp.: *See*—
Libby, Louis L. 3,078,172.

Treadwell, Harold A. Label heating device. 3,097,284, 7–9–63, Cl. 219—19.

Treadwell, Richard J., and D. A. Rush, to S. Smith & Sons (England) Ltd. Actuator systems for the control of surfaces of dirigible craft. 3,095,168, 6–25–63, Cl. 244—76.

Treanor, Earl E. Chemical feed and blowdown system. 3,094,133, 6–18–63, Cl. 137—101.11.

Treboux, Jules, and W. Roth, to J. R. Geigy, A.-G. Aerosols for the care of floors. 3,073,706, 1–15–63, Cl. 106—10.

Trechsel, Hans: *See*—
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Tredopp, Karl: *See*—
Berning, Hans-Heinrich, Tredopp, and Stoff. 3,111,886.

Tredopp, Karl, to Robot-Foto G.m.b.H. & Co. Photographic camera. 3,088,388, 5–7–63, Cl. 95—31.

Treer, Ross B., to A. C. Smith. Clutch brake unit. 3,077,252, 2–12–63, Cl. 192—18.

Treer, Ross B., to F. A. Brandes. Press. 3,081,725, 3–19–63, Cl. 113—38.

Treffeisen, Donal R.: *See*—
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Treffeisen, Donal R., to Sperry Rand Corp. Flight control systems. 3,089,671, 5–14–63, Cl. 244—77.

Treffeisen, Donal R., to Sperry Rand Corp. Failure detection means for data transmission systems. 3,094,691, 6–18–63, Cl. 340—268.

Trefzer, Albert, to Gebr. Schneider, G.m.b.H. Ball-point pen insert. 3,094,103, 6–18–63, Cl. 120—42.4.

Treganowan, Bernard E.: *See*—
Groves, Henry W., and Treganowan. 3,080,728.

Tregreen Co.: *See*—
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Treier, Otto, to Verwaltungsgellschaft der Werkzeugmaschinenfabrik, Oerlikon (A.G.). Devices for pre-setting of required weights in dialed weighing machines. 3,096,838, 7–9–63, Cl. 177–80.

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Borglin, Nils A., and Appelgren. 3,112,237.
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Tremblay, Albert F., to Kent-Owens Machine Co. Metal forming machine and method. 3,096,669, 7–9–63, Cl. 80—16.

Tremblay, Raymond M. Single use clasp. 3,110,070, 11–12–63, Cl. 24—134.

Tremblay, Raymond M. Single use clasp. 3,110,514, 11–12–63, Cl. 292—322.

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Trempler, Werner R., to Lear Siegler, Inc. Control valve. 3,113,594, 12–10–63, Cl. 138—46.

Trenchard, Robert G.: *See*—
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Trenor, Irene. Manually usable corn cutter. 3,077,909, 2–19–63, Cl. 146—4.

Trepp, Christian, to Sulzer Freres, S.A. Means for insulating elements of a low temperature unit. 3,092,283, 6–4–63, Cl. 220—16

Trerice, Howard O.: *See*—
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Treshow, Michael, to United States of America, Atomic Energy Commission. Boiling water reactor with feed water injection nozzles. 3,087,881, 4–30–63, Cl. 204—193.2.

Treshow, Michael, to United States of America, Atomic Energy Commission. Apparatus for control of a boiling reactor responsive to steam demand. 3,098,812, 7–23–63, Cl. 204—193.2.

Tresise, Raleigh E., and P. D. Kendall, to Paravox, Inc. Hearing aid device. 3,095,483, 6–25–63, Cl. 179—107.

Tretheway, Donald G., and R. O. Hansen, to Kimberly-Clark Corp. Papermaking machines. 3,089,409, 5–14–63, Cl. 100—162.

Trethewey, Thomas E., to Ideal Industries, Inc. Carton for connectors and the like. 3,071,306, 1–1–63, Cl. 229—20.

Tretner, Werner: *See*—
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Tretner, Werner, to Fernseh G.m.b.H. Device for determining the masses of charge carriers. 3,107,295, 10–15–63, Cl. 250—41.9.

Tretter, James R., to Chas. Pfizer & Co., Inc. Process for preparing 2-oxo-3-(N,N-disubstituted carboxamido)-1,2,3,4, 6,7-hexahydro-11b H-benzopyridocolines. 3,095,419, 6–25–63, Cl. 260—287.

Tretter, James R., to Chas. Pfizer & Co., Inc. 10-aminobenzopyridocolines. 3,105,079, 9–24–63, Cl. 260—287.

Treutelaar, Edward J. Therapeutic traction device. 3,085,768, 4–16–63, Cl. 242—107.

Trevaskis, Henry W., to Dunlop Rubber Co. Ltd. Vehicle seat suspension member. 3,100,101, 8–6–63, Cl. 248—399.

Trevaskis, Henry W., to Dunlop Rubber Co. Ltd. Tyre building formers or drums. 3,105,788, 10–1–63, Cl. 156—417.

Trevillian, Frank D.: *See*—
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Trewella, Robert J., to Johnson & Johnson. Perforated non-adherent surgical dressing. 3,077,882, 2–19–63, Cl. 128—156.

Trewella, Robert J., and L. Jerzewski, Jr. Flexible bag. 3,073,507, 1–15–63, Cl. 229—62.

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Triangle Conduit & Cable Co., Inc.: *See*—
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Triangle Mold & Machine Co., Inc.: *See*—
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Wyatt, Raymond A. 3,086,625.

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Tribby, David E.: *See*—
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Tribby, Loren L., to The National Cash Register Co. Peak detector with dual feedback automatic gain adjusting means. 3,073,968, 1–15–63, Cl. 307—88.5.

Tribe, Thomas F., to British Federal Welder & Machine Co. Ltd. Welding cables. 3,082,288, 3–19–63, Cl. 174—19.

Tribe, Thomas F., ½ to British Federal Welder and Machine Co. Ltd. Machines for fabricating sheet-metal panel structures. 3,089,448, 5–14–63, Cl. 113—1.

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Macks, Elmer F., and Funk. 3,103,364.

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Trickey, William J.: *See*—
Hutty, Fred A., and Trickey. 3,084,869.

Trico Products Corp.: *See*—
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D'Alba, Anthony R. 3,100,423.
Deibel, Raymond A. 3,114,926.
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Oishei John R., and Bitzer. 3,080,595.
Oishei, John R., and Bitzer. 3,084,370.
Oishei, John R., and Bitzer. 3,095,596.
Oishei, John R., and Deibel. 3,096,845.
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Oishei, John R., and Riester. 3,084,757.

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Riester, William C. 3,087,681.
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Scinta, Anthony C. 3,083,394.
Smithers, Phillip G. K. 3,082,464.
Smithers, Phillip G. K. 3,088,155.
Smithers, Phillip G. K. 3,093,856.

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Tri-Dia, Inc.: *See*—
Short, Lot W. Re. 25,319.
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Triebel, Kenneth R., ½ to D. G. Safer, and ½ to said Triebel. Concrete pump. 3,114,325, 12–17–63, Cl. 103—153.

Triebwasser, Sol, to International Business Machines Corp. Electro-optical bistable light switch. 3,093,477, 6–11–63, Cl. 88—61.

Trier, Raymond T., and C. J. Mathey, to The Union Metal Mfg. Co. Wire rope fittings. 3,100,924, 8–20–63, Cl. 24—122.6.

Trieschmann, Hans G.: *See*—
Wisseroth, Karl, Herbeck, Lautenschlager, Moeller, Schmidtthomee, Staiger, Trieschmann, and Weber. 3,110,708.

Trifari, Krussman: *See*—
Freedman, Emiel. 3,112,174.

Trifaro, Felice J. and H. Method of teaching and correcting a golf club swing. 3,109,244, 11–5–63, Cl. 35—29.

Trifaro, Helen: *See*—
Trifaro, Felice J. and H. 3,109,244.

Triffleman, Bernard H. Method and apparatus for the extraction of zinc from its ores and oxides. 3,094,411, 6–18–63, Cl. 75—86.

Trifonoff, George T., to Boeing Airplane Co. Securing and releasing system. 3,074,320, 1–22–63, Cl. 89—1.5.

Trifunovic, Alexander L.: *See*—
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Russo, Carl J., Trifunovic, and Sinski. 3,096,562.

Trifunovic, Alexander L., and A. A. Benedek, to Joseph Bancroft & Sons Co. Stuffer crimping apparatus. 3,110,076, 11–12–63, Cl. 28—1.

Triggle, Ann M., and H. A. H. Jenkins, to Hooker Chemical Corp. Method and solution for producing chromate coatings on zinc and zinc alloys. 3,090,710, 5–21–63, Cl. 148—6.21.

Trikotfabriken J. Schlesser A.G.: *See*—
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Triller, David P., to United States of America, Navy. Precision resistor making by resistance value control for etching. 3,095,340, 6–25–63, Cl. 156—8.

Trimble, Cebern R., to The National Cash Register Co. Record media handling apparatus. 3,100,591, 8–13–63, Cl. 226—39.

Trimble, Cebern R., and J. M. Steinke, to The National Cash Register Co. Electrical decoders. 3,114,132, 12–10–63, Cl. 340—146.3.

Trimble, Charles H., to Western Electric Co., Inc. Ram-adjustment mechanism for a press. 3,106,113, 10–8–63, Cl. 78—1.

Trimble, Floyd. Water conservation. 3,099,107, 7–30–63, Cl. 47—58.

Trimble, John O., to Union Carbide Corp. Mold-supporting means and process for making same. 3,109,209, 11–5–63, Cl. 22—71.

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Trimble, Rhuel. Helicopter kite. 3,079,116, 2–26–63, Cl. 244—154.

Trimnell, Donald, C. P. Patel, and J. F. Johnston, to Union Starch & Refining Co. Process of cross-linking starch with hexahydro-1,3,5-tris-acrylyl-s-triazine. 3,086,971, 4–23–63, Cl. 260—233.3.

Trine Mfg. Corp.: *See*—
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Trinen, Wilbur H., to Vaco Products Co. Insulated electrical adapter. 3,081,443, 3–12–63, Cl. 339—205.

Trio Mfg. Co.: *See*—
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Triodetic Structures: *See*—
Pentiman, Arthur E. 3,081,601.

Trion, Inc.: *See*—
Landgraf, George F., Fry, and Wright. 3,073,094.

Triplett, George C., to Gladwin Plastics, Inc. Wall mounted telephone installation. 3,110,934, 11–19–63, Cl. 20—3.5.

Triplett, Leon G. Dip tank for toxic fluids. 3,072,040, 1–8–63, Cl. 98—114.

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Tripp, Kenneth F., to Markem Machine Co. Machine for printing capsules and the like. 3,103,165, 9–10–63, Cl. 101—35.

Tripp, Ralph N., Jr. Combined rotatable eaves trough and leaderhead. 3,077,055, 2–12–63, Cl. 50—5.

Tripp, Robert W., to Inductosyn Corp. Digital-to-analog converter with zero offset. 3,105,142, 9–24–63, Cl. 235—154.

Tripp, Robert W., E. B. Brown, and M. Shenker, to Farrand Optical Co., Inc. Variable magnification optical system. 3,088,368, 5–7–63, Cl. 88—57.

Trippel, Hanns, to Amphicar Corp. of America. Amphibious vehicle. 3,114,347, 12–17–63, Cl. 115—1.

Trippel, Hanns, to Amphicar Corp. of America. Amphibious vehicle. 3,114,348, 12–17–63, Cl. 115—1.

Tripplehorn, James G. Interlocking fixed and ambulatory scrapers. 3,083,772, 4–2–63, Cl. 166—176.

Trippler, Otto F., to Dyno Industries, Inc. Tape backing stripper. 3,111,872, 11–26–63, Cl. 83—4.

Trishman, Harry A., to Adamson United Co. Closure. 3,081,901, 3–19–63, Cl. 220—40.

Tri-State Mfg. Co., Inc.: *See*—
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Tri-Tix, Inc.: *See*—
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Krueger, Arthur C. 3,105,457.

Tritle, Paul E., to Mudd-Kat Corp. Traction belt cycle vehicle. 3,101,805, 8–27–63, Cl. 180—9.24.

Tritsch, Ludwig, to The Kendall Co. Covered adhesive bandages. 3,072,249, 1–8–63, Cl. 206—63.2.

Tritsch, Ludwig, to The Kendall Co. Pressure-sensitive adhesive tape having a molecularly oriented film backing comprising a blend of high density and low density polyethylenes. 3,088,848, 5–7–63, Cl. 117—122.

Triulyi, A., S.A.S.: *See*—
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Trivelpiece, Alvin W., to Varian Associates. Traveling wave tube. 3,110,839, 11–12–63, Cl. 315—3.5.

Tri-Wall Containers, Inc.: *See*—
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Triway Industries, Inc.: *See*—
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Trobeck, Karl G.: *See*—
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Troche, Herman J., to J. H. Holan Corp. Vehicle tower. 3,108,655, 10–29–63, Cl. 182—2.

Troeger, Henry, to The Bendix Corp. Flexural pivot device. 3,073,584, 1–15–63, Cl. 267—1.

Troeger, Henry, to The Bendix Corp. Emergency disconnect device. 3,080,030, 3–5–63, Cl. 192—101.

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Trofimow, Alexei, F. K. Isaacs, and D. Goodman, to W. R. Grace & Co. Copolymerization of vinylidene chloride-vinyl chloride. 3,088,937, 5–7–63, Cl. 260—87.7.

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Griffith, George L., Lyte, and Wells. 3,082,689.
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Troka, Albin G., C. A. Mattson, and F. O. Ottosen, to Sunbeam Corp. Speaker attachment for a lawn mower. 3,102,375, 9–3–63, Cl. 56—255.

Troland, Edwin P., to Bird Machine Co. Separator. 3,105,044, 9–24–63, Cl. 210—512.

Troll, William A., to Emsig Mfg. Co. Button feeder. 3,086,486, 4–23–63, Cl. 112—113.

Trom, Eugene D., to General Equipment Co. Forced air-driven rotary grain distributor. 3,111,399, 11–19–63, Cl. 34—59.

Trombetta, Panfilo. Industrial brake. 3,115,956, 12–31–63, Cl. 188—171.

Tronche, Roger, to Societe a responsabilite limitee dite: Societe d'Exploitation des Etablissements Baudou. Molded boot. 3,091,871, 6–4–63, Cl. 36—72.

Tronomatic Machine Mfg. Corp.: *See*—
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Tronzo, Raymond G. Hip nail. 3,076,453, 2–5–63, Cl. 128—92.

Tropeano, Joseph C. and P. L. Guide construction for sprinkler head receptacle. 3,086,714, 4–23–63, Cl. 239—206.

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Tropeano, Joseph C. and P. L. 3,086,714.

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Tropiano, Anthony. Wheel tire lift. 3,084,819, 4–9–63, Cl. 214—334.

Trösken, Otto, and E. J. Scheel, to Casella Farbwerke Mainkur Aktiengesellschaft. Dye composition and dyeing method. 3,078,136, 2–19–63, Cl. 8—54.2.

Tross, Robert A., to Container Corp. of America. Method of preparing scoring dies. 3,113,898, 12–10–63, Cl. 156—215.

Trost, Allen J.: *See*—
Rolzen, Joseph, Trost, and Barnhart. 3,075,041.

Trost, George P.: *See*—
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Trost, Richard E., to Victor Comptometer Corp. Dictating machine. 3,091,668, 5–28–63, Cl. 179—100.2

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Trostel, Albert O., Jr., and Knoller. 3,111,795.

Trostel, Albert O., Jr., and H. J. Knoller, to Albert Trostel & Sons Co. Apparatus for and method of bundling hides and skins, or parts thereof. 3,111,795, 11–26–63, Cl. 53—32.

Trostel, Norris H. Pressure gauge connector. 3,102,427, 9–3–63, Cl. 73—420.

Trotin, Charles, to ARCA Premoncontrole. Torque responsive measuring apparatus. 3,079,788, 3–5–63, Cl. 73—59.

Trott, William A. Luminaires. 3,089,023, 5–7–63, Cl. 240—9.

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Trotter, Gerald F., ⅛ to L. Harrawood and ⅛ to A. Renne. Dispensing nozzle with resilient tank cap holder. 3,113,599, 12–10–63, Cl. 141—392.

Trotter, Herbert, Jr., to The Sharples Corp. Improvement in centrifuges. 3,096,282, 7–2–63, Cl. 233—7.

Trotter, Ide P., Jr.: *See*—
Sharp, Robert M., and Trotter. 3,075,559.

Trotter, John C., to Bell Aerospace Corp. Propulsion unit. 3,111,108, 11–19–63, Cl. 115—14.

Trotter, Percy W.: *See*—
Grammer, George N., and Trotter. 3,099,694.

Trotter, Percy W., to Ethyl Corp. Stable methylchloroform compositions. 3,113,154, 12–3–63, Cl. 260—652.5.

Trounson, Edmund P., and S. J. Raff. Semi-active proximity fuze. 3,113,305, 12–3–63, Cl. 343—7.

Troup, Alexander, S. Tanner, and M. J. Goode, to Altro Corp. Photocomposing and justifying apparatus. 3,083,624, 4–2–63, Cl. 95—4.5.

Troup, Peter B.: *See*—
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Trousdale, Robert B., to General Dynamics Corp. Telephone system. 3,087,021, 4–23–63, Cl. 179—18.

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Townend, Robert V., Trout, and Wilkalis. 3,100,681.

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Eggenberger, Markus A., and Troutman. 3,097,489.
Eggenberger, Markus A., Troutman, and Callan. 3,097,488.
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Trowbridge, William M.: *See*—
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Troxell, Monte E. System for prevention of pipe freezing. 3,103,946, 9–17–63, Cl. 137—337.

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Hofmann, Albert, and Troxler. 3,113,133.

Troy, James E., to Fieldcrest Mills, Inc. Mottled pile fabric and method of making same. 3,091,263, 5–28–63, Cl. 139—402.

Troy, Joseph C. Receptacle for beach supplies. 3,079,965, 3–5–63, Cl. 150—1.

Troy, Leonard. Loading ramp or skid for vehicles. 3,088,568, 5–7–63, Cl. 193—38.

Troy, Leonard. Brake shoe adjustment mechanism. 3,095,065, 6–25–63, Cl. 188—79.5.

Troy, Leonard. Automobile transport. 3,113,800, 12–10–63, Cl. 296—1.

Truant, Aldo P.: *See*—
Dahlbom, Johnn R., Löfgren, Tegner, Wiedling, and Truant. 3,108,997.

Tru Balance Corsets, Inc.: *See*—
Goldstein, Arthur. 3,094,126.

Trubenised Co. (Registered Trust): *See*—
Bihaly, Lajos. 3,079,880.

Trüb, Täuber & Co. AG: *See*—
Primas, Johann J. 3,105,176.

Trubenised Co. (Registered Trust): *See*—
Lockwood, Arthur W. 3,090,962.

Trubey, Philip W., and I. B. Bruce, to Aluminium Laboratories Ltd. Recovery of magnesium compounds from ores. 3,085,858, 4–16–63, Cl. 23—129.

Trucchi, Dante. Air-cooling and aeration system for ship's cabins and the like. 3,102,397, 9–3–63, Cl. 62—240.

Truck Accessories, Inc.: *See*—
Richnow, Erick G., Jr. 3,096,995.

Truck Equipment Co., Inc.: *See*—
Walter, Robert J. 3,106,410.

Trucker, Donald E., to General Aniline & Film Corp. Color former containing bis coupling functions. 3,077,403, 2–12–63, Cl. 96—100.

Truck-Lite Co., Inc.: *See*—
Baldwin, George D. 3,089,951.
Baldwin, George D. 3,109,597.

Truck and Trailer Products, Inc.: *See*—
Robb, Frank B., and Kosik. 3,116,072

Trudinski, Richard E. Sheet locating and masking apparatus. 3,075,428, 1–29–63, Cl. 88—24.

True, Donovan B., to Thompson Ramo Wooldridge Inc. Adjustable joint and idler arm for vehicle steering linkages. 3,112,123, 11–26–63, Cl. 280—95.

True, Thomas T.: *See*—
Lynch, Edward I., and True. 3,098,896.
Lynch, Edward I., and True. 3,109,955.

Trueblood, Elmer D., to Trueblood, Inc. Plastic injection machine. 3,091,809, 6–4–63, Cl. 18—30.

Trueblood, Inc.: *See*—
Trueblood, Elmer D. 3,091,809.

Trueblood, Harold C., to Thompson Ramo Wooldridge, Inc. Half-cycle reset magnetic amplifiers. 3,083,333, 3–26–63, Cl. 323—89.

Truelove, James E., ½ to R. E. Bostick. Frame and mounting means for an agricultural implement. 3,091,299, 5–28–63, Cl. 172—656.

Truesdale, Cavour L. Drapery heading seam. 3,084,738, 4–9–63, Cl. 160—330.

Truesdell, Francis W., and H. T. Faus, to General Electric Co. Resetting mechanism for rotatable shafts. 3,112,069, 11–26–63, Cl. 235—144.

True Temper Corp.: *See*—
Clark, Joseph C. 3,092,351.
Clark, Joseph C. 3,114,514.
Fee, Graham M. 3,098,453.
Fee, Graham M. 3,102,690.
Ports, William E. 3,098 313.
Stump, Harry B. 3,090,653

True-Trace Corp.: *See*—
Weaver, Paul J. 3,087,636.

Truhon, John A. Door closing door checks. 3,090,988, 5–28–63, Cl. 16—66.

Truhon, John A., to Theodore Bargman Co. Door lock. 3,095,724, 7–2–63, Cl. 70—146.

Truhon, John A. Door closing door checks. 3,105,264, 10–1–63, Cl. 16—66.

Truitt, James K.: *See*—
Pevere, Ernest F., and Truitt. 3,082,281.

Truly-Magic Products, Inc.: *See*—
Gilchrist, James R. 3,073,716.

Truman, Paul W., to Sinclair Research, Inc. Automatically supervised flow meter apparatus. 3,083,570, 4–2–63, Cl. 73—195.

Trumbore, Forrest A.: *See*—
Logan, Ralph A., Spitzer, and Trumbore. 3,111,433.

Trumbull, Donald E.: *See*—
Devine, Arthur J., and Trumbull. 3,083,878.

Trumbull, Harold E.: *See*—
Davis, Howard C., Eichorn, Punnett, Trumbull, and Wagner. 3,100,112.

Trumbull, Harold E., to Xerox Corp. Paper gripper mechanism. 3,071,374, 1–1–63, Cl. 271—79.

Trumbull, Harold E., to Xerox Corp. Toner dispenser drive mechanisms. 3,095,325, 6–25–63, Cl. 118—7.

Tru Mech Corp.: *See*—
Williams, Elbert C. 3,086,417.

Trump, William E., to United States of America, Navy. Dive brake. 3,114,315, 12–17–63, Cl. 102—4.

Trumpf, Messrs. & Co.: *See*—
Leibinger, Berthold, and Herb. 3,076,367.

Trumpler, William E., to Dresser Industries, Inc. Bearing. 3,107,955, 10–22–63, Cl. 308—73.

Trumpolt, Franklin J.: *See*—
T-compolt, Lewis E. and F. J. 3,089,563.

Trumpolt, Lewis E. and F. J. Separate adjustable leg for a ladder. 3,089,563, 5–14–63, Cl. 182—201.

Trumpp, Erich, to Engen Weisser & Co. KG. Universal lathe structure. 3,090,267, 5–21–63, Cl. 82—5.

Trunkline Gas Co.: *See*—
McAnneny, Adrian W. 3,082,073.

Trupp, Mason: *See*—
Standerwick, Reginald G., Trupp, and Flynn. 3,072,118.

Trurun, Inc.: *See*—
Griffin, George O., and Hanshaw. 3,092,094.

Tru Scale, Inc.: *See*—
Pelley, Perry H. 3,081,579.
Reed, Kenneth S. 3,111,709.

Truschelt, Ernst: *See*—
Elter, Karl, Truschelt, and Oediger. 3,089,912.

Trusilow, Neal A., and H. E. Goforth, to United States Rubber Co. Shrinkable fabric. 3,071,165, 1–1–63, Cl. 139—426.

Tru-Soft Mfg. Co.: *See*—
Hoop, Frederick R., and Arndt. 3,113,465.

Truson Corp., The: *See*—
Russo, Albert T. 3,071,958.

Truss-Masters, Inc.: *See*—
Wolfe, Fred L., Earnest, and Johnson. 3,075,488.

Trutzschler & Co.: *See*—
Meinicke, Erich. 3,085,296.

Trybus, Stanley L., to Mueller Trybus Associates, Inc. Self adjusting wrench. 3,104,571, 9–24–63, Cl. 81—380.

Tryhorn, Donald W., to The British Internal Combustion Engine Research Association. Engine inlet-exhaust bypass means for exhaust driven superchargers. 3,102,381, 9–3–63, Cl. 60—13.

Tryhorn, Donald W., to The British Internal Combustion Engine Research Association. Turbocharged internal combustion engines. 3,103,780, 9–17–63, Cl. 60—13.

Trysaman Machine Co., Inc.: *See*—
Wayland, Hubert E. Re. 25,410.

Tsakiris, Ernest A.: *See*—
Thompson, Lionel D., and Tsakiris. 3,087,473.

Tsang, Chi M., to General Motors Corp. Composite piston. 3,115,070, 12–24–63, Cl. 92—212.

Tsatsos, William T.: *See*—
Houff, William H., and Tsatsos. 3,079,280.

Tsatsos, William T., to Shell Oil Co. High molecular weight copolymers of unsaturated aldehydes and their preparation and use. 3,093,506, 6–11–63, Cl. 117—155.

Tschannen, Robert F., to Hazeltine Research, Inc. Automatic-gain-control system. 3,084,216, 4–2–63, Cl. 178—7.3.

Tschannen, Robert F., to Hazeltine Research, Inc. Transistor keyed automatic-gain-control apparatus. 3,115,547, 12–24–63, Cl. 178—7.3.

Tschesche, Rudolf H. Machleidt, and T. Bucher, to Olin Mathieson Chemical Corp. 3,5-dihydroxy-3-fluoro-methylpentanoic acid and the delta lactone thereof. 3,075,997, 1–29–63, Cl. 260—343.5.

Tschudi, Wilbur J., and J. Madera, to American Metal Climax, Inc. Molybdenum disulfide treating process. 3,101,252, 8–20–63, Cl. 23—134.

Tschumi, Otto, to Autophon Aktiengesellschaft. Telephone system including electro-acoustic transducers for call signalling purposes. 3,089,919, 5–14–63, Cl. 179—2.

Tsu, Ignatius: *See*—
Godycki, Ludwig E., Stevens, and Tsu. 3,098,803.

Tsu, Ignatius, and M. C. Fritsch, to International Business Machines Corp. Electrodeposition of magnetic cobalt-nickel alloys. 3,111,463, 11–19–63, Cl. 204—43.

Tsubosaka, Ryuji, to Y. Sano. Fixable ash tray. 3,094,237, 6–18–63, Cl. 220—18.

Tsuchiya, Kanji: *See*—
Nakazawa, Koiti, Shibata, Higashide, Kanzaki, Yamamoto, Miyake, Hitomi, Horii, Yamaguchi, Araki, Tsuchiya, Oka, and Imai. 3,089,827.
Tatsuoka, Sueo, Kanazawa, Araki, Nakazawa, Miyake, Hitomi, Ueyanagi, Shibata, Hiraiwa, Tsuchiya, Iwasaki, and Yamaguchi. 3,112,341.

Tsuchiya, Takuzo: *See*—
Long, George, Tsuchiya, and Hum. 3,101,853.

Tsuchiya, William S.: *See*—
Knapp, William E., Tsuchiya, and Cayton. 3,092,922.

Tsugawa, Koichi, to Yashica Co. Ltd. Camera. 3,083,628, 4–2–63, Cl. 95—44.

Tsugawa, Ryuichiro: *See*—
Motozaki, Shinichi, Tsunoda, Okumura, Tsugawa, Matsui, Kitai, and Miyachi. 3,096,252.

Tsui, Robert T.: *See*—
Brennemann, Andrew E., and Tsui. 3,090,023.

Tsuji, Naoki: *See*—
Sawa, Yoshiro, Maeda, and Tsuji. 3,085,091.

Tsuk, Andrew G., to Schwarz Bioresearch, Inc. Evaluation of proteolytic enzyme activity. 3,089,828, 5–14–63, Cl. 195—103.5.

Tsukada, Tomomichi: *See*—
Miura, Yuzo, Tsukada, and Hayashi. 3,071,818.

Tsukumo, Zenzaburo, S. Izutsu, and T. Sato, to Toyo Boseki Kabushiki Kaisha, and Howa Kogyo Kabushiki Kaisha. Automatic doffer conveying mechanism. 3,088,267, 5–7–68, Cl. 57—53.

Tsunoda, Kenneth, and G. Tappe, to Geweka A.G. Apparatus for shaping the edges of flat workpieces. 3,103,768, 9–17–63, Cl. 51—142.

Tsunoda, Toshinao: *See*—
Motozaki, Shinichi, Tsunoda, Okumura, Tsugawa, Matsui, Kitai, and Miyachi. 3,096,252.
Motozaki, Shinichi, Tsunoda, Aoki, Okumura, Kondo, Muramatsu, Momose, and Tamagawa. 3,111,459.

Tsurumoto, Saburo. Machine for manufacturing hair combs from metal wire. 3,092,151, 6–4–63, Cl. 140—71.

Tsutsui, Hiroshi, and S. Fujiwara, to Tokyo Shibaura Electric Co., Ltd. Phase absence protective device for polyphase circuit breakers. 3,083,277, 3–26–63, Cl. 200—82.

Tsutsui, Minoru: *See*—
Zeiss, Harold H., Metlesics, and Tsutsui. 3,097,232.

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Tsuzuki, Ryohei. Spinning frames. 3,070,948, 1–1–63, Cl. 57—36.

Tsuzuki, Ryohei. Spinning frames. 3,073,106, 1–15–63, Cl. 57—36.

Tu, Shu T., to United Shoe Machinery Corp. Manufacture of collagen products. 3,071,483, 1–1–63, Cl. 106—155.

Tu, Shu-Tung, to United Shoe Machinery Corp. Finished leather split. 3,089,781, 5–14–63, Cl. 117—11.

Tu, Shu-tung, and J. H. Highberger, to United Shoe Machinery Corp. Improved collagen fiber sheet material. 3,073,714, 1–15–63, Cl. 117—11.

Tubbs, Gordon: *See*—
Parkes, George L., and R. J., and Tubbs. 3,115,865.

Tubbs, Irl I. Tire. 3,074,454, 1–22–63, Cl. 152—341.

Tubbs, Irl I. Inflating device. 3,074,457, 1–22–63, Cl. 152—427.

Tubbs, Irl I. Valve and actuator. 3,097,613, 7–16–63, Cl. 107—14.

Tube Kote Co.: *See*—
Edgar, Lenville C. 3,106,677.

Tube Reducing Corp.: *See*—
Coe, George B. 3,112,661.

Tubiello, Giuseppe: *See*—
Perri, Giovanni, and Tubiello. 3,113,838.

Tubinis, Matthew P.: *See*—
Frankel, Theodor, and Tubinis. 3,112,371.

Tubis, Samuel: *See*—
Kantor, Martin L., and Tubis. 3,100,772.

Tuboscope Co.: *See*—
Price, Berry G., Placke, and Stegall. 3,107,064.
Walters, William T. 3,099,746.

Tucci, Anthony G. Seam-presser. 3,107,447, 10–22–63, Cl. 38—10.

Tucci, Anthony G. Automatic pickup for stacking material. 3,113,771, 12–10–63, Cl. 270—61.

Tucek, Donald J.: *See*—
Marsh, Byron E., and Tucek. 3,115,399.
Marsh, Byron E., and Tucek. 3,115,400.

Tuchel, Ulrich. Shielded electrical coupler. 3,099,506, 7–30–63, Cl. 339—143.

Tuck, Harvey R.: *See*—
Taylor, John A., and Tuck. 3,091,955.

Tuck, Robert M., to General Motors Corp. Transmission. 3,107,553, 10–22–63, Cl. 74—688.

Tuck, Robert M., J. J. Mooney, Jr., and M. E. Fisher, to General Motors Corp. Transmission. 3,101,011, 8–20–63, Cl. 74—732.

Tucker, Basil F.: *See*—
Butler, Martin R., Jr., and Tucker. 3,075,406.

Tucker, Benjamin W., Jr., to Otis Elevator Co. Elevator roller guides. 3,099,334, 7–30–63, Cl. 187—95.

Tucker, Benjamin W., Jr., to Otis Elevator Co. Closure means for elevators. 3,105,272, 10–1–63, Cl. 20—19.

Tucker, Carl L., and J. S. Hopkin, to Rockmont Envelope Co. Travel ticket envelope and baggage check. 3,086,694, 4–23–63, Cl. 229—68.

Tucker, Clarence K., and J. Watsula. Barber's sanitary hair vacuum apparatus. 3,082,466, 3–26–63, Cl. 15—415.

Tucker, David G., to National Research Development Corp. Method of and apparatus for acoustic position finding. 3,092,802, 6–4–63, Cl. 340—3.

Tucker, David G., and D. E. N. Davies, to National Research Development Corp. Method of radio scanning. 3,099,833, 7–30–63, Cl. 343—16.

Tucker, Delmar K., to Conch International Methane Ltd. Container for storing a liquid at a low temperature. 3,112,043, 11–26–63, Cl. 220—10.

Tucker, Emmitt M., Sr., to Tucker & Sons. Endless track and supporting pontoon unit. 3,111,349, 11–19–63, Cl. 305—18.

Tucker, Harold, to Goodrich-Gulf Chemicals, Inc. Polymerization process for aliphatic, conjugated dienes. 3,094,514, 6–18–63, Cl. 260—94.3.

Tucker, James W.: *See*—
Lauck, Robert M., Vanstrom, and Tucker. 3,097,949.

Tucker, James W., to Stauffer Chemical Co. Chemically leavened yeast dough. 3,096,178, 7–2–63, Cl. 99—94.

Tucker, James W., to Stauffer Chemical Co. Self-rising flour compositions comprising mixtures of sodium aluminum phosphate and anhydrous monocalcium phosphate. 3,109,738, 11–5–63, Cl. 99—94.

Tucker, Linwood G., Jr., to Koppers Co., Inc. Coking retort oven with liner walls of two thicknesses. 3,102,846, 9–3–63, Cl. 202—139.

Tucker, Marion K., to General Motors Corp. Refrigerating apparatus. 3,082,937, 3–26–63, Cl. 230—207.

Tucker, Morton: *See*—
Metzger, James F. 3,085,298.

Tucker, Opal L.: *See*—
Tucker, Roy C., and O. L. 3,092,015.

Tucker, Richard C., to Pennywise Investment Association. Drawing instrument. 3,085,344, 4–16–63, Cl. 33—80.

Tucker, Robert L.: *See*—
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Tucker, Roy C., and O. L. Barbecue grill. 3,092,015, 6–4–63, Cl. 99—446.

Tucker & Sons: *See*—
Tucker, Emmitt M., Sr. 3,111,349.

Tucker, Warren R., and R. H. Hart, to Gulf States Paper Corp. Process and apparatus for forming sheet material from a suspension of solid particles in liquid media. 3,111,454, 11–19–63, Cl. 162—297.

Tuckerman, Robert G.: *See*—
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Tuckey, Charles H., to Walbro Corp. Bladder fuel pump. 3,094,074, 6–18–63, Cl. 103—44.

Tucknott, Robert, to Blackburn Aircraft Ltd. Mechanism for facilitating the closing of doors and similar closures. 3,113,353, 12–10–63, Cl. 20—16.

Tuczek, Franz, to Boge G.m.b.H. Fluid suspension for automobiles with pneumatic stabilizers. 3,086,786, 4–23–63, Cl. 280—6.11.

Tudor, Aktiebolaget: *See*—
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Sundberg, Erik G., and Onsback. 3,082,280.

Tudor, Charles W., to Tudor Color Corp. Color harmony chart. 3,088,227, 5–7–63, Cl. 35—28.5.

Tudor Color Corp.: *See*—
Tudor, Charles W. 3,088,227.

Tudor, John J.: *See*—
Fraas, Arthur P., and Tudor. 3,100,188.

Tuemmler, William B.: *See*—
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Liao, Hsiang P., and Tuemmler. 3,092,638.
Wildi, Bernard S., and Tuemmler. 3,099,630.

Tuerck, Paul A., and E. D. Carkhuff, to Richardson-Merrell Inc. Process of preparing granulation of medicinal agents. 3,084,104, 4–2–63, Cl. 167—82.

Tuft, Harold S.: *See*—
Brown, Harold, Tuft, and Kaplan. 3,107,372.

Tufts, William F. Trouser guard for coat hangers. 3,071,298, 1–1–63, Cl. 223—98.

Tufts, William S., to Ranco Inc. Automatic defrosting device. 3,107,281, 10–15–63, Cl. 200—38.

Tufty, Harold G. Method and apparatus for producing furnace charging mixtures including carbonaceous fuel. 3,085,947, 4–16–63, Cl. 202—9.

Tugwood, Brian R., to The De Havilland Aircraft Co. Aircraft propeller engine speed controls. 3,079,531, 2–26–63, Cl. 317—5.

Tuhro, Albert F., to Muschong Metal & Mfg. Co. Regulating mechanism for ventilators. 3,093,011, 6–11–63, Cl. 74—625.

Tujisawa Pharmaceutical Co., Ltd.: *See*—
Ohara, Masao, Yamamoto, and Deguchi. 3,098,856.

Tukacs, George, to Lawn Grass Pellets Co. Method and means for propagating stoloniferous grasses and the like. 3,077,700, 2–19–63, Cl. 47—1.

Tulagin, Vsevolod: *See*—
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Tulakova, Lidia S.: *See*—
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Tull, Roger J., to Merck & Co., Inc. Preparation of 3-chlorocaprolactam. 3,096,325, 7–2–63, Cl. 260—239.3.

Tull, Roger J., and J. M. Chemerda, to Merck & Co., Inc. 8(14),22,3-acetoxy-11-keto-ergostadiene and process for the preparation thereof. 3,092,642, 6–4–63, Cl. 260—397.2.

Tulleners, Anthony J., to Union Oil Co. of California. Pretreatment of catalyst employed in the hydrocracking of hydrocarbons. 3,099,617, 7–30–63, Cl. 208—109.

Tullio, Victor, to E. I. du Pont de Nemours and Co. Process for making tetramethyl lead. 3,072,694, 1–8–63, Cl. 260—437.

Tullio, Victor, to E. I. du Pont de Nemours and Co. Process for making tetramethyl lead. 3,072,695, 1–8–63, Cl. 260—437.

Tullis, Lyell C., to The Parker Pen Co. Tubular covering. 3,079,679, 3–5–63, Cl. 29—235.

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Newman, Douglas A., and Tully. 3,111,422.

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Tuma, Alexio: *See*—
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Tumavicus, Julius W., to United Aircraft Corp. Rocket nozzle construction. 3,086,358, 4–23–63, Cl. 60—35.6.

Tumbusch, Edward H., to Techno-Components Corp. Potentiometer. 3,096,498, 7–2–63, Cl. 338—162.

Tumey, Lawrence F., to FMC Corp. Molding apparatus. 3,071,833, 1–8–63, Cl. 25—121.

Tumey, Lawrence F., to FMC Corp. Molding apparatus. 3,071,834, 1–8–63, Cl. 25—121.

Tumey, Lawrence F., to FMC Corp. Concrete forming apparatus lock. 3,071,835, 1–8–63, Cl. 25—121.

Tumey, Lawrence F., to FMC Corp. Double-T beam forming apparatus. 3,071,836, 1–8–63, Cl. 25—121.

Tumino, Emanuele. Method of lasting single piece seamless uppers. 3,082,450, 3–26–63, Cl. 12—145.

Tummers, Leonard J.: *See*—
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Tummers, Leonard J., to North American Philips Co. Inc. Method of producing semi-conductive devices, more particularly transistors. 3,074,826, 1–22–63, Cl. 148—1.5.

Tummers, Leonard J., and P. W. Haayman, to North American Philips Company, Inc. Transistor. 3,078,195, 2–19–63, Cl. 148—33.

Tummers, Leonard J., and P. W. Haayman, to North American Philips Co., Inc. Transistor. 3,078,397, 2–19–63, Cl. 317—235.

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Tundermann, Werner O., to Colgate-Palmolive Co. Attachment of detergent material to synthetic sponge. 3,076,298, 2–5–63, Cl. 53—24.

Tung, Ching C., to Monsanto Chemical Co. Heat treating rubbers with dinitrosoresorcinol. 3,085,990, 4–16–63, Cl. 260—41.5.

Tung, Ching C., and J. J. D'Amico, to Monsanto Chemical Co. Control of undesired vegetation with esters of N-methyl-N-carboxymethyldithiocarbamic acid. 3,094,407, 6–18–63, Cl. 71—2.7.

Tung, Shao E., to Continental Oil Co. Metal oxide promoter for alkali metal alkyl-transition metal halide catalyst. 3,085,999, 4–16–63, Cl. 260—93.5.

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Pavlick, Joseph J. 3,076,950.
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Tunnicliffe, Philip R., to Atomic Energy of Canada Ltd. Method for poison override in nuclear reactors. 3,086,929, 4–23–63, Cl. 204—154.2.

Tunsen, Elmer L., to No Joint Concrete Pipe Co. Apparatus for producing cast-in-place pipe. 3,106,760, 10–15–63, Cl. 25—32.

Tupper, Earl S., to Rexall Drug and Chemical Co. Pitcher and cover. 3,081,010, 3–12–63, Cl. 222—512.

Tupper, John H.: *See*—
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Tupper, Myron D., to General Electric Co. Lubrication arrangement for dynamoelectric machines. 3,109,684, 11–5–63, Cl. 308—121.

Turanciol, Fuad. Rotary radial flow jet engine. 3,077,075, 2–12–63, Cl. 60—39.35.

Turano, Anthony J. Cover for photoflash gun attachment. 3,111,274, 11–19–63, Cl. 240—1.3.

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Turatti, Mario. Atomiser holders. 3,095,105, 6–25–63, Cl. 215—100.

Turbak, Albin F.: *See*—
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Turbak, Albin F., to Esso Research and Engineering Co. Sulfonation with organic phosphorous compound-sulfur trioxide adducts. 3,072,618, 1–8–63, Cl. 260—79.3.

Turbak, Albin F., to Esso Research and Engineering Co. Method for improving stability of aromatic sulfonates. 3,072,619, 1–8–63, Cl. 260—79.3.

Turbak, Albin F., to Esso Research and Engineering Co. Preparation of organo and inorgano phosphorus complexes suitable for sulfating and sulfonating organic compounds. 3,072,703, 1–8–63, Cl. 260—461.

Turbak, Albin F., to Jersey Production Research Co. Secondary recovery waterflooding technique. 3,085,063, 4–9–63, Cl. 252—8.55.

Turbak, Albin F., and G. T. Davis, to Jersey Production Research Co. Reaction products of ethylene oxide and polyhydroxide alcohols as water viscosity thickeners for secondary recovery. 3,079,337, 2–26–63, Cl. 252—8.55.

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Ufert, Otto W., to Schiess Aktiengesellschaft. Method of making worm wheels. 3,077,146, 2–12–63, Cl. 90—4.

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Ugi, Ivar. Process for preparing dihydro-benzothiadiazine-dioxides. 3,108,097, 10–22–63, Cl. 260—243.

Uglem, Arthur S. Attachment for rakes. 3,070,945, 1–1–63, Cl. 56—400.01.

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Uhleen, Arthur E., to National Steel Corp. Method for applying organic film to adhesively coated metal strip. 3,086,904, 4–23–63, Cl. 156—320.

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Ulanet, Herman. Electrical thermostatic switch. 3,078,360, 2–19–63, Cl. 200—122.

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Helmaster, John W., Jenkins, and Rogers. 3,108,789.
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Howell, Peter A. 3,101,251.
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Kennedy, Harry E. 3,083,290.
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Kluiber, Rudolph W., and Carrick. 3,073,809.
Knopf, Robert J., and Theiling. 3,114,766.
Koehler, James O., and Lamprey. 3,098,041.
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Kordesch, Karl V., and King. 3,077,507.
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Ustin, George, to Buchanan Electrical Products Corp. Electric terminal block assembly. Re. 25,446, 9-17-63, Cl. 339—198.
Ustin, George, to Buchanan Electrical Products Corp. Pneumatic tool. 3,086,574, 4-23-63, Cl. 153—1.
Ustin, George, and P. A. Haucke, to Buchanan Electrical Products Corp. Crimping tool. 3,094,702, 6-25-63, Cl. 1—220.
Usui, Magoichi. Smoking device. 3,089,498, 5-14-63, Cl. 131—209.
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Heinmiller, Percival M., and Barker. 3,081,120.
Utne, Torleif, J. D. Garber, and R. E. Jones, to Merck & Co., Inc. Hydrogenation of 5-hydroxy-methyl furfural. 3,083,236, 3-26-63, Cl. 260—635.
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Utsunomiya, Masaichi, H. Hiyama, and O. Manabe, to Asahi Dyestuffs Mfg. Co., Ltd. Dyeing process. 3,108,846, 10-29-63, Cl. 8—37.
Utt, Orval L., to Westinghouse Air Brake Co. Analog squaring device. 3,113,274, 12-3-63, Cl. 328—144.
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VEB Leuna-Werke "Walter Ulbricht": *See*—
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Vaccaro, Joseph, Jr., to United States of America, Navy. Readout mechanism. 3,083,908, 4-2-63, Cl. 235—92.
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Vaes, Petrus J. J., to North American Philips Co., Inc. Mounting plate protective member for dry shaver head. 3,070,884, 1-1-63, Cl. 30—43.

Vaes, Petrus, J. J., to North American Philips Co., Inc. Detachable fastening means for attaching shaver head to dry shaver housing. 3,078,570, 2–26–63, Cl. 30—41.

Vaes, Petrus J. J., to North American Philips Co., Inc. Head mount for dry shaver. 3,081,541, 3–19–63, Cl. 30—43.

Vail, Ande R., to W. H. and E. R. Myers. Tool for cutting flexible conduit. 3,093,023, 6–11–63, Cl. 83—370.

Vail, Ande R. Bathing cap. 3,113,319, 12–10–63, Cl. 2—68.

Vail, Arthur E., to Trio Mfg. Co. Bird house with clean-out door. 3,111,934, 11–26–63, Cl. 119—23.

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Small, Charles B., Vail, and Hufferd. 3,094,108.

Vail, Sidney L., C. M. Moran, and H. B. Moore, to United States of America, Agriculture. Glyoxal amid reaction products. 3,111,522, 11–19–63, Cl. 260—268.

Vail, Sidney L., C. M. Moran, and H. B. Moore, to United States of America, Agriculture. Glyoxal-amide reaction products. 3,112,155, 11–26–63, Cl. 8—116.2.

Vail, Sidney L., and P. J. Murphy, Jr., to United States of America, Agriculture. Treatment of cellulosic textile material with 1,3-dimethyl-4,5-dihydroxy-2-imidazolidinone. 3,112,156, 11–26–63, Cl. 8—116.3.

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Vakousky, Walter J., to The B. F. Goodrich Co. Process for making a cellular material from a vinyl chloride polymer plastisol. 3,084,127, 4–2–63, Cl. 260—2.5.

Valach, Charles F., to Amphenol-Borg Electronics Corp. Electrical connectors. 3,082,398, 3–19–63, Cl. 339—176.

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Valenti, Joseph F., to Fairchild Camera and Instrument Corp. Adjustable torque restraining mechanism. 3,110,-366, 11–12–63, Cl. 188—83.

Valenthe, Edward L. Method and apparatus for cleaning tanks. 3,090,393, 5–21–63, Cl. 134—169.

Valentine, Edward L. Milk holding tank. 3,102,341, 9–3–63, Cl. 3—126.7.

Valentine, George E., and J. H. Enbanks, to Thermo Dynamics Corp. Unidirectional drive mechanism. 3,101,004, 8–20–63, Cl. 74—148.

Valentine, Harry M., to Bendix-Westinghouse Automotive Air Brake Co. Load control valve for vehicle air springs. 3,071,393 1–1–63, Cl. 280—124.

Valentine, Harry M., to Bendix-Westinghouse Automotive Air Brake Co. Combined control and tractor protection valve. 3,104,133, 9–17–63, Cl. 303—50.

Valentine, Harry M., to Bendix-Westinghouse Automotive Air Brake Co. Spring brake emergency release system. 3,107,126, 10–15–63, Cl. 303—13.

Valentine, Harry M., to Bendix-Westinghouse Automotive Air Brake Co. Emergency release system for fluid pressure brakes. 3,115,371, 12–24–63, Cl. 303—29.

Valentine, Harry M., G. E. Ternent, and F. R. Schubert, to Bendix-Westinghouse Automotive Air Brake Co. Multiple brake system. 3,087,760, 4–30–63, Cl. 303—9.

Valentine, Harry M., and E. T. Andrews, to Bendix-Westinghouse Automotive Air Brake Co. Brake system and control valve therefor. 3,095,244, 6–25–63, Cl. 303—9.

Valentine, Harry M., G. E. Ternent, and F. R. Schubert, to Bendix-Westinghouse Automotive Air Brake Co. Brake systems and control valve therefor. 3,115,161, 12–24–63, Cl. 137—625.27.

Valentine, Leslie M., and B. F. Sagar, to Tootal Broadhurst Lee Co. Ltd. Process of dry crease-proofing cellulosic fabrics with divinyl sulphone. 3,106,439, 10–8–63, Cl. 8—116.

Valentine, Richard J. Drawer for cabinets. 3,089,744, 5–14–63, Cl. 312—229.

Valentine, William, to American Cyanamid Co. Free-flowing intrinsic factor concentrate. 3,085,944, 4–16–63, Cl. 167—74.

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Valentyne, Peter H., and D. H. Hoag, to Baker Perkins Inc. Dough processing apparatus. 3,101,143, 8–20–63, Cl. 198—24.

Valeriotl, George N., and V. R. De Leo. Disinfectant dispensing devices for flush tanks. 3,080,571, 3–12–63, Cl. 4—228.

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Valkanas, George N., and H. Hopff, to Stauffer Chemical Co. Fluorinated azo dyes. 3,086,968, 4–23–63, Cl. 260—193.

Valkanas, George N., and H. Hopff, to Stauffer Chemical Co. Preparation of cyclohexene fluoride-1. 3,093,692, 6–11–63, Cl. 260—648.

Valkanas, George N., and H. Hopff, to Stauffer Chemical Co. 1-nitro-2,6-difluoroanthraquinone. 3,113,141, 12–3–63, Cl. 260—384.

Valldeperas, Jose G., to Lowell Mfg. Co. Loud speaker baffle for doors. 3,108,653, 10–29–63, Cl. 181—31.

Valleau, Robert L., to Comar Electric Co. Step switch mechanism. 3,106,849 10–15–63, Cl. 74—142.

Vallee, Bert L., to Technicon Instruments Corp. Background compensation for spectrometers used in quantitative spectro-chemical studies. 3,102,155, 8–27–63, Cl. 88—14.

Valles, Fred G., Holder for use with spray guns. 3,076,608, 2–5–63, Cl. 239—526.

Valles, Fred G. Cleaning structures. 3,103,029, 9–10–63, Cl. 15—227.

Vallese, Lucio M., to United States of America, Navy. Stabilized oscillator power source with feedback diode capacitance controls. 3,084,294, 4–2–63, Cl. 331—109.

Vallet, Lester A., to States Steamship Co. Hatch cover and sealing device therefor. 3,104,643, 9–24–63, Cl. 114—202.

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Valliant, William E.: *See*—
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Valliere, Edward G., to United States of America, Navy. Electrically coded terrain model map. 3,097,418, 7–16–63, Cl. 29—155.5.

Vallino, Dominic J., to General Electric Co. Methods of and apparatus for demineralizing water. 3,084,113, 4–2–63, Cl. 204—131.

Valo, Veikko L. Debarking machine. 3,115,167, 12–24–63, Cl. 144—208.

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Valvano, Ralph A. Can opener and sealer. 3,071,286, 1–1–63, Cl. 220—51.

Valverde, David E., to Metallic Engineering Co. Inc. Panel fabricating machine. 3,110,340, 11–12–63, Cl. 153—21.

Valverde, David E., to Metallic Engineering Co., Inc. Wall facing. 3,110,374, 11–12–63, Cl. 189—82.

Valyi, Emery I., and L. R. Spann, to Continental Can Co., Inc. Production of ingots with filled core channels. 3,078,-527, 2–26–63, Cl. 22—57.2.

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Van Acker, Joseph E.: *See*—
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Van Adelsberg, Martin M.: *See*—
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Van Allan, James A.: *See*—
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Reynolds, George A., Robertson, and Van Allan. 3,072,485.

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Davis, William A., and Van Alsburg. 3,074,564.

Van Alstyne, Alvin G., and L. Michels, to Gilfillan Bros., Inc. Air traffic schedule monitoring method and system. 3,111,-643, 11–19–63, Cl. 340—23.

Van Amstel, Johannes J. A. P.: *See*—
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Van Antwerpen, Lloyd D. 3,101,166.
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Van Antwerp, Arthur E., to The B. F. Goodrich Co. Method of making a particulate, solid silicon monoxide product. 3,087,789, 4–30–63, Cl. 23—182.

Van Antwerpen, Lloyd D. Carton for shipping different sizes of fragile articles. 3,095,971, 7–2–63, Cl. 206—62.

Van Antwerpen, Lloyd D., to Vanant Co., Inc. Collapsible packaging strip. 3,101,166, 8–20–63, Cl. 229—14.

Van Arragon, Bernard, to Hollandse Signaalapparaten, N.V. Limiting circuit for a time modulator. 3,091,742, 5–28–63, Cl. 332—9.

Van Arsdell, Fred C., to The Quaker Oats Co. Process of centrifugal separation. 3,094,487, 6–18–63, Cl. 233—28.

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Ryland, Henry L., and Van Auken. 3,107,375.

Van Auken, Robert D. Guide apparatus for hole saws. 3,115,-911, 12–31–63, Cl. 143—85.

Van Auwelaer, Albert J., and D. C. Ager, to Deere & Co. Earth moving implement. 3,082,890, 3–26–63, Cl. 214—138.

Van Baerle, Frederic C. G. Nuclear reactor simulator. 3,082,546, 3–26–63 Cl. 35—10.

Van Beek, Gerardus J. H.: *See*—
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Van Berg, Charles F., and J. R. Hodson, to Esso Research and Engineering Co. Separation of monoolefins from saturated hydrocarbons. 3,105,100, 9–24–63, Cl. 260—677.

Van Bergeijk, Jan, and W. Bakker, to American Enka Corp. Treatment of synthetic linear polycondensation products. 3,111,367, 11–19–63, Cl. 18—54.

Van Billiard, Lewis H., to United States of America, Navy. Payout coils. 3,114,456, 12–17–63, Cl. 206—59.

Van Boort, Henricus J. J., and J. H. Hilderink, to North American Philips Co., Inc. Bimetallic starter switch for gas discharge tubes. 3,105,889, 10–1–63, Cl. 200—113.5.

Van Boort, Henricus J. J., and J. H. Hilderink, to North American Philips Co., Inc. Thermal switch. 3,113,194, 12–3–63, Cl. 200—122.

Van Brode Milling Co., Inc.: *See*—
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Van Broeckhuysen, Johannes P. C. M., and J. J. H. Buys, to Stamicarbon N.V. Process and apparatus for producing an auxiliary fluid flow which is proportional to a main fluid flow. 3,103,814, 9–17–63, Cl. 73—202.

Van Buren, Harold S., Jr., to United-Carr Fastener Corp. Fastening device. 3,071,827, 1–8–63, Cl. 20—92.

Van Buren, Harold S., Jr., to United-Carr Fastener Corp. Webbing clips. 3,102,318, 9–3–63, Cl. 24—265.

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Van Buskirk, John D. 3,111,897.

Van Buskirk, John D., to Van Buskirk & Co., Inc. Article marking. 3,092,019, 6–4–63, Cl. 101—35.

Van Buskirk, John D., to Van Buskirk & Co., Inc. Universal paste inker for printers. 3,111,897, 11–26–63, Cl. 101—350.

Van Bauren, Arend J. Tobacco smoke filter. 3,093,144, 6–11–63, Cl. 131—208.

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Vance, John E., to The Garrett Corp. Speed responsive pneumatic control. 3,103,943, 9–17–63, Cl. 137—51.

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Vance, Merton C., to Prosser Packers, Inc. Sizing machine. 3,108,691, 10–29–63, Cl. 209—107.

Vance, Robert F., and J. F. Strotman, to Chemetron Corp. Method of preparing an extruded cobalt-molybdenum-alumina catalyst. 3,104,228, 9–17–63, Cl. 252—465.

Vancherl, Frank J.: *See*—
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Mackay, Johnstone S., and Vancherl. 3,071,627.
Wright, Oscar L., Maustelter, and Vancherl. 3,096,382.

Van Cott, Harrison C., to Corning Glass Works. Method of making a sintered ceramic article. 3,096,159, 7–2–63, Cl. 25—157.

Vandal, Delphis. Boiler. 3,115,121, 12–24–63, Cl. 122—95.

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Buschbom, Floyd E. 3,095,985.

Van Dalen, Christiaan J., to de Staat der Nederlanden, ten Deze Vertegenwoordigd door de directeur-Generaal der Posterijen, Telegrafie en telefonie. Device for conducting postal articles, forms, or the like. 3,108,801, 10–29–63, Cl. 271—57.

Van Deberg, Walter H., to The Thompson Co. Sequence interrupting valve. 3,093,970, 6–18–63, Cl. 60—54.5.

Van Deberg, Walter H., to Earl A. Thompson Mfg. Co. Means for varying work cycles. 3,093,971, 6–18–63, Cl. 60—97.

Van de Bilt, Pieter A., to Metaverpa, N.V. Wire-feeding apparatus for a machine, such as a packaging machine. 3,081,957, 3–19–63 Cl. 242—54.

Van de Bilt, Pieter A., to Metaverpa, N.V. Packaging machine. 3,115,085, 12–24–63, Cl. 100—4.

Van De Hey, Roch J.: *See*—
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Van Hoesen, Harold E., to Research-Cottrell, Inc. Feedback control circuit. 3,085,322, 3–26–63, Cl. 318—28.
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Van Horne, William E., to Industrial Nucleonics Corp. Radiation tubing gauge for computing single-wall thicknesses from plural double-wall thickness measurements. 3,109,095, 10–29–63, Cl. 250—83.3.

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Van Hove, Austin G. Explosively releasable fastener. 3,071,404, 1-1-63, Cl. 294—83.

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Vani, James, and A. J. Malpede, to Service Metal Fabricators, Inc. Switch units. 3,075,057, 1-22-63, Cl. 200—82.

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Van Leeuwen, Cornelis J. Device for contacting sheets carrying sensitive layers with at least two liquids. 3,099,948, 8-6-63, Cl. 95—94.

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Van Loo, William J., Jr., and J. M. Salsbury, to American Cyanamid Co. Process for treating cellulose containing textile material with an alkylated melamine-formaldehyde reaction product. 3,087,837, 4-30-63, Cl. 117—139.4.

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Ayres, Wesley P., Melchor, and Vartanian. 3,095,546.

Varvel, Harold E., to Master Vibrator Co. Portable heater. 3,101,193, 8-20-63, Cl. 263—19.

Vary, Alex, to United States of American, National Aeronautics and Space Administration. Radiant heater having formed filaments. 3,107,171, 10-22-63, Cl. 219—19.

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Vasiljevic, Tomislav P. Tire traction arrangement. 3,098,516, 7-23-63, Cl. 152—210.

Vasilos, Thomas, and R. B. Wagner, to Avco Mfg. Corp. Hot pressed material and method of producing the same. 3,116,137, 12-31-63, Cl. 65—18.

Vasta, Francesco. Ball or roller bearings. 3,093,427, 6-11-63, Cl. 308—184.

Vasterbottens Tryckeri Aktiebolag: *See*—
Engström, Urban. 3,114,492.

Vaterlaus, Bruno P.: *See*—
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Van, Jean-Baptiste P., to Societe Nationale d'Etude et de Construction de Moteurs d'Aviation. Industrial process for preparing planar blanks for the manufacture of hollow turbine blades. 3,092,894, 6-11-63, Cl. 29—531.

Vandreuil, Edgar G. C-clamp. 3,102,723, 9-3-63, Cl. 269—101.

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Vaughan, Chester D., Jr., and R. H. Vetter, to E. J. Lavino and Co. Magnesium oxide pellets and process of producing the same for burning. 3,099,533, 7-30-63, Cl. 23—201.

Vaughan, Eric W., to The Superior Electric Co. Adjustable voltage rectifier. 3,089,074, 5-7-63, Cl. 321—8.

Vaughan, James R., Jr.: *See*—
Gadekar, Shreekrishna M., Vaughan, and Davis. 3,092,633.
Semb, Joseph, and Vaughan. 3,072,650.

Vaughan, James R. M., and R. H. Bright, to Electrical Musical Industries Ltd. Magnetrons. Re. 25,420, 7-23-63, Cl. 315—39.67.

Vaughan, James W., and E. H. Phillips, to Hewlett-Packard Co. Waveguide coupling apparatus. 3,076,159, 1-29-63, Cl. 333—98.

Vaughan, Lee E.: *See*—
Harbage, Robert P., Vaughan, and Crown. 3,103,777.

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Vaughan, Robert A., to General Precision, Inc. Power supply protection device. 3,072,842, 1-8-63, Cl. 323—22.

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Vaughn, Damon A. Carrying case for firearm. 3,107,833, 10-22-63, Cl. 224—2.

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Vaughn, Frank R., to A. H. Bartels, L. T. Schmit, and P. Feeney. Spring loaded heat saving device. 3,090,558, 5-21-63, Cl. 236—1.

Vaughn, Harold E. Expander tool. 3,077,916, 2-19-63, Cl. 153—80.

Vaughn, Harold G., to The Ohio Corrugating Co. Container sealing ring. 3,091,489, 5-28-63, Cl. 292—256.60.

Vaughn, Hubert S. Marine engine muffler. 3,111,190, 11-19-63, Cl. 181—52.

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Bittman, Jess C. 3,113,745.
Nye, Maurice A., and Bittman. 3,076,619.
Nye, Maurice A., and Bittman. 3,097,812.
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Vaughn, Rudolph M. Broaching method and apparatus for forming an undercut slot. 3,103,675, 9-17-63, Cl. 10—6.

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Vaurio, Frans V. E., to Customark Corp. Paper product with watermark and process therefor. 3,085,898, 4-16-63, Cl. 117—38.

Vayda, Alexander, to Fonderite Societe a Responsabilite Limitee. Permanent moulds. 3,100,919, 8-20-63, Cl. 22—9.

Vawter, John E., to Henry Weis, Mfg. Co., Inc. Stile and mounting therefor. 3,108,664, 10-29-63, Cl. 189—42.

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Vecchi, Alberto, and G. Maffii, to Lepetit S.p.A. Antitussive composition. 3,073,741, 1-15-63, Cl. 167—55.

Vecchi, Alberto, and G. Melone, to Lepetit S.p.A. Antifungal compositions containing 4-cyano-phenyl and 5-cyano-thienyl-nitroethylenes. 3,102,841, 9-3-63, Cl. 167—30.

Vecenie, Ethel A., by W. J. Buano. Shower stall, bath tub accessory. 3,096,526, 7-9-63, Cl. 4—148.

Vechiarelli, Francis, and H. R. Rudow, to National Distillers and Chemical Corp. Bead sizing tool. 3,088,347, 5-7-63, Cl. 81—15.

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Vegors, Stanley H., and Arnold. 3,111,881.

Vegors, Stanley H., and F. L. Arnold, to Vego Inc. Contact lens polishing apparatus. 3,111,790, 11-26-63, Cl. 51—105.

Vegors, Stanley H., and F. L. Arnold, to Vego Inc. Projection apparatus for use in testing. 3,111,881, 11-26-63, Cl. 88—24.

Vegter, Geert C., to Shell Oil Co. S-halo-O-hydrocarbon phosphorochloridothiolates. 3,081,329, 3-12-63, Cl. 260—461.

Veis, Arthur, and J. Cohen, to Armour & Co. Reconstitution of native collagen fiber from acid precursor gelatin. 3,075,961, 1-29-63, Cl. 260—123.7.

Velt, Anton L. Apparatus for the automatic correction of color casts in photographic color prints. 3,083,614, 4-2-63, Cl. 88—24.

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Veith, Werner, and H. Heynisch, to Siemens & Halske Aktiengesellschaft. Color television tube having Venetian blind-type grid. 3,090,890, 5-21-63, Cl. 315—21.

Veith, Werner, and P. Meyerer, to Siemens and Halske Aktiengesellschaft. Magnetic means for focusing and densifying the electron beam in traveling wave tubes. 3,092,745, 6-4-63, Cl. 313—84.

Veith, Werner, and P. Meyerer, to Siemens & Halske Aktiengesellschaft. High capacity travelling wave tube for amplifying ultra high frequencies. 3,099,766, 7-30-63, Cl. 315—3.5.

Veith, Werner, and H. Heynisch, to Siemens & Halske Aktiengesellschaft. Encoding device employing a cathode ray tube. 3,114,073, 12-10-63, Cl. 315—8.5.

Vekovius, Charles W., and W. M. Woodward, to Mid-West Abrasive Co. Billet grinding apparatus. 3,096,889, 7-9-63, Cl. 214—1.

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Velluz, Leon, G. Amiard, and R. Heymes, to Roussel-UCLAF Societe Anonyme. Process of producing oxytocin and intermediates obtained thereby. 3,076,797, 2-5-63, Cl. 260—112.

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Richter, Sidney B. 3,075,873.
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Richter, Sidney B. 3,088,863.
Richter, Sidney B. 3,092,343.
Schweiker, George C., and Carlson. 3,098,058.
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Venable, Charles R., Jr., and R. S. Ladley, to Phillips Petroleum Co. Impermeable barrier in cement lined pipe. 3,087,515, 4-30-63, Cl. 138—145.

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Hanson, Theodore L., and Black. 3,092,029.
Johnson, Elmer C., and Bookout. 3,102,762.
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Venison, Douglas M.: *See*—
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Ventress, Douglas A. Method and installation for pumping liquid to any desired level. 3,093,088, 6-11-63, Cl. 103—232.

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Cochran, Oscar B., Jr. 3,101,226.

Venus, Frank, Jr., to The Risdon Mfg. Co. Combined actuator button and spray nozzle devices for aerosol valves. 3,088,682, 5-7-63, Cl. 239—573.

Venus, Willibald. Apparatus for providing vacuum in molds. 3,070,857, 1-1-63, Cl. 22—73.

Venziani, Walter. Lifting apparatus for the loading of material usable with motor-vehicles. 3,074,570, 1-22-63, Cl. 214—75.

Verba, John W., and R. A. Hawrylak, to United States of America, Atomic Energy Commission. Continuous rotation scattering chamber. 3,100,263, 8-6-63, Cl. 250—83.

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Krakauer, Merrill, and Verbeke. 3,107,000.

Verbrugge, Rene. Device for supplying an amount of water into an acetylene-producing fulminating cannon. 3,098,729, 7-23-63, Cl. 48—37.

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Vercellone, Alberto: *See*—
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Haney, Stanley C., and Verdol. 3,088,815.
Keith, Willis C., Verdol, and Zmitrovis. 3,099,686.

Verdol, Joseph A., to Sinclair Research Inc. Esters of an oxyalkylated phenol-formaldehyde resin as a lubricating oil detergent. 3,096,286, 7-2-63, Cl. 252—57.

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Vereinigte Glanzstoff-Fabriken Aktiengesellschaft: *See*—
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Veres, Edward W., and H. S. Brown, to Safety-Crafters Corp. Bowl for an airline lubricator. 3,078,007, 2-19-63, Cl. 220—71.

Veres, Frank, to Owens-Illinois Glass Co. Method of adhering metal to a glass base. 3,075,860, 1-29-63, Cl. 117—211.

Veres, Frank, to Owens-Illinois Glass Co. Catadioptric electroluminescent glass block. 3,089,051, 5-7-63, Cl. 313—108.

Vergara Ochoa, Jaime, to Industrias de Occidente, S.A. Admission and check valve for pneumatic balls. 3,107,683, 10-22-63, Cl. 137—223.

Verge, Carl B. Self-propelled amusement device. 3,107,926, 10-22-63, Cl. 280—221.

Vergobbi, John G., to Pneumatic Scale Corp., Ltd. Method of making a liner bag. 3,083,618, 4-2-63, Cl. 93—35.

Vergobbi, John G., to Pneumatic Scale Corp., Ltd. Container forming machine. 3,088,380, 5-7-63, Cl. 93—12.

Verhagen, Edward L., to The Regina Corp. Air check valves. 3,113,853, 12-10-63, Cl. 55—367.

Veris, George C. Toy gun. 3,073,060, 1-15-63, Cl. 46—177.

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Verneuil, Pierre J. Fishing line guide. 3,099,889, 8–6–63, Cl. 43—24.
Vernik, David. Phonograph record rack. 3,092,256, 6–4–63, Cl. 211—40.
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Vernon, Murray, to S.E. & M. Vernon, Inc. Loose leaf binder construction. 3,098,489, 7–23–63, Cl. 129—24.
Vernon, Murray, to S. E. & M. Vernon, Inc. Loose leaf binder. 3,101,719, 8–27–63, Cl. 129—24.
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Vernon, Murray. 3,101,719.
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Ver Nooy, Burton, to T. D. Williamson, Inc. Ball-type pipeline scraping and batching device. 3,090,058, 5–21–63, Cl. 15—104.06.
Ver Nooy, Burton, to T. D. Williamson, Inc. Plugging pig. 3,107,696, 10–22–63, Cl. 138—89.
Ver Nooy, Burton, to T. D. Williamson Inc. Passage indicator for pipeline scrapers and the like. 3,109,410, 11–5–63, Cl. 116—124.
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Verrinder, Ernest A., and E. J. McGrath, to FMC Corp. Method of and apparatus for handling cases. 3,088,574, 5–7–63, Cl. 198—21.
Verrinder, Ernest A., and E. J. McGrath, to FMC Corp. Apparatus for handling cases. 3,096,891, 7–9–63, Cl. 214—6.
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Verseghy, Stephen. Toy punching ball of plastic material. 3,114,546, 12–17–63, Cl. 272—78.
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Verstraten, Jan, to North American Philips Co., Inc. High-frequency heating furnaces operating with very high frequencies. 3,102,181, 8–27–63, Cl. 219—10.55.
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Vertrees, Paul C., and C. G. Hackenberger, to Tacoma Boatbuilding Co., Inc. Vessel-carried level-luffing crane. 3,090,496, 5–21–63, Cl. 212—35.
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Verweel, Jan: *See*—
Gorter, Evert W., Schulkes, and Verweel. 3,085,980.
Verwiebe, Arthur: *See*—
Gorham, Robert H. 3,090,188.
Vesak, Joseph, to Unipak Cartons Ltd. Compartmented container with extensible handle. 3,079,040, 2–26–63, Cl. 220—105.
Vesak, Joseph, to Crown Zellerbach Canada Ltd. Bottom lock for cartons. 3,107,840, 10–22–63, Cl. 229—45.
Vesely, Donald V.: *See*—
Hawn, Walter M. Chann, Besal, and Vesely. 3,098,114.
Vesely, Jerome A., and C. B. Linn, to Universal Oil Products Co. Alkylation of phenols, thiophenes, and furans. 3,071,595, 1–1–63, Cl. 260—329.
Vesigot, Jean-Paul: *See*—
Deschamps, Jacques D., and Vesigot. 3,080,546.
Vesper, Daniel M., and M. E. Larkin, to Phillips Petroleum Co. Control mechanism. 3,092,765, 6–4–63, Cl. 318—207.
Vessalo, William V.: *See*—
Dickinson, Lloyd R., and Vessalo. 3,096,539.
Dickinson, Lloyd R., and Vessalo. 3,113,678.
Vest, Robert D.: *See*—
Marvel, Carl S., and Vest. 3,098,867.
Vest, Robert D., to E. I. du Pont de Nemours and Co. Polycyano-4,7-dithia-2,5-heptadienes. 3,088,968, 5–7–63, Cl. 260—465.5
Vest, Robert D., to E. I. du Pont de Nemours and Co. Process for preparing tetracyano-1,4-dithiin. 3,101,344, 8–20–63, Cl. 260—327.
Vest, Robert D., to E. I. du Pont de Nemours and Co. Preparation of tetracyanoethylene by reacting cyanocarbon sulfides with metal cyanides, followed by oxidation. 3,101,365, 8–20–63, Cl. 260—465.8.
Vest, Robert D., to E. I. du Pont de Nemours and Co. 3,4-dichloro-1,2,5-thiadiazole and its preparation. 3,115,497, 12–24–63, Cl. 260—302.
Vestermark, Lyle A. Apparatus for filling buns with an edible product. 3,113,530, 12–10–63, Cl. 107—1.
Vesuvius Crucible Co.: *See*—
Murton, Crawford B. 3,091,823.
Vetere, Nicholas A., to Arrow Metal Products Corp., Inc. Adjustable shelving. 3,082,711, 3–26–63, Cl. 108—107.
Vetere, Rudolph: *See*—
Mitthauer, John R., and Vetere. 3,082,832.
Mitthauer, John R., and Vetere. 3,083,350.
Vetne, Gunnar. **Lawn sweeper or the like.** 3,084,363, 4–9–63, Cl. 15—79.
Vetrocoke S.p.A.: *See*—
Glammarco, Giuseppe. 3,086,838.
Glammarco, Giuseppe. 3,110,566.
Vetter, Earl E., to Boeing Airplane Co. Supersonic air diffuser. 3,080,707, 3–12–63, Cl. 60—35.6.
Vetter, Karl, to Gesellschaft fuer Linde's Eismaschinen Aktiengesellschaft Zweigniederlassung Gueldner-Motoren-Werke. Axial piston pumps and motors with rotary cylinder blocks. 3,110,267, 11–12–63, Cl. 103—162.
Vetter, Roland H.: *See*—
Mitchell, James W., Jr., and Vetter. 3,112,390.
Vetter, Ronald F., R. A. Miller, and S. H. Herzog, to United States of America, Navy. Plastic internal rocket nozzle. 3,103,784, 9–17–63, Cl. 60—35.6.
Vetter, Richard H.: *See*—
Vaughan, Chester D., Jr., and Vetter. 3,099,533.
Veverka, Joseph E. Dental liner comprising polymethyl methacrylate, talc and methyl methacrylate. 3,073,795, 1–15–63, Cl. 260—41.
Vezner, Kenneth W., to Terrazzo Machine and Supply Co., Inc. Terrazzo grinding machine. 3,102,372, 9–3–63, Cl. 51—177.
Via, William F., Jr. Mixing containers. 3,100,045, 8–6–63, Cl. 206—47.
Viall, Edgar W., to Kaiser Aluminum & Chemical Corp. Refractory. 3,109,259, 11–5–63, Cl. 50—128.
Viall, George K., and W. E. Conley, to Chain Belt Co. Method and apparatus for dehydrating liquid materials. 3,085,018, 4–9–63, Cl. 99—201.
Vibco, Inc.: *See*—
Anderson, Albert K. 3,112,098.
Viber Co.: *See*—
Kroeckel, Alfred J. 3,074,151.

Vibrator Mfg. Co.: *See*—
Matson, Carl G. 3,082,668.
Vic-Mar Corp.: *See*—
Shrewsbury, Robert S. 3,081,805.
Vicard, Pierre G. Fluid conduits. 3,076,480, 2–5–63, Cl. 138—39.
Vicard, Pierre G. Devices for minimizing losses in fluid conduits. 3,113,593, 12–10–63, Cl. 138—39.
Vick, Ralph L., to The Bendix Corp. Combination hydraulic power valve and master cylinder. 3,079,757, 3–5–63, Cl. 60—54.6.
Vickerman, Jack R.: *See*—
Hastings, Robert M., Vickerman, and Broadwell. 3,107,694.
Vickers-Armstrongs (Engineers) Ltd.: *See*—
Parker, William S. 3,096,127.
Parker, William S., and Fox. 3,089,556.
Vickers Inc.: *See*—
Elston, George F., Tess, and Evans. 3,082,787.
Gordon, Richard O. 3,101,808.
Holzbock, Werner G. 3,099,280.
Klessig, Ernst F. 3,077,901.
Vickers, James L.: *See*—
Burt, Farlow B., and Vickers. 3,100,550.
Vickers, Paul T.: *See*—
Amann, Charles A., Collman, Haushalter, Ricketts, Turnnen, and Vickers. 3,095,700.
Vickers Research Ltd.: *See*—
Green, Jack R. 3,092,144.
Vickery, Edgar H., to Fisher Governor Co. Ball valve. 3,077,895, 2–19–63, Cl. 137—315.
Vickery, Edgar H., to Fisher Governor Co. Protected ball valve seal. 3,077,902, 2–19–63, Cl. 137—625.12.
Vickery, Edgar H., to Fisher Governor Co. Ball valve actuator. 3,078,065, 2–19–63, Cl. 251—58.
Vickery, Edgar H., to Fisher Governor Co. Sealed ball valve. 3,082,912, 3–26–63, Cl. 251—172.
Vickery, John. Combined package and dispenser of plastic wrapping film. 3,082,870, 3–26–63, Cl. 206—58.
Vickery, Ronald C., to Nuclear Corp. of America. Method for preparing ferromagnetic oxides. 3,080,320, 3–5–63, Cl. 252—62.5.
Vickery, Ronald C., to Nuclear Corp. of America. Force measuring device. 3,097,714, 7–16–63, Cl. 177—210.
Vickery, Ronald C., to Nuclear Corp. of America. Production of scandium and yttrium. 3,111,467, 11–19–63, Cl. 204—64.
Vico Products Co.: *See*—
Jackel, Simon S. 3,102,033.
Victaulic Co. of America: *See*—
Frost, Raymond B., and Sexton. 3,113,791.
Victor Adding Machine Co.: *See*—
Hoffman, Robert C. 3,107,051.
Johnston, Verle S., Maples, and Heal. 3,107,849.
Schultz, Ralph L. 3,075,626.
Victor Chemical Works: *See*—
Beck, Thomas M., and Klein. 3,071,608.
Ramsey, William M., and Kerzerian. 3,077,487.
Victor Co. of Japan, Ltd.: *See*—
Moriya, Ikuro. 3,085,728.
Moriya, Ikuro. 3,105,880.
Moriya, Ikuro. 3,110,451.
Yasuda, Takushi, and Fujimoto. 3,114,513.
Victor Comptometer Corp.: *See*—
Beerman, Henry P. 3,116,131.
Gill, Robert F., Jr., and Mero. 3,096,742.
Scheuzger, Peter. 3,104,930.
Trost, Richard E. 3,091,668.
Zenner, Raymond E. 3,090,833.
Victor, Irving, to Research Development Co. Method of recovering a volatile organic solvent from an absorbent with steam. 3,089,250, 5–14–63, Cl. 34—37.
Victor, Irving, to Research Development Co. Low temperature process of dry cleaning textiles. 3,095,284, 6–25–63, Cl. 34—32.
Victor Mfg & Gasket Co.: *See*—
Walinski, Edward L. 3,099,454.
Victoreen, John A. Method and apparatus for determining hearing characteristics. 3,073,900, 1–15–63, Cl. 179—1.
Victory Engineering Corp.: *See*—
Sapoff, Meyer, and Geesey. 3,110,875.
Victory Metal Mfg. Co.: *See*—
Costantini, Anthony R., and Di Angelus. 3,110,536.
Victory Metal Mfg. Corp.: *See*—
Costantini, Anthony R., and Di Angelus. 3,110,536.
Viehweger, August F., Jr. Power adapter for landing gear of semi-trailers. 3,077,120, 2–12–63, Cl. 74—354.
Viele, Donald H. Counting device. 3,092,317, 6–4–63, Cl. 235—91.
Vieli, Otto A. Apparatus for the production of synthetic resin foam. 3,105,745, 10–1–63, Cl. 23—252.
Vielle, Eugene E., and R. A. Wiersma, to Avel Corp, Geneva. Proximity warning device. 3,114,145, 12–10–63, Cl. 343—6.5.
Vierk, Ernest R.: *See*—
Creech, Barnard, and Vierk. 3,078,237.
Vierling, Donald E.: *See*—
Coull, James, and Vierling. 3,087,855.
Vierling, Donald E. Phenothiazine composition. 3,071,507, 1–1–63, Cl. 167—53.
Vierling, Donald E. Improved phenothiazine composition and method of employing same. 3,085,934, 4–16–63, Cl. 167—53.
Vierling, Oskar, W. Peuser, R. Roseler, and O. Schulz; said Peuser, Roseler and Schulz assors. to said Vierling. Coding device. 3,083,897, 4–2–63, Cl. 234—5.
Viernstein, Lawrence J.: *See*—
Bush, George B., and Viernstein. 3,099,741.
Viernstein, Lawrence J., to United States of America, Navy. Use of ultrasonic bias in magnetic amplifiers. 3,098,196, 7–16–63, Cl. 323—89.
Viewlex, Inc.: *See*—
Aronson, Theodore F., and Lyon. 3,092,923.
Shoemaker, Robert C. 3,089,270.
Walter, Henry J. 3,070,915.
Walter, Henry J. 3,071,041.
Vigano, Carlo: *See*—
Cappuccio, Vittorio, Riboni, and Vigano. 3,098,697.
Vigilante, Arthur M., to The Garrett Corp. Frequency selective method and apparatus for sphygmomanometry. 3,085,567, 4–16–63, Cl. 128—2.05.
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Baer, Massimo, and Vignale. 3,079,428.
Vignale, Michael J., to Monsanto Chemical Co. Method of controlling molecular weight using non-solvent/solvent medium in anionic polymerization. 3,114,739, 12–17–63, Cl. 260—89.5.
Vignati, Carlo: *See*—
Podesta, Armando, and Vignati. 3,104,773.
Vignau, Michel: *See*—
Nomine, Gerard, Bucourt, and Vignau. 3,085,098.
Nomine, Gerard, Bucourt, and Vignau. 3,085,099.
Vigorelli, Luigi. Bobbin carrier mount for sewing machines' rotary loopers. 3,072,084, 1–8–63, Cl. 112—180.
Vigour, Hervey E., to General Electric Co. Numerical positioning control system. 3,083,323, 3–26–63, Cl. 318—28.
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Johnson, Joseph E. 3,100,017.
Viking of Minneapolis, Inc.: *See*—
Schober, Wayne E. 3,096,920.
Vikre, Merle A. Handle-equipped ski carrier. 3,086,688, 4–23–63, Cl. 224—45.
Vila, Gracia L. Floating suspension including switching means for friction rollers. 3,099,722, 7–30–63, Cl. 200—61.41.
Vilbig, John L., Jr.: *See*—
Chandler, John, Jr., Holly, and Vilbig. 3,101,458.
Vilcins, Ilmar J.: *See*—
Ericson, Arvid I., and Vilcins. 3,103,955.
Vilcsek, Herbert: *See*—
Henck, Claus, Rochlitz, Schmidt, Vilcsek, and Winter. 3,097,184.
Vilensky, Michel B., to Ampex Corp. Method of producing a ferrite body and product obtained thereby. 3,075,920, 1–29–63, Cl. 252—62.5.
Viles, Prentiss S., to Esso Research and Engineering Co. Olefinic hydrocarbons. 3,114,698, 12–17–63, Cl. 208—137.
Viliam-Vilmton, Maria N.: *See*—
Rosenfeld, Elisar B., Miagkich, Viliam-Vilmont, Josse, and Plotnikov. 3,096,756.
Villadsen, Vagn H., to Aktieselskabet Thomas Ths. Sabroe & Co. Arrangement of the inlet valves in piston compressors. 3,099,388, 7–30–63, Cl. 230—228.
Villalaz, Carlos: *See*—
Van Rossum, Hendrikus C., and Villalaz. 3,098,179.
Villalobos, Humberto F.-M. Method of cutting substances. 3,091,144, 5–28–63, Cl. 83—15.
Villalon, Severo L., Jr., to Halliburton Co. Casing scraper. 3,105,553, 10–1–63, Cl. 166—174.
Villalon, Severo L., Jr., and C. R. Richardson, Jr., to Halliburton Co. Tension packer. 3,083,770, 4–2–63, Cl. 166—124.
Villanueva, Hector. Radial arm mounting means for hand-operable portable saws. 3,073,360, 1–15–63, Cl. 143—6.
Villax, Ivan. Processes of production of new compositions and derivatives of chloramphenicols with reduced toxicity, and products thereof. 3,078,300, 2–19–63, Cl. 260—482.
Villers, Philippe: *See*—
Rood, Robert M., and Villers. 3,095,951.
Villhard, George J., to Loose Leaf Metals Co. Transfer bar and locking mechanism. 3,097,652, 7–16–63, Cl. 129—8.
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Havens, Richard D., and Villines. 3,083,382.
Villner, Lars H. V.: *See*—
Sundin, Per F. 3,080,628.
Villo, Joseph P., to Standard Pressed Steel Co. Thread lock and method of making the same. 3,093,177, 6–11–63, Cl. 151—7.
Vilmerding, John B., and J. P. Krouse, to Ingersoll-Rand Co. Torque tool control. 3,082,742, 3–26–63, Cl. 121—11.
Vilter Mfg. Corp.: *See*—
Kocher, Erich J. 3,088,292.
Kocher, Erich J., and Long. 3,115,017.
Vincent, Clifton J.: *See*—
Barts, Raymond F., Helland, and Vincent. 3,086,276.
Vincent, Darrell M., R. E. Brown, R. M. Lamade, Jr., R. H. Bode, and F. W. Maurer. Rotary brush structure. 3,085,274, 4–16–63, Cl. 15—183.
Vincent, David B., to The Timken Roller Bearing Co. Automatic loading device for processing equipment. 3,079,012, 2–26–63, Cl. 214—1.
Vincent, John N.: *See*—
Bechtold, Rudolph F., and Vincent. 3,107,794.

Vincent, Monroe M.: *See*—
Thompson, Kenneth W., Schapiro, Price, Vincent, and Jensen. 3,073,746.

Vincent, Renic P.: *See*—
Stall, Joe C., and Vincent. 3,101,796.

Vincent, Renic P., to Pan American Corp. Well pump. 3,074,352, 1–22–63, Cl. 103—179.

Vincent, Samuel A. Device for obviating or mitigating the medical condition known as incontinence of urine. 3,080,-865, 3–12–63, Cl. 128—98.

Vincent, Thomas C.: *See*—
Gilliooly, George R., Rabatin, and Vincent. 3,109,819.

Vincent, William R.: *See*—
Lee, Tsiun L., Stahl, and Vincent. 3,105,141.

Vind, Harold P.: *See*—
Hochman, Harry, Roe, and Vind. 3,111,456.

Vineland Poultry Laboratories: *See*—
Wernicoff, Nathan, and Pincus. 3,088,865.
Wernicoff, Nathan, and Pincus. 3,088,866.

Vinella, Frank P. Terrazzo border grinding machine. 3,081,-583, 3–19–63, Cl. 51—177.

Vines, Sterling N., to E. I. du Pont de Nemours and Co. Recovery of acrylonitrile catalyst. 3,092,451, 6–4–63, Cl. 23—97.

Vinet, Raymond, to Electricite de France Service National. Device for the recording of the repetition rate of an event. 3,092,434, 6–4–63, Cl. 346—107.

Vineyard, Harry: *See*—
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Horn, Christian F., Vineyard, and Fowler. 3,088,956.

Vineyard, Henry B., to Phillips Petroleum Co. Dephlegmator operation and apparatus. 3,094,482, 6–18–63, Cl. 208—308.

Vinson, Billy H., and B. Stefanov, to Kauke and Co., Inc. Frequency to voltage converting circuit. 3,099,800, 7–30–63, Cl. 329—128.

Violette, Homer E.: *See*—
Aluise, Robert R., Webb, and Violette. 3,088,612.

Viout, André: *See*—
Kalopissis, Gregoire, and Viout. 3,093,146.

Virden, John C., Co.: *See*—
Golko, Edward H. 3,080,476.

Viret, Robert: *See*—
Mottu, Andre, and Viret. 3,072,834.

Virga, Frank S., and M. J. Virga. Electric lighter accessory for wall installation. 3,073,941, 1–15–63, Cl. 219—32.

Virga, Margaret J.: *See*—
Virga, Frank S., and M. J. 3,073,941.

Virginia-Carolina Chemical Corp.: *See*—
Goyette, Lewis E. 3,112,244.
Melton, Thomas M. 3,095,439.
Wilson, John H., Jr. 3,103,431.

Virginia Chemicals & Smelting Co.: *See*—
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Virginia Metal Products, Inc.: *See*—
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Virginia Plastics Co.: *See*—
Mahaney, John P. 3,090,827.

Virginia Polytechnic Institute: *See*—
Sieburth, John McN. 3,082,150.

Virgo, Peter C.: *See*—
Mosse, Richard W. E., Cookson, and Virgo. 3,083,511.

Virjune Mfg. Co., Inc.: *See*—
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Virkotype Corp.: *See*—
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Vironda, Louis J.: *See*—
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Vironda, Roberto: *See*—
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Virtanen, Valdemar, 30% to R. J. Jurick. Lighter. 3,079,-781, 3–5–63, Cl. 67—7.1.

Vir Tis Co., Inc., The: *See*—
Parkinson, Martin C., and Bender. 3,080,990.

Virtue, Eugene P., and D. W. Moyer, to International Harvester Co. Implement attaching hitch mechanism. 3,090,-639, 5–21–63, Cl. 280—474.

Viscardi, John, to Velourit Corp. Method for eliminating static electricity. 3,076,124, 1–29–63, Cl. 317—2.

Vischer, Alfred, Jr., to Various Small Interests. Vapor generator. 3,083,288, 3–26–63, Cl. 219—40.

Vischer, Alfred, Jr. Electrode type vapor generator. 3,114,-028, 12–10–63, Cl. 219—40.

Vischer, Ernst: *See*—
Gaeumann, Ernst, Vischer, and Bickel. 3,093,550.
Wettstein, Albert, Vischer, and Meystre. 3,076,828.

Viscolosi, Louis. Hinged weather strip for doors. 3,091,007, 5–28–63, Cl. 20—67.

Viscolosi, Louis. Cam actuated hinged weather strip for doors. 3,108,337, 10–29–63, Cl. 20—67.

Viscose Suisse, Societe de la: *See*—
Marek, Bruno S. V., and Keller. 3,081,513.

Visek, Willard J., to United States of America, Atomic Energy Commission. Method of suppressing gastrointestinal urease activity. 3,086,864, 4–23–63, Cl. 99—4.

Visger, Robert L.: *See*—
Hahn, Harold G. Visger, and Raich. 3,092,598.

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Vislocky, John. Sparking attachment for a roller skate. 3,086,788, 4–23–63, Cl. 280—11.37.

Vismara, Francesco, S.p.A.: *See*—
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Cavallini, Guido, and Massaranl. 3,095,443.

Vismara, John F., to Holley Carburetor Co. Check valve. 3,099,999, 8–6–63, Cl. 137—543.23.

Viso S. A.: *See*—
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Visos, Charles D., to Knapp-Monarch Co. Manual bread release associated with a toaster handle. 3,115,083, 12–24–63, Cl. 99—329.

Visser, Andrew J. City globe. 3,096,593, 7–9–63, Cl. 35—46.

Visser, Martin K., to Meredith Publishing Co. Ink roller lubricator. 3,097,597, 7–16–63, Cl. 101—364.

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Vistain, James E., Jr., to Admiral Corp. Phonograph spindle adapter. 3,094,332, 6–18–63, Cl. 274—10.

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Friedel, Murray. 3,115,815.

Vita-Zyme Laboratories, Inc.: *See*—
Klostermann, Robert H. 3,108,004.

Vitable, Henry J., ½ to B. B. Magids. Boat loading guide. 3,091,352, 5–28–63, Cl. 214—85.1.

Vitafreze Equipment, Inc.: *See*—
Rasmusson, Marlin B. 3,088,651.

Vitale, John J., to Bastian-Morley Co., Inc. Sealed vent water heater. 3,091,223, 5–28–63, Cl. 122—17.

Vitale, Joseph O., to The Bendix Corp. Amplifier and two-phase motor control circuit. 3,103,615, 9–10–63, Cl. 318—207.

Vitale, Joseph O., to The Bendix Corp. Test apparatus for a fluid pressure responsive instrument. 3,104,540, 9–24–63, Cl. 73—4.

Vitali, Antonio, to Societa per Azione Macchine per L'Industria Dolciaria Carle & Montanari. Hydraulic horizontal press with two series of multiple chambers for pressing with filter plates for very high production. 3,073,238, 1–15–63, Cl. 100—115.

Vitali, Antonio, to Macchine Industria Dolciaria Carle & Montanari S.A. Installation for the automatic operation of hydraulic presses in a predetermined and continuous succession of working cycles. 3,079,857, 3–5–63, Cl. 100—53.

Vitamins Ltd.: *See*—
Green, Joseph, and Watt. 3,086,439.
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Watt, Peter R. 3,111,708.

Vitcha, James F.: *See*—
Frantz, Russell K., and Vitcha. 3,100,795.
Leeds, Morton W., Russell, and Vitcha. 3,108,140.

Vitcha, James F., and J. P. Russell, to Air Reduction Co., Inc. Preparation of methyl acrylate. 3,089,898, 5–14–63, Cl. 260—486.

Vitcha, James F., and V. A. Sims, to Air Reduction Co., Inc. Production of methyl methacrylate using zeolite catalyst. 3,089,899, 5–14–63, Cl. 260—486.

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Vitcha, James F., and V. A. Sims, to Air Reduction Co., Inc. Production of methyl methacrylate using alkali metal silicate catalyst. 3,089,902, 5–14–63, Cl. 260—486.

Vitek, Marcel A., to Besmer Teppichfabrik G.m.b.H. Knitting machine for producing carpets and the like. 3,099,919, 8–6–63, Cl. 66—85.

Vitek, Marcel A., to Besmer Teppichfabrik G.m.b.H., Firma. Method and means for producing carpets and products derived therefrom. 3,109,302, 11–5–63, Cl. 66—193.

Vitelli, Giovanni: *See*—
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Viterisi, Domenick P.: *See*—
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Vitkuske, John F., and F. C. Rutledge, to The Dow Chemical Co. Method of preparing aqueous latex of high molecular weight vinylbenzyl halide polymer and resulting product. 3,072,588, 1–8–63, Cl. 260—29.6.

Vitramon, Inc.: *See*—
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Takacs, Albert S. 3,108,349.

Vitro Corp. of America: *See*—
Bowers, John O., Jr. 3,072,744.
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Vitt, Leonard P., and J. J. McNeill, to Westinghouse Electric Corp. Static logic annunciator. 3,099,824, 7–30–63, Cl. 340—213.

Vittorelli, Sergio, to Pirelli S.p.A. Vehicle guide means. 3,077,165, 2–12–63, Cl. 104—247.

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Vivian, William E. D., to Bristol Siddley Engines Ltd. Turbines. 3,104,091, 9–17–63, Cl. 253—39.

Viviano, Mary C. Ravioli sealing and severing. 3,111,914, 11–26–63, Cl. 107—47.

Vivien, Maurice: *See*—
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D'Esposito, Julian C., and Vizcarrondo. 3,116,007.

Vizzier, Benton A., Sr., to The Brown Engineering Co., Inc. Modular component printed circuit connector. 3,107,319, 10–15–63, Cl. 317—101.

Vladimir, Leonard O., to General Precision, Inc. Mixer circuit for radar systems. 3,095,563, 6–25–63, Cl. 343—S.

Vlahos, Petro, to Motion Picture Research Council, Inc. Composite photography utilizing sodium vapor illumination. 3,095,304, 6–25–63, Cl. 96—42.

Vlasic, John, to Sinclair Research, Inc. Rotary valve apparatus. 3,114,393, 12–17–63, Cl. 137—625.18.

Vlasova, Tatjana V.: *See*—
Sapilevsky, Piotr F., Garkavi, Mikhailov, Filimoshina, Vlasova, and Czerbin. 3,087,225.

Vlček, Jaromir, and A. Petrželka, to Zavody presneho strojirenstvi. Machine for lasting footwear. 3,089,163, 5–14–63, Cl. 12—16.1.

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Voegeli, Henry, to Anaconda American Brass Co. Sheet metal roofing. 3,107,454, 10–22–63, Cl. 50—214.

Voelker, Walter D. Method of making an inflatable structure. 3,110,552, 11–12–63, Cl. 18—59.

Voge, Hervey H., W. E. Armstrong, and L. B. Ryland, to Shell Oil Co. Oxidative dehydrogenation of monoolefins. 3,110,746, 11–12–63, Cl. 260—680.

Vogel, Adolph W.: *See*—
Tomcufcik, Andrew S., Wilson, and Vogel. 3,085,940.
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Vogel, Arthur C. Fluid pressure powered piston motor. 3,082,748, 3–26–63, Cl. 121—123.

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Vogel, Charles B., to Shell Oil Co. Dual range acoustical well logging. 3,096,502, 7–2–63, Cl. 340—18.

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Vogel, Eric T. Rotatable die changer. 3,084,810, 4–9–63, Cl. 214—1.

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Vogel, Georg: *See*—
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Vogel, Harold A., to No-Sag Spring Co. Supporting device for spring strips. 3,088,132, 5–7–63, Cl. 5—260.

Vogel, Jerome P., to Lindy Pen Co., Inc. Double-ended ball point pen. 3,077,184, 2–12–63, Cl. 120—42.1.

Vogel, Ludwig: *See*—
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Vogel, Marcel J., to International Business Machines Corp. Fluid flow indicating process. 3,100,844, 8–13–63, Cl. 250—71.

Vogel, Richard, to Schlepperwerk Nordhausen, VEB. Hydraulic transmission system. 3,075,504, 1–29–63, Cl. 121—121.

Vogel, Rudolf. Holder device. 3,087,498, 4–30–63, Cl. 129—23.

Vogel Tool & Die Corp.: *See*—
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Koster, Frank. 3,073,195.

Vogel, Walter H., to Crompton & Knowles Corp. Apparatus for feeding cartons from a magazine. 3,086,772, 4–23–63, Cl. 271—35.

Vogeli, Ernst, to Sulzer Freres, Societe Anonyme. Valve seat construction. 3,107,895, 10–22–63, Cl. 251—359.

Vogelman, Joseph H., to United States of America, Air Force. Method and apparatus for phase and amplitude control in ionospheric communications systems. 3,104,393, 9–17–63, Cl. 343—200.

Vogel-Peterson Co.: *See*—
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Vogelpohl, Rol L.: *See*—
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Vogelsang, Alois, to Mannesmann-Meer Aktiengesellschaft. Method and apparatus for machining forming rolls. 3,114,-293, 12–17–63, Cl. 90—13.4.

Vogelsong, James H., to Bell Telephone Laboratories, Inc. Digital-to-analog converter. 3,112,477, 11–26–63, Cl. 340—347.

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Vogl, Joseph, to Carry-Pack Corp. Devices for moistening labels or the like. 3,084,665, 4–9–63, Cl. 118—255.

Vogl, Lawrence A. Electrical controlling apparatus. 3,081,-410, 3–12–63, Cl. 307—141.8.

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Vogler, Benjamin T., and D. L. Webb, to Essex Wire Corp. Electric heater wire. 3,084,242, 4–2–63, Cl. 219—46.

Vogler, Hans, to Sulzer Freres, S.A. Apparatus for operating a steam power plant including a reheater and tapped steam operated steam consumers. 3,083,536, 4–2–63, Cl. 60—73.

Vogler, Hans, to Sulzer Freres, Societe Anonyme. Steam power plant comprising a steam generator and a plural stage steam consuming machine. 3,105,357, 10–1–63, Cl. 60—73.

Vogt, Adolf, and G. Wiehke, to Elektroschmelzwerk Kempten Gesellschaft mit beschrankter Haftung. Process for preventing short-circuiting by an electrode in an electric arc furnace having a liquid melt therein. 3,104,939, 9–24–63, Cl. 23—1.

Vogt, Charles C., and H. W. Semon, to United States of America, Navy. Mine case and instrument mounting system. 3,101,388, 8–20–63, Cl. 174—59.

Vogt, Clarence W. Receptacle and method of making the same. 3,095,133, 6–25–63, Cl. 229—2.5.

Vogt, Edwin M. Vibratory massage device. 3,103,925, 9–17–63, Cl. 128—41.

Vogt, Gottfried F., to United States of America, Army. Carrier-suppressed modulator. 3,096,492, 7–2–63, Cl. 332—43.

Vogt, Irene C. Golf club cart. 3,081,108, 3–12–63, Cl. 280—47.19.

Vogt, Irmtried M., to Bell Telephone Laboratories, Inc. Ferroelectric counting circuit. 3,082,409, 3–19–63, Cl. 340—173.2.

Vogt, Irmfried M., to Bell Telephone Laboratories, Inc. Ferroelectric code translator. 3,089,132, 5–7–63, Cl. 340—347.

Vogt, Jacob, to A. Ehrenreich & Cie. Ball and socket joints. 3,113,794, 12–10–63, Cl. 287—87.

Vogt, Jakob, and J. van der Brugghen, to Viktor Langen, and Van Doorne's Automobielfabriek N.V. Suspension means for the wheels of power vehicles. 3,079,138, 2–26–63, Cl. 267—47.

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Vogt, Werner, and E. V. Cavagnero, to The Torrington Mfg. Co. Attachment for a wire or strip forming machine. 3,092,709, 6–4–63, Cl. 219—56.

Vogt, Wilhelm: *See*—
Sennewald, Kurt, Pohl, Meininger, and Vogt. 3,093,696.

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Volkwinkel, Kurt, and P. Stocklin, to Farbenfabriken Bayer Aktiengesellschaft. Stabilized dinitrosopentamethylenetetramine compositions and processes for their production. 3,093,643, 6–11–63, Cl. 260—248.

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Voigt, Alfred. Wire straightening and cut-off machines. 3,082,655, 3–26–63, Cl. 83—135.

Voigt, Dr. med. Hans, Chem.-Pharm. Fabrik: *See*—
Klosa, Josef. 3,098,854.

Voigt, Hans, to Dr. med. Hans Voight Chem. Pharm. Fabrik. Cero-chromonamino compounds. 3,079,402, 2–26–63, Cl. 260—345.2.

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Voigt, Heinz E., and W. Händler, to Telefunken G.m.b.H. Monitoring arrangement for program-controlled electronic computers or similar systems. 3,098,219, 7–16–63, Cl. 340—213.

Voigt, Jan L.: *See*—
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Voigt, William G. Grass cutting blades. 3,104,510, 9–24–63, Cl. 56—295.

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Voissem, Marvin C., to Badger Plug Co. Core plug. 3,083,928, 4–2–63, Cl. 242—68.8.

Volt, W. J. Rubber Corp.: *See*—
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Volbehr, Hartwig, R. Reinhardt, and A. Neuschl, to Webasto Werk G.m.b.H. Heating devices operated with liquid fuel. 3,094,979, 6–25–63, Cl. 126—110.

Volckening, Lloyd I., to Ivers Lee Co. Envelope type package with cover and removable disclosure sheet. 3,076,541, 2–5–63, Cl. 206—47.

Vold, Edward A. Dual-folding stop gage. 3,083,744, 4–2–63, Cl. 143—169.

Voles, Roger. Improvements relating to computing devices. 3,080,116, 3–5–63, Cl. 235—180.

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Volk, Victor F., to Anaconda Wire and Cable Co. Insulated cable. 3,090,825, 5–21–63, Cl. 174—109.

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Volkrodt, Wolfgang, to Siemens-Schuckertwerke Aktiengesellschaft. Permanent magnet rotor for a dynamoelectric machine. 3,078,381, 2–19–63, Cl. 310—156.

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Voller, Rolf, to Fortuna-Werke Spezialmaschinenfabrik Aktiengesellschaft. Automatic balancing arrangement for grinding wheels. 3,095,676, 7–2–63, Cl. 51—169.

Vollhardt, Fromut, to Schmidt'sche Heissdampf-Gesellschaft mit beschrankter Haftung. Water level gauge comprising radioactive source and detector. 3,111,581, 11–19–63, Cl. 250—43.5.

Vollhardt, Fromut, and J. Gevecke, to Schmidt'sche Heissdampf-Gesellschaft. Moving grate assembly. 3,095,839, 7–2–63, Cl. 110—40.

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Vollmar, Joseph E., Jr., to Vollmar Brothers Construction Co. Mooring ring mounting. 3,090,344, 5–21–63, Cl. 114—230.

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Vollmert, Bruno, and W. Hesser, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Production of polymers by anionic polymerization in solution. 3,110,706, 11–12–63, Cl. 260—93.5.

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Voltz, Sterling E., to Sun Oil Co. Preparation of viscous polymers. 3,090,821, 5–21–63, Cl. 260—683.15.

Voltz, Sterling E., to Sun Oil Co. Preparation of viscous polymers. 3,090,822, 5–21–63, Cl. 260—683.15.

Voltz, Sterling E., to Sun Oil Co. Activation of platinum type reforming catalysts. 3,113,931, 12–10–63, Cl. 252—442.

Voltz, Sterling E., W. P. Griffin, Jr., and A. P. Stuart, to Sun Oil Co. Preparation of conjugated cyclic diolefin. 3,080,432, 3–5–63, Cl. 260—666.

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Von Ahlefeldt, Rolf S. Accelerometer. 3,084,557, 4–9–63, Cl. 73—516.

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Von Arx, Ellen D. G., to Johnson & Johnson. Polyvinyl pyrrolidone pressure sensitive adhesive and tape containing same. 3,096,202, 7–2–63, Cl. 117—68.5.

Von Berg, Richard E., and H. Laurent, to Rheem Mfg. Co. Hydraulic speed control device. 3,099,328, 7–30–63, Cl. 180—82.1.

Von Berg, Richard E., H. Laurent, and A. A. Pfeifer, to Rheem Mfg. Co. Reciprocating hydraulic speed control device. 3,099,329, 7–30–63, Cl. 180—82.1.

Von Berg, Richard E., and A. A. Pfeifer, to Rheem Mfg. Co. Electrically operated speed control device. 3,099,330, 7–30–63, Cl. 180—82.1.

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Von Bogdandy, Ludwig, and H.-D. Pantke, to Huttenwerk Oberhausen AG. Control system and process for refining metals. 3,100,699, 8–13–63, Cl. 75—59.

Von Bosio, Harald, to H. Marker. Heel plate for a ski binding. 3,079,165, 2–26–63, Cl. 280—11.35.

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Von Brachel, Hanswilli, H. Esser, H. Holtschmidt, and G. Sinn, to Farbenfabriken Bayer Aktiengesellschaft. Process of preparing emulsions using polyetherthioether emulsifiers. 3,097,173, 7–9–63, Cl. 252—311.5.

Von Brachel, Hanswilli, G. Nischk, and R. Wegler, ½ to Farbenfabriken Bayer Aktiengesellschaft and ½ to Mobay Chemical Co. Process for the production of polyethers. 3,114,732, 12–17–63, Cl. 260—52.

Von Buchholtz, Bernhard, O. Fischer, K. Grotrian, H. Kirchhof, K. Mildner, and E. Mann, to Voigtlander A.G. Carrying case for photographic cameras. 3,072,166, 1–8–63, Cl. 150—52.

Vonbun, Friedrich O., and S. E. Schodowski, to United States of America, Army. Heat sinks for crystal oscillators. 3,071,736, 1–1–63, Cl. 331—69.

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Von Esch, Anne M., and W. R. Sherman, to Abbott Laboratories. Certain 5-nitro-2-furylamidoxime derivatives. 3,084,170, 4–2–63, Cl. 260—347.4.

Von Esch, Anne M., and W. R. Sherman, to Abbott Laboratories. 5-nitro-2-furylamidine and alkyl 5-nitro-2-furylimidate. 3,084,171, 4–2–63, Cl. 260—347.7.

Von Esch, Anne M., and W. R. Sherman, to Abbott Laboratories. 4,6-bis(trihalomethyl) or 4,6-diloweralkyl-2-(5-nitrofuryl)-pyrimidines. 3,096,332, 7–2–63, Cl. 260—251.

Von Esch, Anne M., and W. R. Sherman, to Abbott Laboratories. 5-nitro-2-furylamidoxime. 3,097,214, 7–9–63, Cl. 260—347.7.

Von Felgel-Farnholz, Richard: *See*—
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Von Forell, Kenneth J. Diaphragm type accumulator having means to prevent the diaphragm from folding and crimping on itself due to changes in pressure. 3,075,558, 1–29–63, Cl. 138—30.

Von Freyhold, Helmut, to Philadelphia Quartz Co. Coating material for corrosion prevention. 3,093,493, 6–11–63, Cl. 106—14.

Von Freyhold, Helmut, to Philadelphia Quartz Co. Manufacture of water resistant laminates and silicate adhesive therefor. 3,093,529, 6–11–63, Cl. 156—325.

Von Friedrich, Adolf, to Farbenfabriken Bayer Aktiengesellschaft. Process for the polymerisation of cyanogen chloride. 3,101,334, 8–20–63, Cl. 260—248.

Von Friedrich, Adolf, and P. Schmitz, to Farbenfabriken Bayer Aktiengesellschaft. Process for the production of cyanuric chloride from tetrameric cyanogen chloride. 3,080,367, 3–5–63, Cl. 260—248.

Von Funk, Irwin. Material transfer unit. 3,104,782, 9–24–63, Cl. 222—189.

Von Gal, George E., Jr. Unstacking machine. 3,113,683, 12–10–63, Cl. 214—8.5.

Von Gierke, Henning E.: *See*—
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Von Grodek, Herbert W. E., and J. Hising. Tracer system for determining geometrical surface dimensions. 3,087,329, 4–30–63, Cl. 73—105.

Von Grotthuss, Elisabeth: *See*—
Von Grotthuss, Johann, Jaeger, and Karmat. 3,090,672.

Von Grotthuss, Ina M.: *See*—
Von Grotthuss, Johann, Jaeger, and Karmat. 3,090,672.

Von Grotthuss, Johann, deceased (by E. von Grotthuss, heir and legal representative of I. M. von Grotthuss, M. von Grotthuss, and S. Sibylee, heirs), and K. Jaeger, and H. Karmat, to Gesellschaft fur Linde's Eismaschinen Aktiengesellschaft. Method of determining the content of deuterium hydride in hydrogen. 3,090,672, 5–21–63, Cl. 23—232.

Von Grotthuss, Michael: *See*—
Von Grotthuss, Johann, Jaeger, and Karmat. 3,090,672.

Von Gugelberg, Hans L. Glow discharge counter tube. 3,110,838, 11–12–63, Cl. 313—196.

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Von Hoorn, Fred G., and L. M. Sheldon, to General Electric Co. Trigger index means for mercury button switch. 3,089,937, 5–14–63, Cl. 200—152.

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Wagner, George M., and P. E. Hoch, to Hooker Chemical Corp. Flame proofing of cellulosic materials. 3,101,279, 8–20–63, Cl. 117—137.

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Wagner, Kuno, R. Schwaebel, W. Käss, W. Graulich, and H. Kleiner, to Farbenfabriken Bayer Aktiengesellschaft. Aminoplast-pigment composition and its application to textiles. 3,099,635, 7–30–63, Cl. 260—29.4.

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Wagner, Ross I., to American Potash & Chemical Corp. Phosphines. 3,086,056, 4–16–63, Cl. 260—606.5.

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Meek, Cicero P., and Wall. 3,076,462.
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Wallace, William. Off-shore terminals. 3,088,286, 5-7-63, Cl. 61—46.

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Walles, Wilhelm E., to The Dow Chemical Co. Process for making N-vinyl-5-methyl-2-oxazolidinone and 5-methyl-2-oxazolidinone. 3,079,396, 2-26-63, Cl. 260—307.

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Walles, Wilhelm E., W. F. Tousignant, and L. C. Cloninger, to The Dow Chemical Co. Method and composition for dye-leveling. 3,097,046, 7-9-63, Cl. 8—88.

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Wallingford, Kenneth C. Fish catcher device. 3,104,485, 9-24-63, Cl. 43—15.

Wallis, Douglas E., to Sir Howard Gruhb Parsons & Co. Ltd. Means for correcting or imparting cyclic variations in angular position of or to a rotating shaft or the like. 3,111,853, 11-26-63, Cl. 74—69.

Wallis, George C., Jr., to Ford Motor Co. Speedometer. 3,111,037, 11-19-63, Cl. 73—519.

Wallis, Lionel S. Guillotines. 3,091,987, 6-4-63, Cl. 83—250.

Wallmann, George R. Heat latch for fire doors. 3,094,199, 6-18-63, Cl. 189—46.

Wallmark, John T., to Radio Corp. of America. Semiconductor device with surface electrode producing electrostatic field and circuits therefor. 3,097,308, 7-9-63, Cl. 307—88.5.

Wallqvist, Sven H., and B. A. Björk, to Haldex Aktiebolag. Locking device for the adjustment of digit wheels and the like. 3,075,697, 1-29-63, Cl. 235—1.

Wallrab, Le Roy: *See*—
Livingston, Dewey H., Brown, Van Deventer, and Wallrab. 3,081,897.

Walls, Allen H., to Westinghouse Electric Corp. Bistable indicator circuit. 3,090,039, 5-14-63, Cl. 340—252.

Walls, Dewey A.: *See*—
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Walls, William A., and W. S. Proctor, to The Sharples Corp. Method for preventing slag formation in high temperature boilers. 3,103,486, 9-10-63, Cl. 208—251.

Wallson Associates: *See*—
Randolph, Gerald. 3,089,984.

Wallsten, Hans. Method and means for the manufacture of fibres of thermoplastic material. 3,097,085, 7-9-63, Cl. 65—8.

Wally, Joseph H., Jr., to Western Blue Print Co. Apparatus for making improved reproductions of indicia. 3,104,585, 9-24-63, Cl. 88—24.

Wally, Joseph H., Jr., to Western Blue Print Co. Optical device. 3,115,058, 12-24-63, Cl. 88—24.

Walmsley, Sutton C.: *See*—
Henson, Douglas R., and Walmsley. 3,105,389.

Walmsley, Anthony, to Laporte Titanium Ltd. Manufacture of titanium dioxide. 3,109,708, 11-5-63, Cl. 73—202.

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Walsh, Alan, and W. G. Jones, to Commonwealth Scientific and Industrial Research Organization. Atomic spectral lamps. 3,089,054, 5-7-63, Cl. 313—185.

Walsh, Arthur S.: *See*—
Essam, Roy, Walsh, and Whiting. 3,099,794.

Walsh, Carroll H., and R. W. Toler. Selective switch construction. 3,093,712, 6-11-63, Cl. 200—6.

Walsh, Edward A. Tandem seat arrangement for bicycles. 3,092,362, 6-4-63, Cl. 248—291

Walsh, Edward C. Anti-jumpering device for electrical terminals. 3,114,014, 12-10-63, Cl. 200—42.

Walsh, Edward N.: *See*—
Beck, Thomas M., and Walsh. 3,076,010.
Price, Glenn R., Walsh, and Hallett. 3,083,135.
Price, Glenn R., Walsh, and Hallett. 3,094,406.
Price, Glenn R., Walsh, and Hallett. 3,094,548.
Price, Glenn R., Walsh, and Hallett. 3,109,770.
Price, Glenn R., Walsh, and Hallett. 3,114,761.
Toy, Arthur D. F., Walsh, and Froll. 3,094,405.

Walsh, Edward N., and J. T. Hallett, to Stauffer Chemical Co. Pesticidal phosphorylated mercaptals and mercaptoles. 3,105,003, 9-24-63, Cl. 167—22.

Walsh, Francis J., and R. H. Dunbar, to The Cal Dak Co. Clothes support. 3,071,253, 1-1-63, Cl. 211—178.

Walsh, Francis J., and C. J. McGraw, to The Cal-Dak Co. Tray tables. 3,106,296, 10-8-63, Cl. 211—132.

Walsh, Frank H., to Steinway & Sons. Wrestplanks. 3,091,149, 5-28-63, Cl. 84—209.

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Dolby, Ray M., Kabell, Murphy, and Walsh. 3,095,472.

Walsh, Henry J.: *See*—
Abbott, Henry H., Martin, Previte, and H. J. and J. G. Walsh. 3,087,025.

Walsh, James J., and A Ralph D'Andrea, to Louis Fried. Receptacle and opening means therefor. 3,089,610, 5-14-63, Cl. 220—53.

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Walsh, John E., to United Shoe Machinery Corp. Container covers with pouring spouts. 3,084,835, 4-9-63, Cl. 222—541.

Walsh, John E., to Safe-Pack Container Co. Burst open containers. 3,101,885, 8-27-63, Cl. 229—51.

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Walsh, John G., to Bell Telephone Laboratories, Inc. Private branch exchange telephone system. 3,087,024, 4-23-63, Cl. 179—42.

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Walsh, Michael E.: *See*—
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Walsh, Peter J.: *See*—
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Walsh, Phillip D., to General Motors Corp. Remotely controlled rear view mirror. 3,096,664, 7-9-63, Cl. 74—501.

Walsh, Richard L., to United Shoe Machinery Corp. Coating apparatus. 3,104,824, 9-24-63, Cl. 239—407.

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Walsh, Robert R., to E. I. du Pont de Nemours and Co. Reject memory sorting apparatus. 3,093,020, 6-11-63, Cl. 83—106.

Walsh, Robert R., to All American Engineering Co. Omnidirectional signal receiving system. 3,111,669, 11-19-63, Cl. 343—100.

Walsh, Robert S., to Eastman Kodak Co. Method for the removal of magnetic sound track from movie film. 3,099,584, 7-30-63, Cl. 134—1.

Walsh, Sidney, to International Computers and Tabulators Ltd. Sheet aligning apparatus. 3,108,800, 10-29-63, Cl. 271—53.

Walsh, Thomas E., to Western Electric Co., Inc. Forming punch. 3,094,159, 6-18-63, Cl. 153—21.

Walsh, William D., and R. W. G. Preston, to Imperial Chemical Industries Ltd. Preparation of dibenzofuran. 3,108,121, 10-22-63, Cl. 260—346.2.

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Walsh, William J. Shoe heel construction. 3,109,246, 11-5-63, Cl. 36—34.

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Walstad, Olav A., to J. Nordby. Sofa-bed. 3,088,130, 5-7-63, Cl. 5—44.

Walston, James A. Combination lock latch means. 3,107,513, 10-22-63, Cl. 70—213.

Walstrom, Leslie R., to Fabri-Tek Inc. Automatic wire stripping device. 3,095,768, 7-2-63, Cl. 81—9.51.

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Walter, Carlton H., to The Ohio State University Research Foundation. Surface wave luneberg lens antenna system. 3,108,278, 10-22-63, Cl. 343—753.

Walter, Charles R., Jr., and B. E. Lloyd, to Allied Chemical Corp. Process of separating unsymmetrical dimethylhydrazine from aqueous solutions containing same. 3,098,017, 7-16-63, Cl. 202—39.5.

Walter, Charles T., to Continental Can Co., Inc. Pressure operated spray gun. 3,081,947, 3-19-63, Cl. 239—246.

Walter, Charles W.: *See*—
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Walter, Hellmuth. Method and device for propelling submarine vehicles. 3,087,304, 4-30-63, Cl. 60—39.

Walter, Henry J., to Viewlex, Inc. Slide title means. 3,070,915, 1-1-63, Cl. 40—158.

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Walter, Hermine J. Reaction motors. 3,095,694, 7-2-63, Cl. 60—35.6.

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Walter, John L., to General Electric Co. Method for making cube-on-edge texture in high purity silicon-iron. 3,105,781, 10-1-63, Cl. 148—111.

Walter, John L., to General Electric Co. Method of producing magnetic material. 3,105,782, 10-1-63, Cl. 148—113.

Walter, John M., to The G. A. Gray Co. Collet clamp for machine tools. 3,103,144, 9-10-63, Cl. 90—11.

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Walter, Paul E., and J. M. Lewis, to Malt-A-Plenty, Inc. Serving-portion forming and dispensing apparatus. 3,080,830, 3-12-63, Cl. 107—8.

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Walter, Robert J., to Truck Equipment Co., Inc. Tilt preventing structure for side loaded vehicles. 3,106,410, 10-8-63, Cl. 280—150.

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Walters, Emmett L., C. W. Davis, Jr., and O. V. Young, to Libbey-Owens-Ford Glass Co. Apparatus for surfacing glass. 3,107,456, 10-22-63, Cl. 51—58.

Walters, Emmett L., R. E. Warren, O. V. Young, and M. Miklosek, to Libbey-Owens-Ford Glass Co. Apparatus for surfacing glass. 3,107,457, 10-22-63, Cl. 51—112.

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Walterscheid-Müller, Bernhard, to Jean Walterscheid, KG. Protective device for universal-joint shafts. 3,104,536, 9-24-63, Cl. 64—32.

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Walther, Daniel A., to The Dayton Steel Foundry Co. Fifth wheel coupler assembly. 3,079,175, 2-26-63, Cl. 280—434.

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Walther, George, Sr., to The Dayton Steel Foundry Co. Rim and wheel assemblies. 3,090,649, 5-21-63, Cl. 301—13.

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Walther, Richard A., and H. M. Rife, to Union Carbide Corp. Process for polymerizing vinyl compounds with unsymmetrical halogen-substituted diacyl peroxides. 3,089,865, 5-14-63, Cl. 260—87.1.

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Walton, Eric, M. H. J. Lord, and P. Austin, to Daniel Doncaster & Sons Ltd. Process for straightening metallic articles. 3,094,160, 6-18-63, Cl. 153—32.

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Walton, George M., to Rockwell-Standard Corp. Self-cleaning filter. 3,070,936, 1-1-63, Cl. 55—225.

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Wandel, Oscar A., to Fastener Corp. Pneumatically operated tacker. 3,099,012, 7–30–63, Cl. 1—49.

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Scheib, John, Jr. 3,098,909.
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Meltzer, Robert I., and Lutz. 3,072,668.
Meltzer, Robert I., and Lutz. 3,085,093.
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Warner, Paul F., to Phillips Petroleum Co. Reaction of hydrogen sulfide with olefins. 3,114,776, 12-17-63, Cl. 260—609.
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Warnken, Elmer P., to Studebaker Corp. Rotating shroud. 3,095,138, 6-25-63, Cl. 230—134.
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Washburn, Robert M., and C. F. Albright, to American Potash & Chemical Corp. Stable mixed cyclic borate esters of glycols and hindered phenols. 3,102,902, 9-3-63, Cl. 260—462.

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Wassell, George W., to Wassell Organization, Inc. Rotary file. 3,071,426 1-1-63, Cl. 312—305.

Wassell Organization, Inc.: *See*—
Wassell, George W. 3,071,426.

Wassem, Howard M. Device for humidifying hardboard. 3,079,704, 3-5-63, Cl. 34—150.

Wasserberg, Charles. Liquid pouring device and insert member for a bottle. 3,098,586, 7-23-63, Cl. 222—147.

Wasserman, Arnold S.: *See*—
Craddock, Donald L., and Wasserman. 3,079,062.

Wasserman, David, to Minnesota Mining and Mfg. Co. Composition comprising a conjugated diene elastomer and phenol ether compounds and vulcanizate produced by heating same. 3,074,900, 1-22-63, Cl. 260—31.4.

Wasserman, Isio F. Surgical instrument. 3,071,129, 1-1-63, 128—6.

Wasserman, Marien, to Compagnie Generale de Telegraphie Sans Fil. Ion source. 3,076,112, 1-29-63, Cl. 313—63.

Wasserman, Max, to American Cyanamid Co. Skylight and ceiling light construction. 3,111,786, 11-26-63, Cl. 50—16.

Wasserman, Norman, to Bell Telephone Laboratories, Inc. Jack fastener employing a bolt having two-threaded sections. 3,093,025, 6-11-63, Cl. 85—1.

Wasserman, Rene D., and J. F. Quaas, to Eutectic Welding Alloys Corp. Coated welding rod. 3,084,074, 4-2-63, Cl. 117—204.

Wasserman, Theodore, and R. E. Ferrel, to United States of America, Agriculture. Process for increasing milling yields of rice. 3,089,527, 5-14-63, Cl. 146—221.7.

Wassermann, A., Societa Italiana Specialita Farmaco-Terapeutiche, S.p.A.: *See*—
D'Alo, Giorgio. 3,115,525.

Wassermeyer, Jakob: *See*—
Rossmy, Gerd, and Wassermeyer. 3,109,012.
Rossmy, Gerd, and Wassermeyer. 3,115,512.

Wasserrab, Theodor, and K. Roth, to Brown, Boveri & Cie, Aktiengesellschaft. Apparatus for operation of converters with suction chokes. 3,083,329, 3-26-63, Cl. 321—26.

Wasserstrom, Emil, to N. Wasserstrom & Sons, Inc. Holder for supporting leg. 3,092,406 6-4-63, Cl. 287—20.

Wasserstrom, N., & Sons, Inc.: *See*—
Wasserstrom, Emil. 3,092,406.

Wassmann, Gustave: *See*—
Feddick, Earl W., and Wassmann. 3,115,341.

Wasson, Burton K., and J. M. Parker. Tetrahydrofurfuryl carbamates. 3,073,848, 1-15-63, Cl. 260—347.4.

Wasson, Burton K., and J. M. Parker, to Charles E. Frosst & Co. 1,3-diphenylpropyl carbamate derivatives. 3,098,012, 7-16-63, Cl. 167—84.5.

Wasson, Burton K., and J. M. Parker, to Charles E. Frosst & Co. Dioxaspiro derivatives. 3,099,662, 7-30-63, Cl. 260—345.9.

Wasson, Harold M., and O. Ramanis, to Radio Corp. of America. Apparatus for controlling negative conductance diodes. 3,108,233, 10-22-63, Cl. 332—52.

Wasson, Richard L.: *See*—
Kosmin, Milton, and Wasson. 3,072,728.

Waste King Corp.: *See*—
Jordan, Hans. 3,076,611.

Wasyluka, Paul, to Crown Zellerbach Corp. Container. 3,114,494, 12-17-63, Cl. 229—37.

Watanabe, Hideo, to Beckman Instruments, Inc. Molded metal-metal salt reference electrode. 3,111,478, 11-19-63, Cl. 204—195.

Watanabe, Hideo, and J. E. Leonard, to Beckman Instruments, Inc. Double bridge electrode for electrochemical analysis. 3,103,480, 9-10-63, Cl. 204—195.

Watanabe, Hiroo: *See*—
Otsuka, Eiji, Takahashi, and Watanabe. 3,090,811.

Watanabe, Koichi, K. Asano, and S. Hara, to Nippon Light Metal Co., Ltd. Machine for and method of casting ingot. 3,100,322, 8-13-63, Cl. 22—62.

Watanabe, Masaru: *See*—
Sasaki, Jun-ichi, and Watanabe. 3,108,474.
Yokose, Kyohei, Watanabe, and Yoshida. 3,072,972.

Watanabe, Shinnosuke, to Takagi Toyoko. Timber perforating machine. 3,088,503, 5-7-63, Cl. 144—72.

Watanabe, Shiyoji: *See*—
Oshima, Shintaro, Enomoto, Watanabe, and Amano. 3,116,426.

Watanabe, Suzuo: *See*—
Matsui, Masanao, Kobayashi, and Watanabe. 3,108,-112.

Watanabe, Tamotsu. Electrostatic coating apparatus of spray-gun type. 3,093,309, 6-11-63, Cl. 239—15.

Watanabe, Tamotsu. Methods and apparatus for coating articles by static electricity. 3,113,037, 12-3-63, Cl. 117—93.4.

Watanabe, Toshio. Method of manufacturing a negative temperature coefficient resistance element. 3,105,800, 10-1-63, Cl. 204—61.

Watanabe, Yoshiyuki: *See*—
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Watelski, Stacy B.: *See*—
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Waterbury Pressed Metal Co.: *See*—
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Water Games, Inc.: *See*—
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Waterman, Carl R. Fluid delivery system. 3,111,903, 11-26-63, Cl. 103—13.

Waterman, Clifford W., Jr., to G. E. Dunkle, as administratrix of the estate of W. E. Dunkle. Apparatus for drying combustible solid. 3,090,131, 5-21-63, Cl. 34—171.

Waterman, Hein I.: *See*—
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Waterman, Logan C., to Petrolite Corp. Electric treater. 3,073,775, 1-15-63, Cl. 204—302.

Waterman, Logan C., and E. A. Cole, Jr., to Petrolite Corp. Apparatus for separation of dispersions. 3,073,454, 1-15-63, Cl. 210—243.

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Water Processing & Chemical Co., Ltd.: *See*—
Negus, Robert L. 3,092,566.

Waters, Charles E.: *See*—
Smith, Joseph A., and Waters. 3,109,728.

Waters, Charles E., and C. H. Hibbitts, to Allied Chemical Corp. Process for preparing an ammoniating solution containing urea and formaldehyde. 3,092,486, 6-4-63, Cl. 71—30.

Waters, Charles E., and R. L. Wells, to Allied Chemical Corp. Suspensions of ureaform in liquid mixed fertilizers. 3,096,168, 7-2-63, Cl. 71—28.

Waters, Daniel V., to Western Electric Co., Inc. Counterbalances for distributors of cabling machines. 3,082,592, 3-26-63, Cl. 57—66.5.

Waters, Dorse M. Moistening device. 3,082,736, 3-26-63, Cl. 118—268.

Waters, Harry F., to Unexcelled Chemical Corp. Bag-like articles and process and apparatus for making the same. 3,082,585, 3-26-63, Cl. 53—180.

Waters, Henry C., to PGAC Development Co. Logging system for earth formations. 3,076,928, 2-5-63, Cl. 324—1.

Waters, Henry C., to PGAC Development Co. Method and apparatus for making a dipmeter survey of a borehole. 3,077,670, 2-19-63, Cl. 33—178.

Waters, Ian M., and P. Barratt, to Pye Ltd. Television cameras. 3,114,799, 12-17-63, Cl. 178—7.2.

Waters, John W., to Kimberly-Clark Corp. Apparatus for forming minute apertures in cigarette paper. 3,074,303, 1-22-63, Cl. 83—347.

Waters Mfg., Inc.: *See*—
Ayoub, Michael A. 3,099,811.
Clayton, John, Jr., and Morton. 3,105,216.
Scyocurka, Stephen. 3,108,472.

Waters, Milton V.: *See*—
Holer, Walter A., Marshall, and Waters. 3,089,293.

Waters, Robert S., to Westinghouse Electric Corp. Portable heater. 3,085,350, 4-16-63, Cl. 34—91.

Waters, Robert S., to Westinghouse Electric Corp. Foot construction. 3,103,332, 9-10-63, Cl. 248—24.

Waters, Warren P.: *See*—
Wannlund, Arthur L., Jr., and Waters. 3,088,856.

Waters, William E., to United States of America, Navy. Microwave detector employing a reflex klystron repeller voltage as control signal. 3,072,847, 1-8-63, Cl. 325—29.

Waterson, Arthur P. Land leveler. 3,103,078, 9-10-63, Cl. 37—180.

Waterton, Frank, to Associated Electrical Industries Ltd. Vacuum spark gap device having composite electrodes. 3,102,968, 9–3–63, Cl. 313—311.

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Makowski, Alexander G., Blood, and Wathen. 3,097,593.

Wathen, William A.: *See*—
Klemm, Herman G., and Wathen. 3,099,203.

Wathen, William A., to Massey-Ferguson, Inc. Side delivery rake. 3,107,476, 10–22–63, Cl. 56—377.

Watkins, Edwin P., to Ringwald Products, Inc. Semaphore arm vehicle signal. 3,094,683, 6–18–63, Cl. 340—136.

Watkins, Ellwood, R. S. and J. H. Oscillating wire cutter. 3,100,414, 8–13–63, Cl. 83—137.

Watkins, Franklin M.: *See*—
Shapiro, Paul, Collings, Sheldahl, and Watkins. 3,078,992.
Sheldahl, David B., Collings, Shapiro, and Watkins. 3,078,993.

Watkins, Franklin M., and D. B. Sheldahl, to Sinclair Research, Inc. Method of interface contact. 3,078,991, 2–26–63, Cl. 206—84.

Watkins, John E. Differentially operated valve. 3,082,991, 3–26–63, Cl. 251—61.

Watkins, John H.: *See*—
Watkins, Ellwood, R. S. and J. H. 3,100,414.

Watkins, Randall S.: *See*—
Watkins, Ellwood, R. S. and J. H. 3,100,414.

Watkins, Robert E., to Midwestern Instruments, Inc. Pressure roller assembly for recording media. 3,077,293, 2–12–63, Cl. 226—186.

Watkins, Sidney C., to Joseph Lucas (Industries) Ltd. Oil burners. 3,091,926, 6–4–63, Cl. 60—39.28.

Watkins, Wallace D. Convertible structure. 3,093,834, 6–18–63, Cl. 4—172.

Watkins, William B. Plural folded dipoles with center mounted transformer coupling. 3,082,422, 3–19–63, Cl. 343—803.

Watlington, Francis, to United States of America. Automatically keyed signal source. 3,093,809, 6–11–63, Cl. 340—15.

Watlington, Lee S. Tissue wetting device. 3,083,374, 4–2–63, Cl. 4—1.

Watlington, Lee S., and P. S. Campanella. Model for use in the art of hair styling. 3,101,557, 8–27–63, Cl. 35—59.

Watrous, Howard N.: *See*—
Andersen, Donald C., Lucas, and Watrous. 3,098,601.

Watrous, Robert B.: *See*—
Rohmann, Charles P., and Watrous. 3,072,326.

Watrous, Robert B., and C. P. Rohmann, to Minneapolis-Honeywell Regulator Co. Air-pressure-operated controller. 3,099,281, 7–30–63, Cl. 137—86.

Watson, Albert T.: *See*—
Bown, Delos E., Gorman, and Watson. 3,073,766.
Bown, Delos E., Schutze, and Watson. 3,078,144
Schutze, Henry G., Watson, and Suttle. 3,105,024.

Watson, Carl E., to California Research Corp. Process for sealing soils. 3,108,441, 10–29–63, Cl. 61—36.

Watson, David R., A. Lippman, Jr., and D. V. Boyce, Jr., to Reynolds Metals Co. Method for reducing the soda content of alumina. 3,106,452, 10–8–63, Cl. 23—142.

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Sterling, George B., Watson, and Pawloski. 3,116,299.

Watson, Edward J., Jr., to The Dow Chemical Co. 1-amino-3-(hydrocarbonoxy)-2-propanols. 3,072,666, 1–8–63, Cl. 260—294.7.

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Watson, John V. 3,089,550.

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Johnson, Walter B. 3,084,815.

Watson, Harold J.: *See*—
Albert, Norman, Caffrey, Watson, and Vermillion. 3,100,216.

Watson, Harold J., to Texaco Inc. Novel anti-oxidant additive and oxidation resistant lubricant composition. 3,095,378, 6–25–63, Cl. 252—49.6.

Watson, Henry: *See*—
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Watson, Herbert M., and S. B. Moseman. Method and composition for removing detergents and other contaminants from laundry wastes. 3,101,318, 8–20–63, Cl. 210—59.

Watson, James P. Continuously rotating axial flux electromagnetic machinery. 3,076,905, 2–5–63, Cl. 310—46

Watson, James P. Contact cooling means. 3,088,013, 4–30–63, Cl. 200—148.

Watson, James P. Snap acting mechanism. 3,094,594, 6–18–63, Cl. 200—67.

Watson, James P. Multiple-relay actuating mechanism. 3,094,596, 6–18–63, Cl. 200—104.

Watson, James P. Multiple O-ring. 3,108,814, 10–29–63, Cl. 277—32.

Watson, John D.: *See*—
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Watson, John R., to Applied Power Industries, Inc. Method and apparatus for controlling high pressure fluid by low pressure blocking. 3,113,432, 12–10–63, Cl. 60—52.

Watson, John V., to Watson Foundation Co., Inc. Excavating or drilling device. 3,089,550, 5–14–63, Cl. 175—165.

Watson, John W.: *See*—
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Watson, John W., to American Brake Shoe Co. Resistance heating. 3,082,319, 3–19–63, Cl. 219—156.

Watson, John W., to Ingersoll-Rand Co. Pneumatic system for multiple nut runner. 3,084,674, 4–9–63, Cl. 121—33.

Watson, Kenneth, to Westland Aircraft Ltd. Freewheel devices. 3,103,998, 9–17–63, Cl. 192—45.

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Watson, Larry, Jr. Man's breast pocket plastic handkerchief. 3,072,917, 1–15–63, Cl. 2—279.

Watson, Lee M., to Easy-Heat, Inc. Clip for installing heating element. 3,074,676, 1–22–63, Cl. 248—71.

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Watson, Norman E., and J. W. Minimum tillage planter. 3,108,552, 10–29–63, Cl. 111—52.

Watson, Richard. Contact lens container. 3,101,087, 8–20–63, Cl. 134—143.

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Klass, Donald L., and Watson. 3,108,959.
Klass, Donald L., Sieker, and Watson. 3,113,106.
Klass, Donald L., Watson, and Karli. 3,089,851.

Watson, Samuel H., to Radio Corp. of America. Modular diagramming method and apparatus. 3,074,181, 1–22–63, Cl. 35—7.

Watson, Thomas A., to E. W. Kneip, Inc. Meat packaging machine. 3,089,554, 5–14–63, Cl. 177—52.

Watson, Wilfred H., and G. Blood, to Associated Electrical Industries Ltd. Method for producing hollow glass articles. 3,071,946, 1–8–63, Cl. 65—78.

Watson, William. Method of raising sunken vessels. 3,091,205, 5–28–63, Cl. 114—50.

Watson, William F., D. A. W. Izod, and B. G. Hughes, to Rubber and Plastics Research Association of Great Britain. Heat treatment of rubber. 3,072,968, 1–15–63, Cl. 18—53.

Watson, William R.: *See*—
Bracken, Lawrence H., and Watson. 3,098,900.

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Watt, Desmond B., to Swift & Co. Method of producing a bone-free meat product. 3,112,203, 11–26–63, Cl. 99—107.

Watt, George J.: *See*—
Leonard, Henry J., and Watt. 3,073,291.

Watt, Peter R.: *See*—
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Watt, Peter R., to Vitamins Ltd. Capsule manufacture. 3,111,708, 11–26–63, Cl. 18—2.6.

Watt, Robert L.: *See*—
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Watt, Thomas. Flexible and resilient mounting of troughing idler rollers for conveyor belts. 3,075,632, 1–29–63, Cl. 198—192.

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Watt, William R., to FMC Corp. Polymerization of acrylates, methacrylates and acrylonitriles and catalysts for same. 3,111,507, 11–19–63, Cl. 260—88.7.

Watt, William R., and B. G. Ranby, to FMC Corp. Polymerization of esters of acrylic and methacrylic acid. 3,116,271, 12–31–63, Cl. 260—89.5.

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Baruch, Jordan J., and Watters. 3,087,575.

Watters, Bill G., to Bolt Beranek and Newman Inc. Soundproofing panel structure. 3,087,566, 4–30–63, Cl. 181—33.

Watters, Bill G., to Bolt Beranek and Newman Inc. High acoustic transmission loss panel and the like. 3,087,574, 4–30–63, Cl. 181—33.

Watters, Bill G., to Bolt Beranek and Newman, Inc. Method of and apparatus for controlling fluid flow. 3,103,941, 9–17–63, Cl. 137—1.

Watters, Bill G., to Bolt Beranek and Newman Inc. Sound absorbing panel for lining a duct. 3,113,634, 12–10–63, Cl. 181—33.

Watters, Bill G., and G. Kurtze, to Bolt Beranek and Newman Inc. Panel and the like of high acoustic transmission loss. 3,087,570, 4–30–63, Cl. 181—33.

Watters, Norman T., to Zenith Radio Corp. Secrecy communication. 3,081,377, 3–12–63, Cl. 178—5.1.

Watters, Robert L., to General Electric Co. Frequency transforming circuits utilizing negative resistance. 3,076,944, 2–5–63, Cl. 331—107.

Watters, Robert L., to General Electric Co. Negative resistance diode oscillator. 3,081,436, 3–12–63, Cl. 331—107.

Watters, Robert L., to General Electric Co. Squelch circuit. 3,092,784, 6–4–63, Cl. 330—145.

Watters, Robert L., to General Electric Co. Tunnel diode with variable bias for varying pulse width output. 3,111,592, 11–19–63, Cl. 307—88.5.

Watterson, Charles H., and G. E. Brinkworth. Color compositor. 3,088,226, 5–7–63, Cl. 35—28.3.

Wattles, Benjamin. Fluid applicator package. 3,082,468, 3–26–63, Cl. 15—506.

Watts, Clarence R., and G. A. Carson. Filing cabinet drawer latch selector. 3,109,686, 11–5–63, Cl. 312—215.
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Watts, Gilliam S., to AMP Inc. Plug contactor. 3,085,222, 4–9–63, Cl. 339—217.
Watts, Hoyt W. Automatic variable pitch propeller. 3,099,321, 7–30–63, Cl. 170—160.16.
Watts, Hubert J.: *See*—
Kinzie, Ora A., and Watts. 3,115,906.
Kinzie, Ora A., and Watts. 3,116,067.
Watts, John C., Jr., and J. H. Nelson, to Dairyland Food Laboratories, Inc. Cheese flavoring process. 3,072,488, 1–8–63, Cl. 99—115.
Watts, John D., J. C. Ireland, and R. L. Crain, to Gray Tool Co. Multiple tubing hanger and seal assembly. 3,080,181, 3–5–63, Cl. 285—137.
Watts, John R. Weighing machines. 3,074,495, 1–22–63, Cl. 177—87.
Watts, Leon W., and K. Wiggins. Frame for eyeglasses. 3,084,595, 4–9–63, Cl. 88—41.
Watts, Ray L. Combination desk and chair. 3,107,119, 10–15–63, Cl. 297—128.
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Watts, Richard M., and E. T. Bryant, to Reynolds Metals Co. Package construction. 3,082,930, 3–26–63, Cl. 229—33.
Watts, Sherman S., and F. L. Kastelic, to Harris-Intertype Corp. Pile feeder. 3,104,100, 9–17–63, Cl. 271—62.
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Waugh, Charles C., to The Foxboro Co. Construction for preventing bearing contamination. 3,084,545, 4–9–63, Cl. 73—231.
Waugh, Charles C., K. R. Jackson, and S. D. Howe, to The Foxboro Co. Mass flow meter. 3,089,336, 5–14–63, Cl. 73—194.
Waugh, Robert E., to The Englander Co., Inc. Plastic pipe. 3,098,664, 7–23–63, Cl. 285—55.
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Waxman, David, to Continental Furniture Mfg. Co. Foam base for furniture. 3,088,133, 5–7–63, Cl. 5—361.
Way, David G., ½ to G. J. Roderick. Caliper for use with a micrometer caliper. 3,107,433, 10–22–63, Cl. 33—143.
Way, David G. Rotary pumps and engines. 3,112,062, 11–26–63, Cl. 230—139.
Way, Robert B., and C. D. Hersey. Mask washer. 3,089,499, 5–14–63, Cl. 134—141.
Way, Robert B., and C. D. Hersey. Automatic painting machine. 3,102,053, 8–27–63, Cl. 118—301.
Way, Robert B., and C. D. Hersey. Automatic painting machine having a plurality of separately controlled guns. 3,107,183, 10–15–63, Cl. 118—301.
Way, Robert B., and C. D. Hersey. Coating machine. 3,108,537, 10–29–63, Cl. 101—316.
Way, William E., and R. M. Anderson, to Ashland Oil & Refining Co. Article diversion system. 3,110,401, 11–12–63, Cl. 209—121.
Wayfield, David J. Swimming instruction devices. 3,085,356, 4–16–63, Cl. 35—29.
Wayland, Hubert E., to Trysaman Machine Co., Inc. Grinding wheels. Re. 25,410, 7–2–63, Cl. 125—3.
Wayman, Cecil J., to The General Electric Co. Ltd. Electrical apparatus for providing an indication of the relative positions of relatively movable means. 3,099,830, 7–30–63, Cl. 340—347.
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Ballantyne, Earnest R. 3,114,922.
Ballantyne, Earnest R. 3,114,927.
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Wetzel, Charles H. 3,091,816.
Wayne, Kurt. Jewelry clasp. 3,094,754, 6–25–63, Cl. 24—116.
Wayne, Kurt. Jewelry clasp. 3,114,187, 12–17–63, Cl. 24—116.
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Wayne Metalcraft Co.: *See*—
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Wayne, Truman B. Process of preparing a rice product. 3,085,012, 4–9–63, Cl. 99—81.
Wayne, Truman B. Process of preparing a rice product. 3,085,013, 4–9–63, Cl. 99—81.
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Wayson, Andrew J., to Merriman Bros., Inc. Two-piece wick structure for spinning and twisting rings. 3,107,480, 10–22–63, Cl. 57—120.
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Weaklend, Walter L. Wire winding apparatus. 3,107,877, 10–22–63, Cl. 242—86.5.
Weakley, Martin L., S. M. Moffett, and L. E. Craig, to Deere & Co. Production of nitro urea. 3,098,872, 7–23–63, Cl. 260—553.
Wean Engineering Co., Inc., The: *See*—
Erskine, Robert J. 3,084,425.
Erskine, Robert J. 3,097,807.
Jones, Walter O. 3,104,006.
Logan, John E. 3,085,028.
Wear, Robert L., to Minnesota Mining and Mfg. Co. Hydrazino substituted diazine and triazine curing compounds for epoxy resins. 3,087,910, 4–30–63, Cl. 260—47.
Wear, Robert L., to Minnesota Mining and Mfg. Co. Copolymeric composition. 3,110,701, 11–12–63, Cl. 260—79.3.
Weasler, Anthony V. Lubrication of the relatively extensible parts of a telescopic shaft. 3,105,370, 10–1–63, Cl. 64—23.
Weasler, Anthony V. Universally jointed shaft with integral shock absorbing coupling. 3,108,457, 10–29–63, Cl. 64—23.
Weasler, Anthony V. Guard tube for jointed drive shafts. 3,113,441, 12–10–63, Cl. 64—3.
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Miller, Paul J. 3,071,394.
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Stelzer, James S. 3,099,461.
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Weaver, Elmer A. Release of microbial components. 3,088,879, 5–7–63, Cl. 195—2.
Weaver, Elmer C., ½ to P. L. Lee and G. W., and ½ to E. C. Weaver and E.D. Registration apparatus for silk screen printing machine. 3,098,431, 7–23–63, Cl. 101—126.
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Weaver, Marvin P., to Union Carbide Corp. 4-alkyl-2,6 bis (2-hydroxy-5-alkyl-benzyl) phenols as polypropylene stabilizers. 3,076,783, 2–5–63, Cl. 260—45.95.

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Weaver, Paul J., to True-Trace Corp. Machine control. 3,087,636, 4–30–63, Cl. 214—141.

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Weaver, Scott. Bucket seat adapter. 3,083,054, 3–26–63, Cl. 297—219.

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Webb, Alfred W. O., N. Bailey, and R. T. Southin, to J. Stone & Co. (Propellers) Ltd. Copper-base alloys. 3,079,252, 2–26–63, Cl. 75—161.

Webb, Charles W.: *See*—
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Webb, Deril T., to Philco Corp. Squelch circuits for stereophonic receivers. 3,089,095, 5–7–63, Cl. 329—135.

Webb, Edmond F., to The Delman Co. Time delay device. 3,091,932, 6–4–63, Cl. 60—54.5.

Webb, Edmund F., to The Delman Co. Windshield cleaning system pump assembly. 3,112,507, 12–3–63, Cl. 15—250.02.

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Webb, George E. Bird butchering tool. 3,078,503, 2–26–63, Cl. 17—11.

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Webb, Herbert J., to General Electric Co. Deflection yoke and method of making. 3,111,609, 11–19–63, Cl. 317—200.

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Webb, Irving D., to Collier Carbon and Chemical Corp. Sulfurization of aliphatic sulfides. 3,075,019, 1–22–63, Cl. 260—608.

Webb, Irving D., to Collier Carbon and Chemical Corp. Sulfurization of thioformals and mercaptals. 3,075,020, 1–22–63, Cl. 260—608.

Webb, James E., administrator of the National Aeronautics and Space Administration, with respect to an invention of O. F. Keller, and W. F. MacGlashan, Jr. Pressure regulating system. 3,105,515, 10–1–63, Cl. 137—495.

Webb, James E., administrator of the National Aeronautics and Space Administration, with respect to an invention of W. F. Krieve. High-voltage cable. 3,106,603, 10–8–63, Cl. 174—115.

Webb, James E., administrator of the National Aeronautics and Space Administration, with respect to an invention of A. K. Forsythe. Umbilical separator for rockets. 3,112,672, 12–3–63, Cl. 89—1.7.

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Webb, Orlando, Jr.: *See*—
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Webb, Orlando, Jr., to Stratford Engineering Corp. Alkylation process with normal paraffin removal. 3,105,102, 9–24–63, Cl. 260—683.58.

Webb, Richard C.: *See*—
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Webb, Robert L.: *See*—
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Webb, Robert L., to The Glidden Co. Process for producing allylic esters. 3,076,839, 2–5–63, Cl. 260—489.

Webb, Robert L. Lift beam assembly. 3,099,049, 7–30–63, Cl. 20—16.

Webb, Robert S.: *See*—
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Webb, Stephen R., to Westinghouse Electric Corp. N pulse counter using at most 3N NOR elements for odd N and 3N/2 elements for even N. 3,110,821, 11–12–63, Cl. 307—88.5.

Webb, Wells A. Mobile vacuum cooling plant. 3,110,163, 11–12–63, Cl. 62—237.

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Webb, William A., J. R. Huston, W. P. Haass, and W. E. Johnson, to Westinghouse Electric Corp. Shielded reactor plant arrangement and personnel access means therefor. 3,113,915, 12–10–63, Cl. 204—193.2.

Webber, Carl R. Spray nozzle. 3,101,906, 8–27–63, Cl. 239—592.

Webber, Charles A., and J. J. Smith. Method for improving assembly of heat exchanger for semiconductors. 3,086,283, 4–23–63, Cl. 29—157.3.

Webber, Charles S.: *See*—
Striker, Albert M., and Webber. 3,075,853.

Webber, Herman J. Ice auger. 3,093,198, 6–11–63, Cl. 175—18.

Webcor, Inc.: *See*—
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Weber Aircraft Corp.: *See*—
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Weber, Albert. Shelf support. 3,114,531, 12–17–63, Cl. 248—242.

Weber, Alexander, to Beer, Hans, and Awepa. Curtain. 3,106,240, 10–8–63, Cl. 160—196.

Weber, Arthur F., to The Firestone Tire & Rubber Co. Pneumatic tire. 3,077,915, 2–19–63, Cl. 152—355.

Weber, Arthur F., to The Firestone Tire & Rubber Co. Pneumatic tire. 3,095,026, 6–25–63, Cl. 152—355.

Weber, Arthur F., to The Firestone Tire & Rubber Co. Pneumatic tire. 3,095,027, 6–25–63, Cl. 152—355.

Weber, Berthold C., and H. F. Rizzo, to United States of America, Air Force. Silicon-boron-oxygen refractory material. 3,096,187, 7–2–63, Cl. 106—55.

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Weber, Carl, to Automatic Canteen Co. of America. Ice chipper for dispensing units. 3,104,835, 9–24–63, Cl. 241—94.

Weber, Carl, to Automatic Canteen Co. of America. Vending devices. 3,114,473, 12–17–63, Cl. 221—82.

Weber, Clinton L.: *See*—
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Weber Dental Mfg. Co., The: *See*—
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Weber, Dieter, to Patelhold Patentverwertungs- & Elektro-Holding A.-G. Single-cavity magnetron with variable oscillating frequency. 3,083,316, 3–26–63, Cl. 315—39.53.

Weber, Donald V.: *See*—
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Weber, Fritz, to The Garrett Corp. Variable area nozzle device. 3,101,926, 8–27–63, Cl. 253—78.

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Weber, Hanspeter, to Samuel M. Langston Co. Adjustable register stop. 3,081,080, 3–12–63, Cl. 271—60.

Weber, Harm A., Sr. Child's rocking vehicle with figure simulation. 3,075,782, 1–29–63, Cl. 280—1.192.

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Weber, Herbert H., and H. Waggershauser, to H. G. Weber and Co., Inc. Machine for making garment bags and the like. 3,084,581, 4–9–63, Cl. 83—300.

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Weber, John W. Insulating blanket. 3,113,001, 12–3–63, Cl. 29—191.6.

Weber, Joseph A. Carbon sheet and assembly. 3,094,342, 6–18–63, Cl. 282—22.

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Staeuble, Max, and Weber. 3,095,415.

Weber, Kurt, P. Ulrich, P. Hugelshofer, H. Bruengger, and M. Staeuble, to Ciba Ltd. Process for dyeing and printing cellulose textile materials with soluble leuco ester vat dyestuffs. 3,083,068, 3–26–63, Cl. 8—35.

Weber, Kurt, and M. Staeuble, to Ciba Ltd. New water soluble dyestuffs of the pyrene-quinone and pyrene-quinone-carbazole series capable of being chemically fixed on fibers. 3,102,886, 9–3–63, Cl. 260—249.5.

Weber, Kurt, P. Ulrich, H. Bruengger, and M. Staeuble, to Ciba Ltd. Process for dyeing and printing cellulose textile materials with soluble vat dyestuffs. 3,110,541, 11–12–63, Cl. 8—34.

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Weber, Paul A. Apparatus for developing color film and making color prints. 3,097,586, 7–16–63, Cl. 95—89.

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Weber, Robert L., III. Liquid vaporizer. 3,080,624, 3–12–63, Cl. 21—120.

Weber, Robert L., III. Metering liquid dispenser. 3,085,719, 4–16–63, Cl. 222—309.

Weber, Sylvester A., and R. M. Connelley, to Nuclear Materials and Equipment Corp. Apparatus for treating chemical compounds. 3,111,394, 11–19–63, Cl. 23—279.

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Weber, Victor, to Robertshaw-Fulton Controls Co. Gas burner assemblies. 3,096,813, 7–9–63, Cl. 158—116.

Weber, Walter C., and D. G. Nolles, to Westinghouse Electric Corp. Electron discharge device having improved electrode support. 3,114,071, 12–10–63, Cl. 313—350.

Weber, Wilbert D., and R. Ashton, to Massey-Ferguson Ltd. Threshing cylinder. 3,105,496, 10–1–63, Cl. 130—27.

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Webster, David F. Combined bat and ball magazine. 3,115,342, 12–24–63, Cl. 273—26.

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Webster, Frederick, to David Brown Tractors Ltd. Loading devices for mounting on vehicles. 3,091,354, 5–28–63, Cl. 214—140.

Webster, James A.: *See*—
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Webster, James D. Finger board for stringed musical instruments. 3,103,846, 9–17–63, Cl. 84—314.

Webster, Kenneth C. J., to United Shoe Machinery Corp. Automatic edge inking machines. 3,080,849, 3–12–63, Cl. 118—252.

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Webster, Milo E., to Otto Berns Co., Inc. Utility burner head. 3,078,915, 2–26–63, Cl. 158—99.

Webster, Owen W., to E. I. du Pont de Nemours and Co. Heterocyclic products from cyanogen and cyanides and process. 3,093,653, 6–11–63, Cl. 260—299.

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Webster, Robert C., to Air Reduction Co., Inc. Propellent for pressurized food. 3,072,487, 1–8–63, Cl. 99—60.

Webster, Robert C., to Air Reduction Co., Inc. Method and apparatus for testing sealed packages for leaks. 3,091,114, 5–28–63, Cl. 73—49.3.

Webster, Robert C., to Air Reduction Co., Inc. Preparation of fruit juices. 3,113,871, 12–10–63, Cl. 99—155.

Webster, Robert G., to Wagoner Webster, Inc. Power sweeper. 3,087,180, 4–30–63, Cl. 15—79.

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Webster, Roland C., and G. F. Kirchoff, Jr., to Atlantic Research Corp. Rocket launchers. 3,084,599, 4–9–63, Cl. 89—1.7.

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Webster, Roland C., W. C. Roberts, Jr., and M. L. Rice, to Atlantic Research Corp. Rocket. 3,101,052, 8–20–63, Cl. 102—49.

Webster, William G., and H. C. Simmons, to Parker-Hannifin Corp. Variable area valve. 3,080,885, 3–12–63, Cl. 137—471.

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Custers, Jan F. H., Dyer, Senior, and Wedepohl. 3,082,477.

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Wedger, Walter H., to United Shoe Machinery Corp. Methods of bonding. 3,076,214, 2–5–63, Cl. 12—145.

Wedwick, Don A., to Hercules Powder Co. Igniter. 3,110,846, 11–12–63, Cl. 317—80.

Wedzinga, Johannes H., to Van Doorne's Automobilfabriek N.V. Air suspension systems for vehicles. 3,073,621, 1–15–63, Cl. 280—124.

Weed, Donald S.: *See*—
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Weekman, Vern W., Jr., to Socony Mobil Oil Co., Inc. Catalytic conversion of liquid hydrocarbons in the presence of suspended catalyst. 3,074,879, 1–22–63, Cl. 208—176.

Weeks, Arnold N., to Bemis Bro. Bag Co. Method of making bags. 3,094,083, 6–18–63, Cl. 112—10.

Weeks, Arnold N., to Bemis Bro. Bag Co. Bag opener. 3,104,047, 9–17–63, Cl. 229—66.

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Weeks, Howard C. Drawing apparatus. 3,107,430, 10–22–63, Cl. 33—77.

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Weems, Albert W. Nutcracker. 3,105,532, 10–1–63, Cl. 146—16.

Weems, Sterling J., to United States of America, Atomic Energy Commission. Construction of nuclear fuel elements. 3,105,035, 9–24–63 Cl. 204—193.2.

Weems, Sterling J., to United States of America, Atomic Energy Commission. Concentric tube fuel element spring alignment spacer device. 3,105,037, 9–24–63, Cl. 204—193.2.

Weening, Samuel. Structural panel. 3,082,850, 3–26–63, Cl. 189—34.

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Weesner, William E., to Monsanto Chemical Co. Polymerization of ethylene in the presence of a nickel oxide catalyst. 3,113,166, 12–3–63, Cl. 260—683.15.

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Wegener, Harry, and H. Keller, to Inventa A.G. fur Forschung und Patentverwertung. Apparatus for false twist crimping synthetic fibers for producing a wool-like appearance. 3,085,389, 4–16–63, Cl. 57—34.

Wegener, Harry F.: *See*—
Bland, Richard E., Le Francois, Leiss, and Wegener. 3,082,401.

Wegener, Horst A. R., to Tung-Sol Electric Inc. Apparatus for producing pure silicon. 3,095,279, 6–25–63, Cl. 23—277.

Wegerich, Anton: *See*—
Hamm, Franklin A., and Welber. 3,085,051.
Poehler, Guenter, and Wegerich. 3,086,051.

Wegler, Richard: *See*—
Kuhle, Engelbert, Grewe, Unterstenhofer, Boness, and Regel, Erik, Wegler, Grewe, and Kaspers. 3,097,130.
Wegler. 3,096,237.
Sasse, Klaus, Wegler, and Unterstenhöfer. 3,091,613.
Sasse, Klaus, Wegler, and Unterstenhofer. 3,095,413.
Von Brachel, Hanswilli, Nischk, and Wegler. 3,114,732.

Wegler, Richard, and E. Kuhle, to Farbenfabriken Bayer Aktiengesellschaft. Masked isocyanates. 3,080,368, 3–5–63, Cl. 260—251.

Wegmann, Jacques: *See*—
Jaeger, Peter, Koller, Wegmann, and Zollinger. 3,073,662.

Wegner, Herman E.: *See*—
Dean, Ralph K., Slatkovski, and Wegner. 3,098,267.

Wehlann, Gerald E.: *See*—
Brillmyer, Harold G., and Wehlann. 3,095,776.

Wehlin, Egon, to Allmanna Svenska Elektriska Aktiebolaget. Machine with oscillating cutting tool for removing welding bulges. 3,070,952, 1–1–63, Cl. 59—29.

Wehmann, George, to United States of America, Atomic Energy Commission. Remote recording annular vane assembly. 3,094,869, 6–25–63, Cl. 73—189.

Wehmeyer, Werner, to Schloemann Aktiengesellschaft. Gripping heads for sheet-stretching machines. 3,107,716, 10–22–63, Cl. 153—35.

Wehn, Julius: *See*—
Matz, Gunther, Wehn, and Teuffert. 3,113,140.

Wehner, Donald C.: *See*—
Frank, Simon, and Wehner. 3,105,773.

Wehner, Gottfried K., to General Mills, Inc. Low pressure mercury plasma discharge tube. 3,100,272, 8–6–63, Cl. 313—7.

Wehner, William C., to Dura Corp. Engine starter. 3,097,634, 7–16–63, Cl. 123—179.

Wehr, Henry W., and N. J. Guzlak, to The Dow Chemical Co. Synthetic ski slope. 3,091,998, 6–4–63, Cl. 94—3.

Wehr, Rudolf, to The Procter & Gamble Co. Hair waving compositions. 3,071,515, 1–1–63, Cl. 167—87.1.

Wehren, Peter: *See*—
Decker Hanns, Maeder, and Wehren. 3,082,965.

Wehrli, Walter: *See*—
Benz, Jakob, Schweizer, and Wehrli. 3,093,628.

Wei, Peter H. L., to The Norwich Pharmacal Co. 2-(5-nitro-2-furyl)-imidazo[1,2-a]pyridine or pyrimidine 3,105,834, 10–1–63, Cl. 260—256.4.

Weibel, Erich S., to Space Technology Laboratories, Inc. Gas confining apparatus. 3,103,803, 10–1–63, Cl. 204—193.2.

Weiberg, Otto, to Deutsche Gold- und Silber-Scheideanstalt vormals Roessler. Production of 2,4-bis-amino-6-trichloromethyl-s-triazines. 3,103,512, 9–10–63, Cl. 260—249.9.

Weiby, Maxwell O., and H. A. Petsch, to The Pyroil Co., Inc. Scraper cap. 3,090,067, 5–21–63, Cl. 15—236.

Weichart, Gunter, to Kali-Forschungs-Anstalt G.m.b.H. Electrostatic separator. 3,109,806, 11–5–63, Cl. 209—129.

Weichbrod, Joseph, to National Instrument Laboratories, Inc. Fluid restrictor for linear flow meters. 3,071,160, 1–1–63, Cl. 138—40.

Weichman, Roger L.: *See*—
Fierce, William L., and Weichman. 3,095,275.

Welchselbaum, Edwin G., to Brunswick Corp. Test tube brushes. 3,085,272, 4–16–63, Cl. 15—164.

Weidenbach, Ray C., to Yuba Consolidated Industries, Inc. Spillway gate position indicator. 3,107,646, 10–22–63, Cl. 116—124.

Weidenfeld, Abraham. Shield for handbag frames. 3,085,609, 4–16–63, Cl. 150—28.

Weidenhammer, James A.: *See*—
Furr, Robert J., Pierpont, Shelton, and Weidenhammer. 3,114,131.

Weidinger, Hans: *See*—
Lange, Guenter, Leutzel, Wippel, Weidinger, and Krans. 3,096,320.

Weidknecht, Charles J., to Vector Mfg. Co. High frequency transistor circuit with heat sink. 3,074,024, 1–15–63, Cl. 330—23.

Weidknecht, Charles J., and C. Rosen, to Vector Mfg. Co. Phase modulator. 3,105,205, 9–24–63, Cl. 332—30.

Weidknecht, Charles J., and C. Rosen, to Vector Mfg. Co. Phase modulation transmitter. 3,110,863, 11–12–63, Cl. 325—105.

Weidman, William H., to Harris-Intertype Corp. Key-type mounting. 3,086,799, 4–23–63, Cl. 287—52.05.

Weidmann, Hans E.: *See*—
Schlicke, Heinz M., Rey, and Weidmann. 3,093,803.

Weidner, Charles L., and W. C. Collins, to Johnson & Johnson. Pressure-sensitive composition comprising a rubber, a tackifying resin, a polyamine, and a peroxide. 3,102,102, 8–27–63, Cl. 260—4.

Weier, Jacob J. Tubular wheel. 3,074,763, 1–22–63, Cl. 301—43.

Welford, George W., Jr. Multiplex switch system. 3,105,130, 9–24–63, Cl. 200—104.

Weigand, Charles G., to Fidelitone, Inc. Apparatus for and methods of assembling record engaging styli. 3,089,193, 5–14–63, Cl. 18—36.

Weigel, Alois. Automatic straw and chaff saver. 3,092,272, 6–4–63, Cl. 214—501.

Weigel, Alois. Straw chopper and blower. 3,103,241, 9–10–63, Cl. 146—107.

Weigel, John R.: *See*—
Reichelt, Lester O., and Weigel. 3,082,968.

Weigel, Raymond A., and D. R. Ferris, to Kysor Heater Co. Powered vehicle. 3,099,326, 7–30–63, Cl. 180—26.

Weigert, Wilhelm, to Robert Bosch, G.m.b.H. Hydraulic machines. 3,073,251, 1–15–63, Cl. 103—126.

Weigl, Valerie. Auxiliary piano keyboard. 3,111,056, 11–19–63, Cl. 84—425.

Weigle, Barbara. Automobile seat litter receiving device. 3,088,771, 5–7–63, Cl. 296—37.

Weigle, William J., Jr.: *See*—
Forsyth, Emil J., and Weigle. 3,089,611.

Weih, Julius: *See*—
Baggott, Edmund W., and Weih. 3,070,921.

Weih, Julius, to Ideal Toy Corp. Limb joints for dolls and the like. 3,070,922 1–1–63, Cl. 46—173.

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Born, Lester R., Jr., and Weikart. 3,095,673.

Weil, Burt, R. H. Ferneau, and G. A. Selig; said Ferneau and said Selig assors. to said Weil. Cart having independently collapsible legs. 3,088,770, 5–7–63, Cl. 296—20.

Weil, Edward D., to Hooker Chemical Corp. 3,5-diisopropylphenyl N-methylcarbamate, a low toxicity insecticide. 3,083,137, 3–26–63, Cl. 167—30.

Weil, Edward D., to Hooker Chemical Corp. 2,3,6-trichloro-5-nitrobenzoic acid and salts thereof. 3,109,023, 10–29–63, Cl. 260—515.

Weil, Edward D., and J. Linder, to Hooker Chemical Corp. 2,3,6-trichloro β-nitrostyrene. 3,112,346, 11–26–63, Cl. 260—645.

Weil, Lester L., to United Aircraft Corp. Spherical particle oxidizer of lithium perchlorate and ammonium perchlorate and propellant. 3,106,497, 10–8–63, Cl. 149—17.

Weil, Lester L., and W. J. Hewes, to Atlantic Research Corp. Surface combustion inhibited propellant grains and processes for making same. 3,074,831, 1–22–63, Cl. 149—19.

Weil Pump Co.: *See*—
Finzel, Herman. 3,097,606.

Weil, Robert S., to W.D. Industries, Ltd. Cooling system for electrical and electronic equipment cabinets. 3,103,105, 9–10–63, Cl. 62—172.

Weil, Roger M.: *See*—
Herman, Daniel F., Simone, and Weil. 3,114,737.

Weil, Thomas A., to Raytheon Co. Magnetic amplifier circuits. 3,076,131, 1–29–63, Cl. 321—25.

Weil, Thomas A., to Twinco, Inc. High and low level radiation meter. 3,113,212, 12–3–63, Cl. 250—83.6.

Weil, Walter G., and R. L. Jackson; said Jackson assor. to said Weil. Method of making a frameless lamp shade of resin-impregnated glass fiber. 3,084,087, 4–2–63, Cl. 156—166.

Weilbach, August O., and C. H. Beebe, to Beckman Instruments, Inc. Monobeam infrared gas analyzer with means to control the phase difference between the two cells. 3,105,147, 9–24–63, Cl. 250—43.5.

Weiler, Peter R., to Zenith Radio Corp. Multi-band oscillation generator. 3,105,204, 9–24–63, Cl. 331—117.

Weill, Jacky, to Commissariat a l'Energie Atomique. Arrangement of control bars in an atomic pile. 3,079,320, 2–26–63, Cl. 204—193.2.

Weilmuenster, Earl A.: *See*—
Altwicker, Elmar R., Weilmuenster, Garrett, and Harris. 3,109,030.

Weilmuenster, Earl A., to Olin Mathieson Chemical Corp. Preparation of triallylborine. 3,109,029, 10–29–63, Cl. 260—606.5.

Weiman, Albert W. Valve lift attachments. 3,111,118, 11–19–63, Cl. 123—90.

Weimer, Gerald A. Heating systems. 3,085,564, 4–16–63, Cl. 126—121.

Weimer, Paul K.: *See*—
Zworykin, Vladimir K., and Weimer. 3,072,751.

Wein, Samuel. Process for making copper films. 3,093,509, 6–11–63, Cl. 117—213.

Weinberg, Alan E., and R. J. Bellet, to Hooker Chemical Corp. Novel compounds and polymeric halogen-containing resins incorporating same. 3,094,506, 6–18–63, Cl. 260—45.8.

Weinberg, Herman, to The Manhattan Pickle Co., Inc. Method of packaging processed pickles and tomatoes. 3,102,034, 8–27–63, Cl. 99—171.

Weinberg, Irving: *See*—
Zimmerman, John R., Jr., and Weinberg. 3,100,866.

Weinberg, Richard A. Apparatus for producing corrected programming devices for automatic control. 3,076,594, 2–5–63, Cl. 234—26.

Weinberg, Seymour B., to Bell Telephone Laboratories, Inc. Private branch telephone system with camp on facilities. 3,112,373, 11–26–63, Cl. 179—18.

Weinberger, Jan V.: *See*—
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Weinbrenner, Erwin, P. Hoppe, and K. Breer, ½ to Farbenfabriken Bayer Aktiengesellschaft and ½ to Mobay Chemical Co. Method of and apparatus for producing plastics. 3,073,533, 1–15–63, Cl. 239—399.

Weinbrenner, Erwin, P. Hoppe, and K. Breer, ½ to Farbenfabriken Bayer Aktiengesellschaft and ½ to Mobay Chemical Co. Process for the production of molded cellular polyurethane plastics. 3,088,172, 5–7–63, Cl. 18—48.

Weinecke, Laurence A., and O. L. Brekke, to United States of America, Agriculture. Uniform residence hopper assembly. 3,103,287, 9–10–63, Cl. 214—17.

Weiner, Albert P.: *See*—
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Weiner, Albert P., to General Electric Co. Vibrating reed remote control transmitter. 3,094,098, 6–18–63, Cl. 116—137.

Weiner, Gilbert H. Baseboard radiator. 3,103,970, 9–17–63, Cl. 165—67.

Weiner, Hillman, to M. I. Glass. Foldable water pistol. 3,091,370, 5–28–63, Cl. 222—79.

Weiner, Hillman, to M. I. Glass. Optical toy. 3,099,933, 8–6–63, Cl. 88—15.

Weiner, Lazarus C., to Esso Research and Engineering Co. Use of spheroidized steels. 3,083,155, 3–26–63, Cl. 208—209.

Weiner, Lewis. Web loom. 3,104,683, 9–24–63, Cl. 139—124.

Weiner, Michael A.: *See*—
Seyferth, Dietmar, and Weiner. 3,085,120.

Weiner, Myron J., and R. N. Sindric, to Vol-Shan Industries, Inc. Turnbuckle. 3,081,116, 3–12–63, Cl. 287—60.

Weiner, Nathan, to Endo Laboratories, Inc. Antitussive compositions. 3,108,041, 10–22–63, Cl. 167—55.

Weiner, Pavel. Process for improving the brewing characteristic of hops. 3,104,974, 9–24–63, Cl. 99—50.5.

Weiner, Peter D.: *See*—
Pistole, Harry, and Weiner. 3,100,657.

Weiner, Sidney: *See*—
Ehrens, Henry, and Weiner. 3,093,979.

Weinert, Carl R., to Federal Laboratories, Inc. Stabilization of diphenylaminechlorarsine gas generating charges by coating the particles with a drying oil. 3,085,047, 4–9–63, Cl. 167—47.

Weinert, Carl R., to Federal Laboratories, Inc. Dust gun system. 3,104,784, 9–24–63, Cl. 222—193.

Weinert, Lawrence E.: *See*—
Craig, Robert P., and Weinert. 3,092,194.

Weinfurt, Edward J., to McGraw-Edison Co. Voltage regulating apparatus. 3,074,010, 1–15–63, Cl. 323—66.

Weingard, Archie E.: *See*—
Judge, James H., Hetzel, and Weingard. 3,094,040.

Weingard, Archie E. Multiple seat valve. 3,077,896, 2–19–63, Cl. 137—329.06.

Weingart, Richard I. N., to Universal Controls, Inc. Data processing assembly and method. 3,107,928, 10–22–63, Cl. 282—3.

Weingarten, Morris R.: *See*—
Griesemer, Douglas E., and Weingarten. 3,108,023.

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Weinger, Irving I. Adjustable orthodontic buccal tube. 3,075,287, 1–29–63, Cl. 32—14.

Weinger, Irving I. Dental prosthetic bite rim trimmer. 3,108,376, 10–29–63, Cl. 32—40.

Weinhart, Martin. Device for hinging covers on containers. 3,091,357, 5–28–63, Cl. 220—31.

Weinman, Eric W., and A. M. Ryniak, to General Motors Corp. Friction material. 3,101,527, 8–27–63, Cl. 29—182.5.

Weinman Pump & Supply Co., The: *See*—
McConegly, John P. 3,108,759.

Weinmayr, Viktor: *See*—
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Weinmayr, Viktor, to E. I. du Pont de Nemours and Co. Polyhalopropyl ethers and process for making them. 3,080,428, 3–5–63, Cl. 260—614.

Weinreb, Harold G.: *See*—
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Weinreich, Charles F., to Cherry-Burrell Corp. Butter making method. 3,093,482, 6–11–63, Cl. 99—119.

Weinreich, Charles F., and W. H. Flickinger, to Cherry-Burrell Corp. Liquid-tight container. 3,112,047, 11–26–63, Cl. 222—105.

Weinrich, Hellmur, to Voith-Getriebe, K.G. Transmission. 3,078,739, 2–26–63, Cl. 74—720.

Weinrich, Hellmuth, to Voith-Getriebe, K.G. Transmission. 3,105,393, 10–1–63, Cl. 74—688.

Weinrich, Hellmut, J. Peltner, H. Muller, and H. Trager, to Voith-Getriebe, K.G. Fluid drive, especially for motor vehicles. 3,075,410, 1–29–63, Cl. 74—681.

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Weinschel, Bruno O., to Weinschel Engineering Co., Inc. Voltage ratio meter for high-frequency calibration system. Re. 25,396, 6–18–63, Cl. 324—58.

Weinschel, Bruno O., and G. U. Sorger, to Weinschel Engineering Co., Inc. Standard source comparison system for high-frequency voltage ratio meter including alternately connectable load terminations. 3,098,968, 7–23–63, Cl. 324—58.

Weinschel, Bruno O., and G. U. Sorger, to Weinschel Engineering Co., Inc. High-frequency insertion loss test system including coupled attenuators. 3,104,354, 9–17–63, Cl. 324—58.

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Averbach, Benjamin L. 3,114,662.
Norman, Harry A. 3,105,211.
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Weinschel, Bruno O., and Sorger. 3,104,354.

Weinstein, Abraham S. Ratchet wrench. 3,095,769, 7–2–63, Cl. 81—97.

Weinstein, Alex J., to The Ednalite Corp. Package for filter holder and the like. 3,083,826, 4–2–63, Cl. 206—79.

Weinstein, Arthur H.: *See*—
Pierson, Robert M., Weinstein, Wargotz, and Meyer. 3,072,707.

Weinstein, Marvin J.: *See*—
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Weinstein, Meir, and H. Primack, to The Richardson Co. Sealing container cover and wall members. 3,095,112, 6–25–63, Cl. 220—67.

Weinstein, Richard, to Slant Fin Radiator Corp. Baseboard radiators and elements thereof. 3,091,289, 5–28–63, Cl. 165—55.

Weinstein, Sidney M., and P. J. Scott, to The Tanatex Chemical Corp. Dyeing synthetic fibers with alkyl naphthalene composition. 3,097,047, 7–9–63, Cl. 8—94.

Weinstock, Joseph: *See*—
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Pachter, Irwin J., and Weinstock. 3,105,076.

Weinstock, Joseph, to Smith Kline & French Laboratories. Process for preparing amines. 3,079,403, 2–26–63, Cl. 260—349.

Weinstock, Joseph, to Smith, Kline & French Laboratories. Alkylidene derivative of 6-pteridinehydrazides and amidrazones. 3,111,520, 11–19–63, Cl. 260—251.5.

Weinstock, Joseph, and V. D. Wiebelhaus, to Smith Kline & French Laboratories. Diuretic and anti-hypertensive triaminoarylpteridines. 3,081,230, 3–12–63, Cl. 167—65.

Weinstock, Kermit V.: *See*—
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Weinstock, Leonard M., to Merck & Co., Inc. Novel 16α-methyl-3,5-pregnadienes and processes. 3,082,224, 3–19–63, Cl. 260—397.45.

Weipert, Eugene A.: *See*—
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Weir, Alex F., to General Electric Co. Honing tool. 3,075,323, 1–29–63, Cl. 51—184.3.

Weir, Arthur R. Artificial stone facing plaque. 3,097,080, 7–9–63, Cl. 41—35.

Weir, Charles E., A. Van Valkenburg, and E. R. Lippincott, to United States of America, Commerce. High-pressure optical cell. 3,079,505, 2–26–63, Cl. 250—83.

Weir, Donald S.: *See*—
Boenig, Hermann V., and Weir. 3,072,657.

Weir, G. & J., Ltd.: *See*—
Lang, John R., and Arkless. 3,103,176.
Silver, Robert S. 3,111,462.
Silver, Robert S., and Herd. 3,105,020.

Weir, Hugh R., to Toro Mfg. Corp. Ground engaging support for ground traversing machines. 3,096,606, 7–9–63, Cl. 56—26.

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Topazio, William J., and Weir. 3,100,858.

Weir, Peter S.: *See*—
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Weir, Thomas J., to Schwitzer Corp. Fluid coupling mechanism. Re. 25,481, 11–12–63, Cl. 123—41.12.

Weis, Andrew J. Music chord finder. 3,101,023, 8–20–63, Cl. 84—482.

Weis, Charles W.: *See*—
Powers, Richard E., and Weis. 3,094,043.

Weis, Frank G., to Union Tank Car Co. Fluid pump assembly. 3,084,943, 4–9–63, Cl. 277—4.

Weis, Frank G., to Union Tank Car Co. Weighing control for liquid handling apparatus. 3,099,224, 7–30–63, Cl. 103—243.

Weis, Frank G., to Union Tank Car Co. Nonclogging check valve. 3,099,288, 7–30–63, Cl. 137—525.

Weis, Henry, Mfg. Co., Inc.: *See*—
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Weisang, Edouard, C. Scherrer, and A. Gislon, to Compagnie Francaise de Raffinage, Societe Anonyme dite. Process for refining petroleum products. 3,098,033, 7–16–63, Cl. 208—227.

Weisberg, Mark: *See*—
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Weisberg, Mark, and F. P. Butler, to Eltex Research Corp. Composition for selectively stripping electro-plated metals from surface. 3,102,808, 9–3–63, Cl. 75—97.

Weisberg, Robert A.: *See*—
Oppenheimer, Edgar D., and Weisberg. 3,079,321.

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Sauber, John P., and Weisbrich. 3,085,362.

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Weise, Carl A., to Douglas Aircraft Co., Inc. Fuel supply system. 3,094,251, 6–18–63, Cl. 222—255.

Weise, Erwin K., to K. H. Huppert Co. Electric control circuits using thermistors. 3,114,082, 12–10–63, Cl. 317—132.

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Weisel, Melvin P., and D. H. Hogle, to Westinghouse Electric Corp. Solid inorganic insulation for metallic conductors and electrical members insulated therewith. 3,093,511, 6–11–63, Cl. 117—232.

Weisel, Zenas V. Compressor construction. 3,071,313, 1–1–63, Cl. 230—127.

Weisenbach, Charles O., to The New York Air Brake Co. Hydrostatic transmission. 3,093,297, 6–11–63, Cl. 230—4.

Weisenberger, William P., to E. I. du Pont de Nemours and Co. Process for the preparation of polytetrafluorethylene molding powder. 3,115,486, 12–24–63, Cl. 260—92.1.

Weisenborn, Frank L.: *See*—
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Weisenborn, Frank L., and C. J. Sih, to Olin Mathieson Chemical Corp. 9a-hydroxy-a-norandrostenes. 3,110,733, 11–12–63, Cl. 260—586.

Weisend, Burke A.: *See*—
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Weiser, Sidney, to U.S. Industries, Inc. Compliant support for material handling apparatus. 3,095,982, 7–2–63, Cl. 214—1.

Weisfeld, Joseph: *See*—
Kraft, William M., and Weisfeld. 3,073,786.

Weisgerber, George A., H. L. Thwaites, and H. M. Farnham, Jr., to Esso Research and Engineering Co. Impregnated corrugated paperboard and process of making same. 3,085,026, 4–9–63, Cl. 117—60.

Weisgerber, George A., and A. J. Reinsch, to Esso Research and Engineering Co. Dairy wax composition. 3,098,598, 7–23–63, Cl. 229—3.1.

Weisgerber, William C. Fish tapes. 3,081,977, 3–19–63, Cl. 254—134.3.

Weisglass, Louis L.: *See*—
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Weisglass, Louis L., to Simmon Brothers, Inc. Overhead optical projector. 3,081,670, 3–19–63, Cl. 88—26.

Weisglass, Louis L., to Simmon Bros., Inc. Exposure control for color prints. 3,097,563, 7–16–63, Cl. 88—24.

Weishaar, Marcelyn J.: *See*—
Farina, Rene G., and Weishaar. 3,107,671.

Weisheit, Georg, and M. Braun. Resistance thermometer. 3,104,550, 9–24–63, Cl. 73—362.

Weiskopf, Edwin C., and J. Isreeli, to Technicon Instruments Corp. Multiple-tube pump. 3,101,674, 8–27–63, Cl. 103—149.

Weiskopf, Edwin C., and A. L. Damore, Jr., to The Technicon Co., Inc. Automatic immersion apparatus. 3,110,627, 11–12–63, Cl. 118—425.

Weisman, Herbert C.: *See*—
Napolitano, Liberato R. 3,071,242.

Weisman, Joel, and M. Griffel, to Westinghouse Electric Corp. Gas handling systems for radioactive gases. 3,093,564, 6–11–63, Cl. 204—193.2.

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Weiss, Alvin H.: *See*—
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Weiss, Anton G., and J. J. D'Amico, to Monsanto Chemical Co. Method of destroying undesirable vegetation and nematodes. 3,078,152, 2–19–63, Cl. 71—2.3.

Weiss, Arthur J., to Continental Can Co., Inc. Merchandising package forming member. 3,075,799, 1–29–63, Cl. 294—87.2.

Weiss, Bernhardt B., and C. D. Running, to Paris Precision Products. Power-actuated banding tool. 3,090,599, 5–21–63, Cl. 254—51.

Weiss, Eric, to Daystrom, Inc. Control system for a digital computer. 3,094,609, 6–18–63, Cl. 235—157.

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Weiss, Felix S., to Cornell-Dubilier Electric Corp. Capacitor manufacture. 3,091,835, 6–4–63, Cl. 29—25.42

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Weiss, Richard, to Franke & Heidecke Fabrik Photographischer Pruzisions-Apparate. Protective housing for photographic cameras. 3,073,227, 1–15–63, Cl. 95—11.

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Weiss, Walter L., to Transistor Devices, Inc. Electrical terminal and method of making same. 3,106,436, 10–8–63, Cl. 339—220.

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Wendt, Harry C., to United States of America, Navy. Angular motion indicator. 3,113,462, 12–10–63, Cl. 73—503.

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Hauer, Charles E. 3,080,128.
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Dobbie, James. 3,097,340.
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Dyer, Lloyd. 3,077,525
Easley, Gilbert J., Hess, and Telford. 3,114,815.
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Ellis, Belvin B. 3,107,415
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Grimes, Willard M., Jr. 3,074,007.
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Ham, Edward J. 3,103,668.
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Jones, Clarence I. 3,110,853.
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Jung, Robert C. 3,075,366.
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Kaisler, Francis J., and Higby. 3,110,816.
Kendzlorek, Wolfgang M., and Clements. 3,092,916.
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McShane, William J. 3,095,012.
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Wetzler, Justin J., to The Englander Co., Inc. Method of making an innerspring foam mattress. 3,099,518, 7–30–63, Cl. 18—59.

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Wheeler, Larry M., to Parke, Davis & Co. Penicillin composition for pericardial introduction. 3,100,177, 8–6–63, Cl. 167—65.

Wheeler, Philip T., Stilt. 3,070,807, 1–1–63, Cl. 3—4.

Wheeler, Robert W., to Pittsburgh Plate Glass Co. Method for treating glass sheets. 3,093,527, 6–11–63, Cl. 156—99.

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Bedrosian, Karakian, and Brown. 3,102,780.
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Fregeolle, Oscar, and White. 3,115,022.

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White, James N., and B. N. Torelli, to United Aircraft Corp. Coordinated control of afterburner fuel and exhaust nozzle area. 3,082,599, 3–26–63, Cl. 60—35.6.

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White, Patricia P. Dispensing receptacles. 3,094,244, 6–18–63, Cl. 222—23.

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Porter, Frederick W. B., and White. 3,071,539.
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Wallace, Burgess P., and Melcher. 3,086,875.
Wallace, Burgess P., and Melcher. 3,095,310.

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Newton, Ross B. 3,076,237.
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Nydam, John H. 3,103,041.
Reiterer, Ferdinand. 3,089,200.
Reiterer, Ferdinand. 3,108,331.
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Whitting Corp.: *See*—
Bernhardt, Tom G. 3,071,447.

Whiting, E. B., & A. C.: *See*—
Munt, Plummer C. 3,073,002.
Munt, Plummer C. 3,112,508.

Whiting, James C., to The Bendix Corp. Visible filter clogging indicator. 3,094,969, 6–25–63, Cl. 116—70.

Whiting, James C., to The Bendix Corp. Visible filter clogging indicator. 3,103,952, 9–17–63, Cl. 137—557.

Whiting, Kenneth B.: *See*—
Essam, Roy, Walsh, and Whiting. 3,099,794.

Whitinsville Spinning Ring Co.: *See*—
Osterman, Henry R. 3,081,592.

Whitley, Ernest M., to Beckman Instruments, Inc. Micro pipette fluid distributor. 3,105,618, 10–1–63, Cl. 222—207.

Whitley, James B.: *See*—
Millman, Nathan, and Whitley. 3,106,476.

Whitley, James M. and W. N. Tobacco package with built in ashtray. 3,096,878, 7–9–63, Cl. 206—41.

Whitley, Robert J.: *See*—
Reed, Lionel E., and Whitley. 3,081,627.

Whitley, Stanley, and D. S. Allen, to United Kingdom Atomic Energy Authority. Journal and journal bearing assemblies. 3,079,203, 2–26–63, Cl. 308—9.

Whitley, Stanley, and D. S. Allen, to United Kingdom Atomic Energy Authority. Devices for the sealing of a rotatable shaft in passage through a casing. 3,082,009, 3–19–63, Cl. 277—1.

Whitley, William N.: *See*—
Whitley, James M. and W. N. 3,096,878.

Whitlock Mfg. Co., The: *See*—
Graumann, John L., and Major. 3,087,533.

Whitlock, Robert A., to Aqua Matic Inc. Liquid level control valve. 3,071,150, 1–1–63, Cl. 137—391.

Whitlock, Robert A., and T. W. Johnson, to Aqua Matic Inc. Flow control apparatus. 3,109,454, 11–5–63, Cl. 137—599.1.

Whitlock, Russell L., to Windy City Knitting Mills, Inc. Gap closer device for circular knitting machines. 3,078,698, 2–26–63, Cl. 66—112.

Whitlow, Stacey L. Knockdown bumper assembly for tractors. 3,116,083, 12–31–63, Cl. 293—70.

Whitman, George L. Detachable traction device for pneumatic vehicle wheels. 3,109,475, 11–5–63, Cl. 152—225.

Whitman, Graydon D.: *See*—
Kinyon, Brice W., and Whitman. 3,097,630.

Whitman, Henry B., to The Fuller Brush Co. Squeegee having a handle particularly adapted for detachable connection to a brush. 3,110,052, 11–12–63, Cl. 15—117.

Whitman, Henry B., W. A. Parry, E. J. Gatting, and C. Marquis, to The Fuller Brush Co. Brush making machine. 3,107,945, 10–22–63, Cl. 300—2.

Whitman, John H., to Applied Arts Corp. Coat hanger dispenser. 3,093,958, 7–2–63, Cl. 194—10.

Whitman, John H., to Applied Arts Corp. Manual dispenser. 3,101,140, 8–20–63, Cl. 194—71.

Whitman, Louis F. Horizontally adjustable rotating disk type mower. 3,093,947, 6–18–63, Cl. 56—25.4.

Whitman, Nathan D., Jr.: *See*—
Alderman, Frank E., and Whitman. 3,073,065.

Whitman, Robert L.: *See*—
Handley, Harold E., Whitman, and Sparkia. 3,104,454.

Whitman, Robert L., to Handley Industries, Inc. Exterior meter housing. 3,111,030, 11–19–63, Cl. 73—201.

Whitman, Robert L., to Handley Industries, Inc. Curb box cap. 3,115,267, 12–24–63, Cl. 220—24.5.

Whitman, Robert M., to Riegel Paper Corp. Carbon impregnated paper and method of making same. 3,096,229, 7–2–63, Cl. 162—135.

Whitmarsh, David C.: *See*—
Miller, Norman R., Pigott, Whitmarsh, and Rowlands. 3,113,286.

Whitmire, Arthur W.: *See*—
Harben, Grover S., Jr., and Whitmire. 3,076,998.

Whitmore, Charles H., to Continental Machines, Inc. Feed control for band saws. 3,077,132, 2–12–63, Cl. 83—201.

Whitmore, Donald L.: *See*—
Bergemann, Werner E., and Whitmore. 3,099,883.

Whitmore, Milton P., and L. Maddalena, to Clark Equipment Co. Material handling device. 3,101,152, 8–20–63, Cl. 214—307.

Whitmore, Thomas C.: *See*—
Cunningham, Robert G., and Whitmore. 3,071,791.

Whitnah, Gordon R., to General Mills, Inc. Boundary layer control for gas filled balloons and airships. 3,079,106.

Whitney Blake Co., The: *See*—
Brazee, John A. 3,105,108.
Cook, John B., and Fraser. 3,102,160.
Sperzel, Robert H. 3,116,386.

Whitney, Charles A., and E. A. Hollis, to Pratt & Whitney Co., Inc. Precision gaging systems and apparatus. 3,102,-342, 9–3–63, Cl. 33—169.

Whitney, Charles T., Sr.: *See*—
Earnshaw, Alvin R., and Whitney. 3,077,189.

Whitney, Donald B., to American Optical Co. Method of making plastic lenses. 3,109,696, 11–5–63, Cl. 18—47.5.

Whitney, Donald E.: *See*—
Wayne, George H., and Whitney. 3,097,302.

Whitney, Glenn R. Flush valve control apparatus. 3,082,-790, 3–26–63, Cl. 137—624.14

Whitney, Glenn R. Electrical flush valve actuating means. 3,115,643, 12–31–63, Cl. 4—100.

Whitney, Jean L.: *See*—
Whitney, Robert E., and J. L. 3,108,568.

Whitney, L. A., Associates, Inc.: *See*—
Whitney, Robert C. 3,107,448.

Whitney, Leslie C.: *See*—
Fleischmann, Ernst, and Whitney. 3,080,962.

Whitney, Maurice P., and N. H. Mageoch, to The Bendix Corp. Engine starter drive. 3,087,591, 4–30–63, Cl. 192—45.

Whitney, Robert C., to L. A. Whitney Associates, Inc. Combination carrying case and display easel. 3,107,448, 10–22–63, Cl. 40—102.

Whitney, Robert E., and J. L. Drying bag for pets. 3,108,568, 10–29–63, Cl. 119—1.

Whitney, Robert U., Jr., to The Thomas & Betts Co. Apparatus for orienting, feeding and crimping insulated terminal connectors. 3,084,780, 4–9–63, Cl. 198—33.

Whitney, Sherwood W.: *See*—
Johns, Lee, and Whitney. 3,105,473.

Whitney, William E.: *See*—
Rand, William M., Jr., Rice, Shaver, and Whitney. 3,092,466.

Whitney, William E., to Plymouth Cordage Industries, Inc. Fluid operated tacker. 3,091,768 6–4–63, Cl. 1—44.4.

Whitney, William G.: *See*—
Anderson, George M., Swietluk, and Whitney. 3,087,991.
Reich, Frank R., Whitney, and Whitton. 3,074,540.
Brown, James R., Adam, and Whitney. 3,107,204.

Whitney, William G., to American Hospital Supply Corp. Fluid level indicating means for collapsible bag. 3,074,-451, 1–22–63, Cl. 150—1.

Whitney, William G., to McGraw-Edison Co. Mechanical telephone dialing instrument. 3,104,286, 9–17–63, Cl. 179—90.

Whitney, William R., Jr., to Phillips Petroleum Co. Hot gas thermoplastic welding apparatus. 3,080,910, 3–12–63, Cl. 156—497.

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Highberg, George A., Benney, and Greenlees. 3,088,746.

Whitso, Inc.: *See*—
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Whitt, Carlton D.: *See*—
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Whittaker, Stanley J., to Atomic Energy of Canada Ltd. Reactor absorber rod and retracting mechanism therefrom. 3,085,962, 4–16–63, Cl. 204—193.2.

Whittall, Peter G. C.: *See*—
Lush, Gerald W. M., and Whittall. 3,074,708.

Whittemore, Osgood J., Jr., to Norton Co. Process of making a nuclear fuel element. 3,081,249, 3–12–63, Cl. 204—193.2.

Whittemore, Osgood J., Jr., A. G. King, and J. C. Logan, to Norton Co. Molded alumina articles and process of making them. 3,093,498, 6–11–63, Cl. 106—62.

Whitten, Frank R., to Schlumberger Well Surveying Corp. Formation fluid testing and sampling apparatus. 3,104,-712, 9–24–63, Cl. 166—100.

Whittenberg, George R. Work supporting means for centerless grinders. 3,091,900, 6–4–63, Cl. 51—236.

Whittington, Lloyd R.: *See*—
Nichols, Bryan F., and Whittington. 3,100,641.

Whittington, William H., to Phillips Petroleum Co. Method and apparatus for pyrolyzing polymers. 3,087,922, 4–30–63, Cl. 260—94.9.

Whittle, Robert L., J. Luongo, and R. H. Rymer, to International Telephone and Telegraph Corp. Data recording system. 3,104,147, 9–17–63, Cl. 346—33.

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Whitton, Aldean W., Jr., to American Hospital Supply Corp. Razor blade and one-piece holder combination. 3,106,774, 10–15–63, Cl. 30—32.

Whitton, Aldean W., Jr., to American Hospital Supply Corp. Plastic container and closure means therefor. 3,111,240, 11–19–63, Cl. 220—67.

Whitworth Gloster Aircraft Ltd.: *See*—
Marshall, John E. 3,104,346.

Whyte, George B.: *See*—
MacDonald, John P. A., and Whyte. 3,104,898.

Wiands, Clarence L., R. C. Cline, and R. G. Rose, to F. L. Russell Corp. Easel binder for pages reading on lines parallel with the binding. 3,096,102, 7–2–63, Cl. 281—33.

Wiant, Herman R., to Avco Corp. Selective plating process. 3,073,759, 1–15–63, Cl. 204—15.

Wiant, Herman R., to Avco Corp. Brazing fixture. 3,112,-388, 11–26–63, Cl. 219—85.

Wiant, Herman R., to Avco Corp. Unit brazing fixture. 3,112,389, 11–26–63, Cl. 219—85.

Wiasmitinow, Alexis, to Sandoz Ltd. Process for the dyeing and printing of cellulose ester fibers. 3,072,455, 1–8–63, Cl. 8—57.

Wiatt, James G., E. C. Bruns, and J. W. Travis, to The Cincinnati Milling Machine Co. In-process workpiece gaging device. 3,109,265, 11–5–63, Cl. 51—165.

Wibau Weslderntache Industrie- u. Strassenbau-Maschinen-Gesellschaft m.b.H.: *See*—
Bertels, Josef. 3,089,725.

Wich, Emil A.: *See*—
Prescott, Francis J., and Wich. 3,088,837.

Wichman, Wesley T.: *See*—
Lamneck, William J., and Wichman. 3,115,549.

Wichmann, Christian H.: *See*—
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Wichmann, Hans J., A. Ahles, E. Schorr, and M. K. Carr, to Argus Inc. Lightmeter with follower element. 3,088,387, 5–7–63, Cl. 95—10.

Wichmann, Tracy F.: *See*—
Sallsbury, Peter F., and Wichmann. 3,090,377.

Wick, Edward J., and H. W. Day, to F. C. Rosen, trading as Ardmore Hosiery Mills. Automatic looper operator and method. 3,100,464, 8–13–63, Cl. 112—27.

Wick, Georg, H. Niedenbruck, and K. Kopetz, to Chemische Werke Huls Aktiengesellschaft. Flame retardant compositions containing polyolefins, antimony oxide and ethers having at least three bromine atoms. 3,075,944, 1–29–63, Cl. 260—41.

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Schäfer, Fridolin, and Wick. 3,079,520.

Wick, Manfred: *See*—
Nitzsche, Siegfried, and Wick. 3,082,526.
Nitzsche, Siegfried, and Wick. 3,082,527.
Nitzsche, Siegfried, and Wick. 3,108,898.

Wick, Richard: *See*—
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Bledermann, Friedrich, and Wick. 3,102,463.

Wickemeier, Benjamin W.: *See*—
Porter, Walter G., and Wickemeier. 3,103,845.

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Wickenberg, Chester H., to Sunbeam Corp. Handle and cover means for cooking vessels. 3,081,395, 3–12–63, Cl. 219—44.

Wicker, Ralph C., and W. R. Shaughnessy; said Shaughnessy assor. to said Wicker. Screen angle indicator. 3,109,239, 11–5–63, Cl. 33—1.

Wickerham, Warren E., and R. D. Wyckoff, to Gulf Research & Development Co. Apparatus for stabilizing magnetic fields. 3,080,507, 3–5–63, Cl. 317—123.

Wickerham, William R., and R. W. Eggiestone, to Westinghouse Electric Corp. Drive apparatus. 3,089,993, 5–14–63, Cl. 318—443.

Wickersham, Arthur F., Jr., to Sylvania Electric Products Inc. Artificial dielectric polarizer. 3,089,142, 5–7–63, Cl. 343—911.

Wickersham, Arthur F., Jr., and R. L. Bell, to Sylvania Electric Products Inc. Antenna incorporating active elements. 3,098,973, 7–23–63, Cl. 325—375.

Wickersham, Arthur F., Jr., and R. L. Bell, to Sylvania Electric Products Inc. Log periodic type antenna mounted on ground plane and fed by tapered feed. 3,101,474, 8–20–63, Cl. 343—792.5.

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Skinner, George M., Eschenbach, and Wickham. 3,106,-633.

Wicki, Werner, F. Rothen, and T. Krebs; said Wicki and said Rothen, assors. to said Krebs. Profiling hand cutter. 3,110,104, 11–12–63, Cl. 30—293.

Wickland, Joseph R., to Miehle-Goss-Dexter Inc. Sheet feeding apparatus. 3,071,371, 1–1–63, Cl. 271—26.

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Wicklund, Leslie G., to Minnesota Mining and Mfg. Co. Core for pressure-sensitive adhesive tape. 3,115,246, 12–24–63, Cl. 206—59.

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Wideroe, Rolf, and H. Egger, to Brown, Boveri & Cie, Aktiengesellschaft. Device for a radiation plant comprising ray generator and treatment bed. 3,090,868, 5-21-63, Cl. 250—91.

Widiger, Alexander H., Jr., to The Dow Chemical Co. Method for purifying aromatic compounds. 3,087,969, 4-30-63, Cl. 260—620.

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Wieneke, Frederick L., to Barber-Colman Co. Heddle counter. 3,103,057, 9-10-63, Cl. 28—46.

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Wiese, Herbert K.: *See*—
Turbak, Albin F., and Wiese. 3,101,331.

Wiese, Herbert K., and S. B. Lippincott, to Esso Research and Engineering Co. Preparation of 1,12-dodecanedioic acid. 3,087,963, 4-30-63, Cl. 260—526.

Wiese, Herbert K., and F. W. Banes, to Esso Research and Engineering Co. Carboxylated bicycloheptene compounds. 3,094,556, 6-18-63, Cl. 260—514.

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Heinecke, Klaus, Holle, and Wiese. 3,103,651.

Wiesinger, Frederick C., and T. C. Lyster, to Wildman Jacquard Co. Pattern means for knitting machines. 3,108,460, 10-29-63, Cl. 66—50.

Wiesner, Ernst. Current-limiting reactors for fluorescent tubes or the like. 3,078,429, 2-19-63, Cl. 336—83.

Wiessner, Manfred, to Kamera- und Kinowerke Dresden, VEB. Photographic cameras having built-in exposure meters. 3,072,034, 1-8-63, Cl. 95—10.

Wiessner, Manfred, W. Hennig, and E. Loose, to Kamera- und Kinowerke Dresden, VEB. Exposure control mechanism for cameras. 3,072,030, 1-8-63, Cl. 95—10.

Wiessner, Willi, to Ernst Leitz Gesellschaft mit beschrankter Haftung. Camera with a built-in exposure meter. 3,073,225, 1-15-63, Cl. 95—10.

Wiest, Quentin W.: *See*—
Cubbidge, James F., Drukker, Fernald, Lenk, Turner, and Wiest. 3,080,512.

Wiest, Roy A. Bow tie. 3,115,640, 12-31-63, Cl. 2—151.

Wieszeck, Emil S. Protectively contained sensing apparatus. 3,097,973, 7-16-63, Cl. 136—4.

Wigal, Voorhis F. Rotary wing aircraft. 3,085,630, 4-16-63, Cl. 170—135.21.

Wigal, Voorhis F. Rotor blade. 3,105,557, 10-1-63, Cl. 170—159.

Wiggerink, Gerrit L.: *See*—
Slijpsteijn, Antje K., and Wiggerink. 3,113,069.

Wiggermann, Georg, to W. Reiners. Controllable hydraulic gear-type machine. 3,077,835, 2-19-63, Cl. 103—3.

Wiggermann, Georg, to W. Reiners. Hydraulic piston machine. 3,080,854, 3-12-63, Cl. 121—62.

Wiggermann, Georg, to Reiners & Wiggermann Getriebe und Maschinenbau. Controllable gear-type hydraulic machine. 3,107,629, 10-22-63, Cl. 103—120.

Wiggin, Blanton C.: *See*—
Perron, Robert R., and Wiggin. 3,074,308.

Wiggins, Alpha M., to Euphonics Corp. Ultra-sonic microphone. 3,109,111, 10-29-63, Cl. 310—8.2.

Wiggins, Alpha M., to Electro-Voice, Inc. Unidirectional microphone. 3,115,207, 12-24-63, Cl. 181—31.

Wiggins, Barney F. Barbed wire reel holder. 3,100,607, 8-13-63, Cl. 242—86.64.

Wiggins, Harry A. R.: *See*—
Julian, Thomas A., and Wiggins. 3,081,380.

Wiggins, Kenneth: *See*—
Watts, Leon W., and Wiggins. 3,084,595.

Wiggins, Leslie F.: *See*—
James, John W., and Wiggins. 3,101,336.

Wiggins, Richard F., and F. E. Ullman. Mechanism for inverting coated articles. 3,080,957, 3-12-63, Cl. 198—33.

Wigginton, Raymond J., to Laporte Titanium Ltd. Process for the manufacture of titanium dioxide. 3,094,386, 6-18-63, Cl. 23—202.

Wigginton, Raymond J., and J. Leighton, to Laporte Titanium Ltd. Manufacture of titanium dioxide. 3,073,712, 1-15-63, Cl. 106—300.

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Wight, Edward M., to T. S. Gillis. Devices for disassembling machine parts. 3,104,460, 9-24-63, Cl. 29—264.

Wight, John L., to Huntly Engineering & Welding Co. Ltd. Remote control for auxillary transmissions. 3,093,008, 6-11-63, Cl. 74—335.

Wight, Robert D., to General Motors Corp. Steering column attachment. 3,073,631, 1-15-63, Cl. 287—20.

Wight, Robert D., to General Motors Corp. Idler arm support bearing. 3,096,128, 7-2-63, Cl. 308—36.1.

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Wigner, Eugene P., to United States of America, Atomic Energy Commission. Neutronic reaction system. 3,102,851, 9-3-63, Cl. 204—193.2.

Wilg, Chester M., to E. J. Littell Machine Co. Programming device for roll feed brake. 3,078,734, 2-26-63, Cl. 74—130.

Wilst, Herbert A., to E. I. du Pont de Nemours and Co. Distillation process for fluorocarbons. 3,101,304, 8-20-63, Cl. 202—39.5.

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Gorter, Evert W., Lotgering, Jonker, Wijn, and Kooy. 3,072,575.

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Wiklund, Carl H., to Airequipt Mfg. Co., Inc. Slide changing device. 3,074,314, 1-22-63, Cl. 88—28.

Wikstrom, Berth A., to Bahco, Aktiebolaget. Ejector devices. 3,109,581, 11-5-63, Cl. 230—103.

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Wilburn, William F. Fuel pump. 3,109,559, 11-5-63, Cl. 222—2.

Wilbushewich, Eugen. Method and apparatus for cooling goods packed in containers. 3,074,246, 1-22-63, Cl. 62—62.

Wilcox, Doyle E.: *See*—
Slater, John M., Wilcox, Freebairn, and Pondrom. 3,077,782.
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Wilcox, Doyle E., and A. J. Robinson, to North American Aviation, Inc. Capacitance pickoff with low coercion. 3,084,558, 4-9-63, Cl. 73—517.

Wilcox, Frederick F. Method and process of conditioning and processing animals in meat packing plants. 3,115,671, 12-31-63, Cl. 17—45.

Wilcox, George. Fishing lure. 3,076,282, 2-5-63, Cl. 43—35.

Wilcox, Harold R., to Riggs & Lombard, Inc. Apparatus for treating webs. 3,074,261, 1-22-63, Cl. 68—5.

Wilcox, Ira L. Clamp for holding sheet material for breaking. 3,084,930, 4-9-63, Cl. 269—239.

Wilcox, Isaac L., to Seabright-Oswego Falls Corp. Multi-unit package. 3,114,496, 12-17-63, Cl. 229—52.

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Wilcox, John M., and W. R. Baker, to United States of America, Atomic Energy Commission. Plasma generator for a highly ionized electrical plasma. 3,104,345, 9-17-63, Cl. 315—111.

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Gretler, Albert C., and Wilcox. 3,092,499.

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Alexander, Warren A., and Wilcox. 3,095,552.

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Hoffman, Eugene M., Wilcox, and McCaffray. 3,073,354.

Wilcox, Stanley W., to Seismograph Service Corp. Voting machine. 3,094,277, 6-18-63, Cl. 235—50.

Wilcox, Stanley W., E. J. Crossland, and R. B. McCaskill, to Seismograph, Service Corp. Party voting apparatus for voting machine. 3,092,311, 6-4-63, Cl. 235—54.

Wilcox, Stanley W., G. M. Hunt, and A. F. Fassnacht, deceased (by M. A. Fassnacht, administratrix), to Seismograph Service Corp. Voting machine. 3,096,017, 7-2-63, Cl. 235—54.

Wilcox, Wayne L., to Arcos Corp. Overlay electrode. 3,101,405, 8-20-63, Cl. 219—146.

Wilcox, Wayne L., to Arcos Corp. Overlay welding electrode. 3,102,025, 8-27-63, Cl. 75—128.

Wild, Anthony M.: *See*—
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Tate, Francis E. G., and Wild. 3,108,100.

Wildberger, Leon H., Sr. Automatic coffee maker. 3,096,427, 7-2-63, Cl. 219—44.

Wildbolz, Rudolf, to Rieter Machine Works Ltd. Bale rasp. 3,101,513, 8-27-63, Cl. 19—80.

Wildbolz, Rudolf, to Rieter Machine Works Ltd. Apparatus for transporting slivers. 3,101,835, 8-27-63, Cl. 198—160.

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Wildbolz, Rudolf, R. Binder, and P. Stahell, to Rieter Machine Works Ltd. Automatic carding plant. 3,112,139, 11-26-63, Cl. 302—22.

Wilde, Arthur E., to Shaffer Tool Works. Apparatus and method for sub-sea drilling. 3,114,420, 12-17-63, Cl. 166—46.

Wilde, Bertrand E.: *See*—
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Zebley, Donald D., and Wilde. 3,103,896.

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Wilde, Goeffrey L., to Rolls-Royce Ltd. By-pass gas-turbine engine. 3,100,627, 8-13-63, Cl. 259—4.

Wilde, Geoffrey L., and F. R. Murray, to Rolls-Royce Ltd. VTOL aircraft engine inlet structure. 3,099,423, 7-30-63, Cl. 244—23.

Wilde, Geoffrey L., and T. A. Oldfield, to Rolls-Royce Ltd. Gas turbine engine. 3,115,748, 12-31-63, Cl. 60—35.54.

Wildemann, Max, to North American Philips Co., Inc. Device for heating sausages and the like by very high-frequency energy. 3,091,172, 5-28-63, Cl. 99—427.

Wilden, James K. Actuator valve means. 3,071,118, 1-1-63, Cl. 121—157.

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Wilder, Edward A.: *See*—
Berres, Clifford R., Tabet, and Wilder. 3,088,928.

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Alt, Gerhard H., and Wilder. 3,083,180.

Wilder, Gene R., to Monsanto Chemical Co. Crab grass control. 3,102,803, 9-3-63, Cl. 71—2.3.

Wilder, Harold F., to The Western Union Telegraph Co. Self-regulating two-channel time division telegraph system. 3,114,003, 12-10-63, Cl. 178—50.

Wilder, Harold F., and R. K. Lewis, to The Western Union Telegraph Co. Electronic start-stop regenerative repeater. 3,073,898, 1-15-63, Cl. 178—70.

Wilder, John G., Jr., to United Aircraft Corp. Gaseous nozzle boundary. 3,091,924, 6-4-63, Cl. 60—35.54.

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Wildhaber, Ernest. Universal joint. 3,076,322, 2-5-63, Cl. 64—21.

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Wildhaber, Ernest. Gear drive with worm gearing. 3,079,808, 3-5-63, Cl. 74—458.

Wildhaber, Ernest. Universal joint. 3,092,982, 6-11-63, Cl. 64—21.

Wildhaber, Ernest. Method of producing hourglass worms and hourglass hobs. 3,105,332, 10-1-63, Cl. 51—287.

Wildhaber, Ernest. Hob. 3,106,765, 10-15-63, Cl. 29—103.

Wildhaber, Ernest. Machine for cutting spiral teeth. 3,106,867, 10-15-63, Cl. 90—10.

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Wildi, Bernard S., to Monsanto Chemical Co. Pyromellitonitrile/hydrogen sulfide reaction product. 3,086,001, 4-16-63, Cl. 260—125.

Wildi, Bernard S., and W. B. Tuemmler, to Monsanto Chemical Co. Water-soluble polymethine salts. 3,099,630, 7-30-63, Cl. 260—2.2.

Wildi, Edwin, to Maschinenfabrik Benninger A.-G. Knock-off motion for thread processing machines. 3,096,945, 7-9-63, Cl. 242—19.

Wildman, Alan J., to Raytheon Co. Means for the detection of signals in the presence of noise. 3,094,665, 6-18-63, Cl. 325—475.

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Bishop, Harold F., Wiley, and Rock. 3,103,721.

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Wiley, Douglas W., to E. I. du Pont de Nemours and Co. Polycyanopolyenes and processes for preparing them. 3,097,221, 7-9-63, Cl. 260—430.

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Wiley, Frank L., to North American Aviation, Inc. Short circuit protection device. 3,109,980, 11-5-63, Cl. 323—22.

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Wiley, Lee M., Jr. Ball-race game apparatus. 3,108,810, 10-29-63, Cl. 273—120.

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Wiley, Richard H., and N. R. Smith, to United States of America, Navy. Preparation of 3,5-dinitro-1,2,4-triazole. 3,111,524, 11-19-63, Cl. 260—308.

Wiley, Roy O., to Westinghouse Electric Corp. Wiring device for control of circuit continuity. 3,082,303, 3-19-63, Cl. 200—67.

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Wilfert, Karl, to Daimler-Benz Aktiengesellschaft. Seat cover for motor vehicles. 3,102,755, 9-3-63, Cl. 297—229.

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Wilfert, Karl, and E. J. H. Fiala, to Daimler-Benz Aktiengesellschaft. Axle suspension for vehicles, especially motor vehicles. 3,116,071, 12-31-63, Cl. 280—124.

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Wilfley, George M.: *See*—
Zagar, Irvin F., and Wilfley. 3,115,097.

Wilford, Ernest, to The Bradford Dyers' Assn. Ltd. Web stretching device and method. 3,104,445, 9-24-63, Cl. 26—64.

Wilgus, Donovan R., to United States of America, Atomic Energy Commission. Lubricants containing poly (diphenyl ether-p-xylylenes). 3,087,892, 4-30-63, Cl. 252—52.

Wilgus, Donovan R., to California Research Corp. Para-N-alkyl-isoalkyl-benzene synthetic oils. 3,110,743, 11-12-63, Cl. 260—668.

Wilhelm, Charles. Rotatable cylinder. 3,110,107, 11-12-63, Cl. 33—21.

Wilhelm, Gary, to United States of America, Army. Firing mechanism for firearms. 3,103,758, 9-17-63, Cl. 42—69

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Wilhelm, John M. Process for synthesizing chloropicrin. 3,106,588, 10-8-63, Cl. 260—644.

Wilhelm, John R. Model railroad equipment. 3,075,705, 1-29-63, Cl. 238—10.

Wilhelm, John R., to Purolator Products, Inc. Throwaway liquid filter. 3,076,550, 2-5-63, Cl. 210—232.

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Wilke, Helen. Electric puff ironer. 3,107,286, 10-15-63, Cl. 219—21.

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Wilke, Werner R. F., to P. Beiersdorf and Co. A.G. Core of a spool for receiving self-adhesive tapes. 3,107,874, 10-22-63, Cl. 242—68.5.

Wilke, William P., III, J. S. Nordyke, and J. O. Johnstone, to Hammond Lead Products, Inc. Corrosion inhibitive pigment and method of making same. 3,080,248, 3-5-63, Cl. 106—297.

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Wilkerson, Edward D. Wheel alignment testing means and method. 3,081,546, 3-19-63, Cl. 33—46.

Wilkerson, Edward D. Educational device for demonstrating earth globe rotation. 3,086,299, 4-23-63, Cl. 35—16.

Wilkerson, Kenneth R., ½ to S. Ross. Produce centering arrangement. 3,080,902, 3-12-63, Cl. 146—52.

Wilkerson, Ruth G., to Holt Hosiery Mills, Inc. Foot-sock. 3,102,271, 9-3-63, Cl. 2—239.

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Wilkes, Gilbert, to United States of America, Navy. Unsymmetrical antenna feed for conical scanning antenna. 3,072,905, 1-8-63, Cl. 343—754.

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Wilkins, Lowell A. Apparatus for conditioning film. 3,083,387, 4-2-63, Cl. 15—93.

Wilkins, Richard A. Conductive wire coating alloys, wires coated therewith and process for improving solderability therefor. 3,097,965, 7-16-63, Cl. 117—231.

Wilkins, Robert E., and L. E. Fowle, to Minneapolis-Honeywell Regulator Co. Mechanical apparatus. 3,090,297, 5-21-63, Cl. 101—93.

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Haught, Glenn J. 3,109,723.

Wilkinson, Donald G., to Imperial Chemical Industries Ltd. Lin-benzobisthiachromone pigments. 3,082,215, 3-19-63, Cl. 260—328.

Wilkinson, Donald G., to Imperial Chemical Industries Ltd. Thiachromono-(2,3-b) acridones and process for their production. 3,109,002, 10-29-63, Cl. 260—279.

Wilkinson, Ernest J., to Sylvania Electric Products Inc. Power divider. 3,091,743, 5-28-63, Cl. 333—9.

Wilkinson, Geoffrey, to Ethyl Corp. π-cyclopentadienyl cobalt cyclopentadiene compounds. 3,088,961, 5-7-63, Cl. 260—439.

Wilkinson, Geoffrey. Organomanganese compositions. 3,092,646, 6-4-63, Cl. 260—429.

Wilkinson, Geoffrey, to Ethyl Corp. Norbornadiene metal compounds and process for same. 3,105,084, 9-24-63, Cl. 260—429.

Wilkinson, Geoffrey, to Ethyl Corp. Organometallic compounds. 3,109,010, 10-29-63, Cl. 260—429.

Wilkinson, Geoffrey, to Ethyl Corp. Fluorinated mono-olefin carbonyl compounds of Group VB-VIII transition metals. 3,113,145, 12-3-63, Cl. 260—439.

Wilkinson, George R., and F. G. Peacock, to Allen & Hanburys Ltd. Method of sterilising. 3,086,837, 4-23-63, Cl. 21—56.

Wilkinson, Herbert W., Jr. Dyeing machine for producing variegated yarn. 3,112,633, 12-3-63, Cl. 68—148.

Wilkinson, John R., to T. J. and F. M. Pierson as joint tenants. Hydraulic disc brake. 3,103,990, 9-17-63, Cl. 188—73.

Wilkinson, Kenneth J. R.: *See*—
Mortlock, Joseph R., Wilkinson, and Richardson. 3,099,775.

Wilkinson, Michael A., to Stakmore Co., Inc. Construction for folding table leg. 3,096,732, 7-9-63, Cl. 108—127.

Wilkinson, Raymond G., and T. L. Fields, to American Cyanamid Co. 2-(substituted-benzyl)-1,3-propanedinitriles. 3,092,653, 6-4-63, Cl. 260—465.

Wilkinson, Raymond G., and A. S. Kende, to American Cyanamid Co. 2-formylmethyl-4-oxo-tetrahydronaphthalenes. 3,102,914, 9-3-63, Cl. 260—590.

Wilkinson Sword Ltd.: *See*—
Gatley, Derkek R., and Abigail. 3,101,669.
Sturrock, Donald G. 3,078,802.

Wilkinson, Thomas B.: *See*—
Melton, James O., and Wilkinson. 3,072,448.
Melton, James O., and Wilkinson. 3,079,183.
Melton, James O., and Wilkinson. 3,079,184.
Melton, James O., and Wilkinson. 3,088,784.

Wilkinson, Wilfred H.: *See*—
Morley, Frederick W. W., and Wilkinson. 3,092,393.
Morley, Frederick W. W., Wilkinson, and Broad. 3,082,010.

Wilkinson, Wilfred H., to Rolls-Royce Ltd. Sump chambers. 3,111,195, 11-19-63, Cl. 184—6.

Wilkinson, William K.: *See*—
Grandine, Lester D., Jr., and Wilkinson. 3,075,934.

Wilkinson, William K., to E. I. du Pont de Nemours and Co. Process for polymerizing methacrylonitrile. 3,087,919, 4-30-63, Cl. 260—88.7.

Wilks, Harry H., to V. Wilks. Window construction. 3,103,714, 9-17-63, Cl. 20—53.

Wilks, Louis P., to Velsicol Chemical Corp. Thermal polymerization of dicyclopentadiene. 3,084,147, 4-2-63, Cl. 260—93.1.

Wilks, Verda: *See*—
Wilks, Harry H. 3,103,714.

Will, E. C. H.: *See*—
Jendrusch, Paul. 3,096,978.

Will Scientific, Inc.: *See*—
Koelle, Otto. 3,108,476.

Will, Theodore, to Fund-Del Inc. Safety coverlock for book match packages and the like. 3,113,666, 12-10-63, Cl. 206—29.

Willard, Allen A.: *See*—
Todd, Doris E., and Willard. 3,097,079.

Willard, Dennis L., to International Business Machines Corp. Variable gain control. 3,084,337, 4-2-63, Cl. 340—174.1.

Willard, Dennis D., to International Business Machines Corp. Pulse responsive photosensitve electrooptical circuit. 3,107,301, 10-15-63, Cl. 250—209.

Willard, Frank G., to Westinghouse Electric Corp. Digital signal sensing apparatus. 3,103,577, 9-10-63, Cl. 235—61.7.

Willard, Joe R., and E. G. Maitlen, to FMC Corp. Soil fungicide. 3,078,209, 2-19-63, Cl. 167—22.

Willard, Seth C.: *See*—
Smallridge, James H., and Willard. 3,106,596.

Willardson, Robert K.: *See*—
Fleming, Lawrence T., and Willardson. 3,077,520.

Willardson, Robert K., and C. F. Robinson, to Consolidated Electrodynamics Corp. Diffusion barriers for semiconductor devices. 3,080,441, 3-5-63, Cl. 136—5.

Willats, Anthony. Can handling device with pouring and piercing means. 3,106,317, 10-8-63, Cl. 222—89.

Willatts, William H. Beams and building components. 3,079,649, 3-5-63, Cl. 20—.5.

Willbond, William F., to United Shoe Machinery Corp. Fastener forming and inserting machines. 3,080,563, 3-12-63, Cl. 1—27.

Willbrandt, Franklin M.: *See*—
Smith, John W., and Willbrandt. 3,083,514.

Willbrandt, Franklin M., to Battle Creek Packaging Machines, Inc. Pouch area marking control for pouch packaging machines. 3,075,328, 1-29-63, Cl. 53—51.

Willbrandt, Franklin M., to Battle Creek Packaging Machines, Inc. Semi-automatic package wrapping machine. 3,112,589, 12-3-63, Cl. 53—206.

Willcock, Peter: *See*—
Moore, Howard D., and Willcock. 3,116,247.

Willcockson, George W.: *See*—
Hunter, Don L., Kitasaki, and Willcockson. 3,074,885.
Petterson, Lowell L., Brotherton, Willcockson, and McCloskey. 3,079,432.

Willcockson, George W., to United States Borax & Chemical Corp. Synthesis of the aromatic boron-carbon bond. 3,072,715, 1-8-63, Cl. 260—500.

Willcockson, George W., to United States Borax & Chemical Corp. Method for the preparation of alkyldihaloboranes. 3,083,228, 3-26-63, Cl. 260—543.

Willcox, Dale F., to Furnas Electric Co. Cover reset mechanism. 3,099,736, 7-30-63, Cl. 200—172.

Willcox, Frederick P., to Fairchild Camera and Instrument Corp. Densitometric data handling system. 3,072,889, 1-8-63, Cl. 340—173.

Willcox, Frederick P., and L. F. Welanetz, to Fairchild Camera and Instrument Corp. Double torsion spring energy-storage photographic shutter. 3,096,700, 7-9-63, Cl. 95—63.

Willcox & Gibbs Sewing Machine Co.: *See*—
Backlin, Clarence R. 3,082,723.
Du Buis, Edwin O., and Cucksey. 3,070,949.
Du Buis, Edwin O., and Cucksey. 3,077,725.
Lewinski, Julius, and Rashbaum. 3,085,330.
Lewinski, Julius, and Rashbaum. 3,097,430.
Rashbaum, Abraham. 3,085,340.

Willcox, Henry K., Jr.: *See*—
Cheek, Willard D., and Willcox. 3,106,641.

Wille, Hans H., Schuhmann, and K. Jellinek, to Koppers Co., Inc. Plasticizing of phenol resins. 3,092,602, 6-4-63, Cl. 260—31.8.

Willecke, Gerhard K., to Miller Electric Mfg. Co. Coated rectifiers and process of making. 3,094,765, 6-25-63, Cl. 29—25.3.

Willeford, Sam: *See*—
Becker, August E., and Willeford. 3,075,358.

Willems, Donald J., to Armour and Co. Livestock feeding device. 3,088,437, 5-7-63, Cl. 119—56.

Willems, Jozef F.: *See*—
Cassiers, Paul M., Nys, Willems, and Hart. 3,113,022.

Willems, Jozef F., and G. M. Sevens, to Gevaert Photo-Producten N.V. Spot prevention in light-sensitive silver halide emulsion layers. 3,078,163, 2-19-63, Cl. 96—67.

Willems, Peter. Apparatus for generating oscillations in fluid. 3,096,080, 7-2-63, Cl. 239—1.

Willer, George J., Jr., and F. B. Callanen, to The Pure Oil Co. Temperature mensurement of stored fluids. 3,111,846, 11-26-63, Cl. 73—340.

Willersinn, Herbert, G. Dietrich, K. J. Fust, H. Friederich, and H. P. Siebel, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Copolymers of 5,6-bismethylene-1,2,3,4,7,7-hexachlorbicyclo-(2,2,1)-heptene-(2) and process of making same. 3,110,694, 11-12-63, Cl. 260—45.4.

Willes, Robert L.: *See*—
Wilson, Donald K., and Willes. 3,098,934.

Willett, Mamie M. Midget car race game. 3,071,377, 1-1-63, Cl. 273—86.

Willey, Frank G., to Servo Corp. of America. Means for infrared imaging in color. 3,078,340, 2-19-63, Cl. 178—6.7.

Willey, Frank G., to Servo Corp. of America. Means for infrared imaging in color. 3,078,341, 2-19-63, Cl. 178—6.8.

Williamitis, Victor A.: *See*—
Begeman, Charles R., and Williamitis. 3,092,981.
Mann, Leonard J., Williamitis, and Simmons. 3,097,509.

Williams, Alan F., to Massey-Ferguson (Australia) Ltd. Fold-up mid-mounting for agricultural implements. 3,099,322, 7-30-63, Cl. 172—307.

Williams, Alan F., to Massey-Ferguson (Australia) Ltd. Tine cultivator. 3,108,643, 10-29-63, Cl. 172—265.

Williams, Albert H., to Caledex Machine Co. Ltd. Box making machine. 3,101,655, 8-27-63, Cl. 93—54.

Williams, Alexander T. Photoelectric device for measurement of areas. 3,099,749, 7-30-63, Cl. 250—210.

Williams, Alfred E., to The Pillsbury Co. Dehydration process and product. 3,103,439, 9-10-63, Cl. 99—199.

Williams, Alfred L. W.: *See*—
Hufford, George H., Josephson, and Williams. 3,101,420.

Williams, Arthur: *See*—
Orsinger, Albert R., and Williams. 3,085,434.
Rogers, Gail C., and Williams. 3,080,302.

Williams, Arthur T., ⅜ to C. R. Tidland. Expansion chuck. 3,097,808, 7-16-63, Cl. 242—68.2

Williams, Arthur T., and W. D. Smith; said Smith, assor. to C. R. Tidland. Roller for surfacing purposes. 3,095,634, 7-2-63, Cl. 29—113.

Wiliams, Arthur T., and C. R. Tidland. Mandrel with expansible chucks. 3,108,757, 10-29-63, Cl. 242—68.2.

Williams, Betty M., to Berlie (U.K.) Ltd. Corsets, girdles and like garments. 3,113,572, 12-10-63, Cl. 128—528.

Williams, Beverly E., to Hodges Research and Development Co. Process for the improvement and preservation of hides and product therefrom. 3,073,665, 1-15-63, Cl. 8—94.18.

Williams, Beverly E., to Hodges Research and Development Co. Process for tendering and preserving meat. 3,076,712, 2-5-63, Cl. 99—107.

Williams, Beverly E., to Hodges Research and Development Co. Method for making a ground meat food product. 3,100,152, 8-6-63, Cl. 99—108.

Williams, Bruce P., to Sylvania Electric Products Inc. Monostable multivibrator using emitter-follower feedback timing circuit. 3,084,266, 4-2-63, Cl. 307—88.5.

Williams, Burdell S., to Hi-Press Air Conditioning of America, Inc. High pressure air conditioning system. 3,091,288, 5-28-63, Cl. 165—48.

Williams, C. J.: *See*—
Learmont, Robert K. 3,094,940.
Learmont, Robert K. 3,109,544.

Williams, Carter P.: *See*—
Coberly, Clarence J., Brown, and Williams. 3,077,836.

Williams, Cecil E., to Thompson Ramo Wooldridge Inc. Signal processing apparatus. 3,096,501, 7-2-63, Cl. 340—15.5

Williams, Charles. Installation equipment for successive elongated units. 3,090,110, 5-21-63, Cl. 29—203.

Williams, Charles A., and E. S. Mills. System for distributing power within a building. 3,083,307, 3-26-63, Cl. 307—149.

Williams, Charles O., and C. E. Miller, to Olin Mathieson Chemical Corp. Spiral wound shotshell. 3,076,409, 2-5-63, Cl. 102—43.

Williams, Charles O., and C. F. Turner, to Olin Mathieson Chemical Corp. Shot load. 3,092,026, 6-4-63, Cl. 102—42

Williams, Charles R.: *See*—
Hagen, Glenn E., Williams, Baker, and Jackson. 3,089,124.

Williams, Charles R., G. E. Morrison, W. Leach, and W. J. Reely, to General Instruments Corp. Intercoupling apparatus. 3,106,635, 10-8-63, Cl. 235—61.6.

Williams, Chester. Riding lawn mower. 3,097,465, 7-16-63, Cl. 56—7.

Williams, Chester. Lawn mower. 3,100,958, 8-20-63, Cl. 56—7.

Williams, Chester I. Overlap rod connector. 3,079,186, 2-26-63, Cl. 287—114.

Williams, Chester I. Square column clamp. 3,107,087, 10-15-63, Cl. 269—125.

Williams, Chester I. Portable threading machine. 3,107,558, 10-22-63, Cl. 80—6.

Williams, Conrad L., to Dye Sheet Metal Products, Inc. Cup lid capper and separator. 3,099,119, 7-30-63, Cl. 53—296.

Williams, Dale D. Gas sampler. 3,093,001, 6-11-63, Cl. 73—421.5.

Williams, David A.: *See*—
Fathauer, George H., and Williams. 3,114,859.

Williams, David A., to Chemetron Corp. System for metering liquefied gas. 3,093,973, 6-18-63, Cl. 62—49.

Williams, David A., to Chemetron Corp. Apparatus for handling liquefied gases. 3,097,498, 7-16-63, Cl. 62—55

Williams, David A., to Harvey-Wells Corp. Television system for detection of differences. 3,114,797, 12-17-63, Cl. 178—6.8.

Williams, David A., and L. C. Browning, to Chemetron Corp. Apparatus for handling liquefied gases. 3,109,293, 11-5-63, Cl. 62—55.

Williams, David B.: *See*—
Williams, Edward B., Jr. 3,081,829.
Williams, Edward B., Jr. 3,094,177.
Williams, Edward B., Jr. 3,113,630.

Williams, David P., Sr., 83⅓% to J. E. Morris. Gas purifying muffler. 3,073,684, 1-15-63, Cl. 23—277.

Williams, David R., to Daystrom Inc. Transducer unit for printing type element. 3,112,693, 12-3-63, Cl. 101—102.

Williams, David W., T. E. Jones, and E. A. Crouch, to United Kingdom Atomic Energy Authority. Fuel elements for nuclear reactors. 3,092,565, 6-4-63, Cl. 204—193.2.

Williams, Delbert A. Portable key safe. 3,084,532, 4-9-63, Cl. 70—63.

Williams, Deloss, to Chicago Pneumatic Tool Co. Rifle nut. 3,083,586, 4-2-63, Cl. 74—424.8.

Williams, Donald W.: *See*—
Morrison, Wilbert H., and Williams. 3,093,885.

Williams, Earl P.: *See*—
Mayhew, Raymond L., and Williams. 3,089,888

Williams, Edward B., Jr.: *See*—
Albers, Gus A., and Williams. 3,111,179.

Williams, Edward B., Jr., ⅓ to E. B. Williams, III ⅓ to J. W. Williams, and ⅓ to D. B. Williams. Drill bit. 3,081,829, 3-19-63, Cl. 175—376.

Williams, Edward B., Jr., ⅓ to E. B. Williams III, ⅓ to J. W. Williams, and ⅓ to D. B. Williams. Rotary drill bit with lateral cutter. 3,094,177, 6-18-63, Cl. 175—334.

Williams, Edward B., Jr., ⅓ to E. B. Williams III, ⅓ to J. W. Williams, and ⅓ to D. B. Williams. Drill bit. 3,113,630, 12-10-63, Cl. 175—340.

Williams, Edward B., III: *See*—
Williams, Edward B., Jr. 3,081,829.
Williams, Edward B., Jr. 3,094,177.
Williams, Edward B., Jr. 3,113,630.

Williams, Edwin K., to Western Electric Co., Inc. Electrical connector. 3,091,745, 5-28-63, Cl. 339—32.

Williams, Elbert C., to Tru Mech Corp. Selectively engageable means for plural roll tape dispensers. 3,086,417, 4-23-63, Cl. 83—416.

Williams, Elmer T.: *See*—
Mulkey, Virgil L., Neish, and Williams. 3,115,265.

Williams, Emrys J., to International Computers and Tabulators Ltd. (formerly The British Tabulating Machine Co. Ltd.). Magnetic data storage devices. 3,099,822, 7-30-63, Cl. 340—174.1.

Williams, Ernest J., and G. H. Anthony, to Trafalgar Engineering Co. Ltd. Cable making machines. 3,093,956, 6-18-63, Cl. 57—58.65.

Williams, Eugene H. Toy kite. 3,074,673, 1-22-63, Cl. 244—153.

Williams, Forrest V.: *See*—
Gruber, Bernard A., Ruehrwein, and Williams. 3,090,703

Williams, Forrest V., to Monsanto Chemical Co. Production of pure phosphorus. 3,088,807, 5-7-63, Cl. 23—223.

Williams, Forrest V., to Monsanto Chemical Co. Process for preparing boron phosphide. 3,094,387, 6-18-63, Cl. 23—204.

Williams, Frank R., M. F. Perdigao, and R. B. S. T. Beonstra, to Cabot Corp. Conducting polymer compositions. 3,104,985, 9-24-63, Cl. 117—226.

Williams, Frederick. Ceilings and the like. 3,094,201, 6-18-63, Cl. 189—88.

Williams, Frederick F. Buoyant exercising device or toy. 3,102,280, 9-3-63, Cl. 9—348.

Williams, Frederick, and H. G. Bowditch, to Harrison, McGregor & Guest Ltd. Agricultural machine. 3,107,921, 10-22-63, Cl. 275—1.

Williams, Garnet M. E.: *See*—
Churchill, John A., and Williams. 3,096,094.

Williams, Garnet M. E., to Foster-Mallard Ltd. Sound reproducing machines. 3,086,780, 4-23-63, Cl. 274—10.

Williams, George B. Composite paint roller. 3,094,770, 6-25-63, Cl. 29—116.

Williams, George M., and G. P. Pallante, to United States Rubber Co. Method of injection molding fabric-reinforced articles. 3,087,201, 4-30-63, Cl. 18—59.

Williams, George W., III: *See*—
Ames, Robert G. 3,070,827.

Williams, Gerald L., to Sperry Rand Corp. Switching circuit in a matrix arrangement utilizing transistors for switching information. 3,105,224, 9-24-63, Cl. 340—166.

Williams, Glyn O.: *See*—
Orr, Harley J., and Williams. 3,112,392.

Williams, Harold W. Closure for containers. 3,073,472, 1-15-63, Cl. 215—46.

Williams, Harry D., to E. I. du Pont de Nemours and Co. Process for the preparation of trans-2,5-dimethyl piperazine. 3,074,949, 1-22-63, Cl. 260—268.

Williams, Harry L.: *See*—
Day, Robert L., and Williams. 3,107,759.

Williams, Harry R., to Bell & Gossett Co. Evaporator with oil return means. 3,111,819, 11-26-63, Cl. 62—471.

Williams, Henry L. Vehicle cooling system cleaning apparatus. 3,094,131, 6-18-63, Cl. 134—98.

Williams, Herbert E., to American Desk Mfg. Co. Chair seat or the like hinge. 3,098,677, 7-23-63, Cl. 297—332.

Williams, Howard J., to The Bendix Corp. Fuel feeding system for gas turbine engines. 3,074,472, 1-22-63, Cl. 158—36.4.

Williams, Howard J., to The Bendix Corp. Fuel feed device for gas turbine engines. 3,078,669, 2-26-63, Cl. 60—39.28.

Williams, Howard J., F. R. Rogers, and B. J. Ryder, to The Bendix Corp. Fuel feed and power control system for gas turbine engines. 3,103,785, 9-17-63, Cl. 60—39.28.

Williams, Jack L. R.: *See*—
Laakso, Thomas M., and Williams. 3,096,305.

Williams, Jack R.: *See*—
Wilson, Lawrence V., Jr., and Williams. 3,094,571.

Williams, James R.: *See*—
Kern, Walter P., Stoddart, and Williams. 3,085,155.

Williams, James E. Automatically scoring dart board. 3,101,198, 8-20-63, Cl. 273—102.2.

Williams, James L., to United Kingdom Atomic Energy Authority. Manufacture of diarylalkyl phosphine oxides. 3,104,264, 9-17-63, Cl. 260—606.5.

Williams, James L., to United Kingdom Atomic Energy Authority. Production of aryl secondary phosphine oxides. 3,105,097, 9-24-63, Cl. 260—606.5.

Williams, James N. and L. J. Asphalt and compound melting kettle. 3,086,512, 4-23-63, Cl. 126—343.5.

Williams, James T.: *See*—
Cobb, Clifton A., and Williams. 3,093,841.

Williams, James T., and D. L. Lang, to Whirlpool Corp. Fabric cleaning apparatus with recovery control means. 3,113,445, 12-10-63, Cl. 68—12.

Williams, John A.: *See*—
Mariotti, Olinto F., and Williams. 3,104,772.

Williams, John B. Camera attachment. 3,101,035, 8-20-63, Cl. 95—86.

Williams, John C.: *See*—
Sinclair, William R., and Williams. 3,073,770.

Williams, John G., to Worthington Corp. Mechanical seal with controlled leakage. 3,085,808, 4-16-63, Cl. 277—3.

Williams, John K., to E. I. du Pont de Nemours and Co. 4-(1,2 dicyanovinyl diarylidicyano methanes, and preparation thereof. 3,097,227, 7-9-63, Cl. 260—465.

Williams, John R., to Selas Corp. of America. Radiant cup gas burner. 3,083,759, 4-2-63, Cl. 158—113.

Williams, John R., to Raytheon Co. Transistor assembly and method. 3,089,219, 5-14-63, Cl. 29—25.3.

Williams, John R., to Selas Corp. of America. Gas burner and high temperature rotary joint. 3,101,772, 8-27-63, Cl. 158—99.

Williams, John R., and H. C. Santisi, to Selas Corp. of America. Radiant cup gas burner. 3,076,498, 2-5-63, Cl. 158—113.

Williams, John W.: *See*—
Kauffman, Glenn L., and Williams. 3,083,018.

Williams, John W., 50% to J. W. Caruth. Water tap receptacle and drain. 3,096,782, 7-9-63, Cl. 137—360.

Williams, Joseph H., to The Monotype Corp. Ltd. Step by step linear feed mechanism for photo-type composing machines. 3,092,000, 6-4-63, Cl. 95—4.5.

Williams, Joseph H., to The Monotype Corp. Ltd. Cylinders for printing machines. 3,094,067, 6-18-63, Cl. 101—218.

Williams, Joseph W.: *See*—
Williams, Edward B., Jr. 3,081,829.
Williams, Edward B., Jr. 3,094,177.
Williams, Edward B., Jr. 3,113,630.

Williams, Keith R., and D. P. Gregory, to Shell Oil Co. Gaseous fuel cells. 3,116,170, 12-31-63, Cl. 136—86.

Williams, Kenneth J.: *See*—
Barrett, Terence, English, and Williams. 3,109,658.

Williams, Laurence: *See*—
Speakman, Frank P., and Williams. 3,104,320.

Williams, Lawrence S., to Toledo Scale Corp. Weighing scale. 3,074,496, 1-22-63, Cl. 177—178.

Williams, Lawrence S., to Toledo Scale Corp. Chart reading mechanism. 3,100,600, 8-13-63, Cl. 235—1.

Williams, Leo C.: *See*—
Gore, Owen L., and Williams. 3,089,693.

Williams, Lloyd D.: *See*—
Koenig, Martin F., Pastene, and Williams. 3,081,386.

Williams, Loren J.: *See*—
Williams, James N. and L. J. 3,086,512.

Williams, Luther. Shoe fastening device. 3,112,545, 12-3-63, Cl. 24—205.

Williams, Malcolm S., and R. C. Fox, to California Research Corp. Paraffin wax compositions. 3,102,040, 8-27-63, Cl. 106—270.

Williams, Mary B. Drying cabinet. 3,073,039, 1-15-63, Cl. 34—231.

Williams, Michael, to The General Electric Co. Ltd. Manufacture of apparatuses including thin magnetic films. 3,095,319, 6-25-63, Cl. 117—107.

Williams, Michael A.: *See*—
Hanstock, Raymond F., Godwin, Lumb, and Williams. 3,091,959.

Williams, Milton S., Jr.: *See*—
Scott, George A., and Williams. 3,099,471.

Williams, Murray E., to Dexter Industries, Inc. Detent mechanism for securing a knob to a door latch. 3,091,490, 5-28-63, Cl. 292—352.

Williams, Murray E., to Dexter Industries, Inc. Stop system for determining the normal sector of freedom of movement of a door knob. 3,093,400, 6-11-63, Cl. 292—1.

Williams, Murray E., to Dexter Industries, Inc. Frame construction for door latches. 3,116,080, 12-31-63, Cl. 292—1.

Williams, Paul H.: *See*—
Smutny, Edgar J., and Williams. 3,112,338.

Williams, Paul H., and R. T. Holm, to Shell Oil Co. Epoxyesters of 3,4-dihydropyran-2-carboxylic acids. 3,116,301, 12-31-63, Cl. 260—345.8.

Williams, Norman C., and H. F. Everett, to Power Brake Equipment Co. Pneumatic motor. 3,088,707, 5-7-63, Cl. 253—2.

Williams Patent Crusher & Pulverizing Co., Inc.: *See*—
Williams, Robert M. 3,099,408.

Williams, Paul H.: *See*—
Green, Albert J., Randall, Williams, and Werner. 3,100,037.
Sullivan, William J., and Williams. 3,081,311.

Williams, Paul H., to Controls Co. of America. Timer apparatus with rapid advance. 3,089,994, 5-14-63, Cl. 318—443.

Williams, Paul H., to Shell Oil Co. Epoxidation olefins with hydrogen peroxide and a cyanamide. 3,113,951, 12-10-63, Cl. 260—348.5.

Williams, Paul H., and W. E. Beller, to Controls Co. of America. Shift mechanism. 3,076,349, 2-5-63, Cl. 74—335.

Williams, Paul H., and J. J. Kaleba, to Controls Co. of America. Pressure switch contacts. 3,110,784, 11-12-63, Cl. 200—83.

Williams, Paul L., to Toledo Scale Corp. Motion detector. 3,103,253, 9-10-63, Cl. 177—187.

Williams, Philip B., H. E. Allen, and C. R. Hohmann, to The Muter Co. (Jensen Mfg. Co. Division). Blast-proof, water-proof loudspeaker. 3,073,916, 1-15-63, Cl. 179—115.5.

Williams, Philip S.: *See*—
Skelton, Jesse D., Williams, and Baker. 3,076,175.

Williams, Philip S., to Jersey Production Research Co. Seismic recording system. 3,072,906, 1-8-63, Cl. 346—1.

Williams, Ralph A. Method and apparatus for repairing armatures and the like. 3,098,917, 7-23-63, Cl. 219—19.

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Williams, Ralph T., and D. W. Eley, to Engelhard Industries of Canada Ltd. Method of welding metallic gauze. 3,070,878, 1-1-63, Cl. 29—419.

Williams, Ralph T., and D. W. Eley, to Engelhard Industries of Canada Ltd. Welding apparatus. 3,090,262, 5-21-63, Cl. 78—82.

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Williams, Ray L., to Stratoflex, Inc. Hose fitting having connecting means for an internal reinforcing member and method of assembly. 3,112,937, 12-3-63, Cl. 285—114.

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Williams, Richard E., to Scope, Inc. Organ vibrato control. 3,074,305, 1-22-63, Cl. 84—1.25.

Williams, Richard E., to Melpar, Inc. Radar system. 3,076,191, 1-29-63, Cl. 343—14.

Williams, Richard E., to Scope Inc. Vibrato circuit. 3,076,370, 2-5-63, Cl. 84—1.25.

Williams, Richard H., Jr., to Westinghouse Air Brake Co. Subminiature relays. 3,102,974, 9-3-63, Cl. 317—176.

Williams, Richard J., R. G. Heyl, Jr., and W. T. Downs, to Simmons Co. Motor operated hospital bed. 3,081,463, 3-19-63, Cl. 5—63.

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Williams, Robert L., B. L. Waddell, and J. W. Crownover, to Daystrom, Inc. Method and apparatus for utilizing ferroelectric material for data storage. 3,105,225, 9-24-63, Cl. 340—173.2.

Williams, Robert M., to Williams Patent Crusher & Pulverizing Co., Inc. Hammer mill. 3,099,408, 7-30-63, Cl. 241—187.

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Williams, Roger B., Jr., to Toledo Scale Corp. Condition responsive device. 3,108,648, 10-29-63, Cl. 177—3.

Williams, Roger B., Jr., to Toledo Scale Corp. Checking circuits. 3,112,805, 12-3-63, Cl. 177—46.

Williams, Roger E., to General Railway Signal Co. Traffic counting system. 3,097,295, 7-9-63, Cl. 235—92.

Williams, Russell J., and C. V. Brady, to Bemis Bro. Bag Co. Bag closure with unravel preventing means. 3,081,929, 3-19-63, Cl. 229—63.

Williams, Russell J., and M. J. Heimos, to Bemis Bro. Bag Co. Apparatus for manufacturing bags. 3,094,044, 6-18-63, Cl. 93—22.

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Williams, Sam B., and J. J. Benson, to Williams Research Corp. Gas turbine combustion chamber. 3,077,076, 2-12-63, Cl. 60—39.36.

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Willinger, Allan H., to Aquariums Inc. Aquarium heater. 3,107,290, 10-15-63, Cl. 219—41.

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Stewart, James R., and Willyard. 3,087,999.

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Wilson, Frederick E. J., to Avery-Hardoll Ltd. Liquid dispensing apparatus. 3,089,616, 5–14–63, Cl. 222—16.

Wilson, Frederick E. J., to Avery-Hardoll Ltd. Liquid dispensing apparatus. 3,089,617, 5–14–63, Cl. 222—16.

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Wilson, George J. Snore alarm. 3,089,130, 5–7–63, Cl. 340—279.

Wilson, George P., and J. H. Specht. Painter's shield. 3,091,218, 5–28–63, Cl. 118—505.

Wilson, Harold F., and D. H. McRae, to Rohm & Haas Co. Weed control. 3,080,225, 3–5–63, Cl. 71—2.3.

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Wilson, Harry C. Adjustable strength door latch. 3,086,803, 4–23–63, Cl. 292—17.

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Zoll, Maurice B., and Duncan. 3,076,500.

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Wilson, Murray V., to The Plessey Co. Ltd. Gaseous fission products absorption in liquid for measurement. 3,116,414, 12–31–63, Cl. 250—43.5.

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Wilson, Raymond O., to Olympic Screw & Rivet Corp. Method of assembling clinch pins. 3,112,562, 12–3–63, Cl. 29—430.

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Winchel, Henry T., to Consolidated Electronics Industries, Corp. Timing circuit. 3,109,965, 11–5–63, Cl. 317—148.5.

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Winn, James B., Jr., to The Archilithic Co. Dispensing of fibrous material. 3,111,270, 11–19–63, Cl. 239—325.
Winn, Russell E., to North American Philips Co., Inc. Manufacture of information storage matrices. 3,108,364, 10–29–63, Cl. 29—241.
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Winston, Eric, L. D. Ecker, and R. N. Vendeland, to Jerrold Electronics Corp. Signal distribution system. 3,105,873, 10–1–63, Cl. 178—6.
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Wise, Coy J. Bolt holding tool. 3,094,020, 6–18–63, Cl. 81—13.
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Wise, Eugene P. Thermostatic fuel mixture control. 3,081,984, 3–19–63, Cl. 261—23
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Wise, George S., Jr., to Deering Milliken Research Corp. Method of forming a roving package. 3,106,056, 10–8–63, Cl. 57—156.
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Wise, Lester V. Optical line inscribing apparatus. 3,103,849, 9–17–63, Cl. 88—24.
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Wise, Robert H., and D. H. Meyer, to Standard Oil Co. Purification of terephthalic acid. 3,102,137, 8–27–63, Cl. 260—525.
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Wisseroth, Karl, R. Herbeck, H. Lautenschlager, H. Moeller, G. Schmidtthomee, G. Staiger, H. G. Trieschmann, and H. Weber, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Process for the thermal oxidative degradation and simultaneous purification of linear polyolefins. 3,110,708, 11-12-63, Cl. 260—93.7.

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Witkoff, Robert S. Resilient gripping device. 3,115,360, 12-24-63, Cl. 294—99.

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Witort, William W. Conduit raceway system and components therefor. 3,110,753, 11-12-63, Cl. 174—65.

Witort, William W., J. W. Hudson, and E. J. King. Conduit system and components therefor. 3,110,754, 11-12-63, Cl. 174—70.

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Witting, Richard H. Crush-proof packaging. 3,113,670, 12-10-63, Cl. 206—59.

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Wittner, Eugene, and I. Rozalsky, to Shell Oil Co. Lubricating compositions. 3,100,749, 8-13-63, Cl. 252—49.9.

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Muller, Paul, Schmitt, and Wittner. 3,090,744.

Wittrock, Henry J., to Kaiser Aluminum & Chemical Corp. Sealing of anodized coatings. 3,073,760, 1-15-63, Cl. 204—35.

Wittrock, Henry J., to Kaiser Aluminum & Chemical Corp. Metal treatment. 3,098,804, 7-23-63, Cl. 204—41.

Wittry, David B., to Applied Research Laboratories, Inc. Electron probe X-ray analyzer wherein the emitted X-radiation passes through the objective lens. 3,107,297, 10-15-63, Cl. 250—51.5.

Wittwer, Edouard. Circulating pump arrangements, more especially for central heating systems. 3,072,069, 1-8-63, Cl. 103—218.

Wittwer, Robert: *See*—
Jenny, Walter, and Wittwer. 3,100,132.

Witvrouw, Louis. Multi-piece plastic water closet bowl 3,102,274, 9-3-63, Cl. 4—69.

Witzke, Ernest C. Transistorized audio power amplifier. 3,087,015, 4-23-63, Cl. 179—1.

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Humbert, Kingsley E., Jr. 3,076,551.
Humbert, Kingsley E., Jr., Young, and Hough. 3,086,656.

Wixon, Harold E., to Colgate-Palmolive Co. Preparation of liquid detergent compositions. 3,075,922, 1-29-63, Cl. 252—138.

Wixon, Harold E., to Colgate-Palmolive Co. Liquid detergent composition. 3,101,324, 8-20-63, Cl. 252—138.

Wixon, Harold E., to Colgate-Palmolive Co. Oxidizing scouring cleanser and process of preparing same. 3,108,077, 10-22-63, Cl. 252—95.

Wixon, Harold E., to Colgate-Palmolive Co. Stabilized trichlorocyanuric acid and compositions containing same. 3,108,078, 10-22-63, Cl. 252—95.

Wixon, Harold E., to Colgate-Palmolive Co. Water soluble textile bleaching and detergent composition. 3,108,079, 10-22-63, Cl. 252—99.

Wizelman, Morris, to Globe Industries, Inc. Blister packaging machine. 3,092,945, 6-11-63, Cl. 53—373.

Wizelman, Morris, to Globe Industries, Inc. Packaged comestible. 3,104,172, 9-17-63, Cl. 99—171.

Wlodek, Stanley T., to Union Carbide Corp. Coated columbium. 3,081,530, 3-19-63, Cl. 29—194.

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Gotsch, Lenard P., and Wobbe. 3,077,171.

Wochner, Charles J., to Jasper Blackburn Corp. Protective sheath for an electric connector. 3,112,148, 11-26-63, Cl. 339—116.

Wochner, Joseph J., to Allis-Chalmers Mfg. Co. Cable control unit. 3,101,138, 8-20-63, Cl. 192—4.

Woelfel, Albert E., to Cameron Iron Works, Inc. High and low pressure responsive cut-off valve. 3,083,726, 4-2-63, Cl. 137—458.

Woelfer, Robert O. End flap closing means for cartons. 3,071,910, 1-8-63, Cl. 53—376.

Woelk, Hubert, to Spiegelglaswerke Germania Aktiengesellschaft Zweigniederlassung der Glaceries de Saint Roch Societe Anonyme. Process for the preparation of multipane insulating glass. 3,097,061, 7-9-63, Cl. 18—59.

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Barthe, Jack H., Kenner, and Woermbke. 3,098,172.

Woerner, David R. Automatic stirring device. 3,112,917, 12-3-63, Cl. 259—122.

Woerner, Eldon H., to Bemis Bro. Bag Co. Bag. 3,092,303, 6-4-63, Cl. 229—62.5.

Woerther, Clarence J., to International Minerals & Chemical Corp. Process for preparing slow release fertilizer compositions. 3,096,171, 7-2-63, Cl. 71—64.

Woerther, Clarence J., to International Minerals & Chemical Corp. Production of clarified acidic phosphatic solutions. 3,099,622, 7-30-63, Cl. 210—49.

Woessner, Donald E., to Socony Mobil Oil Co., Inc. Field gradient measurement of self-diffusion constant. 3,109,986, 11-5-63, Cl. 324—.5.

Woestemeyer, Francis B., to General Electric Co. Fail-safe pressure sensing device. 3,074,435, 1-22-63, Cl. 137—786.

Wofford, Benjamin R.: *See*—
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Wognum, James N. Continuous casting. 3,075,264, 1-29-63, Cl. 22—57.3.

Wohl, Robert J. Wide range electrodynamic actuator. 3,074,269, 1-22-63, Cl. 73—71.6.

Wohl, Robert J. Electric vaporizers. 3,081,393, 3-12-63, Cl. 219—38.

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Wohler, Stanley A., W. A. Lundy, and R. H. Baisley, to Kellett Aircraft Corp. Power tools. 3,074,163, 1-22-63, Cl. 30—180.

Wohlfeil, Leonard H. Card holder. 3,075,723, 1-29-63, Cl. 242—85.1.

Wohlhaupter, Emil and E., and F. Eyring, to Emil Wohlhaupter & Co. Tool clamping device. 3,082,014, 3-19-63, Cl. 279—103.

Wohlhaupter, Emil, & Co.: *See*—
Wohlhaupter, Emil and E., and Eyring. 3,082,014.

Wohlhaupter, Erwin: *See*—
Wohlhaupter, Emil and E., and Eyring. 3,082,014.

Wohlrabe, Frank C., A. M. Mark, W. B. Roth, and C. Mehltretter, to United States of America, Agriculture. Process for production of amylose film. 3,116,351, 12-31-63, Cl. 264—186.

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Wohnsiedler, Henry P., and R. H. Hunt, to American Cyanamid Co. Amino-aldehyde molding resins modified with polyacrylamide or methylol polyacrylamide. 3,081,277, 3-12-63, Cl. 260—45.2.

Wohnsiedler, Henry P., to American Cyanamid Co. Thermosetting amine resins modified with a polyester and a polyacrylamide. 3,081,278, 3-12-63, Cl. 260—45.3.

Wohnsiedler, Henry P., and C. J. Ammondson, to American Cyanamid Co. Resinous composition and process of preparation. 3,108,029, 10-22-63, Cl. 156—330.

Woltach, Peter T., Jr., and C. E. Herrick, Jr., to General Aniline & Film Corp. Printing plates comprising ink receptive azo dye surfaces. 3,086,861, 4-23-63, Cl. 96—33.

Wojciechowski, Walter J., and G. H. Brandt, to Harris-Intertype Corp. Dampening device for lithographic printing press. 3,096,710, 7-9-63, Cl. 101—148.

Wojcik, Richard P., to International Harvester Co. Packing and shipping container. 3,079,061, 2-26-63, Cl. 229—14.

Wolansky, John, and B. J. Kitko, to Thompson Ramo Wooldridge Inc. Rotary regenerator drum fabrication. 3,081,822, 3-19-63, Cl. 165—10.

Wolber, James E., to The Pure Oil Co. Corrosion probe with cathodically protected compensating element. 3,098,991, 7-23-63, Cl. 338—13.

Wolbers, August B. Clamp. 3,091,421, 5-28-63, Cl. 248—41.

Wolcott, Edson R. Ultrasonic transducer. 3,078,403, 2-19-63, Cl. 318—116.

Wolcott, Glenn W., to Penn Aircraft Products, Inc. Flaring tool. 3,109,479, 11-5-63, Cl. 153—79.

Wolcott, Henry O., to Optimation, Inc. Wide range high fidelity balanced amplifier. 3,111,630, 11-19-63, Cl. 330—82.

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Whinery, Vernon W., Wolcott, and Tedstrom. 3,078,976.

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Bain, Bruce K., Blair, Burger, Ross, Vorachek, and Wolcott. 3,106,373.

Wolensky, William, to International Business Machines Corp. Data boundary cross-over and/or advance data access system. 3,109,162, 10-29-63, Cl. 340—172.5.

Wolf, Alfred, to Geophysical Research Corp. Multiple geophone recording system for seismic prospecting. 3,072,211, 1-8-63, Cl. 181—.5.

Wolf, Alfred, to Societe de Prospection d'Inventions Techniques Spit. Explosive actuated pin driver. 3,074,070, 1-22-63, Cl. 1—44.5.

Wolf, Alfred A., to Fidelity Instrument Corp. Motor control circuit utilizing a half wave magnetic amplifier. 3,090,902, 5-21-63, Cl. 318—331.

Wolf, Alfred A., to General Dynamics Corp. White noise fault detection system. 3,102,231, 8-27-63, Cl. 324—57.

Wolf, Arnold F.: *See*—
Charnota, Steven, and Wolf. 3,097,762.

Wolf, Carlton H.: *See*—
Thompson, Donald V., and Wolf. 3,111,575.

Wolf, Cecil R., J. P. Holland, and P. F. Sharp, to Frantz Mfg. Co. Overhead door construction. 3,104,699, 9-24-63, Cl. 160—40.

Wolf, Christian-Friedrich: *See*—
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Wolf, Christian-Friedrich, and W. Engel, to Siemens-Schuckertwerke Aktiengesellschaft. Method and means for recording and reproducing magnetic signals. 3,114,010, 12-10-63, Cl. 179—100.2.

Wolf, Clement W.: *See*—
Stanback, Harris I., and Wolf. 3,076,876.

Wolf, Cyril W. Hair trimming attachment for electric razors. 3,109,236, 11-5-63, Cl. 30—90.

Wolf, David. Message transmitting means. 3,075,791, 1-29-63, Cl. 282—1.

Wolf, Erich, to Schlosser & Co. G.m.b.H. Manufacture of crystalline porous stones. 3,082,100, 3-19-63, Cl. 106—40.

Wolf, Gilbert H.: *See*—
Forbush, Lothrop M., Wolf, and Wood. 3,112,510.

Wolf, Gottlieb, to Sulzer Freres, S.A. Two-stroke diesel engine with an exhaust gas driven turboblower. 3,095,692, 7-2-63, Cl. 60—13.

Wolf, Harley L., to American Doll & Toy Corp. Collapsible game table. 3,078,095, 2-19-63, Cl. 273—30.

Wolf, Horst: *See*—
Holzer, Johann, and Wolf. 3,071,733.

Wolf, Irving W.: *See*—
Sprague, Carlton L., and Wolf. 3,088,434.

Wolf, Irving W., and O. G. White, to General Electric Co. Method for fabricating small elements of thin magnetic film. 3,081,210, 3-12-63, Cl. 156—8.

Wolf, Jack J., and K. W. Miller, to The General Tire & Rubber Co. Dual rate rubber bushing. 3,082,999, 3-26-63, Cl. 267—57.

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Deeley, Stanton E. 3,084,072.
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Wolf, James E., to R.S.L. Shuttlecocks Co., Ltd. Shuttlecock. 3,089,704, 5-14-63, Cl. 273—106.

Wolf, Lloyd J. Control for dual engine vehicles. 3,090,458, 5-21-63, Cl. 180—14.

Wolf, Martin: *See*—
Mann, Alfred E., Dubey, Wolf, Ralph, Oliver, and Shuster. 3,094,439.

Wolf, Morris A. Clothing display form. 3,084,837, 4-9-63, Cl. 223—68.

Wolf, Murray: *See*—
Guerrieri, Salvatore A., and Wolf. 3,105,738.

Wolf, Neil H. Process for leaching of alumina from aluminous material. 3,094,378, 6-18-63, Cl. 23—532.

Wolf, Paul A.: *See*—
Schramm, James N., and Wolf. 3,105,060.

Wolf, Robert L.: *See*—
Barnes, Vernon M., Jr., Burke, King, and Wolf. 3,114,318.

Wolf, Robert M., Jr. Belt buckle. 3,103,047, 9-10-63, Cl. 24—73.

Wolf, Richard N., to Minneapolis-Honeywell Regulator Co. Electrical apparatus. 3,084,881, 4-9-63, Cl. 242—67.2.

Wolf, Rudolph J., Jr.: *See*—
Miller, Robert L., and Wolf. 3,101,433.

Wolf, Walter A., to Vaco Products Co. Electrical terminal connector. 3,107,964, 10-22-63, Cl. 339—205.

Wolf, Walter J., to Leathercraft, Inc. Carrying case. 3,086,630, 4-23-63, Cl. 190—48.

Wolf, Wilhelm: *See*—
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Wolf, William C. Deep well submersible pumping unit. 3,091,181, 5-28-63, Cl. 103—45.

Wolf, Willy, to Bodi & Wienenberger Aktiengesellschaft. Expansible link bracelet with link detaching means. 3,084,503, 4-9-63, Cl. 59—79.

Wolfe, Albert. Removable slats for Venetian blinds. 3,086,586, 4-23-63, Cl. 160—236.

Wolfe, Clarence E.: *See*—
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Wolfe, Deloit R. Orthodontic pliers. 3,085,339, 4–16–63, Cl. 32—66.

Wolfe, Edgar H.: *See*—
Perkovich, Mark J., Wardwell, and Wolfe. 3,104,915.

Wolfe, Fred L., J. W. Earnest, and A. T. Johnson, to Truss-Masters, Inc. Boat. 3,075,488, 1–29–63, Cl. 114—66.5.

Wolfe, Gene R., and N. G. Robisch, to The Procter & Gamble Co. Parallel wire separator. 3,106,524, 10–8–63, Cl. 209—379.

Wolfe, George E., Jr. Plant watering system. 3,108,400, 10–29–63, Cl. 47—18.

Wolfe, Gilbert L. Method for making building panels. 3,074,-157, 1–22–63, Cl. 29—169.

Wolfe, John C.: *See*—
Rathmann, Heinrich W., and Wolfe. 3,085,004.

Wolfe, John L. Expansible chamfering attachment for a rotatable reamer. 3,078,743, 2–26–63, Cl. 77—73.

Wolfe, Leslie E. Cable brake for trucks. 3,077,790, 2–19–63, Cl. 74—506.

Wolfe, Paul D., to E. I. du Pont de Nemours and Co. Manufacture of improved thermoplastic pipe. 3,089,187, 5–14–63, Cl. 18—14.

Wolfe, Peter N., to Westinghouse Electric Corp. Display device. 3,073,992, 1–15–63, Cl. 315—169.

Wolfe, Peter N., to Westinghouse Electric Corp. Display device. 3,086,143, 4–16–63, Cl. 315—169.

Wolfe, Peter N., and E. A. Sack, Jr., to Westinghouse Electric Corp. Solid state display screens. 3,107,315, 10–15–63, Cl. 315—169.

Wolfe, Raymond: *See*—
Smith, George E., and Wolfe. 3,090,207.

Wolfe, Richard: *See*—
Palfrey, Frederick M., and Wolfe. 3,088,920.

Wolfe, Robert M., to Bell Telephone Laboratories, Inc. Ferroelectric shift register. 3,100,887, 8–13–63, Cl. 340—173.2.

Wolfe, Roger W., to Burroughs Corp. Drive circuit for electronic counters with means to prevent spurious switching. 3,092,752, 6–4–63, Cl. 315—8.5.

Wolfe, Roger W., to Burroughs Corp. Magnetron beam switching tube. 3,097,322, 7–9–63, Cl. 313—156.

Wolfe, Roger W., and E. J. Grohe, Jr., to Burroughs Corp. Noise-generating tube. 3,112,423, 11–26–63, Cl. 315—8.6.

Wolfe, Wayne F., to Hunt Foods and Industries, Inc. Forming horn support. 3,071,092, 1–1–63, Cl. 113—8.

Wolfe, Wayne F., to United Can and Glass Co. Can body making machine. 3,100,470, 8–13–63, Cl. 113—11.

Wolfe, William A., and L. Pease, to Atomic Energy of Canada Ltd. Concentric tube structure. 3,106,520, 10–8–63, Cl. 204—193.2.

Wolfe, William R., Jr., to E. I. du Pont de Nemours and Co. Primary cells. 3,081,204, 3–12–63, Cl. 136—137.

Wolfe, William R., Jr., to E. I. du Pont de Nemours and Co. Electrolytic cell. 3,110,630, 11–12–63, Cl. 163—154.

Wolfendale, Caleb F., to Servomatic Hydraulics (Guildford) Ltd. Potentiometers. 3,071,758, 1–1–63, Cl. 340—187.

Wolfenden, Henry C. L.: *See*—
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Wolfensperger, Adolph, to Rockwell Mfg. Co. Plug valve construction. 3,096,070, 7–2–63, Cl. 251—214.

Wolfensperger, Adolph, to Rockwell Mfg. Co. Fluid pressure tight joint. 3,101,191, 8–20–63, Cl. 251—209.

Wolferts, Max A. Holder for invalid walker. 3,085,258, 4–16–63, Cl. 5—92.

Wolff, Dietrich, to Contraves AG. Phase modulated positioning servo-system. 3,083,324, 3–26–63, Cl. 318—28.

Wolff, Edmund A., to Champion Papers, Inc. Composition comprising polycarbonate and sucrose ester and cellulosic web coated therewith. 3,108,977, 10–29–63, Cl. 260—9.

Wolff, Edwin F. Apparatus for instruction and practice use in bowling with tenpins. 3,076,652, 2–5–63, Cl. 273—54.

Wolff, Elmer A., Jr.: *See*—
Cornelison, Boyd, Jones, Lineback, Wolff, Harcus, Horak, and Ince. 3,076,253.
Cornelison, Boyd, Thornhill, and Wolff. 3,092,893.
Cornelison, Boyd, and Wolff. 3,088,852.

Wolff, Elmer A., Jr., to Texas Instruments Inc. Junction growing technique. 3,072,504, 1–8–63, Cl. 148—1.5.

Wolff, Elmer A., Jr., to Texas Instruments Inc. Masking device useful for making transistors. 3,088,435, 5–7–63, Cl. 118—504.

Wolff, Friedrich, to International Standard Electric Corp. Apparatus for effecting the automatic contrast control in television receivers. 3,104,281, 9–17–63, Cl. 178—7.5.

Wolff, Fritz. Rotary printing machine. 3,072,050, 1–8–63, Cl. 101—177.

Wolff, George M., and F. J. Lasak, to General Electric Co. Hose structure. 3,109,461, 11–5–63, Cl. 138—137.

Wolff, Heinz S., and S. A. Roach. Apparatus for measuring dust particles. 3,092,583, 6–4–63, Cl. 233—3.

Wolff, Henry E., and A. F. Abbey. Process for preparing a stable, edible coconut water extract. 3,076,714, 2–5–63, Cl. 99—125.

Wolff, Hermann P., to International Business Machines Corp. Gyrator apparatus and method for handling information 3,074,637, 1–22–63, Cl. 235—164.

Wolff, Hermann P., to International Business Machines Corp. Logic system using waves distinguishable as to frequency. 3,090,923, 5–21–63, Cl. 328—93.

Wolff, Hubert G., J. Rogers, and H. H. Da Monde, to United States of America, Navy. Dipped sonar data transmission system. 3,092,803, 6–4–63, Cl. 340—3.

Wolff, Joe M., to Car-Wal Block Corp. Machine for manufacturing air cavity building blocks. 3,089,214, 5–14–63, Cl. 25—41.

Wolff, Otto E.: *See*—
Eburn, William H., Jr., and Wolff. 3,108,525.

Wolff, Paul A., to Kerr-McGee Oil Industries Inc. Submersible barge for submarine operations. 3,099,912, 8–6–63, Cl. 61—46.5.

Wolff, Robert A., to Admiral Corp. Oscillator circuit. 3,113,-178, 12–3–63, Cl. 178—5.8.

Wolff, Robert A., to Admiral Corp. F.M. stereo indicator. 3,116,372, 12–31–63, Cl. 179—15.

Wolff, Willi: *See*—
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Wolff, William F., to Standard Oil Co. Insecticidal diesters of dithiosulfurous acid. 3,071,505, 1–1–63, Cl. 167—22.

Wolff, William R.: *See*—
Anderson, Dale K., and Wolff. 3,078,650.

Wolfinger, Kurt, to Rodi & Wienenberger Aktiengesellschaft. Expansible linkage having connectors with integral pretensioning means. 3,099,908, 8–6–63, Cl. 59—79.

Wolford, Wallace W., to Owens-Illinois Glass Co. Container gauging apparatus. 3,080,659, 3–12–63, Cl. 33—174.

Wolfram, Hans: *See*—
Popp, Bernhard; Scherer, Wolfram, Steinmetz, and Turk. 3,105,091.

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Primeau, George H., and Wolfram. 3,096,994.

Wolfram, William S., to General Motors Corp. Drives for vehicle engine cooling fans. 3,103,308, 9–10–63, Cl. 230—270.

Wolfram, William S., and J. W. Houston, to General Motors Corp. Torque transmitting mechanism. 3,081,856, 3–19–63, Cl. 192—104.

Wolfson, Cecil, and I. Fox; said Fox assor. to said Wolfson. Non-drip valves for pressurized containers. 3,079,048, 2–26–63, Cl. 222—108.

Wolfson, Irving: *See*—
Hein, William J., and Wolfson. 3,112,680.

Wolinsky, Albert, to General Precision, Inc. Binary digital single-brush readout device. 3,095,559, 6–25–63, Cl. 340—347.

Wollensak, John C., to Ethyl Corp. Preparation of cyclopentadiene metal compounds. 3,088,960, 5–7–63, Cl. 260—439.

Wollentin, Robert W., to Westinghouse Electric Corp. Electroluminescent device and method. 3,110,837, 11–12–63, Cl. 313—108.

Wollett, Ernest S., 2d, to S. G. Loeffler. Apparatus for packaging finely divided materials. 3,103,698, 9–17–63, Cl. 18—5.

Wollner, Paul, and R. H. Walter, Jr., to Aeroil Products Co., Inc. Temperature control systems. 3,099,392, 7–30–63, Cl. 236—21.

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Hiltman, Rudolf, Wollweber, Hoffmeister, and Wirth. 3,086,978.

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Hill, James E., Levinson, and Wolman. 3,096,447.

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Wolner, Herbert E. Coaster vehicle for children. 3,109,667, 11–5–63, Cl. 280—87.02.

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Gray, Raymond K., and Wolniak. 3,078,499.

Wolny, Joseph. Broken screw extractor and driver. 3,106,-233, 10–8–63, Cl. 145—1.

Wolowitz, William H. Ribbon for typing and obliterating. 3,114,447, 12–17–63, Cl. 197—172.

Wolpin, Martin P., and J. G. Goerner, to Bell Aerospace Corp. Electro hydraulic servo device. 3,078,863, 2–26–63, Cl. 137—82.

Wolsh, Bernard. Electronically controlled backwater valve. 3,077,203, 2–12–63, Cl. 137—302.

Wolski, Adolph J., to The Pauland Corp. Semi-conductor device having a gas-discharge type switching characteristic. 3,109,938, 11–5–63, Cl. 307—88.5.

Wolski John J.: *See*—
Rowland, George P., Jr., and Wolski. 3,078,289.

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Wolstein, Friedrich, and G. Gelhaus. Separate precipitation of sodium and potassium bicarbonate from sodium chloride-potassium chloride solutions. 3,112,173, 11–26–63, Cl. 23—64.

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Jepson, Ivar, Ernstberger, and Wolter. 3,107,378.

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Stanczak, Frank J., and Wolterding. 3,075,260.

Woltersdorf, Friedrich W., to Siemens & Halske, Aktiengesellschaft. Method for hot box detection. 3,100,097, 8–6–63, Cl. 246—169.

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Wolverton, Kenneth H.: *See*—
Schwegler, Roy F., and Wolverton. 3,090,586.

Wolverton, Marcine P., to Midway Mfg. Co. Projectile apparatuses. 3,089,476, 5–14–63, Cl. 124—11.

Wolverton, Marcine P., and H. S. Ross. Target apparatus. 3,089,703, 5–14–63, Cl. 273—105.2.

Womack, Archer L., A. C. Blaine, and B. Orley, to Weyerhaeuser Co. Portable yarder. 3,109,522, 11–5–63, Cl. 189—11.

Womack, Jack M.: *See*—
Payne, Harry R., and Womack. 3,107,812.

Womack, Sherman E.: *See*—
Rasch, Leroy L. S., Woodcock, and Womack. 3,071,208.

Wompey, John J. Electric heater. 3,077,531, 2–12–63, Cl. 219—39.

Wong, Hans B. Multiple reel carrier. 3,107,878, 10–22–63, Cl. 242—86.7.

Wonso, Stanley. Closure for collapsible tubes or bottles. 3,095,128, 6–25–63, Cl. 222—514.

Woo, James J., to International Business Machines Corp. Analog to digital converter. 3,114,144, 12–10–63, Cl. 340—347.

Woo, Way D., to Minneapolis-Honeywell Regulator Co. Magnetic shift register coupling loop. 3,114,897, 12–17–63, Cl. 340—174.

Woo, Way D., R. D. Kodis, and S. Ruhman, to Raytheon Co. Magnetic control systems. 3,075,179, 1–22–63, Cl. 340—174.

Wood, A. R., Mfg. Co.: *See*—
Stotteran, Donald A., and Cochran. 3,075,495.
Tellefson, Willis. 3,111,215.

Wood, Albert J. Mailing piece. 3,093,296, 6–11–63, Cl. 229—92.8.

Wood, Arthur B., to Admart, Inc. Beverage-cup holder. 3,104,788, 9–24–63, Cl. 224—45.

Wood, Arthur G., to Permuta Closures Ltd. Bottle closures. 3,109,547, 11–5–63, Cl. 215—41.

Wood, Arthur G., to Permuta Closures Ltd. Bottle closures and the like. 3,109,548, 11–5–63, Cl. 215—46.

Wood, Augusta C.: *See*—
Wood, Frank E. 3,105,040.

Wood, Barrie: *See*—
Bethell, James R., Hadley, and Wood. 3,094,565.

Wood, Barrie, to The Distillers Co. Ltd. Production of unsaturated aliphatic nitriles. 3,094,552, 6–18–63, Cl. 260—465.9.

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Wood, Keith S. 3,073,135.
Wood, Mervel E. 3,080,696.

Wood, Carl F.: *See*—
Bodem, Roy C., Brandes, Hirsch, McDonald, and Wood. 3,091,295.

Wood, Carl L., to Henry J. Kaiser Co. Ignition system for internal combustion engine. 3,100,479, 8–13–63, Cl. 123—148.

Wood, Charles F. Track score board. 3,104,484, 9–24–63, Cl. 40—130.

Wood, Charles H., Jr.: *See*—
Hellstrom, Melbourne J., and Wood. 3,111,602.

Wood, Charles R. Artist's brush case and rack. 3,077,977, 2–19–63, Cl. 206—1.7.

Wood Conversion Co.: *See*—
Bergstrom, Frederick S. 3,077,703.
Carlson, Lorien A. 3,100,319.
Hella, John M., and Wise. 3,093,533.
Thomas, George W., and McGervey. 3,077,945.
Withoff, Alfred J. 3,070,814.

Wood, David D.: *See*—
Schroeder, Robert C., and Wood. 3,114,335.
Schroeder, Robert C., and Wood. 3,114,336.
Schroeder, Robert C., and Wood. 3,114,338.

Wood, Davis M., E. B. Holte, and C. W. Ecker, to United States of America, Navy. Missile container suspension system. 3,072,022, 1–8–63, Cl. 89—1.7.

Wood, Delos R., to Multi-Clean Products Inc. Vacuum cleaning apparatus. 3,082,465, 3–26–63, Cl. 15—327.

Wood, Donald C.: *See*—
Davis, Richard C., and Wood. 3,113,928.

Wood, Dorathy M. Jumping, exercise, and play device. 3,104,104, 9–17–63, Cl. 272—74.

Wood, Edward H., to General Bronze Corp. Sliding window and counterbalancer combination. 3,114,178, 12–17–63, Cl. 20—52.2.

Wood, Ernest C.: *See*—
Brown, Adolph M. 3,098,232.

Wood, Ervin G. Memoranda and directory support for cradle-type telephones. 3,084,474, 4–9–63, Cl. 45—.5.

Wood, Frank A., to Zenith Radio Corp. Television sweep transformer with filament winding insulator. 3,092,797, 6–4–63, Cl. 336—198.

Wood, Frank E., deceased; A. C. Wood, executrix, to Sutton, Steele & Steele, Inc. Method and apparatus for separating intermixed divided materials. 3,105,040, 9–24–63, Cl. 209—466.

Wood, Gar, Industries, Inc.: *See*—
Anderson, Arthur F. 3,078,674.
Aske, Charles B., Jr. 3,078,125.
Grove, Earl I. 3,079,460.
Gwinn, Joseph M., Jr. 3,094,351.
McCarthy, John. 3,085,828.
Mulbern, William A. 3,083,060.

Wood, Garfield A., Jr. Fishing reel. 3,104,075, 9–17–63, Cl. 242—84.54.

Wood, Garfield A., Jr. Free spool casting reel. 3,104,850, 9–24–63, Cl. 242—84.45.

Wood, George A., Jr.: *See*—
Rohrer, Douglas P., and Wood. 3,086,459.

Wood, George C., ¼ to M. H. Lane, Sr., and ¼ to M. H. Lane, Jr. Accounting apparatus. 3,109,925, 11–5–63, Cl. 235—61.11.

Wood, George I., Jr., and F. C. Egley, to Western Tool and Stamping Co. Method of and means for starting internal combustion engines. 3,076,448, 2–5–63, Cl. 123—179.

Wood, Gordon G.: *See*—
Foley, Russell W., and Wood. 3,090,088.

Wood, Hamilton L., to Acme Visible Records, Inc. Record cabinet tray slide and support. 3,108,841, 10–29–63, Cl. 312—338.

Wood, Harold: *See*—
Moran, John J., and Wood. 3,098,800.
Moran, John J., and Wood. 3,107,205.

Wood, Henry C., and V. A. Mills, to Welch, Inc. Lock construction. 3,103,804, 9–17–63, Cl. 70—139.

Wood, Herbert H., to Thomas Walker Ltd. Fastening devices for wearing apparel. 3,101,518, 8–27–63, Cl. 24—227.

Wood, Homer J., to United Aircraft Corp. Vortex venturi. 3,073,114, 1–15–63, Cl. 60—39.14.

Wood, Homer J., to Continental Aviation and Engineering Corp. Compressor anti-surge control for a gas turbine engine. 3,080,712, 3–12–63, Cl. 60—39.29.

Wood, James A.: *See*—
Fox, Charles L. 3,101,816.

Wood, James R., to International Business Machines Corp. Arithmetic element. 3,089,645, 5–14–63, Cl. 235—175.

Wood, James R., and H. L. Boggs, to Western Tool and Engineering Co. File sharpness tester. 3,090,220, 5–21–63, Cl. 73—9.

Wood, John, Co.: *See*—
Booth, William M. 3,073,519.
Chaffee, Walter C., and Harrington. 3,113,700.
Woollen, Charles E., Jr. 3,073,583.

Wood, John L., to West Virginia Pulp and Paper Co. Pipe coupling. 3,094,343, 6–18–63, Cl. 285—113.

Wood, John M., Jr. Anchors. 3,101,694, 8–27–63, Cl. 114—208.

Wood, John P., M. F. Gillett, E. B. Neitzel, and J. J. Godbey, to The Atlantic Refining Co. Method and means of electrical prospecting using analog models and electrode impedance cancelling apparatus. 3,113,265, 12–3–63, Cl. 324—1.

Wood, Joseph L., and G. P. Henegar, to Olin Mathieson Chemical Corp. Method of operating mercury cathode cells. 3,109,796, 11–5–63, Cl. 204—125.

Wood, Judson A., to Olin Mathieson Chemical Corp. Purification of lithium chloride. 3,114,602, 12–17–63, Cl. 23—89.

Wood, John, Co.: *See*—
Forbush, Lothrop M., Wolf, and Wood. 3,112,510.

Wood, Keith E., to Deere & Co. Agricultural and like machine and rotor therefor. 3,087,323, 4–36–63, Cl. 146—106.

Wood, Keith S., to Wood Brothers Mfg. Co. Extensible shaft. 3,073,135, 1–15–63, Cl. 64—23.

Wood, Leon G. S., to The Foxboro Co. D.-C. voltage measuring apparatus. 3,075,146, 1–22–63, Cl. 324—99.

Wood, Lonnie G., to Smith-Douglass Co., Inc. Pump anti-cavitation device. 3,091,184, 5–28–63, Cl. 103—113.

Wood, Loren E., to Black, Sivalls & Bryson, Inc. Safety pressure relief device. 3,091,359, 5–28–63, Cl. 220—89.

Wood, Marc, Societe Anonyme pour la Promotion des Echanges Techniques Internationaux: *See*—
Gewiss, Lucien V. 3,087,623.

Wood, Memnon J., to Thiokol Chemical Corp. Casings for rocket motors. 3,092,962, 6–11–63, Cl. 60—35.6.

Wood, Merlin D.: *See*—
Carr, Warren F., and Wood. 3,098,534.

Wood, Mervel E., to Wood Bros. Mfg. Co. Device for attaching implements to tractors. 3,080,696, 3–12–63, Cl. 56—25.4.

Wood Newspaper Machinery Corp.: *See*—
Degutis, Anthony C., and Peterson. 3,100,604.

Wood, Noah P., to Diebold, Inc. Tabulating card file tray construction. 3,108,585, 10–29–63, Cl. 124—28.

Wood, Rex C.: *See*—
Ovrebo, Julian P., and Wood. 3,103,586.

Wood, Richard A., to G. I. Magnuson, executrix of the estate of R. M. Magnuson, deceased. Electrical counting and control circuit. 3,107,853, 10–22–63, Cl. 235—98.

Wood Richard A., to Morton Salt Co. Transistor control circuit. 3,113,250, 12–3–63, Cl. 317—148.5.

Wood, Robert R., to The Yale and Towne Mfg. Co. Braking mechanism for hand truck. 3,074,516, 1–22–63, Cl. 188—119.

Wood, Robert S., to The Plessey Co. Ltd. Rotary displacement pumps. 3,075,470, 1–29–63, Cl. 103—126.

Wood, Robert S., to The Plessey Co. Ltd. Rotary displacement pumps. 3,077,840, 2–19–63, Cl. 103—126.

Wood, Russell D. Baby sit-up device. 3,071,411, 1–1–63, Cl. 297—285.

Wood, Sidney W. H.: *See*—
Knights, Richard N., Pitt, Willitt, and Wood. 3,091,-416.

Wood, Thomas F., to The Givaudan Corp. Process for making alkyl-1,1-dimethylindans. 3,078,319, 2–19–63, Cl. 260—668.

Wood, Warren R. High fidelity sound reproducer. 3,115,947, 12–31–63, Cl. 181—31.

Wood, Wilburn W. Fire detecting device. 3,087,456, 4–30–63, Cl. 116—105.

Wood, William H., to Ken-Lab, Inc. Individual disposal unit. 3,092,049, 6-4-63, Cl. 110—9.

Wood, William P.: *See* Berger, Werner W., Gwin, and Wood.

Woodall, Robert A.: *See* Abkowitz, Stanley, and Woodall.

Woodard, Norman O. Tire regrooving machine. 3,097,685, 7-16-63, Cl. 157—13.

Woodard, William R., and P. R. Cox, Jr., to Monsanto Chemical Co. Method for producing clear aqueous polyethylene oxide solutions. 3,088,838, 5-7-63, Cl. 106—287.

Woodberry, Norman T.: *See* Reynolds, Walter F., Jr., and Woodberry.

Woodbridge, Caspar L.: *See* Nearhoff, Harold J., Woodbridge, and Harris.

Woodbridge, Joseph E., and F. R. Lawrence, to The Atlantic Refining Co. Polyoxyesters of benzoylbenzoic acid. 3,110,724, 11-12-63, Cl. 260—469.

Woodburn, James, Jr., to Amsted Industries Inc. Process for producing a shaped graphite article. 3,089,195, 5-14-63, Cl. 18—47.5.

Woodburn, James, Jr., to Amsted Industries Inc. Insert core for slide shut-off device. 3,090,090, 5-21-63, Cl. 22—84.

Woodburn, Paul M. Non-drip pouring insert. 3,096,899, 7-9-63, Cl. 215—47.

Woodbury, Clifford R., Jr. Baby food feeder. 3,076,574, 2-5-63, Cl. 215—11.

Woodbury, Clifford R., Jr. Baby food feeder. 3,093,256, 6-11-63, Cl. 215—11.

Woodbury, Roderick V., to Westinghouse Electric Corp. Pressurized seals for the shafts of fans. 3,081,096, 3-12-63, Cl. 277—4.

Woodbury, Roger B.: *See* Draper, Charles S., Wrigley, Woodbury, and Hutzenlaub.

Woodcock, Charles A.: *See* Rasch, Leroy L. S., Woodcock, and Womack.

Woodcock, Edward C., to Williamson Mfg. Co., Ltd. Photographic shutters. 3,102,462, 9-3-63, Cl. 95—63.

Woodcock, Eugene L., G. W. Dueker, and M. J. Golay, to The Perkin-Elmer Corp. Radiation pyrometer. 3,094,601, 6-18-63, Cl. 73—355.

Woodcock, Ralph N.: *See* Armbruster, John A., and Woodcock.

Woodcraft Corp.: *See* Crafton, John M.

Woodell, Rudolph, to Beaunit Corp. Crimpable fibers of regenerated cellulose. 3,097,414, 7-16-63, Cl. 28—82.

Woodell, Rudolph, to Beaunit Corp. Composite bulky regenerated cellulose yarn. 3,103,732, 9-17-63, Cl. 28—81.

Woodell, Rudolph, to Beaunit Corp. Process for the production of crimpable regenerated cellulose fibers and yarn 3,112,986, 12-3-63, Cl. 18—54.

Wooden, Lawrence T. Push-over gate. 3,089,267, 5-14-63, Cl. 39—5.

Wooden, Ralph G.: *See* Clary, William L.

Woodford, Ernest M., and G. V. Hultgren, to Farrel-Birmingham Co., Inc. Tapering mechanism for roll-grinding machines. 3,070,925, 1-1-63, Cl. 51—49.

Woodhams, Edward J., to Michigan Equity Corp. Vertically slidable tiltable sash. 3,091,005, 5-28-63, Cl. 20—49.

Woodhouse, Charles F. Apparatus and method for measuring oxygen tension in bone. 3,083,706, 4-2-63, Cl. 128—2.1.

Woodin, Carl A.: *See* Woodin, Harvey E. and C. A.

Woodin, Harvey E. and C. A. Closure and operating mechanism therefor. 3,086,766, 4-23-63, Cl. 268—124.

Woodland, Edward. Smoke pipe top. 3,100,433, 8-13-63, Cl. 98—76.

Woodland, Edward F. Closure for pneumatic tube carrier. 3,073,546, 1-15-63, Cl. 243—35.

Woodland, Norman J., to International Business Machines Corp. Pulse generator. 3,103,593, 9-10-63, Cl. 307—88.

Woodle, Merlyn G., and R. J. Bertle, to Reserve Mining Co. Blast hole charge and charging method. 3,075,464, 1-29-63, Cl. 102—23.

Woodley, James M., to Dido Lures, Inc. U-shaped bead chain suspension for fishing lure. 3,110,979, 11-19-63, Cl. 43—42.74.

Woodley, Joseph V., Jr.: *See* Fleer, Thomas P., and Woodley.

Woodling, George V. Electrical heating devices. 3,114,819, 12-17-63, Cl. 219—20.

Woodmansee, John B. Moisture extractor. 3,071,148, 1-1-63, Cl. 137—193.

Woodring, Edward D.: *See* Brewer, Nathaniel, Haigler, and Woodring.

Woodrow, Louis J. Disposable toothbrush. 3,103,935, 9-17-63, Cl. 132—84.

Woodruff, Frank, to The Bendix Corp. Two way valve. 3,100,497, 8-13-63, Cl. 137—119.

Woodruff, George M., A. R. Pasquine, and O. W. Stoeckli, to General Foods Corp. Package collecting. 3,107,014, 10-15-63, Cl. 214—6.

Woodruff, H Boyd: *See* Folkers, Karl, and Woodruff.

Woodruff, Howard C.: *See* Lawton, Elliott J., and Woodruff.

Woodruff, Maurice D., to The Bauer Bros. Co. Hydro cyclone. 3,101,313, 8-20-63, Cl. 209—211.

Woodruff, R. S., & Co.: *See* Woodruff, Ralph S., Sr.

Woodruff, Ralph S., Sr., to R. S. Woodruff & Co. Combined ice chest, seat, life preserver, and reversible back. 3,099,482, 7-30-63, Cl. 297—193.

Woodruff, Richard K., to Refractory Products Co. Refractory-forming products. 3,092,247, 6-4-63, Cl. 206—46.

Woods, Allan M., to Newsday, Inc. Relief paste-up process. 3,086,462, 4-23-63, Cl. 101—401.2.

Woods, Bernard N.: *See* Shepherd, Sydney A., and Woods.

Woods, Cyril. Window mop. 3,074,095, 1-22-63, Cl. 15—220.

Woods, Harold A.: *See* Hook, Harvey E., and Woods.

Woods, Helen. Foldable clothes hanger. 3,101,162, 8-20-63, Cl. 223—94.

Woods, Jay C., and W. E. Kanady, to Jersey Production Research Co. Apparatus for recovery of drill cuttings from subsurface earth formations. 3,107,742, 10-22-63, Cl. 175—309.

Woods, John B.: *See* English, Charles L., and Woods.

Woods, John E., to Standard Thomson Corp. Fluid control apparatus. 3,096,827, 7-9-63, Cl. 170—160.13.

Woods, John E., to Standard Thomson Corp. Fluid control apparatus. 3,096,936, 7-9-63, Cl. 236—56.

Woods, John E., to Standard-Thomson Corp. Method of assembly and calibration of thermal responsive device. 3,099,878, 8-6-63, Cl. 29—405.

Woods, Joseph J.: *See* Learmont, Robert K., and Woods.

Woods, Marquis A. Radiant panel assembly. 3,074,521, 1-22-63, Cl. 189—85.

Woods, Randell C. Concrete pipe forming apparatus. 3,096,556, 7-9-63, Cl. 25—36.

Woods, Stephen E., and T. R. A. Davey, to Metallurgical Processes Ltd., and National Smelting Co., d.b.a. Metallurgical Development Co. Removal of cadmium from zinc. 3,080,227, 3-5-63, Cl. 75—63.

Wood's, T. B., Sons Co.: *See* Williams, William A.

Woods, Warren W.: *See* Bergen, Charles R., and Woods.

Radd, Frederick J., and Woods.

Woods, Wayne H.: *See* Anderson, Dewey L., and Woods.

Anderson, Dewey L., and Woods.

Anderson, Dewey L., and Woods.

Anderson, Dewey L., and Woods.

Woods, William G.: *See* Kitasaki, Kiyoshi, McCloskey, and Woods.

Newsom, Herbert C., Woods, and McCloskey.

Newsom, Herbert C., Woods, and McCloskey.

Woodson, Kenneth W. Package sealing. 3,083,821, 4-2-63, Cl. 206—47.

Woodson, Robert A.: *See* Hemstreet, Harold S., and Woodson.

Woodward, Arthur S., and E. L. Pihl, to United-Carr Fastener Corp. Electrical lamp socket. 3,072,878, 1-8-63, Cl. 339—176.

Woodward, Benjamin W., and W. G. Anders, to Sperry Rand Corp. Safety switch for mechanized files. 3,077,967, 2-19-63, Cl. 192—130.

Woodward, Charles D., to Texaco, Inc. Down hole pipe plugging tool. 3,074,482, 1-22-63, Cl. 166—55.6.

Woodward, Elmer R., to MGM Brakes, Inc. Brake-release mechanism. 3,107,583, 10-22-63, Cl. 92—63.

Woodward, Foster R.: *See* Jones, Raymond C., and Woodward.

Woodward, Gary F., to King-Seeley Thermos Co. Temperature sensor assembly. 3,100,995, 8-20-63, Cl. 73—343.

Woodward Governor Co.: *See* Avery, Clarence L.

Woodward, Myrneth L., and K. R. Skinner, to General Motors Corp. Non-glare mirror. 3,075,430, 1-29-63, Cl. 88—77.

Woodward, Oakley M., Jr., and J. B. Rankin, to Radio Corp. of America. Steerable antenna. 3090,956, 5-21-63, Cl. 343—100.

Woodward, Paul E., Jr.: *See* Means, James O., and Woodward.

Woodward, Richard C., Jr., to The Emerson Mfg. Co. Multiple pulley variable ratio transmission. 3,088,326, 5-7-63, Cl. 74—230.17.

Woodward, Robert M.: *See* Slayter, Games, and Woodward.

Woodward, Stephen G., and R. F. Bailey, to The Bendix Corp. Fuel nozzle. 3,081,952, 3-19-63, Cl. 239—464.

Woodward, Stephen G., and C. A. Hartman, to The Bendix Corp. Fuel supply system. 3,106,196, 10-8-63, Cl. 123—119.

Woodward, Stephen G., and K. D. Aumick, to The Bendix Corp. Valve structure. 3,113,523, 12-10-63, Cl. 103—53.

Woodward, Stewart A., to General Electric Co. Multiple push-button switch. 3,095,756, 7-2-63, Cl. 74—503.

Woodward, William H., to Lancashire Dynamo Electronic Products Ltd. Digital control apparatus for Ward-Leonard electrical machines. 3,095,530, 6-25-63, Cl. 318—145.

Woodward, William L. Snare trap. 3,109,254, 11-5-63, Cl. 43—85.

Woodward, William M.: *See* Vekovius, Charles W., and Woodward.

Woodworth, John A., and A. B. Underwood, to W. & F. Mfg., Inc. Lock for sliding doors. 3,105,711, 10-1-63, Cl. 292—113.

Woodworth, N. A., Co.: *See* Holwart, George.

Holwart, George, and Toth.

Holwart, George, and Toth.

Holwart, George, and Toth.

Woodworth, Robert D.: *See* Brown, Daniel M., and Woodworth.

Brown, Daniel M., and Woodworth.

Woody, Carroll L.: *See* Polk, James K., and Woody.

Woody, George D., to H. B. Reese Co., Inc. Conveying apparatus. 3,108,679, 10-29-63, Cl. 198—25.

Woody, Wayland B., and M. G. Scott, to Cabot Corp. Water braking and cooling system. 3,072,224, 1-8-63, Cl. 188—264.

Woody, Wayland B., M. G. Scott, and M. L. Jones. Vehicle mounted derrick. 3,091,312, 5-28-63, Cl. 189—11.

Wooldridge, Gerald A.: *See* Tantlinger, Keith W., and Wooldridge.

Wooldridge, Lawson C., to Brockway Engineering Co. Ltd. Belt supporting rollers for endless belt conveyors. 3,096,874, 7-9-63, Cl. 198—192.

Wooler, Alan M., to Imperial Chemical Industries Ltd. Textile colouration process. 3,097,042, 7-9-63, Cl. 8—54.2.

Woolery, Richard H.: *See* Newland, Arthur E., and Schultz.

Woolf, Cyril: *See* Agahigian, Harry, and Woolf.

Anello, Louis G., and Woolf.

Anello, Louis G., and Woolf.

Woolgar, Reginald J.: *See* Amann, Gustav W., and Woolgar.

Pirrie, Norman D., Amann, and Woolgar.

Woolgar, Reginald J., to Economics Foundations Ltd. Power assisted feed for a Kelly bar. 3,094,312, 6-18-63, Cl. 254—29.

Woollen, Charles E., Jr., to John Wood Co. Heater. 3,073,583, 1-15-63, Cl. 263—19.

Woollenweber, William E., Jr., to Schwitzer Corp. Pressurized oil seal for rotating machinery. 3,090,546, 5-21-63, Cl. 230—132.

Woollenweber, William E., Jr., and R. A. Bozzola, to Schwitzer Corp. Air lubricated bearing. 3,090,544, 5-21-63, Cl. 230—116.

Woollenweber, William E., Jr., J. A. Hardy, and G. Paul, to Schwitzer Corp. Anti-whirl bearing. 3,096,126, 7-2-63, Cl. 308—9.

Woolley, Brown J. Methods and apparatus for removing defective casing or pipe from well bores. 3,087,546, 4-30-63, Cl. 166—46.

Woolley, David: *See* Sidney, Milton M., and Woolley.

Woolley, Harold O., Jr., to AMP Inc. Electrical connector and method of making the same. 3,076,255, 2-5-63, Cl. 29—155.55.

Woolley, Kathryn D.: *See* Woolley, Wayne R., and Brown.

Woolley, Lee A., to Kingston Products Corp. Intermittent drive for sequence switch mechanism. 3,071,017, 1-1-63, Cl. 74—125.

Woolley, Lee A., to Kingston Products Corp. Synchronous motor. 3,112,818, 12-3-63, Cl. 192—4.

Woolley, Samuel J.: *See* Ruck, Vincent J., Jr., and Woolley.

Woolley, Samuel J., to Borg-Warner Corp. Variable speed transmission. 3,074,294, 1-22-63, Cl. 74—675.

Woolley, Samuel J., and C. J. Padgett, to General Electric Co. Air control device. 3,082,678, 3-26-63, Cl. 98—106.

Woolley, Wayne R., deceased; (by K. D. Woolley, executrix), and C. L. Brown, to Republic Steel Corp. Machine for laying reinforcing bars in concrete pavement. 3,083,621, 4-2-63, Cl. 94—39.

Woolrich, Willis R. Multi-immersion quick freezer. 3,078,687, 2-26-63, Cl. 62—64.

Woolslayer, Homer J., C. Jenkins, and J. R. Woolslayer, to Lee C. Moore Corp. Low-bed semi-trailer with attached jack and mat devices. 3,083,987, 4-2-63, Cl. 280—423.

Woolslayer, Joseph R.: *See* Woolslayer, Homer J., Jenkins, and Woolslayer.

Woolston, William D., and J. J. Fitzgerald, to Vector Engineering Contractors, Inc. Oil mist separator. 3,093,469, 6-11-63, Cl. 55—324.

Woolven, John L. Folding decoration. 3,093,461, 6-11-63, Cl. 41—11.

Woos, John P., and H. R. Barta. Method of manufacturing magnetic recording heads. 3,080,642, 3-12-63, Cl. 29—155.57.

Wooster Brush Co., The: *See* Weiss, Robert L.

Weiss, Robert L., Hunt, and Davis.

Wiegand, Gene M.

Wooton, Gilbert B.: *See* Bennett, John L., Wooton, and Clagett.

Wootten, William A. Magnetic recording method and apparatus. 3,073,912, 1-15-63, Cl. 179—100.2.

Wootton, William C., to United-Carr Fastener Corp. Lock nut employing a resilient locking ring. 3,102,572, 9-3-63, Cl. 151—21.

Wootton, William R., to Babcock & Wilcox Ltd. Pressure vessels. 3,079,033, 2-26-63, Cl. 220—46.

Wootton, William R., to Babcock & Wilcox Ltd. Pressurized water nuclear reactor. 3,089,836, 5-14-63, Cl. 204—193.2.

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Worbois, Robert J.: *See* Erson, Erik G., and Worbois.

Worcester Automatic Machine Co.: *See* St. Jean, Robert R.

Worcester Foundation For Experimental Biology, The: *See* Schwenk, Erwin, and Gold.

Worcester, Leslie E., and R. L. Underwood, to Illumitronic Systems Corp. Segregation mechanism. 3,093,245, 6-11-63, Cl. 209—121.

Word, William W., Jr.: *See* Le Rouax, Robert K., Nellon, and Word.

Worden, Donald A., and S. R. Smolen. Pressure regulator with automatic relief valve. 3,102,549, 9-3-63, Cl. 137—116.3.

Worden, Leslie E. Light controlled electrical system and relay therefor. 3,089,065, 5-7-63, Cl. 317—130.

Worden, Norbert P., to C. M. Hall Lamp Co. Lamp mounting. 3,105,642, 10-1-63, Cl. 240—41.5.

Work, George A.: *See* Marshall, Neil A., and Work.

Work, George A. Nuclear radiation dosimeter reader apparatus. 3,098,156, 7-16-63, Cl. 250—71.5.

Work, Ralph O., to United States of America, Atomic Energy Commission. Bayonet type coupling with pivoted segment release means. 3,100,655, 8-13-63, Cl. 285—33.

Work, Ruth E. Hair waving appliance. 3,109,438, 11-5-63, Cl. 132—31.

Workman, Wesley R., to Minnesota Mining and Mfg. Co. Photo-sensitive compositions and articles therefrom. 3,074,809, 1-22-63, Cl. 204—158.

Workman, Wesley R., to Minnesota Mining and Mfg. Co. Heat sensitive copy sheet, process of making and using. 3,094,417, 6-18-63, Cl. 96—28.

Workman, Woodrow L., to International Packings Corp. Priming pump. 3,085,515, 4-16-63, Cl. 103—178.

World Magnetics, Inc.: *See* Stamonis, Alphonso F.

World Publishing Co., The: *See* Cahen, Alfred and H. S.

Worley, Emmett J. Method and apparatus for producing screw conveyor blades. 3,106,954, 10-15-63, Cl. 153—64.5.

Worley, Marvin S.: *See* Smith, Delbert P., Ellis, and Worley.

Worley, Norman G., to Babcock & Wilcox Ltd. Heat exchanger construction. 3,110,288, 11-12-63, Cl. 122—32.

Worley, Norman G., and M. Rooney, to Babcock & Wilcox Ltd. Pressure vessel. 3,108,704, 10-29-63, Cl. 220—1.

Worley, Sidney J.: *See* Casey, Dwight W., H. Worley, and Meadows.

Meadows, Harley R., Worley, and Casey.

Worley, William E., and R. B. Farrar, to The Bendix Corp. Fuel control system for ramjet engine. 3,092,960, 6-11-63, Cl. 60—35.6.

Worm, Alan F. Animal hatch. 3,091,221, 5-28-63, Cl. 119—19.

Worman, Martin, to Ingersoll-Rand Co. Dustless drill. 3,090,451, 5-21-63, Cl. 175—213.

Worman, Martin, and J. W. Adams, to Ingersoll-Rand Co. Crust breaker. 3,106,875, 10-15-63, Cl. 92—110.

Wormser, Alexander F., and E. E. Lynch, to General Electric Co. Temperature measurement system. 3,111,032, 11-19-63, Cl. 73—359.

Wormser, Eric M.: *See* Rudomanski, Andrew C., De Waard, and Wormser.

Wormser, Eric M., R. D. De Waard, and A. C. Rudomanski, to Barnes Engineering Co. Thermal detector and reference source. 3,097,300, 7-9-36, Cl. 250—83.3.

Wormser, Eric S., R. W. Ankney, and A. A. Hurschman, to The Gibson-Homans Co. Piston arrangement for dispensing partially compressible plastic materials. 3,075,675, 1-29-63, Cl. 222—327.

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Worn, David K., to The International Nickel Co., Inc. Method of converting metal powder into flake. 3,099,080, 7-30-63, Cl. 29—420.

Woroble, Joseph. Container piercing and powder measuring dispenser. 3,080,095, 3-5-63, Cl. 222—89.

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Worrel, Richard M., ½ to H. A. Huebner. Rotary harvesters. 3,098,341, 7-23-63, Cl. 56—377.

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Worsham, Charles H., to Esso Research and Engineering Co. Direct production of electrical energy from liquid fuels. 3,113,049, 12-3-63, Cl. 136—86.

Worsham, Floyd L., Sr. Shingled roof construction. 3,091,057, 5-28-63, Cl. 50—222.

Worsley, Michael, B. N. Wilson, and B. O. Schoepfle, to Hooker Chemical Corp. Cyclic compounds of antimony and bismuth. 3,109,853, 11-5-63, Cl. 260—446.

Worster, David B. Convertible vehicle body. 3,087,759, 4-30-63, Cl. 298—24.

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Worth, Francis C., to Adolph Gottscho, Inc. Marking apparatus. 3,102,468, 9–3–63, Cl. 101—35.
Worth, Francis C., to Adolph Gottscho, Inc. Marking apparatus. 3,112,689, 12–3–63, Cl. 101—35.
Worth, Francis C., to Adolph Gottscho, Inc. Marking apparatus. 3,112,691, 12–3–63, Cl. 101—35.
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Baumann, Hans D. 3,112,954.
Berger, Richard K., Nicholas, and Shaw. 3,072,318.
Biheller, Hans J. 3,096,985.
Harris, Bradford F., and MacConnell. 3,105,365.
Hilkemeier, Louis G., and Pickle. 3,114,478.
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Williams, John G. 3,085,808.
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Worthington, James C., Jr., F. H. Frantz, and A. S. De Paul, to Westinghouse Electric Corp. Dynamoelectric machine. 3,110,832, 11–12–63, Cl. 310—254.
Worthington, Peter L., to General Electric Co. Brazing tool 3,110,793, 11–12–63, Cl. 219—9.5.
Worthington, William D. System for fluid transfusion. 3,098,480, 7–23–63, Cl. 128—214.
Worton, Albert G., to The Warren-Teed Products Co. Method of treating peptic ulcers with panto-thenic acid. 3,092,548, 6–4–63, Cl. 167—55.
Wossner, Felix, to Fichtel & Sachs A.G. Shock absorber. 3,113,644, 12–10–63, Cl. 188—100.
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Wotitzky, Hughe, and J. Mikulak, to Worthington Corp. Automatic welding gun with tube anchor for centering and tube flaring. 3,114,830, 12–17–63, Cl. 219—125.
Wotiz, John H., to Diamond Alkali Co. Mercury acetylides. 3,087,951, 4–30–63, Cl. 260—431.
Wotiz, John H., to Diamond Alkali Co. Preparation of carbonyls of group VIb metals. 3,100,687, 8–13–63, Cl. 23—203.
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Wray, Robert L., Jr., to General Electric Co. Vaporizer. 3,085,145, 4–9–63, Cl. 219—41.
Wren, John P., to The Garrard Engineering and Mfg. Co., Ltd. Tape recorder apparatus. 3,087,686, 4–30–63, Cl. 242—55.13.
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Wright, Charles S., to The Pure Oil Co. Esters of boron diallyl compositions. 3,072,616, 1–8–63, Cl. 260—78.4.
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Wright, David C., to The Falls Engineering and Machine Co. Roller die apparatus. 3,077,807, 2–19–63, Cl. 83—532.
Wright, Derek E., to May & Baker Ltd. Pyrazole derivatives. 3,102,890, 9–3–63, Cl. 260—310.
Wright, Donald E., to Western Gear Corp. Grading machine having rotary cutting drums. 3,101,932, 8–27–63, Cl. 262—19.
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Wright, Elmer J. Combination boat cover and camping tent. 3,106,218, 10–8–63, Cl. 135—6.
Wright, Esmond P. G., to International Standard Electric Corp. Serial number issuing equipment. 3,081,451, 3–12–63, Cl. 340—345.
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Wright, Esmond P. G., D. S. Ridler, and W. Beadel, to International Standard Electric Corp. Intelligence storage equipment. 3,081,448, 3–12–63, Cl. 340—174.
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Wright, George C., to Norwich Pharmacal Co. N-carbethoxy aminoacid 5-nitrofurfurylidene. 3,096,347, 7–2–63, Cl. 260—347.5.
Wright, George C., to The Norwich Pharmacal Co. 3-(22 cyanoethyl)-1 (5-nitrofurfurylideneamino) hydantoin. 3,110,714, 11–12–63, Cl. 260—240.
Wright, George W., R. J. Jauch, and C. W. Kruckeberg, to Tokheim Corp. Liquid dispensing system. 3,099,367, 7–30–63, Cl. 222—26.
Wright, Gerard C., to Burroughs Corp. Control apparatus for form feeding devices. 3,114,491, 12–17–63, Cl. 226—75.
Wright, Harry D., to Endevco Corp. Sectional digital switch. 3,089,923, 5–14–63 Cl. 200—5.
Wright, Horace D., to Texas Instruments Inc. Machine tool attachment. 3,114,294, 12–17–63, Cl. 90—15.
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Wright, Jernald G., and H. W. Wilson, to Her Majesty the Queen in right of Canada as represented by the Minister of National Defence. Tactical computer. 3,080,117, 3–5–63, Cl. 235—187.
Wright, Jerome E., and J. Shellick, to Radio Corp. of America. Method of mounting a semiconductor device. 3,109,225, 11–5–63, Cl. 209—155.5.
Wright, John B., to The Upjohn Co. Novel N-arylsulfonyl-N'- (2,5 - endomethylene -1,2,5,6 - tetrahydrobenzyl) ureas. 3,072,720, 1–8–63, Cl. 260—553.
Wright, John B., to The Upjohn Co. Novel N-arylsulfonyl-N'(1,2,3,6-tetrahydro-1-pyridyl) ureas and oral antidiabetic compositions. 3,105,006, 9–24–63, Cl. 167—55.
Wright, John B., to The Upjohn Co. Certain 3,4-diaryl-Δ^2-1,2,5-thiadiazoline-1,1-dioxides and their preparation. 3,115,495, 12–24–63, Cl. 260—301.

Wright, John B., to The Upjohn Co. Certain 3,4-disubstituted-1,2,5-thiadiazole-1,1-dioxides and their preparation. 3,115,-496, 12–24–63, Cl. 260—301.
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Wright, John G., J. M. Chafin, and G. M. Wynn, to The Auto-Solar Co. Wire feeding means. 3,112,056, 11–26–63, Cl. 226—151.
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Wright, John H., to General Electric Co. Stabilized grease composition. 3,103,491, 9–10–63, Cl. 252—28.
Wright, Joseph H., Jr., to Photomechanisms, Inc. Rapid processing apparatus. 3,097,584, 7–16–63, Cl. 95—12.
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Wright, Melvin G., Jr., to Union Carbide Corp. Protective enclosure for glass bulbs containing radioactive gas. 3,112,-892, 12–3–63, Cl. 240—102.
Wright, Newell B. Removable vehicle powered winch or pulley. 3,099,416, 7–30–63, Cl. 242—95.
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Wright, Raymond I. Portable steam chest. 3,092,843, 6–11–63, Cl. 4—104.
Wright, Rex O. Versatile remote control system for starting motor vehicles. 3,078,834, 2–26–63, Cl. 123—179.
Wright, Richard C., to Iron Fireman Mfg. Co. Oil burning furnace. 3,071,181, 1–1–63, Cl. 158—4.
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Wright, Theodore M. Wire staple handling apparatus. 3,075,196, 1–29–63, Cl. 1—95.
Wright, Thomas H. Oil seal for automotive crank shafts. 3,112,112, 11–26–63, Cl. 277—11.
Wright, William B., Jr., and R. A. Hardy, Jr., to American Cyanamid Co. Cinnamohydroxamic acid. 3,072,701, 1–8–63, Cl. 260—453.
Wright, William B., Jr., S. Goldstein, and H. J. Brabander, to American Cyanamid Co. Nitrososulfanilamides and methods of preparing the same. 3,116,286, 12–31–63, Cl. 260—239.8.
Wright, William E., and C. H. Coney, to Eastman Kodak Co. Sucrose ester of 2,2,4-trimethyl-3-oxovaleric acid as an extender. 3,106,477, 10–8–63, Cl. 106—169.
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Wrighton, Robert J., to Pacific Scientific Co. Safety harness device. 3,105,662, 10–1–63, Cl. 244—122.
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Wruble, Milton, S. J. Rundman, and J. H. Koning, to The Upjohn Co. Oil-in-water emulsion for oral administration, and process for preparation. 3,085,939, 4–16–63, Cl. 167—65.
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Wu, Yao H., R. F. Feldkamp, and W. A. Gould, to Mead Johnson & Co. 3-benzyl-1,2-diloweralkyl-3-pyrrolidinols. 3,108,-117, 10–22–63, Cl. 260—326.5.
Wubbe, Leo J., to The Anderson Co. Windshield wiper assembly. 3,087,343, 4–30–63, Cl. 74—95.
Wuczkowski, Othmar R., to Lindberg Engineering Co. Billet heater control and method. 3,080,468, 3–5–63, Cl. 219—10.77.
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Wuesthoff, Paul P., to Pandjiris Weldment Co. Manipulator. 3,093,249, 6–11–63, Cl. 212—55.
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Wukowitz, Edward. Shower bath water control with additive attachment. 3,106,345, 10–8–63, Cl. 239—318.
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Wulf, Charles A., Jr., C. M. Hunt, and J. P. Lofberg, Jr., to C. A. Wulf, Jr., A. W. Wulf, C. M. Hunt, and J. P. Lofberg, Jr. Curtain wall material. 3,110,370, 11–12–63, Cl. 189—34.
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Wulf, Otto J. H., to Fuller Co. Heat exchange method and apparatus. 3,087,253, 4–30–63, Cl. 34—10.
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Wyatt, Raymond A., to Triar, Inc. Cellular core and method of making same. 3,086,625, 4–23–63, Cl. 189—34.
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Yanmar Diesel Engine Co., Ltd.: *See*—
Tado, Hiroshi. 3,096,747.
Yans, Francis M., to United States of America, Atomic Energy Commission. Beryllium sheet having third dimensional ductility. 3,089,227, 5–14–63, Cl. 29—182.
Yao, Frank C., to Radio Corp. of America. Self-resetting negative resistance diode inverter circuit. 3,115,584, 12–24–63, Cl. 307—88.5.
Yarashes, John C. Electromagnetically operated game. 3,085,802, 4–16–63, Cl. 273—118.
Yarborough, LeRoy W. Article holder. 3,097,406, 7–16–63, Cl. 24—3.
Yarbrough, John T. Outboard marine propulsion apparatus. 3,072,090, 1–8–63, Cl. 115—35.
Yard, Alfred B., Jr. Device for extinguishing cigars and cigarettes. 3,111,128, 11–19–63, Cl. 131—256.
Yarder, Irving R., to The Yarder Mfg. Co. Frame for an advertising sign. 3,082,558, 3–26–63, Cl. 40—12.
Yarder Mfg. Co., The: *See*—
Yarder, Irving R. 3,082,558.
Yardney International Corp.: *See*—
Andre, Henri G. 3,075,032.
Andre, Henri G. 3,082,279.
Chapman, Christopher L. C. 3,100,165.
Chiodini, Fernando, and Gold. 3,079,047.
Comanor, Milton, and Chirean. 3,113,891.
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Doyen, Jean. 3,075,034.
Doyen, Jean. 3,082,278.
Horowitz, Carl, and Breitner. 3,098,770.
Kardorff, Leon, and Gold. 3,075,035.
Mendelsohn, Meyer. 3,082,193.
Mendelsohn, Meyer, and Horowitz. 3 079,213.
Mendelsohn, Meyer, and Horowitz. 3,087,774.
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Solomon, Frank, and Enters. 3,100,164.
Solomon, Frank, and Enters. 3,104,990.
Yardney, Michel N., and Mendelsohn. 3,087,861.
Yardney, Michel N., and M. Mendelsohn, to Yardney International Corp. Process and composition for anti-microbial treatment. 3,087,861, 4–30–63, Cl. 167—84.
Yariv, Amnon, to Bell Telephone Laboratories, Inc. Microwave semiconductive parametric amplifier and multiplier. 3,076,941, 2–5–63, Cl. 330—7.
Yarmak, Julius, to Coal Industry (Patents) Ltd. Vaned pumps and motors. 3,112,709, 12–3–63, Cl. 103—136.
Yarmak, Julius, and J. Synac, to Coal Industry (Patents) Ltd. Reversible hydrostatic torque converter. 3,098,359, 7–23–63, Cl. 60—53.
Yarnall, Richard L., to Texas Instruments Inc. Apparatus for detecting surface break. 3,081,547, 3–19–63, Cl. 33—126.5.
Yarnall-Waring Co.: *See*—
Kinderman, Walter J. 3,077,792.
McKee, John F. 3,109,444.
Yarosz, Roman S. Hardness teater anvil. 3,114,259, 12–17–63, Cl. 73—81.
Yarrick, Charles J., and R. F. Mertz, to I-T-E Circuit Breaker Co. Tulip clip primary contacts with star spacer. 3,097,904, 7–16–63, Cl. 339—64.
Yarrow and Co. Ltd.: *See*—
Goodwin, Aubrey J. H. 3,091,103.
Hobson, Eric D. 3,073,376.
Yartz, Johnny W., to General Electric Co. Sink connection support for waste disposal apparatus. 3,082,964, 3–26–63, Cl. 241—100.5.
Yartz, Johnny W., to General Electric Co. Waste disposal apparatus. 3,112,077, 11–26–63, Cl. 241—73.
Yartz, Johnny W., and F. J. Clements, to General Electric Co. Sink connection support for waste disposal apparatus. 3,108,755, 10–29–63, Cl. 241—100.5.
Yasawa, Masuhide, S. Kojima, S. Takahashi, and K. Doi, to Asahi Kasei Kogyo Kabushiki Kaisha. Process for recovering nitric acid and water from coagulating baths used in making shaped acrylonitrile polymerization products. 3,107,971, 10–22–63, Cl. 18—54.
Yashica Co., Ltd.: *See*—
Akahane, Niro. 3,085,487.
Akahane, Niro. 3,087,395.
Miyauchi, Hideo. 3,082,671.
Miyauchi, Hideo. 3,082,971.
Takahama, Sho. 3,073,221.
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Yasuda, Junichi, to Sony Corp. Tuner having variable capacitance diode and saturable inductor varied together by potentiometer tap movement and varied oppositely by battery drift. 3,102,987, 9–3–63, Cl. 334—4.
Yasuda, Susumu, to Nippon Electric Co. Ltd. Manufacturing method of magnetic focusing equipment. 3,081,527, 3–19–63, Cl. 29—155.6.
Yasuda, Takashi, and Y. Fujimoto, to Victor Co. of Japan, Ltd. Magnetic tape feeding device for magnetic recording and reproducing apparatus. 3,114,513, 12–17–63, Cl. 242—55.12.
Yasuhito Yamaoka: *See*—
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Yasui, Roku. Torus valve. 3,115,159, 12–24–63, Cl. 137—606.

Yatabe, Yoshio. Method of manufacturing a grinder or hone having fine cushiony surfaces. 3,092,476, 6–4–63, Cl. 51—293.
Yatagai, Taizo, S. Matsuda, and H. Matsuda, to Nippon Shokubai Kagaku Kogyo Co., Ltd. Process for producing alkyl tin halide compounds. 3,085,102, 4–9–63, Cl. 260—429.7.
Yates-American Machine Co.: *See*—
Eschenburg, William A. 3,079,734.
Eschenburg, William A., and Marks. 3,074,210.
Yates, Charles G., Jr., deceased, by M. Y. Roderick, administratrix, to General Electric Co. Autopilot aircraft control apparatus. 3,072,370, 1–8–63, Cl. 244—77.
Yates, Claire H., and L. M. Thompson, to Charles E. Frosst & Co. Benzilic acid hydrazides as amine oxidase inhibitors. 3,076,028, 1–29–63, Cl. 260—559.
Yates, Claire H., and L. M. Thompson, to Charles E. Frosst & Co. Mandelic acid hydrazides as amine oxidase inhibitors. 3,076,029, 1–29–63, Cl. 260—559.
Yates, Harold W., to Barnes Engineering Co. Camera shutter. 3,095,795, 7–2–63, Cl. 95—53.
Yates, James F. Traction member for vehicle wheel. 3,078,126, 2–19–63, Cl. 301—44.
Yates, John W., and J. A. Clements, to General Motors Corp. Automatic parking device. 3,073,407, 1–15–63, Cl. 180—1.
Yates, Paul C.: *See*—
Alexander, Guy B., and Yates. 3,082,084.
Alexander, Guy B., and Yates. 3,085,876.
Yates, Sam M. Combination tissue dispensing and disposal container. 3,095,087, 6–25–63, Cl. 206—57.
Yates, Wilfrid A.: *See*—
Alpers Frederick C., Atchison, and Yates. 3,093,821.
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Chapin, Earl C., Wilson, and Yates. 3,084,136.
Yatich, George D. Powered wheelchair. 3,111,181, 11–19–63, Cl. 180—6.5.
Yatsko, John F. Clipping attachment for hedge trimmer. 3,073,025, 1–15–63, Cl. 30—132.
Yavelberg, Irvin S., to United States of America, Navy. Electronic timer. 3,088,409, 5–7–63, Cl. 102—70.2.
Yawn, Preston W. Cotton gin lift device. 3,091,346, 5–28–63, Cl. 212—9.
Yazell, Harold N., Jr., to The Goodyear Tire & Rubber Co. Compound heel radius for bead seats of pneumatic tire wheels. 3,107,125, 10–15–63, Cl. 301—97.
Yazumi, Kiyosuke, ½ to Mitsuhishi Plastics Industries, Ltd. Method for labeling packages. 3,110,554, 11–12–63, Cl. 18—59.
Ydstie, Birger L., to Elektrokemisk A/S. Automatic arrangement for maintaining combustion in gas burners for use with aluminum furnaces. 3,102,091, 8–27–63, Cl. 204—247.
Yeager, Harry H.: *See*—
Johnson, John E., Yeager, and Beeler. 3,077,130.
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Lutes, Keene. 3,094,714.
Yeamans, Norman L.: *See*—
Creedon, John E., Schneider, and Yeamans. 3,095,518.
Yearley, Bernard C., to Malleable Research and Development Foundation. Method of producing nodular iron. 3,070,705, 2–5–63, Cl. 75—130.
Yearley, Bernard C., C. E. Norton, and B. E. Gavin, to National Castings Co. Molding machine. 3,094,749, 6–25–63, Cl. 22—43
Yeasting, Maynard C.: *See*—
Bell, Robert E., and Yeasting. 3,084,285.
Yeckley, Russell N., and F. L. Reese, to Westinghouse Electric Corp. Circuit interrupters. 3,071,670, 1–1–63, Cl. 200—145.
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Jordan, Charles M., and Yee. 3,109,159.
Yee, Thick K. Game apparatus and mechanical assemblies useful therein. 3,072,406, 1–8–63, Cl. 273—87.4.
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Yegge, Norbert A. Wall bracket for flower pots. 3,091,424, 5–28–63, Cl. 248—313.
Yelser, John O. Magnetic fluid clutch. 3,074,523, 1–22–63, Cl. 192—21.5.
Yelinek, Gustav H., to Walker Mfg. Co. Filter. 3,076,553, 2–5–63, Cl. 210—457.
Yelinek, Gustav H., to Walker Mfg. Co. Filter mechanism. 3,088,594, 5–7–63, Cl. 210—237.
Yellott, John I. Swimming pool cover for collection or reflection of solar heat. 3,072,920, 1–15–63, Cl. 4—172.
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Yelpo, Joseph P., and J. J. Romano, to The Singer Co. Sander plate assembly for portable sanding tools. 3,104,503, 9–24–63, Cl. 51—189.
Yemmans, Otto. Tool stock centering device. 3,079,694, 3–5–63, Cl. 33—185.
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Zenner, George H., and Yendall. 3,109,721.
Yenni, Donald M., and R. G. Rudness, to Union Carbide Corp. Article of manufacture and method of making same. 3,075,066, 1–22–63, Cl. 219—76.
Yeo, Alan A., J. K. Hambling, and G. W. Alderson, to The British Petroleum Co. Ltd. Production of hexenes. 3,084,206, 4–2–63, Cl. 260—683.15.
Yeo, Robert H., and E. J. Coulson, Jr., to Maxon Premix Burner Co., Inc. Valve actuating trip means. 3,082,627, 3–26–63, Cl. 74—2.
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Yerex, Harry B., H. R. Nordin, and F. R. Shiozaki, to Canada Packers Ltd. Vacuum meat pressing apparatus. 3,105,433, 10–1–63, Cl. 100—53.
Yerkes, Dean H., to Allis-Chalmers Mfg. Co. Row marker. 3,072,200, 1–8–63, Cl. 172—126.
Yerkes, John A. Variable hole pattern hand punch. 3,073,199, 1–15–63, Cl. 83—549.
Yerman, Alexander J., and M. D. Bloomer, to General Electric Co. Flow measuring apparatus. 3,085,431, 4–16–63, Cl. 73—204.
Yerrick, William B. to Kittanning Brick Co. Extruded ribbon of fire clay. 3,097,405, 7–16–63, Cl. 22—147.
Yeske, Laurel R., to J. I. Case Co. Mower break-back mears. 3,114,996, 12–24–63, Cl. 56—25.
Yess, Mabel P. Multipurpose tool with clutch latch. 3,115,913, 12–31–63, Cl. 145—61.
Yetter, Dean B., to Crown Industrial Products Co. Method of, and apparatus for charging a spray tank. 3,109,558, 11–5–63, Cl. 222—1.
Yetter, Dean B., to Crown Industrial Products Co. Spray valve structure. 3,109,566, 11–5–63, Cl. 222—394.
Yetter, Edward W., to Burroughs Corp. Potentiometer control system. 3,114,102, 12–10–63, Cl. 323—79.
Yetter, Forrest G. Radio guidance and landing system. 3,113,314, 12–3–63, Cl. 343—109.
Yetter, Mark. Machine for disintegrating ice and packed snow on roadways. 3,094,315, 6–18–63, Cl. 262—19.
Yevick, George J. Fluid impulse mechanism. 3,084,629, 4–9–63, Cl. 103—1.
Yezek, Milton, to General Foods Corp. Carton. 3,079,063, 2–26–63, Cl. 229—17.
Yii, Roland: *See*—
Mintz, Leon J., and Yii. 3,089,127.
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Jones, James B., and Yocom. 3,084,874.
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Kupfert, Bernard F., and Yocum. 3,073,689.
Yocum, Ralph W., to Caterpillar Tractor Co. Tapered end stud and structure with tapered end bore to provide a wedging lock. 3,097,728, 7–16–63, Cl. 189—36.
Yocum, Ralph W., to Caterpillar Tractor Co. Packaging and assembling method for seals. 3,110,097, 11–12–63, Cl. 29—421.
Yocum, William C., to Superior Valve & Fittings Co. Filter-drier combination. 3,090,490, 5–21–63, Cl. 210—299.
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Lowinger, Joseph. 3,089,364.
Mackey, Eugene L. 3,091,202.
Mackey, Eugene L. 3,097,556.
Mackey, Eugene L. 3,097,570.
Todoran, Ambro, Poling, and Motter. 3,083,751.
Yoder, Herbert G. Brake system. 3,072,223, 1–8–63, Cl. 188—112.
Yoder, Joe B., to General Electric Co. Quartz lamp sealing machine control. 3,079,774, 3–5–63, Cl. 65—139.
Yoder, Lloyd W., to The Babcock & Wilcox Co. Positively actuated valve means. 3,075,539, 1–29–63, Cl. 137—240.
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Yoe, Duane O., to The Goodyear Tire & Rubber Co. Pneumatic tracks. 3,072,443, 1–8–63, Cl. 305—34.
Yohe, Lester N. Traction device. 3,095,919, 7–2–63, Cl. 152—236.
Yokelson, Bernard J., to Bell Telephone Laboratories, Inc. Ring counter employing NOR stages with parallel inputs and capacitive interstage triggering. 3,079,513, 2–26–63, Cl. 307—88.5.
Yokogawa, Mutsuo: *See*—
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Kaneko, Kazuo, Hisatsune, Kuwako, and Kobayashi. 3,112,540.
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Yokose, Kyohei, M. Watanabe, and I. Yoshida, to Sumitomo Electric Industries, Ltd. Method for making cellular polypropylene using nitroguanidine as the blowing agent. 3,072,972, 1–15–63, Cl. 18—59.
Yokota, Hidekuni and S. Multistage self-suction type centrifugal pump. 3,073,249, 1–15–63, Cl. 103—108.
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Yokoyama, Kozo, to Torio Co., Ltd. Telescoping antenna which collapses through centrally mounted loading coil. 3,104,394, 9–17–63, Cl. 343—750.
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Yomiyama, Akira, and S. Yonekawa, to Asahi Kasei Kogyo Kabushiki Kaisha. Method for recovery of selenium from a selenium or its compounds-enriched solution. 3,084,994, 4–9–63, Cl. 23—139.
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Yomiyama, Akira, and S. Yonekawa. 3,084,994.

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Yongue, Robert B. Test clip. 3,102,938, 9–3–63, Cl. 200—158.

Yonkers, Robert A., R. W. Herring, and H. A. Anderson, to Bissell Inc. Combination electric vacuum cleaner and floor scrubber. 3,079,626, 3–5–63, Cl. 15—320.

Yonkers, Robert A., H. J. Rosendall, and H. T. Lathrop, to Bissell, Inc. Applicator machine. 3,085,284, 4–16–63, Cl. 15—589.

Yonner, André, to L. de Roll S.A. Garbage incinerators. 3,101,683, 8–27–63, Cl. 110—8.

Yonushka, Joseph V., to Raystrom Inc. Electronic switch means for flashing electrical lamps. 3,113,241, 12–3–63, Cl. 315—200.

Yopp, Robert S., to Amphenol-Borg Electronics Corp. Electrical connectors. 3,101,229, 8–20–63, Cl. 339—59.

Yopp, Robert S., to Amphenol-Borg Electronics Corp. Electrical connectors. 3,106,435, 10–8–63, Cl. 339—176.

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Snow, Floyd E., and York. 3,088,712.

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York, Shelby L., Jr., and H. S. Sibley, to North American Aviation, Inc. Manifolded exhaust duct. 3,093,963, 6–18–63, Cl. 60—35.6.

York-Shipley, Inc.: *See*—
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York, Willard A., to The Cleveland Crane & Engineering Co. Article grab. 3,103,282, 9–10–63, Cl. 212—128.

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Yoshida, Kogyo K. K.: *See*—
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Yoshida, Tadao. 3,097,395.

Yoshida, Masa. Dry shaver having a rotatable outer perforated cylinder and a stationary inner blade. 3,081,540, 3–19–63, Cl. 30—41.

Yoshida, Shinichiro, to Raytheon Co. Non-reciprocal **TEM device.** 3,071,740, 1–1–63, Cl. 333—24.2.

Yoshida, Susumu, and T. Koshio, to Nippon Telegraph & Telephone Public Corp. Method of manufacturing alloy type transistor for high frequency. 3,114,664, 12–17–63, Cl. 148—181.

Yoshida, Tadao, to Yoshida Kogyo K.K. Apparatus for manufacturing coiled interlocking elements for slide fasteners. 3,077,001, 2–12–63, Cl. 18—19.

Yoshida, Tadao, to Yoshida Kogyo K.K. Apparatus for producing slide fasteners having interlocking elements of synthetic resin. 3,097,395, 7–16–63, Cl. 18—30.

Yoshida, Tadao. Sewing machine presser foot. 3,098,460, 7–23–63, Cl. 112—235.

Yoshii, Hajime, and R. J. Ehret, to Ampex Corp. Push-pull limiter with inductive averaging element. 3,115,582, 12–24–63, Cl. 307—88.5.

Yoshikawa, Kaneo, to Shinko Electric Co., Ltd. Parts feeder for automatically feeding bolts onto washers. 3,114,159, 12–17–63, Cl. 10—155.

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Yost, Arnold G., to The Ohio Brass Co. Lightning arrester and gap unit with capacitive grading. 3,091,721, 5–28–63, Cl. 317—70.

Yost, Frederick R., to General Motors Corp. Check valve. 3,086,544, 4–23–63, Cl. 137—315.

Yost, Kenneth J., and W. W. De Lano, to The Hamilton Tool Co. Tapping machine having tapping head and drive means adjustably mounted on a support post. 3,105,982, 10–8–63, Cl. 110—129.

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Yost, Paul E. Heated gas generator for balloon. 3,096,048, 7–2–63, Cl. 244—31.

Yost, Paul E., to Raven Industries Inc. Balloon seam structure and method of sealing balloon materials. 3,109,611, 11–5–63, Cl. 244—31.

Yost, Paul E., to Raven Industries, Inc. Towed balloon lift control. 3,112,900, 12–3–63, Cl. 244—3.

Yost, Paul E., to Raven Industries, Inc. Balloon body structure for towed balloon. 3,116,037, 12–31–63, Cl. 244—31.

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Youmans, Arthur H., to Well Surveys, Inc. Geophysical prospecting methods and apparatus. 3,071,687, 1–1–63, Cl. 250—83.3.

Youmans, Arthur H. to Well Surveys, Inc. Apparatus for simultaneous neutron and photon logging with a single detector. 3,073,958, 1–15–63, Cl. 250—83.3.

Young, Alan C., to Hammond Organ Co. Multiple zone stereophonic effect for electric organs. 3,093,702, 6–11–63, Cl. 84—1.24.

Young, Alan C., to Hammond Organ Co. Artificial reverberation unit. 3,106,610, 10–8–63, Cl. 179—1.

Young, Alvah E.: *See*—
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Young, Andrew B.: *See*—
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Garth, Ernest D. G., and May. 3,087,492

Young, Aubrey A., to Atlas Chemical Industries, Inc. Vasodilator drug mixtures and excipient therefor. 3,096,242, 7–2–63, Cl. 167—65.

Young, Billy J., A. E. Kelley, and W. J. Baral, to Union Oil Co. of California. Distribution of vapor-liquid feeds in fixed-bed reactors. 3,112,256, 11–26–63, Cl. 208—213.

Young Brothers Co.: *See*—
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Young, Bruce A.: *See*—
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Young, Charles F., to The Stewart Iron Works Co., Inc. Locking and operating device for doors. 3,082,847, 3–26–63, Cl. 189—7.

Young, Charles J., and K. J. Magnusson, to Radio Corp. of America. Photocopier apparatus. 3,074,313, 1–22–63, Cl. 88—24.

Young, Clinton J. T., to Outlook Engineering Corp. Marker light. 3,096,024, 7–2–63, Cl. 240—1.2.

Young, Dale A., and G. J. Farris, to Esso Research and Engineering Co. Cathodic protection of internal combustion engines. 3,098,473, 7–23–63, Cl. 123—90.

Young, Darcy A., Jr., to Rochester Button Co. Button feeder and sorter. 3,098,584, 7–23–63, Cl. 221—12.

Young, David M., to The Dow Chemical Co. Borate esters of glycol monoethers. 3,080,412, 3–5–63, Cl. 260—462.

Young, David M., and N. W. Meyers, to The Dow Chemical Co. Reducing flammability of magnesium metal. 3,074,812, 1–22–63, Cl. 117—119.6.

Young, David W.: *See*—
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Young, David W., to Sinclair Research, Inc. N-acylation of para amino phenol. 3,081,321, 3–12–63, Cl. 260—404.

Young, David W., to Sinclair Research, Inc. Production of N-acylated *p*-amino phenol. 3,081,322, 3–12–63, Cl. 260—404.

Young, David W., to Sinclair Research, Inc. Preparation of N-acetyl-p-aminophenol. 3,113,150, 12–3–63, Cl. 260—562.

Young, Donald C., to Collier Carbon and Chemical Corp. Method of enriching soil in plant-assimilable nitrogen and sulfur. 3,079,245, 2–26–63, Cl. 71—54.

Young, Donald C., P. S. Backlund, and K. W. Fort, to Collier Carbon and Chemical Corp. Liquid phosphoric acid compositions. 3,072,460, 1–8–63, Cl. 23—165.

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Young, Elnar T., to Sun Oil Co. Preselecting mechanism for fluid dispensing apparatus. 3,073,484, 1–15–63, Cl. 222—20.

Young, Elmer A. Puzzle game. 3,075,770, 1–29–63, Cl. 273—109.

Young, Emil O., and W. J. Zimmer, to Young Regulator Co. Damper operating mechanism. 3,082,679, 3–26–63, Cl. 98—110.

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Zenner, Raymond E., to Victor Comptometer Corp. Code translating apparatus. 3,090,833, 5–21–63, Cl. 178—26.

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Zenor, Hughes M., to Sinclair Research, Inc. Preparation of synthetic gravity maps. 3,082,943, 3–26–63, Cl. 235—61.

Zentmyer, David T., to Armstrong Cork Co. Process of manufacturing floor and wall covering. 3,115,386, 12–24–63, Cl. 18—59.

Zeolla, Mario N., G. E. Kunkle, and G. H. Bowser, to Pittsburgh Plate Glass Co. Sealing composition of polybutene and butyl rubber, method of preparation and method of sealing therewith. 3,076,777, 2–5–63, Cl. 260—33.6.

Zepell, Nathan A., to W. A. Sheaffer Pen Co. Writing implement. 3,112,734, 12–3–63, Cl. 120—42.03.

Zepelovitch, Nathan, to W. H. Sheaffer Pen Co. Writing instrument construction. 3,075,496, 1–29–63, Cl. 120—42.03.

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Zerbee, Alfonso F. Rotary toothbrush. 3,115,652, 12–31–63, Cl. 15—28.

Zerbest, Charles J. Trot line reel. 3,085,767, 4–16–63, Cl. 242—106.

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Zerweck, Werner, H. Ritter, and E. Herrmann, to Cassella Farbwerke Mainkur Aktiengesellschaft. Process for the production of dihydroquinacridones. 3,116,295, 12–31–63, Cl. 260—279.

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Moskowitz, Lester R. 3,082,982.

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Zeuthen, Karl G., and S. H. Geertsen, to Zeuthen & Aagaard A/S. Duplicator and accompanying stencil carrier. 3,103,167, 9–10–63, Cl. 101—122.

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Zeyen, Fritz-Otto, to Dr.-Ing. Rudolf Hell Kommanditgesellschaft. Reproduction process and apparatus for converting a corrected three-color separation record into a corrected four-color separation record. 3,109,884, 11–5–63, Cl. 178—5.2.

Zeyher, Fritz, to Bolkow-Entwicklungen Kommanditgesellschaft. Flying body construction. 3,112,906, 12–3–63, Cl. 244—138.

Ziabicki, Joseph M., to Twin Disc Clutch Co. Oil pressure actuated clutch. 3,105,582, 10–1–63, Cl. 192—113.

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Ziegenfuss, Johann W. Track system for toy vehicles. 3,074,200, 1–22–63, Cl. 46—1.

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Ziegler, Clarence J., and T. A. Penny. Swab pump for oil field production. 3,072,193, 1–8–63, Cl. 166—105.

Ziegler, Edwin E., to General Electric Co. Adjustable water level control for clothes washing machines. 3,102,551, 9–3–63, Cl. 137—408.

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Ziegler, Eugene R., to General Motors Corp. Windshield cleaning system. 3,115,095, 12–24–63, Cl. 103—23.

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Ziegler, Eugene R., to General Motors Corp. Windshield wiper actuating mechanism. 3,115,599, 12–24–63, Cl. 318—466.

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Ziegler, Karl, H. Breil, H. Martin, and E. Holzkamp; said Breil, Martin, and Holzkamp, assors. to K. Ziegler. Polymerization catalyst. 3,113,115, 12–3–63, Cl. 252—429.

Ziegler, Louis C. Mascara applicator and valve therefor. 3,084,374, 4–9–63, Cl. 15—521.

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Ziegler, Willard D. Floating tool holder. 3,072,417, 1–8–63, Cl. 279—16.

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Zienty, Ferdinand B., to Monsanto Chemical Co. Substituted sulfanilamide. 3,097,217, 7–9–63, Cl. 260—397.7.

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Ziffer, Walter, to Westinghouse Electric Corp. Monolithic semiconductor devices. 3,110,870, 11–12–63, Cl. 331—113.

Zifferer, Kenneth B., W. L. Sechrist, E. G. Renoll, and B. Coleman, to U.S. Expansion Bolt Co. Fastening device. 3,107,570, 10–22–63, Cl. 85—2.4.

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Zimbel, Norman S., to Minneapolis-Honeywell Regulator Co. Synchronous logic circuit. 3,112,413, 11–26–63, Cl. 307—88.5.

Zimberoff, Manuel. Photographic ear identification system. 3,102,459, 9–3–63, Cl. 95—1.1.

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Zimmerley, Stuart R., A. E. Back, R. R. Beck, and H. H. Pick, to Kennecott Copper Corp. Rotary furnace production of sponge iron. 3,096,172, 7–2–63, Cl. 75—33.

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Kaiser, Carl, and Zirkle. 3,106,578.

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Anderson, Lloyd E., Sr., to Pittsburgh-Des Moines Steel Co. Elevated storage tank. 197,265, 12–31–63, Cl. D91—1.
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Anlser, Charles F. Dietary supplement block for cattle. 195,545, 7–2–63, Cl. D12—2.
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Auwaerter, John F., H. Dreyfuss, and D. M. Genaro. Printing telegraph apparatus cabinet. 194,872, 3–26–63, Cl. D26—5.
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Benjamin, E. Burton, to Northwest Automatic Products Corp. Beverage vending machine. 195,693, 7–16–63, Cl. D52—3.
Benne, Leonard J., to American Greetings Corp. Display rack. 195,492, 6–18–63, Cl. D80—9.
Benner-Nawman, Inc.: *See*—
Nawman, Rollie B. and R. L. 194,529.
Benner, Paul R., D. C. Klingaman, and A. W. Sieving, to Caterpillar Tractor Co. Motor grader. 195,329, 6–4–63, Cl. D14—3.
Bennett, Edward J., to Lily-Tulip Cup Corp. Dish. 194,621, 2–19–63, Cl. D44—10.
Bennett, Edward J., to Lily-Tulip Cup Corp. Dish. 194,695, 2–26–63, Cl. D44—15.
Bennett, Lester H., to G & B Mfg. Co., Inc. Evaporative air cooler. 195,440, 6–11–63, Cl. D62—4.
Bennett, Richard E. Boat. 197,197, 12–24–63, Cl. D71—1.
Benson, Arthur E., to United States Rubber Co. Tire. 196,700, 10–22–63, Cl. D90—20.
Bentley, Clark E., and R. C. Montgomery. Novelty vest. 196,482, 10–8–63, Cl. D3—4.
Bequette, James H., 40% to F. J. McWilliams, 20% to J. T. Cuppies, 20% to M. L. Cervantes, and 20% to B. F. Davis. Garment drying cabinet. 197,085, 12–10–63, Cl. D49—1.
Bergauer, George W. Sandwich server. 195,269, 5–21–63, Cl. D44—10.
Berger, Bernard B., to National Steel Cabinet Co. Garden utility cart. 196,836, 11–12–63, Cl. D14—3.
Berger, C. L., & Sons, Inc.: *See*—
Goguen, Donald J., and Coleman. 197,140.
Bergeron, Theodore, to T. J. Holmes Co., Inc. Atomizer top. 195,009, 4–9–63, Cl. D58—26.
Bergeron, Victor J. Drinking mug. 195,045, 4–16–63, Cl. D44—9.
Bergman, Jack, to Pennwood Numechron Co. Clock. 196,661, 10–22–63, Cl. D42—7.
Bergstrom, Harold G., to Charles Beseler Co. Color photograph processing unit. 196,153, 8–27–63, Cl. D61—1.
Berlant, George, to New Hermes Engraving Machine Corp. Bowling ball engraving machine. 194,721, 2–26–63, Cl. D64—11.
Berleme, George H. Suction cleaner attachment for cleaning Venetian blinds or the like. 196,630, 10–22–63, Cl. D9—2.
Berman, Jules, & Associates, Inc.: *See*—
Marks, Sheldon. 197,193.
Berman, Maxwell, to Douglas Aircraft Co., Inc. Communication speaker for masks. 196,437, 10–1–63, Cl. D26—14.
Bernadotte, Sigvard, and A. Bjorn. Vacuum jug or similar article. 195,598, 7–2–63, Cl. D58—5.
Bernard Plastics Molding Corp.: *See*—
Levine, Bernard B., and Phillips. 196,405.
Bernay, Josef J. Hanging receptacle for bath articles. 195,451, 6–18–63, Cl. D4—3.
Bernay, Josef J. Hanging receptacle for bath articles. 195,452, 6–18–63, Cl. D4—3.
Bernhardt, Donald H.: *See*—
Elliott, Francis L., and Bernhardt. 195,255.
Berry, Bernie B., Jr., to Vent-Rak, Inc. Cabinet for electronic equipment and the like. 196,115, 8–27–63, Cl. D26—5.
Berry, James M. Pressurized spray dispenser head. 196,007, 8–13–63, Cl. D58—26.
Berry, R. G., Corp.: *See*—
Zacks, Florence B. 195,667.
Berry, William S. Frame for a combined table and seat unit. 196,655, 10–22–63, Cl. D33—14.

Bertsch, Ambrose M.: *See*—
Thorson, Dean R. 195,860.
Berzac, John. Tie clasp. 194,842, 3–19–63, Cl. D17—10.
Beseler, Charles, Co.: *See*—
Bergstrom, Harold G. 196,153.
Best Container Co.: *See*—
Cliffgard, Anton C. 194,783.
Best, Melvin H.: *See*—
Glaser, Peter S., Best, and Samhammer. 196,913.
Inatomi, Charles T., Best, and Samhammer. 195,127.
Best, Melvin H., and C. A. Samhammer, to The National Cash Register Co. Control console for a data processing system. 194,789, 3–12–63, Cl. D26—5.
Best, Melvin H., and C. A. Samhammer, to Shwayder Brothers, Inc. Luggage case. 195,240, 5–14–63, Cl. D87—5.
Best, Melvin H., M. C. Leinberger, and N. J. Schweitzer, to The National Cash Register Co. Magnetic data-storage strip canister. 197,064, 12–10–63, Cl. D26—5.
Beth, Richard: *See*—
Beth, Virginia. 195,764.
Beth, Virginia, to R. and V. Beth, and J. and M. Glavich. Building. 195,764, 7–30–63, Cl. D13—1.
Betts, Ralph P., to Matrallin Co., Inc. Night table. 196,240, 9–10–63, Cl. D33—6.
Betts, Ralph P., to Matrallin Co., Inc. Dresser. 196,241, 9–10–63, Cl. D33—6.
Betts, Ralph P., to Matrallin Co., Inc. Dressing table. 196,242, 9–10–63, Cl. D33—6.
Bevilacqua, Ernest M., A. T. Kostanecki, and E. Noyes, to General Electric Co. Facade of a compartmentalized housing for electric devices. 195,844, 8–6–63, Cl. D26—13.
Bianco, Ernest E., and L. C. Leoni, deceased (B. B. Leoni, executrix), to General Electric Co. Electrical transformer. 195,975, 8–13–63, Cl. D26—15.
Bickler, Alan: *See*—
Greeman, Edward, Bickler, and Sherman. 194,337.
Bieger, Walter L., to Standard Packaging Corp. Playing card box. 196,456, 10–1–63, Cl. D58—12.
Bingham, George H., Jr., and O. Olson, to Cambridge Rubber Co. Shoe sole. 196,559, 10–15–63, Cl. D7—5.
Binns, Thomas W., to Quaker Lace Co. Tablecloth. 194,385, 1–8–63, Cl. D92—26.
Binns, Thomas W., to Quaker Lace Co. Tablecloth. 196,418, 9–24–63, Cl. D92—26.
Birge, George K.: *See*—
Kazenwadel, Fred R., and Birge. 196,152.
Birge, George K., Co., Inc.: *See*—
Kazenwadel, Fred R., and Birge. 196,152.
Birnbaum, Paul S.: *See*—
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Bischoff, Gustav H., to J. Leavitt. Figure toy. 194,792, 3–12–63, Cl. D34—15.
Bishop, Hazel, Inc.: *See*—
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Bishop, James S. Device for shuffling playing cards. 194,616, 2–19–63, Cl. D34—13.
Bishop, Robert H. Louver for air conditioning systems or the like. 194,410, 1–15–63, Cl. D62—4.
Bissell Inc.: *See*—
Anderson, Howard A. 195,081.
Anderson, Howard A. 196,035.
Anderson, Howard A. 196,707.
Anderson, Howard A. 196,708.
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Bittner, John P. Building. 196,101, 8–27–63, Cl. D13—1.
Bixler, Loring C., and E. J. Sabella, to International Business Machines Corp. Data processor console. 195,405, 6–11–63, Cl. D26—5.
Black, David J., to Afico S.A. Jar. 195,007, 4–9–63, Cl. D58—25.
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Johnson, Marshall B. 195,043.
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Black River Pool & Plastics, Inc.: *See*—
Filley, Oliver D., Jr. 197,174.
Blakely, John W. Combined ash tray and pipe reamer. 195,805, 7–30–63, Cl. D85—2.
Blatchford, John E., and C. E. McBride. Minnow seine. 195,410, 6–11–63, Cl. D31—4.
Blau, Norman: *See*—
Drinkwater, John M., and Blau. 195,782.
Blaylock, Spencer L., Jr.: *See*—
Adams, Jerome R., and Blaylock. 196,940.
Blazey, Lawrence, to Nordson Corp. Combined housing and control panel for sprayer pumps and the like. 196,759, 10–29–63, Cl. D62—2.
Bloe, Robert W., and R. S. Faldy, to General Electric Co. Cooking oven or similar article. 195,610, 7–2–63, Cl. D81—4.
Bloch, Roy W., to Magline, Inc. Loading ramp for vehicles and the like. 195,546, 7–2–63, Cl. D13—1.
Block China Co., The: *See*—
Treu, Howard. 196,185–90.
Blommel Sign Co., The: *See*—
Blommel, William E., Jr. 196,703.
Blommel, William E., Jr., to The Blommel Sign Co. Sign. 196,703, 10–29–63, Cl. D1—12.
Bloom, Albert S.: *See*—
Winslow, Roger C., and Bloom. 194,490.
Bloomberg, Lyman W. Pocket ring-size gauge. 194,951, 4–2–63, Cl. D52—6.
Bluhm, Henry H., to General Electric Co. Control station cabinet. 196,303, 9–17–63, Cl. D26—5.
Bluhm, Henry H., to General Electric Co. Electronic data collector cabinet. 196,645, 10–22–63, Cl. D26—5.
Blum, Louis, to Blumcraft of Pittsburgh. Railing unit and railing post. 195,082, 4–23–63, Cl. D13—7.
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Blumenshine, Raymond B. Grill. 194,448, 1–22–63, Cl. D81—10.
Blumenstein, Walter K., and A. David, to The Otto Konigslow Mfg. Co. Ampoule applicator. 197,161, 12–17–63, Cl. D83—12.
Blunden, Donald J., to Whitehead & Kales Co. Tie-down hook for vehicles. 194,483, 1–29–63, Cl. D54—13.
Bobrick Mfg. Corp.: *See*—
Louchheim, William S., and Gerds. 196,033.
Bochory, Ion J. Wishing well bar unit. 194,311, 1–1–63, Cl. D13—1.
Bodenbach, Lowell W. Combination planter box and memo board. 196,306, 9–17–63, Cl. D35—3.
Bodenger, Jacob. Case for a stethoscope chest piece or similar article. 197,041, 12–3–63, Cl. D83—12.
Bodenheimer, Ted F., to Owens Plastics Co. Jug. 195,280, 5–21–63, Cl. D58—5.
Boehler, Gabriel D., and W. F. Foshag. Amphibious ground effect machine. 195,490, 6–18–63, Cl. D71—1.
Boeing Airplane Co.: *See*—
Dancik, Paul J., and Stepniewski. 195,794.
Boeing Co., The: *See*—
Vogt, Richard, Hufford, and La Kous. 196,946.
Bogart, Robert E., to Roll Dippers, Inc. Ice cream carton holder. 195,903, 8–6–63, Cl. D58—12.
Boggild, Robert, and W. L. Dale. Slide projector or similar article. 194,443, 1–22–63, Cl. D61—1.
Bohlin, Regis R., to Jennings Radio Mfg. Corp. Hermetically sealed electromagnetic relay. 196,301, 9–17–63, Cl. D26—1.
Boldt, Melvin, to Moffats Ltd. Cooking stove. 195,235, 5–14–63, Cl. D81—4.
Boldt, Melvin H., to Schick Inc. Electric shaver. 195,953, 8–13–63, Cl. D22—3.
Boldt, Melvin H., to Zenith Radio Corp. Phonograph tone arm. 196,117, 8–27–63, Cl. D26—14.
Boldt, Melvin H., to Zenith Radio Corp. Television remote control or similar article. 196,647, 10–22–63, Cl. D26—5.
Boldt, Melvin H., to Automatic Canteen Co. of America. Phonograph cabinet. 197,089, 12–10–63, Cl. D56—4.
Boldt, Melvin H., and T. H. Morrison. Beverage vending machine. 195,141, 4–30–63, Cl. D52—3.
Boldt, Melvin H., and T. H. Morrison, to Automatic Canteen Co. of America. Food vending machine or similar article. 195,354, 6–4–63, Cl. D52—3.
Boling Chair Co.: *See*—
Ridder, Clara A., and Clapp. 194,836–41.
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Griffith, Vernon D., and Bruns. 196,096.
Bonner, Fred E.: *See*—
Griffith, Vernon D., and Bruns. 196,096.
Boose, Justine S.: *See*—
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Borah, John E. Device for lifting golf balls. 195,629, 7–9–63, Cl. D34—5.
Bordinat, Eugene, Jr., to Ford Motor Co. Lamp bezel for automobiles or the like. 194,511, 2–5–63, Cl. D48—32.
Bordinat, Eugene, Jr., to Ford Motor Co. Automobile tonneau cover. 194,665, 2–26–63, Cl. D14—27.
Bordinat, Eugene, Jr., to Ford Motor Co. Taillight unit for automobiles or the like. 195,224, 5–14–63, Cl. D48—32.
Bordinat, Eugene, Jr., to Ford Motor Co. Automobile wheel cover. 195,768, 7–30–63, Cl. D14—30.
Borg-Erickson Corp.: *See*—
Winterbottom, William B. 194,436.
Borgman, Arthur C., to The Patent Scaffolding Co., Inc. Walkway frame. 196,877, 11–12–63, Cl. D54—1.
Borgstrom, Albert B. Boat. 196,547, 10–8–63, Cl. D71—1.
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Miller, William S., Plakenborn, and Borkowsky. 195,867.
Borton, John C., Jr. Bird figure wall plaque or the like. 197,131, 12–17–63, Cl. D29—23.
Bosch, Julius: *See*—
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Bostrom, John D., to Poster Packaging, Inc. Display packaging container. 195,375, 6–4–63, Cl. D58—12.6.
Bostrom, John D., to Poster Packaging, Inc. Packaging container. 195,601, 7–2–63, Cl. D58—11.
Bostrom, John D., to Poster Packaging, Inc. Compartmented display packaging container. 195,602, 7–2–63, Cl. D58—11.
Bostrom, John D., to Poster Packaging, Inc. Display packaging container. 195,699, 7–16–63, Cl. D58—11.
Bostrom, John D., to Poster Packaging, Inc. Packaging container. 196,537, 10–8–63, Cl. D58—12.6.
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Bottner, Irving J., to Knomark, Inc. Combined shoe polish bottle holder and tray. 196,006, 8–13–63, Cl. D58—26.
Boucher, Charles F. Water sled. 195,922, 8–6–63, Cl. D71—1.
Bowman, Bernard W. Drive-in restaurant or the like. 196,102, 8–27–63, Cl. D13—1.
Bowser, Inc.: *See*—
Romanowski, Albert F. 196,263.
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Bozarth, Charles E., to General Electric Co. 120 column printer enclosure. 195,203, 5–14–63, Cl. D26—5.

Bozarth, Charles E., to General Electric Co. Computer electronics rack. 196,302, 9–17–63, Cl. D26—5.
Bozarth, Charles E., to General Electric Co. Computer electronics rack. 196,352, 9–17–63, Cl. D26—5.
Bradbury, James W., to Forward Corp. Flexible drive shaft for manicuring tools and the like. 195,595, 7–2–63, Cl. D55—1.
Branch, Harold, and R. H. Horton, to National Research Associates, Inc. Air cushion boat. 195,921, 8–6–63, Cl. D71—1.
Brandt Automatic Cashier Co.: *See*—
Hoffman, Otis E. 195,277.
Brannan, Jack, to Trade-Wind Motorfans, Inc. Fan blade assembly. 195,232, 5–14–63, Cl. D62—4.
Brannan, Jack, to Trade-Wind Motorfans, Inc. Cooking range hood. 196,287, 9–10–63, Cl. D81—25.
Brassaw, Alden J.: *See*—
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Branchla, Herbert C., and P. Ruminsky, said Ruminsky assor. to said Branchla. Minerals concentrator. 195,785, 7–30–63, Cl. D55—1.
Braun, David H., to All-Tech Industries, Inc. Game target unit. 195,308, 5–28–63, Cl. D34—5.
Braun, David H., and H. J. Mabs, to All-Tech Industries, Inc. Amusement vehicle apparatus. 195,680, 7–16–63, Cl. D34—15.
Braun, Samuel, to B.C.N. Design Products Inc. Display box for an electric razor or the like. 196,327, 9–17–63, Cl. D58—12.6.
Braun, Samuel, to B.C.N. Design Products Inc. Display box for an electric razor or the like. 196,328, 9–17–63, Cl. D58—12.6.
Bravo, Joel W., to General Aniline & Film Corp. Photographic printing apparatus. 195,437, 6–11–63, Cl. D61—1.
Bravo, Joel W., to General Aniline & Film Corp. Overhead projector. 195,911, 8–6–63, Cl. D61—1.
Bravo, Joel W., to General Aniline & Film Corp. Image projector. 196,395, 9–24–63, Cl. D61—1.
Bredon, Pat M. Rotary toothbrush. 196,631, 10–22–63, Cl. D9—2.
Bredon, Pat M. Pair of eyeglasses. 197,090, 12–10–63, Cl. D57—1.
Breed, Arie E., and R. W. Gustafson, to Deere & Co. Swath fluffer for hay and like crops. 195,863, 8–6–63, Cl. D40—1.
Breek, Charles P., and E. H. McCauley. Document sorter cabinet. 194,605, 2–19–63, Cl. D26—5.
Breger, Carl-Arne, to Jonkopings Mekaniska Werkstads Aktiebolag. Pump unit. 195,792, 7–30–63, Cl. D65—1.
Bren, Joseph R. Television program reminder system board. 194,975, 4–9–63, Cl. D25—1.
Bretford Mfg., Inc.: *See*—
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Bridges, De Warren. Multi-beam lamp. 196,803, 11–5–63, Cl. D48—20.
Briese, John E. Novelty hat. 195,813, 8–6–63, Cl. D3—13.
Briggs Stratton Corp.: *See*—
Gordon, Douglas. 197,175.
Lechtenberg, Leo J. 196,017.
Brighton, John C. Refuse holder. 197,007, 12–3–63, Cl. D14—3.
Bright Star Industries: *See*—
Amoroso, Nicholas A. 195,053.
Brinkman, Margaret C. Replacement spout for teapots or the like. 195,729, 7–23–63, Cl. D44—26.
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Brock, Kenneth C. Portable hydraulic test stand. 194,588, 2–19–63, Cl. D14—3.
Brock, Kenneth E., to American Mat Corp. Link type floor mat. 194,904, 4–2–63, Cl. D9—6.
Brock, Kenneth E., to American Mat Corp. Link type floor mat. 194,905, 4–2–63, Cl. D9—6.
Brock, Kenneth E., to American Mat Corp. Link type floor mat. 194,906, 4–2–63, Cl. D9—6.
Brockman, Karl V., to Stark Ceramics, Inc. Wall block. 195,334, 6–4–63, Cl. D18—2.
Bro-Dart Industries, Inc.: *See*—
Schwarz, Richard. 195,854.
Broder, Leonard. Plug tap. 194,909, 4–2–63, Cl. D26—1.
Broder, Leonard. Trouble light guard. 195,273, 5–21–63, Cl. D48—16.
Brody, Harvey, to Norvey, Inc. Dispenser for oil or the like. 196,816, 11–5–63, Cl. D58—17.
Brody, Phillip M.: *See*—
Anderson, David B., Brody, and Rahr. 195,170.
Brody, Phillip M., and F. H. Rahr, to Wood Conversion Co. Tile or similar article. 194,462, 1–29–63, Cl. D18—2.
Brody, Phillip M., and F. H. Rahr, to Wood Conversion Co. Tile or similar article. 194,598, 2–19–63, Cl. D18—2.
Broeren, Frank L., C. S. Cole, E. A. Filipowicz, and D. G. Hope, to American Can Co. Dispenser for folded paper napkins. 195,096, 4–23–63, Cl. D52—2.
Broeren, Frank L., C. S. Cole, E. A. Filipowicz, and D. G. Hope, to American Can Co. Dispenser for folded paper napkins. 195,097, 4–23–63, Cl. D52—2.
Broeren, Frank L., C. S. Cole, E. A. Filipowicz, and D. G. Hope, to American Can Co. Dispenser for folded paper napkins. 195,098, 4–23–63, Cl. D52—2.
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Brooks, Sheldon C., to Tri-State Displays, Inc. Display stand. 194,447, 1–22–63, Cl. D80—9.
Brounn, Morrison J., to Otis Elevator Co. Elevator car. 195,117, 4–30–63, Cl. D13—1.
Brounn, Morrison J., to Otis Elevator Co. Decorative panel. 195,399, 6–11–63, Cl. D13—1.
Brower, Robert M., to The Chun King Corp. Display carton. 194,378, 1–8–63, Cl. D58—12.8.
Brown, Harry W., and R. C. Ingels, to Cutler-Hammer, Inc. Depressible trigger actuator for a reversible electric switch. 195,510, 6–25–63, Cl. D26—13.
Brown, Harry W., and R. C. Ingels, to Cutler-Hammer, Inc. Reversible electric switch. 195,511, 6–25–63, Cl. D26—13.
Brown, James E., to Brown Millwork Co., Inc. Cabinet. 197,236, 12–31–63, Cl. D33—19.
Brown, James E., to Brown Millwork Co., Inc. Cabinet. 197,237, 12–31–63, Cl. D33—19.
Brown, John C. Iron holder. 195,138, 4–30–63, Cl. D49—6.
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Brown, Ronald E. C., to Associated Electrical Industries Ltd. Support for a telephone handset. 194,539, 2–12–63, Cl. D26—14.
Brown, Ronald E. C., to Associated Electrical Industries Ltd. Support for a telephone handset. 194,540, 2–12–63, Cl. D26—14.
Brown, Warner K., to Clark Equipment Co. Industrial tractor. 194,663, 2–26–63, Cl. D14—3.
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Brucken, Byron L., to General Motors Corp. Combined dry cleaning machine and drier. 194,432, 1–22–63, Cl. D49—1.
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Hines, Thomas F. 196,376.
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Brumbach, Richard A. Holder for slides for microscope use. 195,107, 4–23–63, Cl. D61—1.
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Brunner, Robert G. Display stand. 195,388, 6–4–63, Cl. D80—9.
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Buckley, Claude A., ½ to The Speedwell Gear Case Co. Ltd. Clip for attaching mudguard stays to mudguards. 196,431, 10–1–63, Cl. D17—3.
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Buerger, Herbert. Trim ring for automobile wheel or similar article. 195,945, 8–13–63, Cl. D14—30.
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Bumm, Leonard M.: *See*—
Kermes, Constantine J., Glass, and Bumm. 194,861.
Bungard, James D., to Dura Business Machines, Inc. Typewriter or the like. 196,205, 9–3–63, Cl. D64—11.
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Cleek, Charles L. Morse code signalling light. 195,656, 7–9–63, Cl. D72—1.
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Platte, Richard L., Lee, and Joslin. 195,599.
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Downing, John K., to Vent-Axia Ltd. Ventilating fan. 195,287, 5–21–63, Cl. D62—4.
Downs, Robert W., to Ritepoint Pen and Pencil Co. Desk set base. 194,860, 3–19–63, Cl. D74—6.
Doyle Robert E., to Philco Corp. Combined television receiver and screen cover therefor. 195,648, 7–9–63, Cl. D56—4.
Drake, Arthur E. Flare holder or similar article. 194,724, 2–26–63, Cl. D72—1.
Dreher, John A., to General Cigar Co., Inc. Combined cigar package and display unit. 194,710, 2–26–63, Cl. D58—2.

Dreier, Raymond C. Hack saw. 194,388, 1-8-63, Cl. D93—4.
Dremel, Albert J., and R. E., to Dremel Mfg. Co. Shoe polisher. 195,669, 7-16-63, Cl. D9—2.
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Auwaerter, John F., Dreyfuss, and Genaro. 194,872.
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Dreyfuss, Henry, to Minneapolis-Honeywell Regulator Co. Equilpment rack. 194,426, 1-22-63, Cl. D33—19.
Dreyfuss, Henry, to The Singer Mfg. Co. Sewing machine. 194,857, 3-19-63, Cl. D70—1.
Dreyfuss, Henry, to Minneapolis-Honeywell Regulator Co. Cover for magnetic recording heads or similar article. 195,207, 5-14-63, Cl. D26—14.
Dreyfuss, Henry, to The Singer Co. Sewing machine or similar article. 196,822, 11-5-63, Cl. D70—1.
Dreyfuss, Henry, to Bell Telephone Laboratories, Inc. Push-button telephone deskstand. 197,067, 12-10-63, Cl. D26—14.1.
Dreyfuss, Henry, to Bell Telephone Laboratories, Inc. Telephone booth unit. 197,214, 12-31-63, Cl. D13—1.
Dreyfuss, Henry, to Bell Telephone Laboratories, Inc. Telephone booth unit. 197,215, 12-31-63, Cl. D13—1.
Dreyfuss, Henry, to Bell Telephone Laboratories, Inc. Telephone booth unit. 197,216, 12-31-63, Cl. D13—1.
Dreyfuss, Henry, to Bell Telephone Laboratories, Inc. Telephone booth for group use. 197,217, 12-31-63, Cl. D13—1.
Dreyfuss, Henry, to Bell Telephone Laboratories, Inc. Telephone booth for group use. 197,218, 12-31-63, Cl. D13—1.
Dreyfuss, Henry, to Bell Telephone Laboratories, Inc. Outdoor telephone enclosure unit. 197,219, 12-31-63, Cl. D13—1.
Dreyfuss, Henry, to Bell Telephone Laboratories, Inc. Telephone booth for group use. 197,220, 12-31-63, Cl. D13—1.
Dreyfuss, Henry, to Bell Telephone Laboratories, Inc. Outdoor telephone enclosure unit. 197,221, 12-31-63, Cl. D13—1.
Dreyfuss, Henry, H. W. Herrington and T. Logan, to Bell Telephone Laboratories, Inc. Side mounting telephone set. 195,129, 4-30-63, Cl. D26—14.
Dreyfuss, Henry, and N. C. Hazell, to Bell Telephone Laboratories, Inc. Telephone headset. 197,012, 12-3-63, Cl. D26—14.
Drinkwater, John M., and N. Blau. Template. 195,782, 7-30-63, Cl. D52—6.
Drucker, Jerold P., to Zoo-Piks. Drink stirrer. 195,730, 7-23-63, Cl. D44—29.
Dsenis, Harold L., and R. G. Reineman, to Simpson Instruments, Inc. Electrical meter. 196,975, 11-26-63, Cl. D26—1.
Dubbs, John F., to Armstrong Cork Co. Jar. 194,888, 3-26-63, Cl. D58—25.
Dubbs, John F., to Armstrong Cork Co. Jar. 194,889, 3-26-63, Cl. D58—25.
Dubbs, John F., to Armstrong Cork Co. Jar. 195,230, 5-14-63, Cl. D58—25.
Dubbs, John F., to Armstrong Cork Co. Jar. 196,990, 11-26-63, Cl. D58—25.
Dugard, Robert E., and J. A. Sakaley, Jr. Desoldering gun. 197,063, 12-10-63, Cl. D26—1.
Dumit, Joseph P. Combination pan and mop squeezing tray for wax or the like. 196,292, 9-17-63, Cl. D9—2.
Dunaway, Charles H. Coat stand or the like. 195,469, 6-18-63, Cl. D33—8.
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Humphries, Walter. 195,077.
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Du Pree, Ernest L., to Schenley Industries, Inc. Decanter. 194,713, 2-26-63, Cl. D58—6.
Du Pree, Ernest L., to Schenley Industries, Inc. Bottle. 194,809, 3-12-63, Cl. D58—6.
Du Pree, Ernest L., to Schenley Industries, Inc. Decanter. 194,810, 3-12-63, Cl. D58—6.
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Durst, Julius, to Durst S.p.A. Fabrica Macchine ed Apparecchi Fototechnici. Photographic enlarger. 196,820, 11-5-63, Cl. D61—1.
Durst S.p.A. Fabrica Macchine ed Apparecchi Fototechnici: *See*—
Durst, Julius. 196,820.
Dutch, Emery. Applicator for shaving foam or the like. 197,044, 12-3-63, Cl. D86—10.
Duval, Montague R., to Texas Instruments Inc. Electrical switch or similar article. 195,467, 6-18-63, Cl. D26—13.
Duval, Montague R., to Texas Instruments Inc. Electrical switch or similar article. 196,585, 10-15-63, Cl. D26—13.
Dwyer, Anthony A., L. L. Garnell, N. C. McClay, and R. Sealock. Light housing shade for wand supported, wall or similar lighting fixtures. 196,252, 9-10-63, Cl. D48—16.
Dwyer, Anthony A., L. L. Garnell, N. C. McClay, and R. Sealock. Light housing shade for wand supported, wall or similar lighting fixtures. 196,253, 9-10-63, Cl. D48—16.
Dwyer, Anthony A., L. L. Garnell, N. C. McClay, and R. Sealock. Shade for wand supported, wall or similar lighting fixtures. 196,254, 9-10-63, Cl. D48—16.
Dwyer, Anthony A., L. L. Garnell, N. C. McClay, and R. Sealock. Shade for wand supported, wall or similar lighting fixtures. 196,255, 9-10-63, Cl. D48—16.
Dwyer, Anthony A., L. L. Garnell, N. C. McClay, and R. Sealock. Shade for wand supported, wall or similar lighting fixtures. 196,256, 9-10-63, Cl. D48—16.
Dwyer, Anthony A., L. L. Garnell, N. C. McClay, and R. Sealock. Shade for wand supported, wall or similar lighting fixtures. 196,257, 9-10-63, Cl. D48—16.
Dwyer, Anthony A., L. L. Garnell, N. C. McClay, and R. Sealock. Shade for wand supported, wall or similar lighting fixtures. 196,258, 9-10-63, Cl. D48—16.
Dwyer, Anthony A., L. L. Garnell, N. C. McClay, and R. Sealock. Shade for wand supported, wall or similar lighting fixtures. 196,259, 9-10-63, Cl. D48—16.
Dwyer, Harry D. Strong box. 195,373, 6-4-63, Cl. D58—12.
Dykes, Downer P.: *See*—
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Dykes, Downer P., to J. C. Hockery, % Rival Mfg. Co. Electric can opener. 195,125, 4-30-63, Cl. D22—2.
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Eberline, Howard C., to Eberline Instrument Corp. Air sampler. 196,725, 10-29-63, Cl. D16—2.
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Eckersberg, Robert A., and J. L. Hvale, to Ekco Products Co. Head unit for a pedestal type holder for culinary implements. 196,060, 8-20-63, Cl. D44—29.
Edell, Morton, to Hazel Bishop, Inc. Combined bottle cap and lipstick case. 194,716, 2-26-63, Cl. D58—26.
Edelman, William. Dental tray. 194,500, 2-5-63, Cl. D24—1.
Edesess, Beatrice, to American Biltrite Rubber Co., Inc. Plastic pile rug. 195,245, 5-14-63, Cl. D92—21.
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Edmondson, Harold A. Building panel. 194,864, 3-26-63, Cl. D13—1.
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Edwards, Tony J., to Technical Porcelain and Chinaware Co. Plate or similar article. 196,059, 8-20-63, Cl. D44—15.
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Ehle, Wilmer E. Transparent case for a flag or the like. 195,895, 8-6-63, Cl. D58—2.
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Eicholtz, Clara V., to The Dow Chemical Co. Holder for a milk carton or the like. 194,365, 1-8-63, Cl. D44—21.
Eicholtz, Clara V., to The Dow Chemical Co. Jug. 194,631, 2-19-63, Cl. D58—5.
Eicholtz, Clara V., to The Dow Chemical Co. Jug. 194,632, 2-19-63, Cl. D58—5.
Eicholtz, Clara V., to The Dow Chemical Co. Container for dairy products or the like. 195,004, 4-9-63, Cl. D58—17.
Eicholtz, Clara V., to The Dow Chemical Co. Container for dairy products or the like. 195,005, 4-9-63, Cl. D58—17.
Eicholtz, Clara V., to The Dow Chemical Co. Container for dairy products or the like. 195,006, 4-9-63, Cl. D58—17.
Eicholtz, Clara V., to The Dow Chemical Co. Combined condiment jars or the like and stand therefor. 195,347, 6-4-63, Cl. D41—22.
Eicholtz, Clara V., to The Dow Chemical Co. Container for dairy products or the like. 196,004, 8-13-63, Cl. D58—17.
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Barton, Raymond W., Dailey, and Eilers. 196,090.
Eisenhut, John. Marble Game board. 196,181, 9-3-63, Cl. D34—5.
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Crawford, David C. 195,413.
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Elliott, Oliver B. Grease gun rack. 194,414, 1-15-63, Cl. D80—9.
Elliott, Virgil L. Spike cleaner for golf shoes or the like. 195,114, 4-30-63, Cl. D9—2.
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Essad, Edward A. Combined fingerprinting and fraud detector for check identification. 195,642, 7-9-63, Cl. D52—1.
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Fandrey, Daniel R. Place card holder. 194,328, 1-1-63, Cl. D44—24.
Fannon, John J., Jr., and C. W. Sawyer, to Hupp Corp. Space heater. 195,927, 8-6-63, Cl. D81—10.
Fannon, John J., Jr., and C. W. Sawyer, to Hupp Corp. Radiant electric space heater. 196,407, 9-24-63, Cl. D81—10.
Farber, Milton H., and H. K. Foster, to S. W. Farber, Inc. Broiler unit or the like. 196,285, 9-10-63, Cl. D81—10.
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Färe, Bror. Wine bottle holder. 195,008, 4-9-63, Cl. D58—26.
Farey, Francis A., to Ampex Corp. Magnetic tape apparatus. 195,208, 5-14-63, Cl. D26—14.
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Frazier, Preston J., Jr. 194,944.
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Faulkner, Otis V. Fishing rod holder. 194,611, 2-19-63, Cl. D31—4.
Faultless Starch Co.: *See*—
Thompson, Robert B. 195,787.
Faust, Ann. Hanging holder for bath and toilet articles. 196,098, 8-27-63, Cl. D4—3.
Fay, Lawrence J., to Equipto Electronics Corp. Electronic cabinet. 195,840, 8-6-63, Cl. D26—5.
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Fee, Graham, and W. E. Portz, to True Temper Corp. Lawn sprinkler. 196,094, 8-20-63, Cl. D91—1.
Fee, Graham, and W. E. Portz, to True Temper Corp. Lawn sprinkler. 196,479, 10-1-63, Cl. D91—1.
Fee, Graham, and W. E. Portz, to True Temper Corp. Lawn sprinkler. 196,480, 10-1-63, Cl. D91—1.
Fees, Richard A., to Quaker Lace Co. Tablecloth. 196,027, 8-13-63, Cl. D92—26.
Fees, Richard A., to Quaker Lace Co. Tablecloth. 196,028, 8-13-63, Cl. D92—26.
Fees, Richard A., to Quaker Lace Co. Tablecloth. 196,029, 8-13-63, Cl. D92—26.
Fees, Richard A., to Quaker Lace Co. Tablecloth. 196,030, 8-13-63, Cl. D92—26.
Fees, Richard A., to Quaker Lace Co. Tablecloth. 196,031, 8-13-63, Cl. D92—26.
Fees, Richard A., to Quaker Lace Co. Tablecloth. 196,419, 9-24-63, Cl. D92—26.
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Weller, Carl E., Fegley, and Brassaw. 196,420.
Fellers, Doyle M.: *See*—
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Fellers, Robert L., to Griff's of America, Inc. Restaurant building. 195,503, 6-25-63, Cl. D13—1.
Fellner, Juan A. Wall-heater cabinet. 196,625, 10-15-63, Cl. D81—10.
Fenster, Alex, to Fit Rite Watch Case Corp. Combined money clip and watch. 197,226, 12-31-63, Cl. D17—3.
Fenton, Carl E. Wind-oriented feeder receptacle. 196,170, 9-3-63, Cl. D12—2.
Fenton, Donald E. Inflatable doll. 195,133, 4-30-63, Cl. D34—4.
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Sundberg, Carl W., and Ferar. 195,913.
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Sundberg, Carl W., and Ferar. 196,280.
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Ferber, Alan H. Game piece. 195,857, 8-6-63, Cl. D34—5.
Ferguson, Martin J. Confection. 194,728, 2-26-63, Cl. D82—2.
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Fernan, James K. and M. L. Child's climber. 196,594, 10-15-63, Cl. D34—5.
Fernan, Mildred L.: *See*—
Fernan, James K. and M. L. 196,594.
Ferriot, Joseph V. Combined toy house with movable figures thereon. 194,428, 1-22-63, Cl. D34—15.
Fervier, Adj F., to Eagle Mfg. Co. Waste can. 195,904, 8-6-63, Cl. D58—17.
Fesmire, Norman W.: *See*—
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Fibish, Arthur, to Illinois Tool Works Inc. Packaging cup or similar article. 196,334, 9-17-63, Cl. D58—17.
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Figueras, Jose M., to Overseas International, Inc. Building front. 196,568, 10-15-63, Cl. D13—1.
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Filley, Oliver D., Jr., to Black River Pool & Plastics, Inc. Housing unit. 197,174, 12-24-63, Cl. D13—1.
Fillmore, William E., to Owen-Illinois Glass Co. Jug. 196,682, 10-22-63, Cl. D58—5.
Fink, Albert G. Wrench for electrical connector plugs or the like. 194,708, 2-26-63, Cl. D54—16.
Fink, Robert R., to General Electric Co. Refrigerator or the like. 196,207, 9-3-63, Cl. D67—3.
Finkel, Edward, and M. A. Lafer, to JFD Electronics Corp. Television antenna. 196,050, 8-20-63, Cl. D26—14.
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Fisher, George. Shoe bag. 197,146, 12-17-63, Cl. D58—2.
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Thornell, Ernest L. 196,737.
Fisher, Robert C. Safety belt buckle. 194,595, 2-19-63, Cl. D17—1.
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Fitzsimonds, George H., to General Electric Co. Combination battery charger and toothbrush holder or similar article. 196,226, 9-10-63, Cl. D4—3.
Fladlien, David G., and P. J. Smith, to Space Technology Laboratories, Inc. Precision focusing adjustment for photographic recording apparatus. 197,257, 12-31-63, Cl. D61—1.
Flagg, Lucien M. Portable carport or the like. 196,231, 9-10-63, Cl. D13—1.
Flaks, Carl R. Brush head for a floor treating machine brush disk assembly. 195,247, 5-21-63, Cl. D9—2.
Flam, Frederick H.: *See*—
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Flannery, J. Rogers, Jr., to Flannery and Associates. Dispensing unit for fuel or the like. 194,370, 1-8-63, Cl. D52—2.
Flannery, John R., Jr., to Flannery and Associates, Inc. Dispensing unit housing for fuel or the like. 194,553, 2-12-63, Cl. D52—2.
Flaugher, Lawrence L., and T. G. Bur, to Applied Power Industries, Inc. Portable trouble light. 194,403, 1-15-63, Cl. D48—20.
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Fleishman, Myron. Apparel belt attachment. 194,351, 1-8-63, Cl. D17—1.
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Hopkins, Arthur W. 195,673.
Hopkins, Arthur W. 195,674.
Florence, Noel S., to Lightolier Inc. Lighting fixture. 195,529, 6-25-63, Cl. D48—23.
Floria, James D., to Hamilton Mfg. Co. Drafting table. 195,978, 8-13-63, Cl. D33—14.
Florian, Gordon, to Sunbeam Corp. Clock. 195,864, 8-6-63, Cl. D42—7.
Flury, Karl, to Defensor Aktiengesellschaft. Atomizer. 196,830, 11-5-63, Cl. D83—1.
Flygstad, Dean W., and K. J. Grierson, to The Telex Corp. Combined microphone boom and support therefor. 196,515, 10-8-63, Cl. D26—14.
Flynn, Frank M., to General Aniline & Film Corp. Optical comparator gauge. 195,100, 4-23-63, Cl. D57—1.
Fogerty, James P., A. Spaak, F. W. Stevens, and I. H. Miller; said Fogerty, Spaak, and Stevens assors. to W. R. Grace & Co., and said Miller assor. to Owens-Illinois Glass Co. Crate for bottles. 194,999, 4-9-63, Cl. D58—5.
Fogerty, James P., A. Spaak, F. W. Stevens, and I. H. Miller; said J. P. Fogerty, A. Spaak, and F. W. Stevens, assors. to W. R. Grace & Co., and said I. H. Miller assor. to Owens-Illinois Glass Co. Crate for bottles. 195,101, 4-23-63, Cl. D58—5.
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Bordinat, Eugene, Jr. 194,665.
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Bordinat, Eugene, Jr. 195,768.
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Forsyth, Robert W., and J. P., to Lockheed Aircraft Corp. Tank unit. 196,779, 11-5-63, Cl. D14—3.
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Petitto, Albert C. 194,558.
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Foster, Thomas H., Jr., and H. Landell, to Philco Corp. Ion generator. 195,464, 6-18-63, Cl. D26—1.
Fotos, Steve, to Multi Molds International, Inc. Parfait cup. 194,882, 3-26-63, Cl. D44—9.
Fournillier, Christian. Surf riding boat. 196,344, 9-17-63, Cl. D71—1.
Fradette, Mary E. Combined cup and cover therefor. 196,375, 9-24-63, Cl. D44—9.
Franck, George E., to Imperial-Eastman Corp. Tube cutter. 196,936, 11-19-63, Cl. D54—13.
Frank, Alan I. W. Corp., The: *See*—
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Frank, Heinrich H. Combined tube brushing and cleaning machine. 195,780, 7-30-63, Cl. D37—1.
Frank, Heinrich H., to The Ridge Tool Co. Pipe bending tool. 196,073, 8-20-63, Cl. D54—13.
Frank, Heinrich H., to The Ridge Tool Co. Tube holder for soldering and the like. 196,675, 10-22-63, Cl. D54—1.
Frankel, Samuel. Portable radio cabinet. 194,884, 3-26-63, Cl. D56—4.
Frankenberg, Edward V., to Fleco Corp. Mobile brush burner unit for delivering air and fuel to facilitate and maintain brush fires and the like. 196,697, 10-22-63, Cl. D81—20.
Franklin, Burton P., and S. S. Leotta, to H. K. Porter Co. (Delaware). Electric drill. 195,227, 6-14-63, Cl. D54—14.
Franzreb, Henry W., and H. C. Hill, to American Can Co. Closure or similar article. 195,377, 6-4-63, Cl. D58—26.
Fraze, Ermal C. Closure with a tear strip opener. 195,604, 7-2-63, Cl. D58—26.
Frazier, Preston J., Jr., to Faroy, Inc. Candleholder. 194,944, 4-2-63, Cl. D48—2.
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Frederick, Marlin H., and J. G. Erickson. Golf putting target trophy. 195,779, 7-30-63, Cl. D34—5.
Freedman, Lawrence I., and J. W. Tone, to Ronson Corp. Mixing impeller. 195,728, 7-23-63, Cl. D44—1.
Freedman, Robert N., to Vogue Electronic & Appliance Corp. Combined food mixer and blender. 195,073, 4-16-63, Cl. D89—1.
Freeman, David A. Automatic machine for folding garments and other flexible articles. 195,594, 7-2-63, Cl. D55—1.
Freeman, Hans. Plastic tile unit for mats or similar articles. 196,832, 11-12-63, Cl. D9—6.
Freeman, Maurice H., to Tri-State Plastic Molding Co. Egg tray. 194,441, 1-22-63, Cl. D58—13.
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Gacki, Leonard W., to Medical Metals Inc. Film processing tank. 196,460, 10-1-63, Cl. D61—1.
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Galigher, Warren E. Handle for cans or the like. 194,987, 4-9-63, Cl. D44—21.
Gallay, Pierre. Refrigeration compressor. 196,991, 11-26-63, Cl. D65—1.
Gallman, John E. Route indicator. 195,880, 8-6-63, Cl. D52—1.
Gallup, Robert L., to Daystrom, Inc. Telephone amplifier cabinet. 197,011, 12-3-63, Cl. D26—14.
Gandelman, Morris D., to Jacques Kreisler Mfg. Corp. Watch bracelet or similar article. 196,930, 11-19-63, Cl. D45—4.
Gandelman, Morris D., to Jacques Kreisler Mfg. Corp. Watch bracelet or similar article. 196,931, 11-19-63, Cl. D45—4.
Gandelman, Morris D., to Jacques Kreisler Mfg. Corp. Watch bracelet or similar article. 196,932, 11-19-63, Cl. D45—4.
Ganick, William H., to Keyes Fibre Co. Plate or similar article. 196,599, 10-15-63, Cl. D44—15.
Gant, Charles A. Combination sugar packet dispenser, condiment and flower holder. 195,270, 5-21-63, Cl. D44—24.
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Gantenbrink, Heinrich, to Prescolite Mfg. Corp. Lighting fixture diffuser. 196,260, 9-10-63, Cl. D48—16.
Ganzel, Charles, and W. H. Ransone, to William H. Ransone, Inc. Hydro-pneumatic gun or the like. 196,461, 10-1-63, Cl. D62—2.

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Gehrie, Charles S., to Presto Lock Co. Brief case lock or similar article. 197,139, 12–17–63, Cl. D50—7.
Gehrs, Stephen W. Medicine cabinet or similar article. 196,557, 10–15–63, Cl. D4—3.
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Gelles, Daniel E. Clothing display rack or similar article. 196,347, 9–17–63, Cl. D80—8.
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Gershun, Merton L., to American Furniture Co., Inc. Combined bench, vanity desk and chest unit. 194,685, 2–26–63, Cl. D33—7.
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Goldberger, Paul. Lappet woven textile fabric. 194,902, 3–26–63, Cl. D92—1.
Goldberger, Paul. Lappet woven textile fabric. 194,903, 3–26–63, Cl. D92—1.
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Gordon, James. Edible serving spoon. 194,780, 3–12–63, Cl. D8—1.
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Gottsegen, Marten, to Gotham Industries, Inc. Ice bucket or the like. 194,476, 1–29–63, Cl. D44—15.

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Graser, Clarence F., W. F. Kraus, E. J. Sabella, and J. F. Talerico, to International Business Machine Corp. Cabinet for a tape drive. 196,646, 10–22–63, Cl. D26—5.

Grasty, William P., to Abbott Laboratories. Bottle. 195,738, 7–23–63, Cl. D58—6.

Graves, Howard K. Document reproducing apparatus. 194,815, 3–12–63, Cl. D61—1.

Graybar, Sidney H., and I. Miller. House. 196,496, 10–8–63, Cl. D13—1.

Grayson, Jack M. Convertible table, bench, bed platform and chest unit. 194,849, 3–19–63, Cl. D33—14.

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Greasley, Eric A., to Pressac Ltd. Lamp holder. 196,178, 9–3–63, Cl. D26—1.

Greeman, Edward, A. Bickler, and J. Sherman. Back scratcher. 194,337, 1–1–63, Cl. D86—10.

Green, Donald E. Chest or similar article. 194,751, 3–5–63, Cl. D33—19.

Green, Homer T., to The Parker Pen Co. Fountain pen nib. 195,385, 6–4–63, Cl. D74—17.

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Green, James W., Jr., to The Eastern Co. Fire alarm signal or similar article. 194,738, 3–5–63, Cl. D7—1.

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Grise, Lionel, Jr., to Electric Spoon, Inc. Portable electric food mixer. 195,423, 6–11–63, Cl. D44—1.

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Grosher, Nathan, to Lindy Pen Co., Inc. Merchandise display fixture. 195,753, 7–23–63, Cl. D80—10.

Gross, Angus R., Jr. Combined water strainer and sea valve. 194,654, 2–19–63, Cl. D91—1.

Grove, Marvin H. Completion valve. 195,444, 6–11–63, Cl. 178—1.

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Guild, Lurelle V. A., R. A. W. Johanson, and R. C. Lampe, to Electrolux Corp. Vacuum cleaner or similar article. 194,781, 3–12–63, Cl. D9—2.

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Gutridge, Jack E., to Pullman Inc. Center beam for a railway vehicle. 197,195, 12–24–63, Cl. D66—3.

Habelquist, John L., to Traub Mfg. Co. Interlocking finger ring set. 195,691, 7–16–63, Cl. D45—10.

Habich, Adolph B., to Detrex Chemical Industries, Inc. Dry cleaning machine. 195,478, 6–18–63, Cl. D49—1.

Hackathorn, Robert A., and R. M. Lytle, to Crawford Door Co. Garage door or similar article. 196,360, 9–24–63, Cl. D13—1.

Hackney, Harold B., and B. Harkins, to Automatic Tripod, Inc. Lamp base. 197,081, 12–10–63, Cl. D48—20.

Hackney, James K., Jr., to Ampex Corp. Portable tape recorder. 195,512, 6–25–63, Cl. D26—14.

Hadley, Brice G. Combined trophy and clock. 195,982, 8–13–63, Cl. D42—7.

Hadley, George. Staircase railing. 194,392, 1–15–63, Cl. D13—7.

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Haga, Henry G., to General Motors Corp. Wheel cover. 196,786, 11–5–63, Cl. D14—30.

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Hajek, Elmer T. Fishing lure. 195,777, 7–30–63, Cl. D31—4.

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Hale, Thomas K., to Robertshaw-Fulton Controls Co. Thermostat. 195,143, 4–30–63, Cl. D52—7.

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Haller, Herbert C. Winding reel. 194,753, 3–5–63, Cl. D41—1.

Hallock, Edward C. Spacing unit for a grille. 195,481, 6–18–63, Cl. D54—2.

Hallock, Edward C. Grille. 195,482, 6–18–63, Cl. D54—2.

Hallock, Edward C. Grille. 195,483, 6–18–63, Cl. D54—2.

Halloran, Fred J. Open cutting die for making shoe parts. 196,197, 9–3–63, Cl. D54—4.

Halpern, Irving J., and H. W. Stan, to J. Halpern Co. Toy gun or the like. 196,246, 9–10–63, Cl. D34—15.

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Halvorson, Kaari M. Magnet-supported deodorant casing. 196,907, 11–19–63, Cl. D16—2.

Hamernick, Vincent. Knife holder. 196,250, 9–10–63, Cl. D44—29.

Hamill, Peter J., and R. A. Ferguson. Emergency switch plate cover. 195,031, 4–16–63, Cl. D26—13.

Hamilton, Allen R., and C. G. Thoresen, to Consolidated Vacuum Corp. Ultra high vacuum pump for laboratories or the like. 195,154, 4–30–63, Cl. D65—1.

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Hamilton, Earl F., and Lay. 194,669.
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Hamilton, Earl F., to Hamilton Cosco, Inc. Cart. 194,686, 2–26–63, Cl. D33—14.

Hamilton, Earl F., and R. B. Lay, to Hamilton Cosco, Inc. Infant's chair. 194,669, 2–26–63, Cl. D15—1.

Hamilton, Earl F., and R. B. Lay, to Hamilton Cosco, Inc. Infant's chair. 194,670, 2–26–63, Cl. D15—1.

Hamilton, Earl F., and R. B. Lay, to Hamilton Cosco, Inc. Infant's chair. 194,671, 2–26–63, Cl. D15—1.

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Hammer, Hieme C. Illuminable sign. 197,206, 12–31–63, Cl. D1—12.

Hammes, Josef J., to B. W. Lowell. Cover plate for a combination loud speaker, ventilator, and lighting fixture. 196,618, 10–15–63, Cl. D62—4.

Hammes, Josef J., and D. F. Loscalzo, to Lowell Mfg. Co. Loud speaker baffle. 196,587, 10–15–63, Cl. D26—14.

Hammond, John M.: *See*—
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Hammond Machinery Builders, Inc.: *See*—
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Hampl, Jan, and Z. Sekora, to Meopta Národní Podnik. Motion picture camera with reversible body. 196,758, 10–29–63, Cl. D61—1.

Hampton, John T. Prefabricated fence panel. 194,396, 1–15–63, Cl. D28—1.

Hampton, John T. Prefabricated fence panel. 195,130, 4–30–63, Cl. D28—1.

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Hanger, Randolph T. Fireplace stove. 194,964, 4–2–63, Cl. D81—7.

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Hanna, Robert L. Pedal driven toy vehicle. 196,125, 8–27–63, Cl. D34—15.

Hannan, Robert F., to Mohawk Brush Co. Brush. 196,706, 10–29–63, Cl. D9—2.

Hannon, William J., Jr., to The Machick Co. Combined cabinet and work table for packaging surgical gloves. 195,947, 8–13–63, Cl. D16—2.

Hannula, Leslie A., M. R. Schaffer, and E. S. Ertl, to Acoustics Development Corp. Telephone booth. 196,497, 10–8–63, Cl. D13—1.

Hansen, Christie L. Fishing float. 195,776, 7–30–63, Cl. D31—4.

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Hansen, Douglas B. Can holder or the like. 194,364, 1–8–63, Cl. D44—21.

Hansmann, Arthur J. Breezeway wall unit. 195,671, 7–16–63, Cl. D13—1.

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Hanson, Arnold E. Combined tissue dispenser and litter container. 196,331, 9–17–63, Cl. D58—17.

Hanson, Arnold E. Combined tissue dispenser and litter container. 196,333, 9–17–63, Cl. D58—17.

Hanson, Roy W. Heater grill. 196,768, 10–29–63, Cl. D81—21.

Harbers, Henry C., to Western Unit Corp. Fifth wheel unit. 196,572, 10–15–63, Cl. D14—6.

Hardaker, John C. K., to The General Electric Co. Ltd. Electric toaster. 197,160, 12–17–63, Cl. D81—10.

Hargus, Arthur C. Fishing hook dislodger. 196,179, 9–3–63, Cl. D31—4.

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Harman, Emil I., to Philco Corp. Television receiver. 194,955, 4–2–63, Cl. D56—4.

Harmsen, William D., to Jolly Rancher Sales Co. Combined luggage carrier and boat. 194,532, 2–12–63, Cl. D14—27.

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Harned, Malcolm S., and K. B. Amer, to Hughes Tool Co. Rotary-winged aircraft. 197,039, 12–3–63, Cl. D71—1.

Harper, David. Hat rack cabinet. 195,726, 7–23–63, Cl. 133—19.

Harris, Arthur H., and A. H. Watson, to Redland Tiles Ltd. Roofing tile. 195,919, 8–6–63, Cl. D68—1.

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Harris, Joseph M. Combined portable seat and camera support. 194,593, 2–19–63, Cl. D15—8.

Harris, William C., to S. C. Johnson & Son, Inc. Spreader for pulverulent material. 197,077, 12–10–63, Cl. D35—2.

Harrison, Dwight A. Drive-in retail building. 195,765, 7–30–63, Cl. D13—1.

Harrison, Mark. Blade for an aerator tool or the like. 195,042, 4–16–63, Cl. D35—2.

Harrison, Paul H., and N. E. Roe, to Robertshaw Controls Co. Thermostat control case. 196,383, 9–24–63, Cl. 152—6.

Harrison, Paul H., and N. E. Roe, to Robertshaw Controls Co. Thermostat control case. 197,250, 12–31–63, Cl. 152—6.

Hart, Richard T., to Midwestern Instruments, Inc. Instrument panel for an oscellograph. 195,210, 5–14–63, Cl. 126—14.

Hartley, Newell D. Bank. 196,659, 10–22–63, Cl. D34—11.

Hartman, John H., to Texagon Mills Inc. Lace. 196,742, 10–29–63, Cl. D47—6.

Hartman, Thomas A. Aircraft fuselage. 197,156, 12–17–63, Cl. D71—1.

Harty, Millard F., Jr., and S. E. Thorwaldsen, to Weyerhaeuser Co. Brief case. 194,328, 1–1–63, Cl. D87—5.

Harty, Millard F., Jr., and S. E. Thorwaldsen, to Weyerhaeuser Co. Luggage case or similar article. 194,339, 1–1–63, Cl. D87—5.

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Hauer, Erwin F. Architectural wall. 194,583, 2–19–63, Cl. D13—1.

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Herman, Isadore. Confection. 194,577, 2–12–63, Cl. D82—2.
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Hill, Edward J. Tube adapter for nasal intubation. 194,729, 2–26–63, Cl. D83—1.
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Hill, Edward J. Urinal unit for incontinent females. 196,473, 10–1–63, Cl. D83—1.
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Hirashiki, James, to Universe Products Co. Foldable traversing screen. 195,056, 4–16–63, Cl. D54—2.
Hirashiki, James, to Universe Products Co. Foldable traversing screen. 195,057, 4–16–62, Cl. D54—2.
Hirashiki, James, to Universe Products Co. Foldable traversing screen. 195,058, 4–16–63, Cl. D54—2.
Hirashiki, James, to Universe Products Co. Foldable traversing screen. 195,059, 4–16–63, Cl. D54—2.
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Hood, Sylvia H. Plaque. 195,626, 7–9–63, Cl. D29—23.
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Horgan, William J., Jr., to Pittsburgh Plate Glass Co. Stile for a sliding glass door. 196,295, 9–17–63, Cl. D13—6.
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Keagle, Prosper J. Game board. 195,856, 8–6–63, Cl. D34—5.
Keck, James W. Navigation plotter. 196,604, 10–15–63, Cl. D52—6.
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Keller, Joseph R., to AMP Inc. Electrical connector housing block. 195,171, 5–7–63, Cl. D26—1.
Keller, Joseph R., to AMP Inc. Electrical connector. 196,506, 10–8–63, Cl. D26—1.
Keller, Louis J. and C. N., and C. E. Melroe, to Melroe Mfg. Co. Self-propelled loader. 195,254, 5–21–63, Cl. D14—3.
Keller, Robert R. Curtain wall panel or similar article. 196,778, 10–5–63, Cl. D13—1.
Keller, Samuel Y.: *See*—
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Kelly, Burton, and J. E. Reed, to Sunbeam Corp. Combined steam and spray iron. 196,746, 10–29–63, Cl. D49—6.

Kelly, Edward, to Wolff Appliance Corp. Revolvable bathroom chest and hamper combination. 194,775, 3–12–63, Cl. D4—3.

Kelly, William E., to The Thomas & Betts Co. Offset nipple. 195,242, 5–14–63, Cl. D91—3.

Kelly, William E., to The Thomas & Betts Co. Offset nipple. 195,243, 5–14–63, Cl. D91—3.

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Keltz, Laurence. Conductor spreader. 197,010, 12–3–63, Cl. D26—10.

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Kendall, William D., to Dynapower Systems Corp. Pulsed high frequency electrotherapeutic unit. 195,537, 6–25–63, Cl. D83—1.

Kennedy, Richard T., to Ekco Products Co. Holder for belts or the like. 196,469, 10–1–63, Cl. D80—8.

Kennedy, Richard T., and R. S. Latham, to Ekco Products Co. Garment hanger support. 195,751, 7–23–63, Cl. D80—8.

Kenner Products Co.: *See*—
Kuhn, James O. 195,606.

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Kermes, Constantine J., E. F. Glass, and L. M. Bumm, to Sperry Rand Corp. Hay crushing implement 194,361, 1–8–63, Cl. D40—1.

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Kessler, William H., to Meathe Kessler & Associates, Inc. End standard for a church pew or the like. 194,743, 3–5–63, Cl. D15—8.

Keszler, Ernest. Combination square head and rule. 195,356, 6–4–63, Cl. D52—6.

Keszler, Ernest. Combination square. 195,358, 6–4–63, Cl. D52—6.

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Kidd, Rollo J. Combined stein handle and cover attachment for beer cans or the like. 194,696, 2–26–63, Cl. D44—21.

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Kaiser, Bernhard. 194,406.

Kilbourn, Eugene L., and W. T. Everett, to S. H. Leggitt Co. Warning light. 194,818, 3–12–63, Cl. D72—1.

Kilbourn, Eugene L., and D. M. Fellers, to S. H. Leggitt Co. Hand pump. 196,164, 10–1–63, Cl. D65—1.

Killebrew, Clarence E.: *See*—
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Beekenkamp, Gerald, and King. 197,005.

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Kinnear, Harold L., and R. C. Ankrum, to The Standard Oil Co. Outdoor lighting fixture. 196,670, 10–22–63, Cl. D48—31.

Kinsella, Anthony J. Tooth cleaner. 196,635, 10–22–63, Cl. D9—2.

Kinsley, Felix P. Set of ornamental initials for jewelry. 195,871, 8–6–63, Cl. D15—1.

Kinsley, John P., to Celanese Corp. of America. Jug. 196,145, 8–27–63, Cl. D58—5.

Kirk, Fred B., to Roberts Electronics, Inc. Reel adapter for a magnetic tape recorder. 196,116, 8–27–63, Cl. D26—14.

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Kirkeby, Elvind. Base for and adjustable lamps or similar article. 196,743, 10–29–63, Cl. D48—20.

Kirsh Co.: *See*—
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Yamamoto, Kozo, Jodai, Taniguchi, Kitamura, Saito, and Shibazaki. 194,628.

Kitterman, Donald M., to Pacific Industries, Inc. Bottle. 195,897, 8–6–63, Cl. D58—6.

Kleiman, Samuel R. Holder for dental supplies or the like. 194,306, 1–1–63, Cl. D4—3.

Klein, Louis H. Molding strip or similar article. 196,232, 9–10–63, Cl. D13—6.

Klein, Max, Inc.: *See*—
Klein, Max S. 195,484.

Klein, Max S., to Max Klein, Inc. Trellis. 195,484, 6–18–63, Cl. D54—2.

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Klingaman, Harold W. Indoor horseshoe game target. 195,631, 7–9–63, Cl. D34—5.

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Knapp-Monarch Co.: *See*—
Knapp, Robert S. 196,397.

Knapp, Robert S., to Knapp-Monarch Co. Support base for electric fan or the like. 196,397, 9–24–63, Cl. D62—4.

Knies, Robert H., to Armstrong Cork Co. Bottle. 196,149, 8–27–63, Cl. D58—8.

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Knight, James O., to L. R. Nelson Mfg. Co., Inc. Hose fitting. 195,540, 6–25–63, Cl. D91—3.

Knight, Leland W., to General Motors Corp. Wheel cover. 196,780, 11–5–63, Cl. D14—30.

Knight, Leland W., to General Motors Corp. Wheel cover. 196,791, 11–5–63, Cl. D14—30.

Knight, William J. Drinking fountain attachment for faucets. 194,900, 3–26–63, Cl. D91—3.

Knoll Associates, Inc.: *See*—
Knoll, Florence S. 195,470.
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Knowles, Alvis R., to Eldon Industries, Inc. Electric soldering iron. 194,318, 1–1–63, Cl. D26—1.

Kobler, Richard, and C. L. Otto, to McGraw-Edison Co. Automatic repertory dialing machine. 196,434, 10–1–63, Cl. D26—5.

Kocab, Albert J. Mal Kai, Inc. Bottle. 195,902, 8–6–63, Cl. D58—9.

Koch, Roderic M. Valet stand. 195,212, 5–14–63, Cl. D33—8.

Koch, Samuel J. Adjustable table lamp or similar article. 196,871, 11–12–63, Cl. D48—20.

Koch, Walter L., to Automatic Canteen Co. of America. Vending machine panel. 196,873, 11–12–63, Cl. D52—3.

Koenigsberg, Victor, to Colgate-Palmolive Co. Bottle or similar article. 195,368, 6–4–63, Cl. D58—6.

Koenigsberg, Victor, to Colgate-Palmolive Co. Bottle or similar article. 195,369, 6–4–63, Cl. D58—6.

Koenigsberg, Victor, to Colgate-Palmolive Co. Bottle or similar article. 195,650, 7–9–63, Cl. D58—6.

Koenigsberg, Victor, to Colgate-Palmolive Co. Bottle or similar article. 195,651, 7–9–63, Cl. D58—6.

Koenigsberg, Victor, to Colgate-Palmolive Co. Bottle or similar article. 195,899, 8–6–63, Cl. D58—8.

Koenigsberg, Victor, to Colgate-Palmolive Co. Jug or similar article. 196,002, 8–13–63, Cl. D58—5.

Koenigsberg, Victor, to Colgate-Palmolive Co. Bottle or similar article. 196,453, 10–1–63, Cl. D58—8.

Koenigsberg, Victor, to Colgate-Palmolive Co. Dispensing container for cleansing powder or the like. 196,539, 10–8–63, Cl. D58—17.

Koenigsberg, Victor, to Colgate-Palmolive Co. Jug or similar article. 196,750, 10–29–63, Cl. D58—5.

Koenigsberg, Victor, to Colgate-Palmolive Co. Jug or similar article. 196,752, 10–29–63, Cl. D58—5.

Koenigsberg, Victor, to Colgate-Palmolive Co. Bottle or similar article. 196,753, 10–29–63, Cl. D58—6.

Koett, Albert C. Portable impact tool or the like. 197,088, 12–10–63, Cl. D54—14.

Koffler, Sol. Luggage handle. 197,164, 12–17–63, Cl. D87—2.

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Kolbeck, Charles H., to Vue Optical Products, Inc. Combined guide and holder for facilitating the placement of contact lens on the cornea of the eye. 196,610, 10–15–63, Cl. D57—1.

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Kolterman, Edwin C., to Poudre Products Co., Inc. Combined electric soldering and brazing machine. 196,048, 8–20–63, Cl. D26—1.

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Koons, Paul M., to The National Cash Register Co. Adding machine or similar article. 196,400, 9–24–63, Cl. D64—11.

Kopf, George, to Porta Aluminum, Inc. Sliding latch or similar article. 196,747, 10–29–63, Cl. D50—5.

Kopp, Joseph. Burette unit for the elution of chemical substances from paper. 195,458, 6–18–63, Cl. D16—1.

Kopp, Philip E., to Malvern Flue Lining, Inc. Wall block. 195,950, 8–13–63, Cl. D18—2.

Korbos, George R., to Lakeside Industries, Inc. Drawing stand. 196,974, 11–26–63, Cl. D25—1.

Kore, Harry, Jr. Holder for a handbag or similar article. 195,132, 4–30–63, Cl. D33—3.

Kortick, Morris, to Troy, Inc. Holder for a golf ball marker. 195,949, 8–13–63, Cl. D17—3.

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Kostanecki, Andrew T., to General Electric Co. Combination electric meter and pushbutton panel. 196,511, 10–8–63, Cl. D26—13.

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Kostich, John P., deceased (by H. S. Kostich, administratrix), to Northrop Corp. Electrical connector plug with retractable pin shield. 196,912, 11–19–63, Cl. D26—1.

Kosugi, Kiro, to Janome Sewing Machine Co. Ltd. Control plate for sewing machine or the like. 195,290, 5–21–63, Cl. D70—2.

Kovac, Esther R. Toy animal figure. 194,427, 1–22–63, Cl. D34—2.

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Kracht, William, Jr. Water jug or the like. 194,806, 3–12–63, Cl. D58—5.

Kraines, Maurice H., and R. L. Unkrich, said Unkrich assor. to said Kraines. Shower mat. 194,449, 1–29–63, Cl. D9—6.

Kraines, Maurice H., and R. L. Unkrich, said Unkrich assor. to said Kraines. Bath mat. 194,450, 1–29–63, Cl. D9—6.

Kraines, Maurice H., and R. L. Unkrich; said Unkrich assor. to said Kraines. Drainboard mat. 194,862, 3–26–63, Cl. D9—6.

Kraines, Maurice H., and R. L. Unkrich; said Unkrich assor. to said Kraines. Sink stopper. 195,162, 4–30–63, Cl. D91—1.

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Kramer, Gideon A., to Hydro-Marine, Inc. Boat. 196,764, 10–29–63, Cl. D71—1.

Kramer, Irvin S., to The Barr Corp. Quilted plastic sheet material. 195,487, 5–7–63, Cl. D87—3.

Kramer, Marvin, and A. S. Pane. Trophy figurine. 195,307, 5–28–63, Cl. D29—23.

Kramer, Milton A.: *See*—
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Kramer, Saunders B., and E. H. Visscher, to Lockheed Aircraft Corp. Space station. 194,444, 1–22–63, Cl. D71—1.

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Kraus, Walter F., E. J. Sabella, and J. F. Talerico, to International Business Machines Corp. Tape reader. 194,319, 1–1–63, Cl. D26—5.

Krause, Armin, and H. Keltel, to Olympia Werke A.G. Storage drum for magnetic recording and reproduction of data in impulse form. 194,788, 3–12–63, Cl. D26—5.

Krause, Bernhard F. Storage container for syrup or the like. 196,944, 11–19–63, Cl. D58—17.

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Krebs, Leo. Stringed electric musical instrument. 197,143, 12–17–63, Cl. D56—1.

Krehbiel, John H., to Molex Products Co. Electrical connector housing. 196,111, 8–27–63, Cl. D26—1.

Kreisner, William I. Match box. 196,138, 8–27–63, Cl. D48—29.

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Kroll, John L., to Jayfro Athletic Supply Co., Inc. Rack for sporting equipment. 197,199, 12–24–63, Cl. D80—9.

Krolzick, Gordon J., to Whirlpool Corp. Agitator for a laundry machine. 196,194, 9–3–63, Cl. D49—1.

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Ziskin, Manuel S., and Wagner. 196,378.
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Kronhaus, Henry. Swivel chair. 195,946, 8–13–63, Cl. D15—1.

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Kubnick, Norman R., to Bell & Howell Co. Film magazine for a motion picture camera or similar article. 195,106, 4–23–63, Cl. D61—1.

Kubnick, Norman R., to Bell & Howell Co. Hand grip for a motion picture camera or similar article. 196,010, 8–13–63, Cl. D60—1.

Kubnick, Norman R., to Bell & Howell Co. Camera front housing. 196,202, 9–3–63, Cl. D61—1.

Kubota, Isamu, and S. Shiramatsu, to Chiyoder Koganku Seiko Kabrushiki Kaisha. Motion picture camera or similar article. 194,640, 2–19–63, Cl. D61—1.

Kuczajka, Frederick J., and W. E. Angell, to Fayrick Mfg., Inc. Separable finger ring. 195,582, 7–2–63, Cl. D45—10.

Kuhn, James O., to Kenner Products Co. Combined transparent and opaque projector. 195,606, 7–2–63, Cl. D61—1.

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Kulow, Howard H., to Wilson Plastics, Inc. Packaging cup for food products or the like. 195,282, 5–21–63, Cl. D58—17.

Kulow, Howard H., to Wilson Plastics, Inc. Packaging cup for food products or the like. 195,283, 5–21–63, Cl. D58—17.

Kulow, Howard H., to Wilson Plastics, Inc. Packaging cup for food products or the like. 195,435, 6–11–63, Cl. D58—17.

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Kulow, Howard H., to Wilson Plastics, Inc. Packaging cup for food products or the like. 195,741, 7–23–63, Cl. D58—17.

Kulow, Howard H., to Wilson Plastics, Inc. Packaging cup for food products or the like. 195,742, 7–23–63, Cl. D58—17.

Kulow, Howard H., to Wilson Plastics, Inc. Packaging cup for food products or the like. 195,743, 7–23–63, Cl. D58—17.

Kulow, Howard H., to Wilson Plastics, Inc. Packaging cup for food products or the like. 195,744, 7–23–63, Cl. D58—17.

Kulow, Howard H., to Wilson Plastics, Inc. Packaging cup for food products or the like. 195,745, 7–23–63, Cl. D58—17.

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Kunz, Gerald, to The B. F. Goodrich Co. Tire. 196,895, 11–12–63, Cl. D90—20.

Kunzmann Chain Co.: *See*—
Kunzmann, Walter R. 196,317.

Kunzmann, Walter R., to Kunzmann Chain Co. Link chain for a bracelet or similar article. 196,317, 9–17–63, Cl. D45—4.

Kus, Theodore A., to Universal Form Clamp Co. Form clamp for concrete form rods. 195,429, 6–11–63, Cl. D51—1.

Kushmuk, Walter P., to Ammco Tools, Inc. Gauge. 194,554, 2–12–63, Cl. D52—6.

Kushner, Julian H. Jewelry medallion. 194,329, 1–1–63, Cl. D45—1.

Kuwabara, Eizaburo, to Josai Denki Kabushiki Kaisha (also known as Josai Electric Co., Ltd.). Vehicle head lamp. 197,129, 12–17–63, Cl. D26—8.

Kuwabara, Isamu, and A. V. Simidian. Bottle. 194,886, 3–26–63, Cl. D58—8.

Kuwabara, Isamu, and A. V. Simidian. Bottle cap. 194,887, 3–26–63, Cl. D58—10.

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Laguzzi, Mario, to Poirette Corsets, Inc. Foundation garment. 194,867, 3–26–63, Cl. D20—2.

Laguzzi, Mario, to Poirette Corsets, Inc. Panty girdle. 194,868, 3–26–63, Cl. D20—2.

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Lamb, Thomas. Handle. 196,268, 9-10-63, Cl. D54—13.
Lambert, Bryan H., to Emerson-Pryne Co. Lighting fixture bracket. 197,246, 12-31-63, Cl. D48—4.
Lambert, Harry E., to Packaging Corp. of America. Egg case separator sheet. 196,078, 8-20-63, Cl. D58—13.
Lamont, Benjamin J. Interconnection block. 194,602, 2-19-63, Cl. D26—1.
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Land, Edwin, to Polaroid Corp. Photographic print container or similar article. 196,277, 9-10-63, Cl. D61—1.
Landell, Harper, and T. H. Foster, Jr., to Philco Corp. Ion generator. 194,504, 2-5-63, Cl. D26—5.
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Lanz, Wallace, to Minnesota and Ontario Paper Co. Ceiling tile. 195,198, 5-14-63, Cl. D18—2.
Lanz, Wallace, to Minnesota and Ontario Paper Co. Ceiling tile or the like. 195,199, 5-14-63, Cl. D18—2.
Lanz, Wallace, to Minnesota and Ontario Paper Co. Acoustical correction tile. 195,200, 5-14-63, Cl. D18—2.
Lanz, Wallace, to Minnesota and Ontario Paper Co. Tile. 195,201, 5-14-63, Cl. D18—2.
Lanz, Wallace, to Minnesota and Ontario Paper Co. Acoustical tile or similar article. 195,460, 6-18-63, Cl. D18—2.
Lapin, Al, Jr., to The International House of Pancake Commissary. Building. 196,173, 9-3-63, Cl. D13—1.
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Larson, Alvin C. Relaxing machine. 196,411, 9-24-63, Cl. D83—1.
Larson, Gerald M.: *See*—
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Lasker, Martin L., to McPhilben Mfg. Co., Inc. Wall mounted lighting fixture. 196,669, 10-22-63, Cl. D48—4.
Lasker, Martin, to McPhilben Mfg. Co., Inc. Combined illuminable fixture and guard therefor. 197,187, 12-24-63, Cl. D48—23.
Laskowski, Stanley. Holy water fountain. 194,607, 2-19-63, Cl. D29—23.
Laskowski, Stanley. Wall altar. 194,608, 2-19-63, Cl. D29—23.
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Landl, Peter R. Hand safety signal. 196,622, 10-15-63, Cl. D72—1.
Laurins, Edgar A., to Minnesota and Ontario Paper Co. Cove molding for tile ceilings or the like. 195,026, 4-16-63, Cl. D13—6.
Lausa, James L., to Johns-Manville Corp. Tape dispenser. 194,819, 3-12-63, Cl. D74—1.
Lausa, James L., to Johns-Manville Corp. Tape dispenser. 194,820, 3-12-63, Cl. D74—1.
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Lawson, F. H., Co., The: *See*—
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Lecocq, Samuel G., to Sportsways, Inc. Regulator for underwater breathing apparatus. 195,070, 4-16-63, Cl. D83—1.
Lee, Charles E., to Westinghouse Electric Corp. Dry cleaning machine. 196,065, 8-20-63, Cl. D49—1.
Lee, George L., Jr., to Red Devil Tools. Paint can shaker. 195,433, 6-11-63, Cl. D55—1.
Lee, John M. Plaque or similar article. 196,369, 9-24-63, Cl. D29—23.
Lee, Hop. Musical whistle. 196,183, 9-3-63, Cl. D34—15.
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Lee, Robert G. Toilet. 195,327, 6-4-63, Cl. D4—5.
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Le Sage, Clarence V., and A. Raisch. Pneumatic power tool for applying fasteners. 195,591, 7-2-63, Cl. D54—14.
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Leubner, Courtney A., to Amerock Corp. Door handle. 195,720, 7-23-63, Cl. D10—8.
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Levine, Irving. Dryer for the hands or similar article. 196,422, 10-1-63, Cl. D4—3.
Levinn, Robert N., to American Thermostat Corp. Thermostatic switch. 194,747, 3-5-63, Cl. D26—13.
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Levy, William. Filagree panel. 195,763, 7-30-63, Cl. D13—1.
Lewis, Alan B. to The British Rubber Co. Ltd. Shoe sole or similar article. 195,757, 7-30-63, Cl. D7—5.
Lewis, Emory W. Eraser cleaner. 196,492, 10-8-63, Cl. D9—2.
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Leyden, Isadore, to Riviera Appliance Corp. Battery operated toothbrush handle and holder charger combination. 196,562, 10-15-63, Cl. D9—2.
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Lieberman, Efraim. Picnic table or similar article. 196,371, 9-24-63, Cl. D33—14.
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Marchant, Paul A., to Consolidated Thermoplastics Co. Combined bottle and snap-type closure. 195,148, 4–30–63, Cl. D58—6.
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Marcus, William, to Merrymaid Plastics Corp. Pitcher. 195,047, 4–16–63, Cl. D44—21.
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Marett, Frederick A. Mounting bracket for silk screen stretching clamps. 194,759, 3–5–63, Cl. D54—13.
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Margulis, Joseph M. Hanger for packages or the like. 195,299, 5–28–63, Cl. D17—12.
Margulis, Joseph M. Hanger for packages or the like. 195,300, 5–28–63, Cl. D17—12.
Margulis, Joseph M. Mirror and picture hanger. 196,581, 10–15–63, Cl. D17—12.
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Markham, Bill, to Lakeside Industries, Inc. Amusement game board. 194,691, 2–26–63, Cl. D34—5.
Markham, Bill, to Lakeside Industries, Inc. Amusement game board. 194,692, 2–26–63, Cl. D34—5.
Markham, Bill, to Lakeside Industries, Inc. Toy figure device. 194,752, 3–5–63, Cl. D34—15.
Markham, Bill, to Lakeside Industries, Inc. Toy sheep. 194,911, 4–2–63, Cl. D34—2.
Markham, Bill, to Lakeside Industries, Inc. Toy pig. 194,912, 4–2–63, Cl. D34—2.
Markham, Bill, to Lakeside Industries, Inc. Toy horse. 194,913, 4–2–63, Cl. D34—2.
Markham, Bill, to Lakeside Industries, Inc. Toy cow. 194,914, 4–2–63, Cl. D34—2.
Markham, Bill, to Lakeside Industries, Inc. Toy turkey. 194,915, 4–2–63, Cl. D34—2.
Markham, Bill, to Lakeside Industries, Inc. Toy goose. 194,916, 4–2–63, Cl. D34—2.
Markham, Bill, to Lakeside Industries, Inc. Toy hen. 194,917, 4–2–63, Cl. D34—2.
Markham, Bill, to Lakeside Industries, Inc. Toy rooster. 194,918, 4–2–63, Cl. D34—2.
Markham, Bill, to Lakeside Industries, Inc. Toy goat. 194,919, 4–2–63, Cl. D34—2.
Markham, Bill, to Lakeside Industries, Inc. Three-dimensional game board. 195,416, 6–11–63, Cl. D34—5.
Markham, Bill, to Lakeside Industries, Inc. Toy poultry coop. 196,245, 9–10–63, Cl. D34—15.
Markham, Bill, to Lakeside Industries, Inc. Three dimensional game board. 197,134, 12–17–63, Cl. D34—5.
Markham, Bill, to Lakeside Industries, Inc. Toy pirate ship. 197,181, 12–24–63, Cl. D34—15.
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Marler, Arnold H. Dispensing cap for jars or the like. 194,890, 3–26–63, Cl. D58—26.
Marsh, Robert E., to Engineered Plastics Container Co., Inc. Container lid. 195,151, 4–30–63, Cl. D58—26.
Marsh, Robert E., to Engineered Plastics Container Co., Inc. Trash container. 196,079, 8–20–63, Cl. D58—17.
Marsh, Robert E., to Engineered Plastics Container Co., Inc. Trash receptacle. 196,080, 8–20–63, Cl. D58—17.
Marsh, Robert E., to Union Carbide Corp. Trash receptacle. 197,150, 12–17–63, Cl. D58—17.
Marshall, George L., and I. M. Leven, to The Central Tool Co. Brake drum wear limit gage. 195,644, 7–9–63, Cl. D52—6.
Martin, Howard L. Infant bottle holder. 195,660, 7–9–63, Cl. D83—8.
Martin, William B. Combined buffet table and screen for patios or the like. 194,543, 2–12–63, Cl. D33—1.
Martin, Wilson, to Wed Enterprises, Inc. Amusement ride arena. 195,760, 7–30–63, Cl. D13—1.
Martinez, Eugene, ½ to M. Kapilow, and ½ to R. H. Reibel. Motion picture film editor or similar article. 195,912, 8–6–63, Cl. D61—1.
Martinez, Eugene, and M. Kapilow, to Reelco Inc. Motion picture reel or similar article. 194,719, 2–26–63, Cl. D61—1.
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Campbell, Laurie J. 196,848.
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Mashigan, Charles, to Chrysler Corp. Automobile wheel cover. 194,496, 2–5–63, Cl. D14—30.
Maslow, Louis. Adjustable furniture leg or similar article. 195,851, 8–6–63, Cl. D33—1.
Mason, Hollis N., and T. J. Lunsford. Foldable canine canteen. 195,166, 5–7–63, Cl. D12—2.
Mason, Stanley I., A. Ehlis, and J. B. Mosby, to Hunt Foods and Industries, Inc. Bottle. 196,389, 9–24–63, Cl. D58—8.
Massen, Richard C. Pull for drawers, doors, and the like. 196,494, 10–8–63, Cl. D10—8.
Masuda, Shigeru, to Noritake Co., Inc. Plate or similar article. 194,925, 4–2–63, Cl. D44—15.
Masuda, Shigeru, to Noritake Co., Inc. Plate or similar article. 194,926, 4–2–63, Cl. D44—15.
Masuda, Shigeru, to Noritake Co., Inc. Plate or similar article. 194,927, 4–2–63, Cl. D44—15.
Masuda, Shigeru, to Noritake Co., Inc. Plate or similar article. 194,928, 4–2–63, Cl. D44—15.
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Masuda, Shigeru, to Noritake Co., Inc. Plate or similar article. 194,930, 4–2–63, Cl. D44—15.
Masuda, Shigeru, to Noritake Co., Inc. Plate or similar article. 194,931, 4–2–63, Cl. D44—15.
Masuda, Shigeru, to Noritake Co., Inc. Plate or similar article. 194,932, 4–2–63, Cl. D44—15.
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Masuda, Shigeru, to Noritake Co., Inc. Plate or similar article. 194,936, 4–2–63, Cl. D44—15.
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Masuda, Shigeru, to Noritake Co., Inc. Plate or similar article. 194,938, 4–2–63, Cl. D44—15.
Masuda, Shigeru, to Noritake Co., Inc. Plate or similar article. 196,308, 9–17–63, Cl. D44—15.
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Masuda, Shigeru, to Noritake Co., Inc. Plate or similar article. 196,310, 9–17–63, Cl. D44—15.
Masuda, Shigeru, to Noritake Co., Inc. Plate or similar article. 196,311, 9–17–63, Cl. D44—15.
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Masuda, Shigeru, to Noritake Co., Inc. Plate or similar article. 196,314, 9–17–63, Cl. D44—15.
Masuda, Shigeru, to Noritake Co., Inc. Plate or similar article. 196,855, 11–12–63, Cl. D44—15.
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Masuda, Shigeru, to Noritake Co., Inc. Plate or similar article. 196,857, 11–12–63, Cl. D44—15.
Masuda, Shigeru, to Noritake Co., Inc. Plate or similar article. 196,858, 11–12–63, Cl. D44—15.
Masuda, Shigeru, to Noritake Co., Inc. Plate or similar article. 196,859, 11–12–63, Cl. D44—15.
Masuda, Shigeru, to Noritake Co., Inc. Plate or similar article. 196,860, 11–12–63, Cl. D44—15.
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Mattke, Charles F., to Bell Telephone Laboratories, Inc. Telephone handset. 196,653, 10–22–63, Cl. D26—14.
Mattke, Charles F., to Bell Telephone Laboratories Inc. Telephone handset. 196,921, 11–19–63, Cl. D26—14.
Maurer, John F., to AMP Inc. Multi contact electrical connector. 194,501, 2–5–63, Cl. D26—1.
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Mayer, Alan H. Barbecue grill. 196,553, 10–8–63, Cl. D81—10.
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McCoy, Richard E., to Milton Roy Co. Controlled volume diaphragm pump. 196,992, 11–26–63, Cl. D65—1.
McDermott, Francis R., to The Stephan Co. Bottle. 196,390, 9–24–63, Cl. D58—8.
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Rodriguez, Raoul E., and D'Ercoli. 194,480.
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McIntosh, James A. Coach for pick-up trucks. 194,456, 1–29–63, Cl. D14—3.
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McRae, Duncan, to Chamberlin Metal Products Co. Golf car. 195,551, 7-2-63, Cl. D14—3.
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Ogden, Bruce R., to Claude R. Ogden & Co. Pty. Ltd. Combined ferrule and foot for furniture. 195,852, 8-6-63, Cl. D33—1.
Ogden, Bruce R., to Claude R. Ogden & Co. Pty. Ltd. Combined ferrule and foot for furniture. 195,853, 8-6-63, Cl. D33—1.
Ogden, Claude R., & Co. Pty. Ltd.: *See*—
Ogden, Bruce R. 195,852.
Ogden, Bruce R. 195,853.
Ogg, James H., to Zoo-Piks, Inc. Holder for cocktail olives and the like. 195,689, 7-16-63, Cl. D44—29.
Ogg, James H., to Zoo-Piks. Holder for cocktail olives and the like. 195,870, 8-6-63, Cl. D44—29.
Ogg, James H., to Zoo-Piks. Stirring rod. 195,986, 8-13-63, Cl. D44—29.
Ogg, James H., to Zoo-Piks. Holder for cocktail olives or the like. 197,138, 12-17-63, Cl. D44—29.
Ogilvie, Bruce A., ½ to J. L. Rodgers. Drinking water dispenser for pets. 195,251, 5-21-63, Cl. D12—2.
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Myers, Earl D. 196,876.
Ohio Container Corp.: *See*—
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Ohio Plate Glass Co., The: *See*—
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Ohio Thermometer Co., The: *See*—
Hunt, George D. 195,695.
Oldak, Irving, to His Lordship Products Co. Nautical hook. 196,852, 11-12-63, Cl. D41—1.
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O'Link, Maurice H., to Stearns Mfg. Co. Canoe carrying yoke. 194,902, 4-2-63, Cl. D71—1.
Oliver Electrical Mfg. Co.: *See*—
Price, George C. 195,205.
Oliver, Lorena D. Doll. 196,799, 11-5-63, Cl. D34—4.
Olree, Adrain R.: *See*—
Bullock, Earle C., and Olree. 195,518.
Olson, Otto: *See*—
Bingham, George H., Jr., and Olson. 196,559.
Olson, Richard J.: *See*—
Crapsey, Arthur H., Jr., and Olson. 197,095.
Olson, Richard J., to Eastman Kodak Co. Photographic camera. 196,396, 9-24-63, Cl. D61—1.
Olson, Richard J., and F. A. Zagara, to Eastman Kodak Co. Combined camera and flash gun. 195,286, 5-21-63, Cl. D61—1.
Olson, Richard J., and F. A. Zagara, to Eastman Kodak Co. Combined slide projector and slide tray. 195,910, 8-6-63, Cl. D61—1.
Olympia Werke A.G.: *See*—
Behr, Walter, and Keitel. 195,624.
Eisner, Hans, and Keitel. 194,959.
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Ondine Parfums Inc.: *See*—
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Oneida Ltd.: *See*—
Manderfield, Ellen B. 195,360.
Manderfield, Ellen B. 195,361.
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Ruffalo, Louis W., Jr. 194,326.
O'Neill, Charles J., to Conco Engineering Works, Inc. Sewer cleaner. 196,100, 8-27-63, Cl. D9—2.
O'Reilly, Joseph E. Hand fin. 196,689, 10-22-63, Cl. D71—1.
Orenstein, Hy. Door handle. 197,050, 12-10-63, Cl. D10—8.
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Orr, Robert P., to Butler Mfg. Co. Building. 197,054, 12-10-63, Cl. D13—1.
Osburn, Robert K., and W. E. Kumba; said Kumba, assignor, to said Osburn. Coach body for pick-up trucks. 197,121, 12-17-63, Cl. D14—3.
O'Shea, Donald T., to The Burdett Oxygen Co. of Cleveland, Inc. Pair of welding goggles. 196,879, 11-12-63, Cl. D57—1.
Oster, John, Mfg. Co.: *See*—
Madl, Alfred W. 194,899.
Madl, Alfred W. 196,047.
Madl, Alfred W. 196,475.
Ostler, Marianne. Jeweled necklace. 195,873, 8-6-63, Cl. D45—16.
Ostrowsky, Efrem M., to Nibot Corp. Food chopper for onions or the like. 195,933, 8-6-63, Cl. D89—1.
Ostrowsky, Efrem M., to Nibot Corp. Chopper for nuts or the like. 196,093, 8-20-63, Cl. D89—1.
Otero, Felix C., and J. B. P. Esteve. Box for cigarettes or the like. 194,561, 2-12-63, Cl. D58—12.6.
Otis Elevator Co.: *See*—
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Brounn, Morrison J. 195,399.
Otto, Carl L., to Geo. G. Sandeman Sons & Co. Ltd. Bottle. 195,532, 6-25-63, Cl. D58—8.
Otto, Charles W., and J. E. Hennessy, to General Electric Co. Dynamoelectric machine. 196,113, 8-27-63, Cl. D26—5.
Otto, Charles W., and J. E. Hennessy, to General Electric Co. Dynamoelectric machine. 196,114, 8-27-63, Cl. D26—5.
Ouellette, Alfred J., to Infanseat Co. Baby carrier. 195,169, 5-7-63, Cl. D15—1.
Ovendale, Raymond H. Folding clothes rack or similar article. 194,573, 2-12-63, Cl. D80—8.
Overseas International, Inc.: *See*—
Figueras, Jose M. 196,568.
Owenmark, Olov S., to Electrolux Aktiebolaget. Suction cleaner. 196,633, 10-22-63, Cl. D9—2.
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Diamond, Freda. 196,247.
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Fogerty, James P., Spaak, Stevens, and Miller. 194,999.
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Lorenzen, Arnold I. 195,981.
Lorenzen, Arnold I. 196,814.
Lorenzen, Arnold I. 197,030.
Lorenzen, Arnold I. 197,192.
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Miller, Ira H. 195,284.
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Morgan, Doyle J., and Schiedegger. 196,941.
Roberts, Bruce L. 194,440.
Roberts, Bruce L. 195,898.
Roberts, Bruce L. 195,907.
Roberts, Bruce L. 196,813.
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Pachmayr, Frank A., and L. L. Huskey, to Firearm Accessories, Inc. Gun recoil pad. 194,681, 2-26-63, Cl. D30—1.

Pachmayr, Frank A., and L. L. Huskey, to Firearm Accessories, Inc. Gun recoil cushion. 194,682, 2-26-63, Cl. D30—1.
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Dlouhy, John A. 194,672.
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Papountsy, Theodore. Shoe sole. 196,486, 10-8-63, Cl. D7—5.
Papountsy, Theodore. Shoe sole. 196,487, 10-8-63, Cl. D7—5.
Papountsy, Theodore. Shoe sole. 196,488, 10-8-63, Cl. D7—5.
Papountsy, Theodore. Shoe sole. 196,489, 10-8-63, Cl. D7—5.
Papountsy, Theodore. Shoe sole. 196,490, 10-8-63, Cl. D7—5.
Papountsy, Theodore. Shoe sole. 196,491, 10-8-63, Cl. D7—5.
Park, Malcolm S., to The Singer Mfg. Co. Sewing machine. 195,013, 4-9-63, Cl. D70—1.
Parker, Carol. Box. 197,148, 12-17-63, Cl. D58—12.6
Parker, David V., to United States Borax & Chemical Corp. Combined stand and dispenser for powdered material. 194,344, 1-8-63, Cl. D4—3.
Parker, Donald R., G. K. Petritz, and R. A. Westphal, to Chamberlin Metal Products Co. Golf cart handle. 194,834, 3-19-63, Cl. D10—8.
Parker, James P., to Golay & Co., Inc. Portable gas tank. 195,709, 7-16-63, Cl. D81—2.
Parker, Louis W. Electrical indicating instrument. 194,626, 2-19-63, Cl. D52—6.
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Parkison, Donald E. Tray. 195,392, 6-4-63, Cl. D83—1.
Parks, Robert R. Bracket for supporting a shelf and hanger bar. 196,676, 10-22-63, Cl. D54—1.
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Parriott, Joseph M., and J. A. Rinaldi, to Dictaphone Corp. Dictating machine. 194,358, 1-8-63, Cl. D26—14.
Parry, Robert D. Hummingbird feeder. 194,846, 3-19-63, Cl. D3—2.
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Parsell, Kendrich T., to Stein Bros. Mfg. Co. Luggage case. 196,955, 11-19-63, Cl. D87—5.
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Pastor, Sheldon L., and R. L. Deschamps, to Revere Camera Co. Tape recorder. 194,680, 2-26-63, Cl. D26—14.
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Patterson, Thomas R. Outdoor shelter. 196,171, 9-3-63, Cl. D13—1.
Patton, George, Jr., to Haveg Industries, Inc. Divided dish. 195,523, 6-25-63, Cl. D44—15.
Patton, George, Jr., to Haveg Industries Inc. Pie dish. 195,524, 6-25-63, Cl. D44—15.
Patton, George, Jr., to Haveg Industries, Inc. Dish. 195,525, 6-25-63, Cl. D44—15.
Pawsey, Harold O. Bracket hook. 196,322, 9-17-63, Cl. D54—1.
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Paxhia, Vincent R., E. N. Y. Sing, and E. W. Stevens, to Bell Aerospace Corp. Aircraft. 196,213, 9-3-63, Cl. D71—1.
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De La Marter, Louis J., Perl, and Mango. 194,494.
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Peters, Richard M., to Dix, Inc. Cable stripper or similar article. 195,302, 5-28-63, Cl. D22—3.
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Pettengill, Myron F., to General Electric Co. Luminaire. 195,990, 8-13-63, Cl. D48—31.
Pettengill, Myron F., to General Electric Co. Luminaire. 195,991, 8-13-63, Cl. D48—31.
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Picozzi, Vincent J., E. K. Stewart, and H. C. Ward, Jr., to General Electric Co. Dynamoelectric machine. 194,505, 2-5-63, Cl. D26—5.
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Plantholt, Robert G., to The Scionics Corp. Card punch machine. 196,916, 11-19-63, Cl. D26—5.
Plantholt, Robert G., to The Scionics Corp. Machine for mounting film on cards. 197,152 12-17-63, Cl. D61—1.
Plaskan, Laurance F. Cooking range. 196,216, 9-3-63, Cl. D81—4.
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Platte, Richard L., to Hoover Ball and Bearing Co. Jug. 194,409, 1-15-63, Cl. D58—5.
Platte, Richard L., to Hoover Ball and Bearing Co. Jug or similar article. 194,633, 2-19-63, Cl. D58—5.
Platte, Richard L., to Hoover Ball and Bearing Co. Bottle. 194,635, 2-19-63, Cl. D58—8.
Platte, Richard L., to The Dow Chemical Co. Bottle. 196,613, 10-15-63, Cl. D58—8.
Platte, Richard L., to The Dow Chemical Co. Jug. 196,984, 11-26-63, Cl. D58—5.
Platte, Richard L., R. J. Lee, and R. P. Joslin; said Platte and said Lee, assor. Dow Chemical Co., and said Joslin, assor. Fairmont Food Co. Bottle. 195,599, 7-2-63, Cl. D58—6.
Platte, Richard L., and H. M. Sinclair; said H. M. Sinclair, assor. to The Sinclair Mfg. Co., and said R. L. Platte, assor. to The Dow Chemical Co. Bottle. 196,391, 9-24-63, Cl. D58—8.
Plumridge, David H., to Turner Industries Ltd. Handle. 197,209, 12-31-63, Cl. D10—8.
Pohlmann, Charles F.: *See*—
Lee, Richard E., and Pohlmann. 195,696.
Poirette Corsets, Inc.: *See*—
Laguzzi, Mario. 194,866.
Laguzzi, Mario. 194,867.
Laguzzi, Mario. 194,868.
Laguzzi, Mario. 195,259.
Polaroid Corp.: *See*—
Land, Edwin. 196,277.
Polatchek, Alvin, to Shields, Inc. Motor driven shoe brush. 196,227, 9-10-63, Cl. D9—2.
Polhemus, Sidney M., Jr. Window well cover. 196,968, 11-26-63, Cl. D13—1.
Poliakoff, George B. Television antenna. 196,588, 10-15-63, Cl. D26—14.
Politis, Charles J., to Illinois Tool Works Inc. Combined container and lid therefor. 196,392, 9-24-63, Cl. D58—12.
Polk, Emil S. Carving board. 196,132, 8-27-63, Cl. D44—1.
Pollock, Charles R., to Knoll Associates, Inc. Chair or the like. 194,457, 1-29-63, Cl. D15—1.
Poly Choke Co., Inc., The: *See*—
Grahn, Arne Y. 195,340.
Pomeranz, Robert E. Traveler ring. 195,349, 6-4-63, Cl. D47—5.
Pommier, Lorenzo A.: *See*—
Silverstein, Sidney, and Pommier. 197,061.
Pomona Tile Mfg. Co.: *See*—
Sopp, Kingsley C. 194,533.
Speaker, Donald R. 195,335.
Speaker, Donald R. 195,554.
Speaker, Donald R. 195,555.
Pomper, Victor H. Knob for stereo amplifiers or the like. 197,231, 12-31-63, Cl. D26—13.
Pontasote Co., The: *See*—
Weiss, Hugh R. 196,538.
Pool, Stedman C., to Essex Master Mold Co., Inc. Woman's overshoe. 194,833, 3-19-63, Cl. D7—4.
Porta Aluminum, Inc.: *See*—
Kopf, George. 196,747.
Porter, Alvin J., and W. S. Beattie, to Product Design & Engineering, Inc. Dispensing cap. 194,718, 2-26-63, Cl. D58—26.
Porter, H. K., Co. (Delaware): *See*—
Franklin, Burton P., and Leotta. 195,227.
Kane, Neil G. 195,733.
Porter, J. E., Corp., The: *See*—
Miller, William S., Plakenhorn, and Borkowsky. 195,867.
Porter, William V. Pipe vent. 197,113. 12-10-63, Cl. D91—1

Porto, Mr., Inc.: *See*—
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Portz, William E.: *See*—
Fee, Graham, and Portz. 196,094.
Fee, Graham, and Portz. 196,479.
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Post, Herman D., and E. Perper, to Robins Industries Corp. Tape splicer or the like. 196,154, 8–27–63, Cl. D61—1.
Poster Packaging, Inc.: *See*—
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Bostrom, John D. 195,601.
Bostrom, John D. 195,602.
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Bostrom, John D. 196,537.
Poudre Products Co., Inc.: *See*—
Kolterman, Edwin C. 196,048.
Powell, Albert E., to Micon Electronics, Inc. Subminiature coaxial connector fitting. 195,336, 6–4–63, Cl. D26—1.
Pratt, Edmund C., K. R. House, R. J. Smith, and D. G. Phillips. Filter for vacuum cleaners. 195,398, 6–11–63, Cl. D9—2.
Precision Valve Corp.: *See*—
Abplanalp, Robert H., and Pizzurro. 196,755.
Prescolite Mfg. Corp.: *See*—
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Gantenbrink, Heinrich. 195,274.
Gantenbrink, Heinrich. 196,260.
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Pressac Ltd.: *See*—
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Greasley, Eric A. 196,178.
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Price, George C., to Oliver Electrical Mfg. Co. Aerial cable support and spacer. 195,205, 5–14–63, Cl. D26—10.
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Prince, Richard. Hydraulic cylinder for agricultural implements or the like. 194,362, 1–8–63, Cl. D40—1.
Prizler, Paul D., and D. A. Stanwood, to Swimquip, Inc Swimming pool grab rail or the like. 194,835, 3–19–63, Cl. D13—7.
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Puent, George J. Memo pad holder. 195,923, 8–6–63, Cl. D74—1.
Puglisi, Richard J., R. Spiegel, and E. G. Pucek. Game board. 194,400, 1–15–63, Cl. D34—5.
Pulcifer, Russell A. Bowling pin doll. 195,263, 5–21–63, Cl. D34—4.
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Sterges, Alfred D. 195,901.
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Pyle, Lee O. Portable drying reel for fishing line. 195,641, 7–9–63, Cl. D49—1.
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Quast, Martin E. Golf club head. 196,182, 9–3–63, Cl. D34—5.
Quinn, Francis K. Dump trailer. 195,721, 7–23–63, Cl. D14—3.
Quinn, Peter T., and D. E. Hansen, to Eastman Kodak Co. Combined motion picture projector and carrying case. 194,958, 4–2–63, Cl. D61—1.
Quinn, Peter T., and N. G. Seely, to Eastman Kodak Co. Combined portable motion picture projector and carrying case therefor. 196,616, 10–15–63, Cl. D61—1.
Quistgaard, Jens H., to Dansk Orenware, Inc. Handled casserole. 195,522, 6–25–63, Cl. D44—1.
Quistgaard, Jens H., to Dansk Ovenware, Inc. Casserole. 195,636, 7–9–63, Cl. D44—15.
Quistgaard, Jens H., to Dansk Rare Wood Co., Inc. Tray. 195,683, 7–16–63, Cl. D44—10.
Quistgaard, Jens H., to Dansk Designs, Inc. Combined cutting board and knife. 196,248, 9–10–63, Cl. D44—1.
Quistgaard, Jens H., to Dansk Designs-With-Light, Inc. Candleholder. 196,449, 10–1–63, Cl. D48—2.
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Rahr, Paul F., to Aluminum Specialty Co. Saucepan or similar article. 194,795, 3–12–63, Cl. D44—1.
Rakacy, William J., to Ronson Corp. Hair dryer blower. 195,448, 6–11–63, Cl. D86—10.
Ramsing, Robert E. V. Electrical outlet receptacle. 195,774, 7–30–63, Cl. D26—1.
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Raphael, Julius. Hanging holder for bath articles for use with showers 195,297, 5–28–63, Cl. D4—3.

Raphael, Sally F. Mah jong coin holder tray. 196,123, 8–27–63, Cl. D34—13.
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Rappoport, Seymour, to Ronson Corp. Combined portable electric can opener and knife sharpener attachment. 197,137, 12–17–63, Cl. D44—1.
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Reeser, Woodrow W. Paper bag rack. 194,574, 2–12–63, Cl. D80—10.
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Cornelius, Richard T., and Reichow. 196,265.
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Reinecke, Jean O., R. E. Rodriquez, and R. P. Meyer, to International Photocopy Corp. Control console for a photocopy machine or similar article. 195,790, 7–30–63, Cl. D61—1.
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Frank, Heinrich H. 196,675.
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Rieker, Walter C., Jr. Inclinometer. 195,431, 6–11–63, Cl. D52—6.
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Ritts, Herbert. Chair or the like. 196,577, 10-15-63, Cl. D15—1.
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Servin, Robert. 195,544.
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Rodriguez, Emil, to Jacoby-Bender, Inc. Link chain for a bracelet or the like. 194,941, 4-2-63, Cl. D45—4.
Rodriguez, Emil, to Jacoby-Bender, Inc. Link chain for a bracelet or the like. 194,942, 4-2-63, Cl. D45—4.
Rodriguez, Emil, to Jacoby-Bender, Inc. Link chain for a bracelet or the like. 194,943, 4-2-63, Cl. D45—4.
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Rodriguez, Emil, to Jacoby-Bender, Inc. Link chain for a bracelet or the like. 196,667, 10-22-63, Cl. D45—4.
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Rollitt, John, to Armstrong Patents Co. Ltd. Hydraulic pump. 196,762, 10-29-63, Cl. D65—1.
Romain, Emile A. J., to Anciens Etablissements Myon & Cie. Cigarette lighter. 194,852, 3-19-63, Cl. D48—27.
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Romano, Anthony. Traffic marker. 196,158, 8-27-63, Cl. D72—1.
Romanowski, Albert F., to Bowser, Inc. Fuel dispensing computer unit. 196,263, 9-10-63, Cl. D52—2.
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Rowe, Donald C. Packaging tray for food. 197,253, 12-31-63, Cl. D58—13.
Rowell, Bertha E. Vanity. 196,053, 8-20-63, Cl. D33—6.
Rowland, Arthur C., to A. J. Krajewski Mfg. Co., Inc. Coat hanger. 196,345, 9-17-63, Cl. D80—8.
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Rowland, Fred, to Aztec Boat Corp. Boat. 196,211, 9-3-63, Cl. D71—1.
Rowe, Clifford L. Portable serving table or similar article. 195,214, 5-14-63, Cl. D33—14.
Royer, Clady J. Machine for flame hardening tractor roller flanges. 195,891, 8-6-63, Cl. D55—1.
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Ruffalo, Louis W., Jr., to Oneida Ltd. Plate or similar article. 194,326, 1-1-63, Cl. D44—15.
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Rush, Roy C. Vacuum cleaner for parking lots or the like. 195,821, 8-6-63, Cl. D9—2.
Rushton, Frederick N., to Washington Aluminum Co., Inc. Floor panel. 196,359, 9-24-63, Cl. D13—1.
Ruskin, Henry, and S. I. Kohen, to Swingline Inc. Pencil sharpener or similar article. 194,413, 1-15-63, Cl. D74—21.
Russell, Fred J. Key blank or similar article. 196,528, 10-8-63, Cl. D50—1.
Russell, James T. Playing card holder and dispenser. 195,342, 6-4-63, Cl. D34—13.
Russell, Linus E., to Peters & Russell, Inc. Combined oil draining and storage service unit. 196,602, 10-15-63, Cl. D52—2.
Russell, Linus E., to Peters and Russell, Inc. Electric water pump. 196,620, 10-15-63, Cl. D65—1.

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Russo, Michael T., to Mr. Porto, Inc. Bottle carrier. 195,702, 7-16-63, Cl. D58—26.
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Rybicki, Irvin W., to General Motors Corp. Wheel cover. 196,783, 11-5-63, Cl. D14—30.
Rybicki, Irvin W., to General Motors Corp. Wheel cover. 196,788, 11-5-63, Cl. D14—30.
Rylander, John G. Combined beverage can holder and cover. 194,989, 4-9-63, Cl. D44—21.
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Metzner, Robert, Stevens, and Chase. 197,153.
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Sabatino, Pompeo P., to Seyfert Potato Chip Co. Doll. 196,845, 11-12-63, Cl. D34—2.
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Sacko, John J., Jr. Nail clipper. 195,614, 7-2-63, Cl. D8—10.
Sadler, Harry J., to Hypro Engineering, Inc. Transmission housing for centrifugal pumps. 195,488, 6-18-63, Cl. D15—1.
Safeway Steel Products, Inc.: *See*—
Stefe, Frank J. 196,521.
Saffert, Edward L., to Harley Davidson Motor Co. Golf car. 195,505, 6-25-63, Cl. D14—3.
Safford, Julian V. Phonograph record holder. 194,397, 1-15-63, Cl. D33—3.
Safianoff, Albert, to The Gillette Co. Hair comb. 195,393, 6-4-63, Cl. D8—8.
Safianoff, Albert. Hair treating applicator. 197,043, 12-3-63, Cl. D8—10.
Saftlas, Samuel. Knitted fabric. 194,623, 2-19-63, Cl. D17—2.
Satway Steel Products, Inc.: *See*—
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St. Pierre, Jeanette M. Fall-out shelter. 195,670, 7-16-63, Cl. D13—1.
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Sakaley, John A., Jr. Vacuum pump for desoldering device. 197,154, 12-17-63, Cl. D65—1.
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Salcer, William Z., to B. & S. Plastic Art, Inc. Plastic tablecloth. 195,808, 7-30-63, Cl. D92—26.
Salcer, William Z., to B. & S. Plastic Art, Inc. Plastic tablecloth. 195,809, 7-30-63, Cl. D92—26.
Salcer, William Z., to B. & S. Plastic Art, Inc. Plastic tablecloth. 196,556, 10-8-63, Cl. D92—26.
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Salcer, William Z., to B. & S. Plastic Art, Inc. Plastic tablecloth. 197,268, 12-31-63, Cl. D92—26.
Salisbury, William F. Baseball training bat or similar article. 197,180, 12-24-63, Cl. D34—5.
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Salter, James K. Combined lift plug, pick-up sub and thread protector for rotary drill collars. 194,437, 1-22-63, Cl. D54—4.
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Sanders, Norman T., to Needle Industries Ltd. Carrying case for a shaver. 195,772, 7-30-63, Cl. D22—3.
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Sanders, Norman T., to Coats & Clark Inc. Needle packet. 197,145, 12-17-63, Cl. D58—2.
Sanders, Ralph G., to Amnco Tools, Inc. Gauge. 194,435, 1-22-63, Cl. D52—6.
Sanders, Roy Y., Jr., and R. E. Morris, to Drew Chemical Corp. Combined pressurized can and dispensing nozzle kit. 196,393, 9-24-63, Cl. D58—17.
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Sandin, Ray C., and J. F. Morgan, to General Electric Co. Door handle. 197,105, 12-10-63, Cl. D81—25.
Sandler, Sidney. Shoe. 195,163, 5-7-63, Cl. D7—7.
Sandler, Sidney. Poolside skimmer. 196,902, 11-19-63, Cl. D9—6.
Sandler, William. Gauge unit for measuring and regulating gases under high pressure or similar article. 195,994, 8-13-63, Cl. D52—6.
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Santine, Lawrence. Combined child's bed, chest, desk and easel. 196,485, 10-8-63, Cl. D5—4.
Santora, Frank. Golf ball or similar article. 194,688, 2-26-63, Cl. D34—5.
Saphier, Michael, to Lincoln Metal Products Corp. Refuse receptacle. 194,562, 2-12-63, Cl. D58—17.
Saporito, Dominic A., and N. T. Kuypers, to Wakefield Corp. Lighting fixture. 195,875, 8-6-63, Cl. D48—4.
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Sautter, Alton F., to Water Saver Faucet Co. Utility control, supply and service unit for laboratory tables. 196,580, 10-15-63, Cl. D16—2.
Savoy, Gilbert J. Letter carrier's cart. 197,006, 12-3-63, Cl. D14—3.
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Sawyer, James G., to General Turbine Corp. Compressor. 194,816, 3-12-63, Cl. D65—1.
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Saxe, Walter A., to Saxe Brothers, Inc. Combined flower and candle holder or the like. 194,507, 2-5-63, Cl. D35—3.
Saxon, Cornell. Set of playing cards. 195,634, 7-9-63, Cl. D31—13.
Sayger, Frank D., and G. D. Hudson, to Da-Lite Screen Co., Inc. Portable projection screen supported on an extensible pole. 194,566, 2-12-63, Cl. D61—1.
Scafuro, Victor E. Aquarium tank filter. 195,449, 6-11-63, Cl. D91—1.
Schaefer, Edward E. Trigger safety lock for firearms. 196,842, 11-12-63, Cl. D30—1.
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Schafroth, Werner. Stapling machine. 196,466, 10-1-63, Cl. D74—1.
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Du Pree, Ernest L. 194,713.
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Du Pree, Ernest L. 194,810.
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Scherrer, Kenneth W. and R. A. 195,985.
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Denker, Roy S. 195,587.
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Schluttig, Pearl L. Building. 195,830, 8–6–63, Cl. D13—1.
Schmidt, Fredrick W., to Markwell Mfg. Co., Inc. Desk-type stapling machine. 194,858, 3–19–63, Cl. D74—1.
Schmidt, Gerald W., to International Rectifier Corp. Test equipment console for an electrical educational kit. 196,509, 10–8–63, Cl. D26—5.
Schneider, John J., to Vanguard Air & Marine Corp. Vertical take off airplane. 196,688, 10–22–63, Cl. D71—1.
Schnering, Philip B., and H. B. Weeks, Jr., to McCormick & Co., Inc. Combined bottle and closure. 196,985, 11–26–63, Cl. D58—9.
Schuering, Philip B., and H. B. Weeks, Jr., to McCormick & Co., Inc. Combined bottle and closure. 196,986, 11–26–63, Cl. D58—9.
Schmaus, Siegfried H. A., to Ametek, Inc. Liquid dispenser. 195,663, 7–16–63, Cl. D2—3.
Schmitz, Leonard S., to Acme Visible Records, Inc. Record filing cabinet. 195,855, 8–6–63, Cl. D33—19.
Schmutte, Charles T. Combined smoking pipe rack and accessory unit. 197,042, 12–3–63, Cl. D85—8.
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Scholz, Donald J., to Scholz Homes, Inc. House. 195,549, 7–2–63, Cl. D13—1.
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Scholz, Donald J. 195,549.
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Schreckengost, Don, to Federal Ceramics Corp. Combination soap holder and grab bar. 196,775, 11–5–63, Cl. D4—3.
Schreckengost, Don, to Federal Ceramics Corp. Toilet paper holder. 196,900, 11–19–63, Cl. D4—3.
Schreckengost, Viktor, to The Murray Ohio Mfg. Co. Juvenile vehicle. 194,324, 1–1–63, Cl. D34—15.
Schreckengost, Viktor, to The Murray Ohio Mfg. Co. Bicycle. 195,019, 4–9–63, Cl. D90—8.
Schreckengost, Viktor, to The Murray Ohio Mfg. Co. Mobile adjustable stand for fans. 195,944, 8–13–63, Cl. D14—3.
Schreckengost, Viktor, to The Murray Ohio Mfg. Co. Velocipede. 196,522, 10–8–63, Cl. D34—15.
Schreckengost, Viktor, to The Murray Ohio Mfg. Co. Velocipede. 196,523, 10–8–63, Cl. D34—15.
Schreckengost, Viktor, to The Murray Ohio Mfg. Co. Sprocket spinner hub. 196,772, 10–29–63, Cl. D90—17.
Schueker, James L., to Evans Products Co. Velocipede step plate. 194,618, 2–19–63, D34—15.
Schucker, James L., to Howell Industries, Inc. Bicycle headlight. 196,804, 11–5–63, Cl. D48—24.
Schulte, Norman F., Jr., 50% to S. Simon. Astronaut's glove. 195,189, 5–14–63, Cl. D3—11.
Schultz, Moses R., to Knoll Associates, Inc. Chaise longue or the like. 194,461, 1–29–63, Cl. D15—11.
Schur, Maurice M. and N. S., and R. C. Le Sueur, to Jewel Aquarium Co., Inc. Cabinet, aquarium and animal cage unit for biology classrooms or the like. 196,107, 8–27–63, Cl. D16—2.
Schur, Nell S.: *See*—
Schur, Maurice M. and N. S., and Le Sueur. 196,107.
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Stark Ceramics, Inc.: *See*—
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Stefe, Frank J., to Safeway Steel Products, Inc. Playground climber or the like. 196,521, 10–8–63, Cl. D34—5.
Stefe, Frank J., to Safway Steel Products, Inc. Playground apparatus in the form of fanciful alligator. 196,595, 10–15–63, Cl. D34—5.
Stegeman, Albert V. Thermometer for an automobile visor or the like. 194,372, 1–8–63, Cl. D52—7.
Stehl, George R., to Domus Products Inc. Scissors. 195,083, 4–23–63, Cl. D22—5.
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Steinberg, Meyer. Drainboard tray. 196,169, 9–3–63, Cl. D9—6.
Steiner, Ezekiel C. Air operated meat cutting saw or the like. 197,170, 12–17–63, Cl. D93—3.
Steiner, Ezekiel C. Air operated meat-cutting saw or the like. 197,171, 12–17–63, Cl. D93—3.
Steiner, Ezekiel C. Air operated meat cutting saw or the like. 197,172, 12–17–63, Cl. D93—3.
Steiner, William R., to General Motors Corp. Refrigerator cabinet. 196,282, 9–10–63, Cl. D67—3.
Stella, Frank A., to The Hubley Mfg. Co. Gun holster. 195,211, 5–14–63, Cl. D30—1.
Stelma, Gerard N. Drawer pull. 194,968, 4–9–63, Cl. D10—8.
Stengle, Edward J., Jr., to Owens-Illinois Glass Co. Bottle. 196,454, 10–1–63, Cl. D58—8.
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Clark, Robert E., and Stensgaard. 195,884.
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Steppan, Erwin T. Combined lighter and cigarette package holder. 195,732, 7–23–63, Cl. D48—27.
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Sterges, Alfred D., to Purex Corp., Ltd. Bottle or similar article. 195,652, 7–9–63, Cl. D58—8.
Sterges, Alfred D., to Purex Corp., Ltd. Bottle or similar article. 195,900, 8–6–63, Cl. D58—8.
Sterges, Alfred D., to Purex Corp., Ltd. Bottle or similar article. 195,901, 8–6–63, Cl. D58—8.
Sterges, Alfred D., to Purex Corp., Ltd. Carafe. 196,148, 8–27–63, Cl. D58—8.
Sterges, Alfred D., to Purex Corp. Ltd. Bottle or the like. 196,324, 9–17–63, Cl. D58—5.
Sterling Plastic Co.: *See*—
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Stevens, Frank W., to W. R. Grace & Co. Lawn chair. 196,298, 9–17–63, Cl. D15—1.
Stevens, Frank W., A. Spaak, W. K. Lawrence, Jr., B. M. Picarra, and G. H. Filipowski, to W. R. Grace & Co. Bottle crate. 194,808, 3–12–63, Cl. D58—5.1.
Stevens, Mack E., R. A. Monk, and N. W. Slick. Engine propelled water craft or similar article. 194,489, 1–29–63, Cl. D71—1.
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Metzner, Robert, Stevens, and Chase. 197,165.
Stevens, Philip H., D. O. Chase, and R. F. Bunyea, to Photostat Corp. Microfilm reader-printer. 195,605, 7–2–63, Cl. D61—1.
Stevens, Philip H., D. O. Chase, R. F. Bunyea, and A. W. Brownlie, to R. E. Dietz Co. Combined siren and emergency warning lamp. 197,040, 12–3–63, Cl. D72—1.
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Stolarz, Edward M., to Walton Laboratories, Inc. Humidifier. 196,086, 8–20–63, Cl. D62—4.
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Storch, Adolph D., to Kent Adv. Agency Inc. Combined display and merchandising stand for packaged goods. 194,822, 3–12–63, Cl. D80—9.
Storm, Fred K. Autoclave. 197,162, 12–17–63, Cl. D83—12.
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Stoy, Thomas J. Building block. 197,123, 12–17–63, Cl. D18—2.
Storr, Hiawatha T. Sugar bowl. 194,986, 4–9–63, Cl. D44—15.
Storr, Hiawatha T. Milk jug. 194,988, 4–9–63, Cl. D44—21.
Stoy, Thomas J. Block for building. 197,124, 12–17–63, Cl. D18—2.
Stoy, Thomas J. Building block. 197,125, 12–17–63, Cl. D18—2.
Stoy, Thomas J. Block for building screen. 197,126, 12–17–63, Cl. D18—2.
Stoy, Thomas J. Screen block. 197,127, 12–17–63, Cl. D18—2.
Strauss, Bertram A. Clip for a writing instrument or similar articles. 195,292, 5–21–63, Cl. D74—17.
Strauss, Richard S. Slip. 195,395, 6–11–63, Cl. D3—26.
Stribling, Hal D. Motor scooter cab or the like. 195,755, 7–23–63, Cl. D90—8.
Strickland, John D. Golf ball retriever attachment. 196,925, 11–19–63, Cl. D34—5.
Stuart, Wallis E., to Air Reduction Co., Inc. Plastic sheet material or similar article. 194,524, 2–5–63, Cl. D87—3.
Stuart, Wallis E., III. Compass housing. 194,707, 2–26–63, Cl. D52—6.
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Stumpf, William E., to The Alan I W Frank Corp. Display stand. 195,925, 8–6–63, Cl. D80—11.
Stunkel, Werner W., to The Motloid Co., Inc. Combined slab and drier for dental materials. 196,728, 10–29–63, Cl. D24—1.
Sturmer, Richard C., to American Can Co. Pitcher cover. 194,851, 3–19–63, Cl. D44—21.
Stuzzi, Viktor, to P. E. King. Casing for a miniature tape recorder or similar article. 196,514, 10–8–63, Cl. D26—14.
Suere, Jay, to Sperry Rand Corp. Combined computer control panel and stand. 196,648, 10–22–63, Cl. D26—5.
Sudrow, Lyle K. V., to Helipod, Inc. Rotary-wing aircraft. 194,765, 3–5–63, Cl. D71—1.
Suess, Edward J., to Edward Can Co. Gasoline can. 196,273, 9–10–63, Cl. D58—17.
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Sundberg, Carl W., to American Metal Products Co. Expansible vehicle. 195,766, 7–30–63, Cl. D14—3.
Sundberg, Carl W., and J. A. Maxwell, Jr., to Whirlpool Corp. Air conditioner front panel. 195,108, 4–23–63, Cl. D62—4.
Sundberg, Carl W., and M. Ferar, to Sperry Rand Corp. Rotary microfilm camera. 195,913, 8–6–63, Cl. D61—1.
Sundberg, Carl W., and M. Ferar, to Sperry Rand Corp. Calculator. 195,916, 8–6–63, Cl. D64—11.
Sundberg, Carl W., and M. Ferar, to Sperry Rand Corp. Typewriter. 195,917, 8–6–63, Cl. D64—11.
Sundberg, Carl W., and M. Ferar, to Sperry Rand Corp. Portable typewriter. 196,280, 9–10–63, Cl. D64—11.
Sundberg, Carl W., and M. Ferar, to Sperry Rand Corp. Shaver. 196,432, 10–1–63, Cl. D22—3.

Sundberg, Carl W., and M. Ferar, to Sperry Rand Corp. Portable typewriter. 196,544, 10–8–63, Cl. D64—11.
Sundberg, Carl W., and M. Ferar, to American Seating Co. Chair. 196,574, 10–15–63, Cl. D15—1.
Sundberg, Carl W., and M. Ferar, to Sperry Rand Corp. Carrying case for business machines or the like. 196,954, 11–19–63, Cl. D87—5.
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Sutz, Richard K. Hose supporter or similar article. 196,795, 11–5–63, Cl. D17—8.
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Swacker, Carolyn R., F. C., and R. L. Game board. 196,055, 8–20–63, Cl. D34—5.
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Swett, James B., to Rexall Drug and Chemical Co. Pie tray or the like. 195,475, 6–18–63, Cl. D44—10.
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Szantay, Elmer. Cooler for cans and the like. 194,638, 2–19–63, Cl. D58—26.
Szantay, Elmer. Cooler for bottles and the like. 194,639, 2–19–63, Cl. D58—26.
Szantay, Elmer. Lighting paneling. 195,178, 5–7–63, Cl. D48—16.
Szewczyk, Joseph B. Kitchen cabinet. 195,577, 7–2–63, Cl. D33—19.
Szewczyk, Joseph B., to Creative Products Co. of America. Spice cabinet. 197,019, 12–3–63, Cl. D44—6.
Szymanski, Michael J. Dinner plate or similar article. 196,526, 10–8–63, Cl. D44—15.
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Taft, Robert M., and J. Sawicki, ½ to R. M. Taft and ½ to W. R. Taft. Canoe. 196,342, 9–17–63, Cl. D71—1.
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Talge, Henry J., and D. P. Dykes, to J. C. Hockery. Combined electric can opener and knife sharpener. 195,420, 6–11–63, Cl. D37—1.
Tally, Joseph O., Jr. Sign. 195,756, 7–30–63, Cl. D1—12.
Tamarin, Bernard J. Portable electrical outlet cord reel. 195,463, 6–18–63, Cl. D26—1.
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Tarbell, Neli W. Archery bow. 194,609, 2–19–63, Cl. D30—1.
Tarbox, Elmer L. Ankle weight for athletes. 195,134, 4–30–63, Cl. D34—5.
Tashner, Martin. Advertising brochure dispenser. 197,001, 12–3–63, Cl. D1—3.
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Taylor, Hasley W. Water drinking fountain. 196,545, 10–8–63, Cl. D67—4.
Taylor, Howard S., to Airguide Instrument Co. Pitot unit for a marine speedometer or the like. 194,331, 1–1–63, Cl. D52—1.
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Telerico, Frank L. Combined salt and pepper shaker or similar article. 194,699, 2–26–63, Cl. D44—22.
Telerico, Frank L. Combined salt and pepper shaker or similar article. 194,700, 2–26–63, Cl. D44—22.
Telerico, Frank L. Combined salt and pepper shaker or similar article. 194,701, 2–26–63, Cl. D44—22.
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Terry, Bobby L. Combined cutting and drilling right angle drive and support for power tools. 196,071, 8–20–63, Cl. D54—4.
Terry, Marvis C. Mitten hanger. 196,994, 11–26–63, Cl. D80—8.
Terwilliger, Charles O., Jr. Tool for repairing clocks. 196,385, 9–24–63, Cl. D54—13.
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Tessin, Emil A., II, to Alside Homes Corp. Modular house. 196,904, 11–19–63, Cl. D13—1.
Tessin, Emil A., II, to Alside Homes Corp. Modular house. 197,222, 12–31–63, Cl. D13—1.
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Leonardo, Ignazio. 195,623.
Thomas, James O. Boat. 195,183, 5–7–63, Cl. D71—1.
Thomas, James R. Outboard motor, or similar article. 196,403, 9–24–63, Cl. D71—1.
Thomas, William O. Car for amusement ride. 194,921, 4–2–63, Cl. D34—5.
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Thomasson, Gene I., to General Electric Co. Round panel lamp. 196,601, 10–15–63, Cl. D48—23.
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Thompson, Eldridge W. Holder for mops, brooms and the like. 195,668, 7–16–63, Cl. D9—2.
Thompson, John E. Font of branding iron characters. 194,569, 2–12–63, Cl. D64—12.
Thompson, Robert B., to Faultless Starch Co. Combined bottle and closure. 195,787, 7–30–63, Cl. D58—8.
Thompson, Theodore F. Hitch pin. 196,810, 11–5–63, Cl. D54—9.
Thon, Donald G., and P. G. Lucht, to M T & D Co. Riding mower. 195,091, 4–23–63, Cl. D4—1.
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Thornell, Ernest L., to Fisher-Price Toys, Inc. Trundle toy. 196,737, 10–29–63, Cl. D34—15.
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Harty, Millard F., Jr., and Thorwaldsen. 194,339.
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Tibbets, Harold V., to Texas Tennessee Industries, Inc. Picnic chest. 196,945, 11–19–63, Cl. D58—17.
Tiborcz, Michael. Tire. 195,615, 7–2–63, Cl. D90—20.
Tiborcz, Michael. Tire. 195,616, 7–2–63, Cl. D90—20.
Tiedeman, John A.: *See*—
Carlton, Alvar G., Tiedeman, Walker, and Worsley. 196,823.
Tiller, James A., to American Radiator & Standard Sanitary Corp. Combined lavatory, water closet and cabinet. 196,354, 9–24–63, Cl. D4—2.
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Timmons, John W. Valve for water conditioner systems or the like. 194,649, 2–19–63, Cl. D78—1.
Tipper, Laurence B. Weather shield for a window opening of an automobile. 194,531, 2–12–63, Cl. D14—6.
Toffolon, Siro R., to The International Silver Co. Fork or similar article of flatware. 196,605, 10–15–63, Cl. D54—12.
Toledo Scale Corp.: *See*—
Little, John M. 196,809.
Tomaiuolo, Theodore J. Waste basket cover. 195,653, 7–9–63, Cl. D58—26.
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len, Chester S., Warren, Pa. Dedication filed Apr. 30, 1963, by the assignee, Owens-Illnois Glass Company. No. 2,660,355; v. 791; p. 605.

len, Howard G., Stonington, Conn. and Edward I. Fisher, Westerly, R. I. Disclaimer filed Jan. 7, 1963, by the assignee, Bostitch, Inc. No. 2,857,596; v. 787; p. 701.

lson, Donald K., Albuquerque, N. Mex. Disclaimer filed Aug. 20, 1963, by the assignee, Cool Fin Electronics Corporation. No. 3,023,264; v. 795; p. 261.

drews, David B., Neenah, and George L. Meyers, Menasha, Wis. Disclaimer filed June 17, 1963, by the assignee, American Can Company. No. 3,037,684; v. 794; p. 263.

ley, Francis M., Scotia, N.Y., and Eugene B. Canfield, Pittsfield, Mass. Disclaimer filed Aug. 2, 1963, by the assignee, General Electric Company. No. 3,019,711; v. 795; p. 761

ker, Clyde F., and Romeo Bougie, Muskegon Heights, Mich., and Florence B. Anderson, Village of Winnetka, Ill. Disclaimer filed June 14, 1963, by the assignee, Borg Warner Corporation. No. 2,962,876; v. 795; p. 261.

ll, Thomas M., Bloomfield Hills, Mich. Disclaimer filed Nov. 26, 1962, by the inventor and the assignee, Chrysler Corporation. No 2,957,467; v. 786; p 2.

rg, Quentin, New Cumberland, Pa. Disclaimer filed Jan. 14, 1963, by the inventor. No. 3,020,520; v. 787; p. 701.

schoff, Waldemar O., Holyoke, Mass. Disclaimer filed Jan. 7, 1963, by the assignee, American Bosch Arma Corporation. No. 2,922,370; v. 787; p. 435.

ck, James R., Rockford, Robert W. Meyer, Pecatonica, and Wilbur F. Shurts, Winnebago, Ill. Disclaimer filed July 15, 1963, by the assignee, Twin Disc Clutch Company. No. 2,969,131; v. 795; p. 261.

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nner, Tom W., Houston, and Richard L. Caldwell, Dallas, Tex. Disclaimer filed Feb. 26, 1963, by the assignee, Socony Mobil Oil Company, Inc. No. 2,905,826; v. 789; p. 861.

ennan, Joseph B., Cleveland, Ohio. Disclaimer filed Apr. 5, 1963, by the assignee, Armour Research Foundation of Illinois Institute of Technology. No. 2,903,787; v. 791; p. 605

euers, Theo Pierre Chrètien, and Henricus Meyer, Venlo, Netherlands. Disclaimer filed Apr. 29, 1963, by the assignee, Chemische Fabriek L. van der Grinten, N.V. No. 2,917,539; v. 794; p. 263.

dges, John B., Houston, Tex. Disclaimer filed July 15, 1963, by the inventor and the assignee, Cameron Iron Works, Inc. No. 3,003,865; v. 794; p. 749.

tler, John P., Appleton, Wis. Disclaimer filed Feb. 7, 1963, by the assignee, American Can Company No. 3,025,167; v. 788; p 833.

apman, James E., Los Angeles, and Lloyd D. Bevan, Van Nuys, Calif. Disclaimer filed Oct. 3, 1963, by the assignee, The Garrett Corporation. No. 2,658,407; v. 797; p. 731.

ayne, Charles A., Bloomfield Township, and John Dolza, Fenton, Mich. Disclaimer filed July 17, 1963, by the assignee, General Motors Corporation. No. 2,916,027; v. 795; p. 261.

ristensen, Norman B., North Olmsted, Ohio. Disclaimer filed Sept. 9, 1963, by the inventor and the assignees, one-half to Republic Manufacturing Co. and one-half to The Firestone Tire & Rubber Company. No 2,970,614; v. 795; p. 261.

ark, Earnest H., Jr., Downey, and Julian D. Kelthahn, Anaheim, Calif. Disclaimer filed Oct. 15, 1963, by the assignee, Baker Oil Tools, Inc. No. 3,008,523; v. 797; p. 971.

ley, John R., Gary, and Robert J. Hengstebeck, Valparaiso, Ind. Disclaimer filed Oct. 1, 1963, by the assignee, Standard Oil Company. No. 2,892,770; v. 797; p. 971.

per, Jack, Summit, and Windheuser, John Joseph, Milton, N.J. Dedication filed Jan. 3, 1963, by the assignee, Smith Kline & French Laboratories. No. 2,887,438; v. 787; p. 1.

an John G., Wilton, Conn. Disclaimer filed Mar. 14, 1963, by the assignee, United States of American as represented by the Administrator, General Services Administration. No. 2,913,336; v. 790; p. 1.

ter, Norman H., Jr., Pleasantville, N.Y. Disclaimer filed May 17, 1963, by the assignee, Sonotone Corporation. No. 2,934,610; v. 793; p. 171.

wning, Francis P., Philadelphia, Pa. Dedication filed July 3, 1963, by the assignee. The Sharples Corporation. No. 3,078,287; v. 794; p. 498.

Drucker, Arnold, Stamford, and John H. Daniel, Jr., Old Greenwich, Conn. Disclaimer filed Aug. 13, 1963, by the inventors, the assignee, American Cyanamid Company, assenting. No. 2,917,501; v. 795; p. 1065.

Eans, Marvin C., Jr., and Junius B. Neale, Owensboro, Ky. Disclaimer filed July 22, 1963, by the assignee, General Electric Company. No. 3,001,556; v. 794; p. 263.

Eastes, John W., Ridley Park, Pa., and Theodore F. Cooke, Martinsville, N.J. Disclaimer filed Apr. 8, 1963, by the inventors and the assignee, American Cyanamid Company. No. 2,789,919; v. 791; p. 605.

Einborn, Sidney N., Philadelphia, and George G. Hoberg, Berwyn Pa., John O. Paivinen, Menlo Park, Calif. and Richard C. Weise, Philadelphia, Pa. Disclaimer filed Mar. 7, 1963, by the inventors and the assignee, Burroughs Corporation. No. 2,932,011; v. 789; p. 1140.

Epstein, Herman, West Chester, and Frank T. Innes, Malvern, Pa. Disclaimer filed Dec. 6, 1962, by the inventors and the assignee, Burroughs Corporation. No. 3,012,839; v. 786; p. 2.

Espenlaub, Walter C., Syosset, N.Y. Disclaimer filed Mar. 11, 1963, by the inventor, the assignee, Hazeltine Research, inc., assenting. No. 3,056,853; v. 790; p. 1.

Evans, Robert P., Kenmore, N.Y. Dedication filed May 6, 1963, by the assignee, Sterilon Corporation. No. 2,883,985; v. 791; p. 873.

Feinberg, Albert E., Chicago, Ill. Disclaimer filed May 24, 1963, by the assignee, Advance Transformer Co. No. 2,900,577; v. 793; p. 586.

Förster, Hans J. M., Harthausen a.F., Kreis Esslingen am Neckar, Germany. Disclaimer filed Oct. 18, 1962, by the assignee, Daimler-Benz Aktiengesellschaft. No. 2,807,968; v. 786; p. 289.

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Gibson, Joseph Whitton, Jr., Penns Grove, N.J. Dedication filed July 29, 1963, by the assignee, E. I. du Pont de Nemours and Company. No. 2,663,612; v. 795; p. 761.

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Glauberman, Marvin H., Medfield, and Robert C. Kelner, Concord, Mass. Disclaimer filed July 11, 1963, by the assignee, Laboratory for Electronics, Inc. No. 2,947,971; v. 795; p. 1065.

Grad, Adolf R., Milwaukee, Wis. Disclaimer filed Oct. 3, 1963, by the inventor, the assignee, The Oilgear Company, assenting. No. 2,973,012; v. 795; p. 1065.

Gray, Robert L. Broomall, and David A. Starr, Jr., Berwyn, Pa. Disclaimer filed July 8, 1963, by the assignee, Burroughs Corporation. No. 2,992,393; v. 795; p. 1.

Green, Milton W., Menlo Park, Calif. Disclaimer filed Jan. 29, 1963, by the assignee, Radio Corporation of America. No. 2,983,889; v. 788; p. 549.

Hadley, Harlan A., Burlington, Vt. Disclaimer and dedication filed Jan. 2, 1963, by the assignee, Toledo Scale Corporation. Des. No. 161,833; v. 787; p. 435.

Hadley, Harlan A., Burlington, Vt. Disclaimer and dedication filed Jan. 2, 1963, by the assignee, Toledo Scale Corporation. Des. No. 181,019; v. 787; p. 436.

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Hadley, Harlan A., Burlington, Vt. Disclaimer and dedication filed Jan. 2, 1963, by the assignee, Toledo Scale Corporation. No. 2,818,245; v. 787; p. 436.

Hadley, Harlan A., and Lester D. Singleton, Burlington, Vt. Disclaimer and dedication filed Jan. 2, 1963, by the assignee, Toledo Scale Corporation. No. 2,839,288; v. 787; p. 436.

Hadley, Harlan A., Burlington, and Lester D. Singleton, Winooski, Vt. Disclaimer and dedication filed Jan. 2, 1963, by the assignee, Toledo Scale Corporation. No. 2,857,049; v. 787; p. 436.

Hais, Per Jahrmann, Oslo, Norway. Disclaimer filed June 27, 1963, by the assignee, the United States of America as represented by the Secretary of the Air Force. No. 2,908,774; v. 797; p. 971.

Herbert, John M., Horton, and Anthony W. Simpson, Radcliffe-on-Trent, England. Disclaimer filed July 1, 1963, by the assignee, The Plessey Company Limited. No. 2,825,046; v. 793; p. 380.

Hobson, Lloyd L., Elnora, Ind. Disclaimer filed Mar. 28, 1963, by the inventor. No. 3,023,919; v. 790; p. 577.

Holt, Harold P., Burlington, Vt. Disclaimer and dedication filed Jan. 2, 1963, by the assignee, Toledo Scale Corporation. No. 2,692,771; v. 787; p. 436.

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NOTES CONCERNING USE OF THE CLASSIFICATION OF PATENTS LISTING AND RELATED REFERENCE PUBLICATIONS

In the index which follows, the subject of invention of each patent issued during 1963 is identified by the class and subclass numbers of the official U.S. Patent Office classification in which the patent was classified at the time of issue. The Index is arranged in numerical order by class numbers, which appear as bold-face entries centered in the columns, and thereunder, in similar order, by subclasses which appear in the numerals in the left hand half of the columns. There are 45,876 patent and reissue patent numbers listed in the Index. A similar listing appears for design patents and plant patents which are separately shown under their respective classifications.

In order to find patent numbers in the Index pertaining to a particular subject, the user must first know the class and subclass in which the Patent Office assigns inventions relating to that subject. In some instances a number of classes and subclasses may be pertinent. The process of finding this information is relatively simple although it requires the coordinated use of several other Patent Office publications. They may be found in collections which contain the *Index of Patents*. Each of them is considered below.

Manual of Classification: This publication is the source of the needed information as it contains the entire classification schedule showing the number and descriptive title of every class and subclass. It is, also, the key aid in the finding system as it provides a number of features aimed at assisting the user to identify his search problem and to use its content in locating the specific classification representing the subject matter of concern to him. These features include (1) listings of the class titles in alphabetical order; (2) description of the plan of the Manual; (3) discussion of the basis of classification, the scope of the classes, and the schematic arrangement of subclasses; (4) instructions on reading subclass titles and definitions; and, (5) suggestions on procedure for finding pertinent classification.

Index to Classification: This publication contains more than 300 pages of subject matter headings showing for each heading the class and subclass to which it pertains. They are arranged in alphabetical order in main heading and subheading categories, the latter being indented under the main headings and sometimes further subdivided. The headings include key words and significant phrases taken from the class and subclass titles, but they are neither limited to this source nor include all of them. Many technical as well as common terms of reference to objects, arts, processes, compositions of matter, etc., not found in the classification schedule are included in the index headings so as to offer a practical and convenient aid to finding patented subject matter.

Classification Bulletins: This is a series of numbered publications which supplements the *Manual of Classification* by giving detailed definitions and illustration of the kind of subject matter that can be found in each class and subclass, describing the lines of distinction among them, and containing references to other classes and subclasses having related subject matter. There is a separate Bulletin for each major classification, which is identified in the heading to each class in the Manual.

Use of Reference Publications

As a first step, the searcher should look in the *Index to Classification* for the term which to him best represents the subject matter of interest. If a match is not

found, he should look for terms of approximately the same meaning, for terms of either broader or narrower scope, or for terms which represent a different approach to the subject (e.g., the essential *function* or the *effect* of use or application of the art or object of concern). This requires that the user interact with the content of the Index, exercising judgment and imagination to consider alternatives or to find in the listed items some aspect of pertinency to his subject.

On finding the identifying numbers of possibly pertinent classes and subclasses in the Index, the user should refer to the *Manual of Classification* and ascertain from among the existing choices, the precise classification identity of his subject interest. Having thus determined the appropriate class and subclass, the searcher is ready to turn to the "Classification of Patents" listings to look for the corresponding numbers in its columns. The patent numbers found listed under the relevant classification provide the information needed to gain access to the patents themselves or to the extracts from them which are printed in the Official Gazette. In the latter connection, the user will find on the last page of this section a table entitled "List of Patent, Design, Plant Patent, and Reissue Numbers Appearing in the Official Gazette for 1963" which will guide him to the issue of the Official Gazette containing any specific patent number. He will find listed elsewhere in this section the 22 libraries which receive all U.S. patents and maintain them for public use in numerical order and the more than 300 depository libraries which receive the Official Gazette.

When the class and subclass which the searcher has determined to represent his interest does not appear in the "Classification of Patents" listing, he may assume that no patents were issued in that classification during the year. The possibility of this being the case is indicated by the fact that patents issued in less than one-third of the total number of subclasses in the classification.

If, after following the above-described procedure in using the *Index to Classification*, the searcher fails to find a pertinent classification, he should turn to the listings which appear at the front of the *Manual of Classification*. He should consider, particularly, the listing of groups of related subjects and the listing of classes arranged in alphabetical order which, in different ways, lay the entire framework of the classification in broad focus before him. He should scan the titles which appear on these sheets and note those which would appear to contain the subject matter sought.

Whichever of these approaches is taken, the searcher is guided to the classification schedules. He should inspect them carefully, proceeding from one major coordinate subclass to another until finding one which seems most nearly pertinent. The minor subclasses therein should then be scanned to find the title which indicates inclusion of the subject matter in question. Where doubt exists as to choice among several subclasses, the user should consult the Classification Bulletin containing the definitions of the class under study. Its content will help differentiate the basis of classification and save time and effort in identifying the proper one.

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CLASSIFICATION OF PATENTS

Class 1

1 : 3,074,069
3 : 3,076,195
: 3,083,367
: 3,103,012
: 3,105,237
6 : 3,104,395
7 : 3,076,196
19 : 3,083,368
27 : 3,080,563
29 : 3,096,522
44.4 : 3,086,207
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.4 : 3,099,011
.4 : 3,099,837
.4 : 3,101,476
.5 : 3,072,911
.5 : 3,072,912
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.5 : 3,095,573
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125 : 3,080,565
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138 : 3,071,775
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260 : 3,070,801
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323 : 3,078,466
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342 : 3,101,481
343 : 3,087,162
349 : 3,075,199
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91 : 3,080,566
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93 : 3,077,604
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94 : 3,074,074
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96 : 3,094,703
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: 3,110,901
97 : 3,077,605
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: 3,098,235
98 : Re. 25,378
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125 : 3,106,718
128 : 3,092,840
129 : 3,088,117
131 : 3,092,841
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: 3,078,475
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13 : 3,072,926
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: 3,110,910
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41 : 3,107,363
: 3,107,364
44 : 3,088,130
51 : 3,107,365
52 : 3,077,611
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: 3,098,243
53 : 3,107,366
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59 : 3,110,911
60 : 3,093,836
63 : 3,081,463
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66 : 3,077,612
67 : 3,094,713
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68 : 3,089,150
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81 : 3,099,020
: 3,109,179
81 : 3,115,646
82 : 3,084,352
: 3,088,128
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: 3,110,912
: 3,111,687
84 : 3,099,842
88 : 3,108,290
92 : 3,081,464
: 3,085,258
: 3,100,899
93 : 3,078,478
97 : 3,071,782
98 : 3,103,669
99 : 3,088,131
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256 : 3,076,203
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332 : 3,086,226
334 : 3,083,378
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335 : 3,113,326
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344 : 3,082,437
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: 3,096,529
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347 : 3,083,381
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347 3,107,368
348 3,089,153
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351 3,076,981
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352 3,060,972
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354 3,070,814
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360 3,087,172
361 3,080,580
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1 3,088,134
3,110,044
2 3,105,927
4 3,108,593
9 3,071,784
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10 3,088,135
11 3,105,978
12 3,091,780
3,095,584

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5.4 3,070,815
14.1 3,094,717
.3 3,115,648

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1 3,100,131
4 3,081,140
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14 3,102,771
18 3,116,103
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1 3,085,265
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4 3,101,493

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1 3,076,984
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1 3,076,049
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6 3,094,578
3,097,251
3,098,111
3,108,149
3,109,045
3,111,550
9 3,078,325
3,079,450
3,105,864
3,106,595
3,108,150
10 3,102,154
3,108,151
13 3,097,252
16 3,072,732
3,107,267
18 3,076,050
3,106,596
22 3,092,681
23 3,105,865
24 3,086,990
26 3,100,237
3,107,268
27 3,079,451
29 3,092,682
: 3,095,464
: 3,098,887
31 3,078,326
33 3,085,124
: 3,101,385
34 3,079,452

Class 14

1 3,103,025
16.4 3,075,209
4 3,081,669
.5 3,090,055
17 3,070,820
.2 3,075,210
.2 3,076,213
21 3,102,285
32.1 3,075,211
33 3,095,589
.2 3,086,231
.2 3,102,280
35.5 3,076,985
37 3,078,483
38 : 3,080,056
40 3,089,164
50.5 3,083,385
53.5 3,080,588
5 3,089,165
54.3 3,105,250
55.1 3,088,144
59.5 3,076,212
.5 3,102,287
.7 3,102,288
67 3,077,620
86.6 3,089,145
87 3,088,146
88 3,085,266
107 3,097,380
114.2 3,100,901
117.4 3,076,986
120.5 3,074,085
123.3 3,105,984
128 3,077,621
133 3,076,213
136 3,100,728
140 3,088,147
4 3,072,945
3,077,622
3,082,451
3,084,360
3,089,167
3,089,168
3,090,057
3,091,788
3,094,727
3,098,249
Re 25,462
3,070,821
3,072,946
3,077,623
3,078,484
3,081,471
3,085,268
3,085,269
3,086,233
3,090,981
3,099,027
3,099,849
3,101,497
3,102,291
3,103,677
3,104,406
3,105,986
3,108,289
3,114,163
22 3,072,947
3,072,948
3,088,148
3,104,405
3,105,254
24 3,108,900
27 3,091,789
28 3,106,742
3,115,632
29 3,074,088
3,088,149
3,114,164
35 3,092,850
36 3,084,361
37 3,077,624
3,115,633
38 3,072,949
3,080,591
3,112,505
41 3,074,089
3,092,862
3,097,383
49 3,072,940
3,100,903
3,106,733
3,107,378
3,115,634
50 3,071,792
3,080,592
3,099,028
3,099,851
3,099,852
3,102,292
3,113,331
3,114,922
55 3,084,362
3,087,179
56 3,076,988
71 3,104,407
76 3,092,863

77 3,075,215
: 3,077,625
: 3,093,852
: 3,098,250
: 3,108,301
79 3,084,363
3,087,180
3,101,498
3,103,678
82 3,071,793
3,113,332
3,114,923
83 3,089,169
: 3,093,853
87 3,102,293
88 3,105,255
93 3,074,080
3,075,216
3,082,452
3,083,387
3,083,388
3,110,050
97 3,077,626
3,083,389
: 3,084,364
3,099,853
3,102,294
3,104,808
3,114,924
98 3,072,941
3,072,942
3,105,987
99 Re 25,449
3,080,982
3,096,533
103.5 3,083,390
104 Re 25,435
3,082,453
3,105,256
04 3,075,219
02 3,078,485
06 3,081,472
09 3,087,181
06 3,090,058
06 3,100,308
07 3,101,499
07 3,104,809
06 3,106,735
06 3,107,379
06 3,107,380
01 3,110,051
01 3,112,506
.19 3,078,487
.1 : 3,082,454
.1 : 3,090,983
.19: 3,100,904
.16: 3,108,302
.3 : 3,071,794
3 3,075,217
3 3,099,854
3 3,078,486
.3 : 3,083,391
.3 3,086,234
.3 : 3,093,854
3 3,095,592
.3 3,098,251
.3 3,106,734
8 3,104,410
105 3,080,593
: 3,082,455
: 3,089,170
: 3,091,790
: 3,105,257
: 3,111,698
.5 : 3,109,189
106 3,088,150
110 3,103,027
111 3,094,728
: 3,097,384
114 : 3,085,270
115 : 3,115,656
116 : 3,076,216
117 : 3,110,052
118 : 3,083,392
: 3,097,385
: 3,098,253
: 3,101,500
: 3,103,028
: 3,108,303
: 3,110,917
119 : 3,072,943
: 3,074,091
: 3,079,620
: 3,084,365
: 3,084,366
: 3,089,171
: 3,090,059
: 3,105,258
: 3,106,736
143 : 3,081,473
144 : 3,105,259
: 3,108,304
145 : 3,075,220
145 : 3,076,217
147 : 3,082,456
: 3,085,271
150 : 3,074,092
: 3,114,165
237 : 3,089,172
: 3,097,388
: 3,103,681
244 : 3,081,475
: 3,081,476
245 : 3,079,624
: 3,086,237
: 3,089,173
: 3,091,791
246 : 3,111,166
248 : 3,075,225
250.07: 3,074,096
.02: 3,076,220
.02: 3,078,492
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.02: 3,080,595
.02: 3,084,370
.02: 3,084,371
.02: 3,088,153
.02: 3,094,732
.02: 3,094,733
.01 : 3,095,595
.02: 3,095,596
.02: 3,100,906
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.03: 3,104,411
.02: 3,107,383
.02: 3,112,507
.01: 3,112,510
.02: 3,114,167
.02: 3,114,168
.02: 3,115,661
.12: 3,075,226
.17: 3,078,494
.17: 3,082,461
.14: 3,083,394
.12: 3,086,238
.17: 3,090,068
.17: 3,091,792
.17: 3,095,597
.12: 3,110,056
.16: 3,110,920
.14: 3,113,333
.14: 3,113,334
.16: 3,115,662
.2 : 3,072,947
.22: 3,076,990
.23: 3,076,991
.23: 3,077,628
.29: 3,086,239
.23: 3,092,865
.28: 3,108,307
.32: 3,071,797
.32: 3,071,798
.35: 3,076,992
.36: 3,080,596
.3 : 3,081,477
.3 : 3,082,462
.32: 3,082,463
.36: 3,084,372
.32: 3,085,277
.34: 3,088,154
.36: 3,089,174
.36: 3,089,175
.36: 3,092,866
.35: 3,099,030
.35: 3,102,295
.35: 3,105,990
.42: 3,076,993
.42: 3,082,464
.42: 3,083,395
.42: 3,088,155
.42: 3,090,986
.42: 3,092,867
.42: 3,093,856
.42: 3,094,734
.42: 3,097,389
.42: 3,098,255
.42: 3,099,031
.42: 3,102,296
.42: 3,103,687
.42: 3,104,412
.42: 3,107,384
.42: 3,108,308
.42: 3,114,926
256.52: 3,072,948
.5 : 3,077,629
.5 : 3,080,597
.51: 3,087,184
.51: 3,087,185
.53: 3,088,156
256.51: 3,097,390
.52: 3,099,856
.51: 3,101,504
.52: 3,108,309
257.06: 3,079,625
.06: 3,091,793
.06: 3,100,313
.06: 3,110,921
.1 : 3,085,278
258 : 3,078,495
: 3,096,535
262 : 3,074,097
264 : 3,076,994
265 : 3,072,949
268 : 3,087,186
: 3,103,688
306 : 3,103,030
308 : 3,090,069
: 3,091,794
565 : 3,098,256
: 3,106,742
566 : 3,084,375
: 3,108,314
567 : 3,070,826
: 3,079,628
568 : 3,085,283
: 3,114,928
569 : 3,074,100
: 3,099,035
571 : 3,075,230
: 3,095,598
572 : Re 25,380
: 3,088,161
197 : 3,090,987
: 3,103,691
: 3,089,177
574 : 3,083,397
: 3,100,908
: 3,091,797
588 : 3,094,737
596 : 3,085,284
592 : 3,072,953
595 : 3,090,071
604 : 3,113,337
609 : 3,087,191

Class 16

1 : 3,113,338
2 : 3,082,470
: 3,090,989
: 3,092,871
7 : 3,092,869
18 : 3,075,231
: 3,075,232
: 3,083,398
21 : 3,084,376
26 : 3,096,536
35 : 3,070,828
: 3,075,233
: 3,085,285
: 3,098,257
42 : 3,076,221
: 3,078,498
: 3,080,601
44 : 3,102,298
49 : 3,082,471
: 3,089,183
: 3,094,738
: 3,095,599
50 : 3,098,258
52 : 3,078,499
: 3,078,500
: 3,079,629
: 3,110,924
54 : 3,074,101
: 3,082,475
: 3,093,858
: 3,099,032
55 : 3,106,743
: 3,108,315
: 3,103,690
59 : 3,098,259
66 : 3,071,800
: 3,072,954
: 3,078,501
: 3,083,399
.1 : 3,090,988
.2 : 3,103,034
: 3,105,264
23 : 3,074,102
: 3,095,602
: 3,095,993
82 : 3,103,692
24 : 3,111,706
25 : 3,095,603
32 : 3,091,798
: 3,096,540
33 : 3,115,668
35 : 3,081,484
: 3,097,392
39 : 3,108,318
: 3,108,319
41 : 3,091,799
42 : 3,110,058
: 3,112,516
: 3,112,517
: 3,115,669
43 : 3,112,518
44.1 : 3,103,696
.1 : 3,113,341
.3 : 3,090,990
128 : 3,092,870
: 3,096,537
.1 : 3,113,339
129 : 3,101,507
: 3,115,665
136 : 3,087,193
137 : 3,075,234
: 3,104,415
138 : 3,111,704
140 : 3,104,416
141 : 3,089,184
142 : 3,083,401
: 3,091,796
: 3,096,538
: 3,110,057
146 : 3,080,602
147 : 3,105,266
152 : 3,107,390
153 : 3,083,402
159 : 3,075,235
163 : 3,095,600
: 3,099,036
166 : 3,083,403
167 : 3,082,474
176 : 3,078,502
: 3,096,539
180 : 3,085,286
: 3,088,162
: 3,103,035
190 : 3,103,693
: 3,112,514
191 : : 3,080,603
197 : 3,070,831
: 3,077,631
: 3,084,377
: 3,087,194
: 3,091,797
Class 17
1 : 3,075,236
: 3,076,996
: 3,080,604
: 3,081,483
: 3,084,378
: 3,087,195
: 3,088,163
: 3,090,989
: 3,092,871
: 3,099,037
: 3,099,857
: 3,104,417
: 3,083,398
: 3,104,376
: 3,083,366
: 3,108,316
: 3,070,830
: 3,107,389
: 3,081,481
: 3,088,159
: 3,081,482
: 3,087,192
45 : 3,070,833
: 3,070,834
: 3,074,103
: 3,076,224
: 3,077,632
: 3,084,379
: 3,087,196
: 3,092,872
: 3,097,393
: 3,099,039
: 3,099,858
: 3,101,508
: 3,103,697
: 3,105,267
: 3,107,392
: 3,112,519
: 3,115,670
: 3,115,671

Class 18

1 : 3,070,835
: 3,071,803
: 3,076,999
: 3,078,504
: 3,081,485
: 3,086,242
: 3,086,243
: 3,090,991
: 3,094,741
: 3,098,260
: 3,100,910
: 3,108,320
: 3,110,927
: 3,113,342
: 3,114,929
: 3,114,930
2 : 3,070,836
: 3,072,957
: 3,075,237
: 3,075,238
: 3,081,486
: 3,083,404
: 3,091,800
: 3,091,801
: 3,091,802
: 3,096,541
: 3,099,040
: 3,101,509
: 3,111,707
: 3,115,672
.5 : 3,083,405
.5 : 3,084,380
.5 : 3,084,381
.6 : 3,083,406
.6 : 3,099,041
.6 : 3,111,708
.7 : 3,070,837
.7 : 3,071,804
3.5 : 3,076,225
4 : 3,070,838
: 3,071,805
: 3,072,958
: 3,072,959
: 3,076,226
: 3,078,505
: 3,078,506
: 3,081,487
: 3,087,197
: 3,096,542
: 3,099,042
: 3,107,393
5 : 3,075,239
: 3,075,240
: 3,078,507
: 3,078,508
: 3,079,630
: 3,079,631
: 3,079,632
: 3,079,633
: 3,081,488
: 3,081,489
: 3,084,382
: 3,084,383
: 3,089,185
: 3,089,186
: 3,091,803
: 3,091,804
: 3,095,604
: 3,100,317
: 3,102,299
: 3,102,300
: 3,103,036
: 3,103,698
: 3,103,699
: 3,106,745
: 3,110,928
: 3,,10,929
: 3,111,709
: 3,111,710
: 3,111,711
: 3,112,520
: 3,112,521
: 3,112,522

Class 18 — Con.
5 : 3,114,931
: 3,114,932
: 3,115,673
.3 : 3,112,523
.7 : 3,100,911
6 : 3,072,960
: 3,080,606
: 3,085,287
: 3,095,605
: 3,108,321
: 3,112,524
8 : 3,070,839
: 3,071,806
: 3,071,807
: 3,071,808
: 3,074,104
: 3,075,241
: 3,075,242
: 3,077,633
: 3,078,509
: 3,080,607
: 3,081,490
: 3,084,384
: 3,090,074
: 3,091,805
: 3,092,873
: 3,094,742
: 3,095,606
: 3,095,607
: 3,102,301
: 3,104,419
: 3,108,322
: 3,108,323
: 3,109,195
: 3,110,059
: 3,110,930
9 : Re.25,346
: 3,074,105
: 3,075,243
: 3,083,407
10 : 3,072,961
: 3,107,394
11 : 3,078,510
12 : 3,070,840
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: 3,072,962
: 3,074,106
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: 3,078,512
: 3,078,513
: 3,079,634
: 3,079,635
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: 3,090,075
: 3,090,992
: 3,093,860
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: 3,102,302
: 3,103,037
: 3,103,700
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: 3,105,268
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: 3,109,196
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: 3,112,525
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: 3,113,343
: 3,114,169
: 3,114,170
: 3,114,171
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: 3,115,674
: 3,115,675
13 : 3,071,809
: 3,074,107
: 3,078,514
: 3,088,166
: 3,091,806
: 3,106,748
: 3,111,712
14 : 3,074,108
: 3,079,636
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: 3,085,290
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: 3,089,187
: 3,090,994
: 3,090,995
: 3,091,807
: 3,092,874
14 : 3,095,608
: 3,099,860
: 3,102,303
: 3,104,421
: 3,105,269
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: 3,111,713
: 3,111,714
15 : 3,071,810
: 3,087,198
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: 3,111,715
: 3,112,528
16 : 3,078,515
: 3,080,609
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: 3,088,169
: 3,089,188
: 3,089,189
: 3,094,743
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.5 : 3,098,261
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17 : 3,070,842
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18 : 3,074,109
: 3,109,197
19 : Re.25,313
: Re.25,484
: 3,072,963
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38 : 3,088,171
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: 3,114,936
39 : 3,070,846
: 3,082,479
: 3,091,811
: 3,109,203
41 : 3,099,862
42 : Re.25,441
: 3,071,814
: 3,074,113
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: 3,091,812
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: 3,111,717
44 : 3,081,494
: 3,100,318
: 3,114,174
45 : 3,083,409
: 3,114,937
46 : 3,091,813
47.2 : 3,071,815
.3 : 3,084,392
.5 : 3,071,816
.5 : 3,075,247
.5 : 3,076,231
.5 : 3,078,518
.5 : 3,079,639
.5 : 3,080,611
.5 : 3,081,495
.5 : 3,082,481
.5 : 3,086,246
.5 : 3,089,194
.5 : 3,089,195
.5 : 3,089,196
.5 : 3,092,437
.5 : 3,092,438
.5 : 3,093,443
.5 : 3,101,241
.5 : 3,101,242
.5 : 3,106,441
.5 : 3,109,696
.5 : 3,114,590
48 : 3,074,114
: 3,075,248
: 3,076,232
: 3,077,004
: 3,079,640
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: 3,080,612
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48 : 3,082,051
: 3,082,482
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53 : 3,072,968
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54 : 3,073,669
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54 : 3,114,593
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.7 : 3,107,973
55 : 3,072,969
: 3,074,115
: 3,075,249
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: 3,079,642
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56 : 3,102,776
: 3,103,410
57 : 3,085,293
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58 : 3,071,817
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.7 : 3,079,643
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59 : 3,112,987
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.3 : 3,084,397
.3 : 3,084,398
.3 : 3,095,262
.3 : 3,112,166
61 : 3,085,295
: 3,096,146
: 3,101,994

Class 19

.23 : 3,092,875
.2 : 3,103,040
.48 : 3,077,006
.46 : 3,086,252
2 : 3,112,531
52 : 3,083,413
55 : 3,091,001
66 : 3,077,007
: 3,093,867
: 3,114,175
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80 : 3,101,513
: 3,110,062
81 : 3,085,296
: 3,099,047
82 : 3,098,264
83 : 3,108,330
98 : 3,071,820
: 3,097,399
: 3,108,331
99 : 3,081,499
: 3,087,202
: 3,095,614
: 3,110,063
105 : 3,077,641
: 3,111,718
: 3,115,683
106 : 3,089,200
: 3,098,265
: 3,113,348
109 : 3,100,914
129 : 3,104,426
145.3 : 3,090,080
.5 : 3,087,203
.5 : 3,107,397
.7 : 3,080,617
150 : 3,083,414
155 : 3,071,821
156 : 3,086,253
.3 : 3,071,822
.3 : 3,076,236
.3 : 3,114,939
157 : 3,075,251
: 3,084,399
: 3,102,305
159 : 3,083,415
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: 3,105,996
161 : 3,081,500
: 3,081,501
: 3,113,349
163 : 3,095,615
200 : 3,111,719
202 : 3,108,332
203 : Re.25,460
: 3,071,823
: 3,086,254
204 : 3,070,847
215 : 3,074,118
218 : 3,084,400
225 : 3,103,041
227 : 3,074,119
231 : 3,093,868
235 : 3,108,333
236 : 3,070,848
240 : 3,087,204
: 3,088,175
: 3,099,048
: 3,113,350
241 : 3,074,120
: 3,109,204
243 : 3,105,997
244 : 3,105,998
255 : 3,109,205
258 : 3,071,824
: 3,078,519
263 : 3,074,121
: 3,113,351
265 : 3,086,255
267 : 3,078,520
: 3,080,618
272 : 3,079,646
281 : 3,072,974
: 3,076,237
: 3,091,814
288 : 3,090,081
293 : 3,074,122
294 : 3,079,647
295 : 3,079,648

Class 20

.5 : 3,077,008
.5 : 3,078,521
.5 : 3,079,649
.5 : 3,083,417
.5 : 3,089,201
.5 : 3,100,915
.5 : 3,106,752
1 : 3,078,522
: 3,080,619
: 3,083,418
: 3,091,815
: 3,093,869
: 3,110,933
: 3,115,684
.126 : 3,070,849
.126 : 3,077,642
.123 : 3,086,256
.126 : 3,088,176
.123 : 3,091,816
.12 : 3,092,876
.13 : 3,103,706
.126 : 3,103,707
.13 : 3,105,999
.126 : 3,107,398
.126 : 3,107,399
2 : 3,070,850
: 3,075,252
: 3,091,002
: 3,095,616
: 3,097,400
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: 3,103,709
: 3,104,427
: 3,106,750
: 3,114,176
3.5 : 3,105,271
.5 : 3,110,934
.5 : 3,111,720
.5 : 3,111,721
4 : 3,070,851
: 3,074,123
: 3,075,253
: 3,082,487
: 3,084,401
: 3,084,402
: 3,087,205
: 3,091,817
: 3,099,863
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: 3,107,400
: 3,108,334
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: 3,110,064
: 3,111,722
: 3,111,723
6 : 3,087,206
: 3,090,082
: 3,094,745
: 3,114,940
8 : 3,082,488
: 3,082,489
9 : 3,077,009
: 3,102,306
10 : 3,114,941
11 : 3,077,010
: 3,079,650
: 3,082,490
: 3,087,207
: 3,090,083
: 3,098,266
: 3,100,320
: 3,103,710
: 3,111,724
12 : 3,103,711
15 : 3,084,403
: 3,103,042
: 3,112,532
: 3,112,533
16 : 3,070,852
: 3,075,254
: 3,085,297
: 3,086,257
: 3,089,202
: 3,091,818
: 3,091,819
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: 3,100,917
: 3,102,307
: 3,103,043
: 3,104,428
: 3,113,352
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: 3,114,942
: 3,115,685
19 : 3,071,825
: 3,072,975
: 3,074,124

19 : 3,075,255
: 3,085,298
: 3,089,203
: 3,090,084
: 3,091,003
: 3,091,004
: 3,097,401
: 3,100,916
: 3,100,918
: 3,105,272
: 3,106,753
: 3,110,935
: 3,114,943
: 3,114,944
23 : 3,091,820
: 3,099,864
: 3,106,000
40 : 3,074,125
: 3,099,865
: 3,103,712
: 3,114,945
.5 : 3,089,204
42 : 3,070,853
: 3,081,502
: 3,085,299
: 3,086,258
: 3,097,402
: 3,108,335
: 3,111,725
48 : 3,099,866
49 : 3,091,005
52 : 3,075,256
: 3,077,011
: 3,078,523
: 3,078,524
: 3,085,300
: 3,088,177
: 3,103,713
: 3,106,754
: 3,111,726
: 3,111,727
: 3,114,177
.2 : 3,074,126
.2 : 3,081,503
.2 : 3,083,419
.2 : 3,086,259
.2 : 3,099,050
.2 : 3,105,273
.2 : 3,114,178
53 : 3,091,006
: 3,103,714
55 : 3,080,620
: 3,080,621
: 3,080,622
: 3,095,617
56 : 3,108,336
: 3,112,534
: 3,113,354
.4 : 3,081,504
.4 : 3,090,085
.4 : 3,092,877
.4 : 3,112,535
.5 : 3,070,854
.5 : 3,077,643
.5 : 3,079,651
.5 : 3,105,274
.5 : 3,114,179
57.5 : 3,075,257
.5 : 3,084,404
.5 : 3,086,260
.5 : 3,094,746
.5 : 3,097,403
.5 : 3,098,267
.5 : 3,103,715
.5 : 3,107,401
62 : 3,070,855
: 3,074,127
: 3,084,405
: 3,110,936
: 3,110,937
: 3,113,355
63 : 3,113,356
: 3,113,357
64 : 3,072,976
: 3,079,652
: 3,083,420
: 3,114,180
67 : 3,087,208
: 3,091,007
: 3,108,337
68 : 3,072,977
: 3,086,261
69 : 3,070,856
: 3,071,826
: 3,075,258
: 3,077,644
: 3,079,653
: 3,082,491
: 3,108,338
: 3,110,065
: 3,110,938
: 3,111,728
: 3,112,536
: 3,114,946
70 : 3,091,008
74 : 3,077,012
: 3,086,262
: 3,091,821
: 3,110,066
78.3 : 3,093,870
.6 : 3,084,406
92 : 3,071,827
: 3,075,259
: 3,082,492
: 3,085,301
: 3,088,178
: 3,090,086
: 3,090,087
: 3,090,088
: 3,094,747
: 3,094,748
: 3,099,051
: 3,102,308
: 3,104,429
: 3,104,430
: 3,109,207
.4 : 3,080,623
.4 : 3,113,358
94 : 3,091,822
: 3,109,208
95 : 3,077,645

Class 21

2 : 3,099,519
: 3,099,520
.5 : 3,080,211
.5 : 3,084,022
.5 : 3,111,371
.7 : 3,079,220
.7 : 3,079,221
.7 : 3,081,146
.7 : 3,087,777
.7 : 3,088,795
.7 : 3,088,796
.7 : 3,096,147
.7 : 3,098,700
.7 : 3,099,521
.7 : 3,116,105
7 : 3,080,212
53 : 3,092,442
: 3,107,974
55 : 3,091,511
56 : 3,086,837
58 : 3,096,148
: 3,097,916
: 3,102,777
: 3,102,778
: 3,102,779
: 3,102,780
60.5 : 3,082,058
.5 : 3,085,850
.5 : 3,095,263
.5 : 3,098,701
.5 : 3,098,702
.5 : 3,112,167
61 : 3,102,781
74 : 3,071,828
: 3,072,978
: 3,100,679
: 3,105,733
78 : 3,101,995
80 : 3,087,209
86 : 3,106,445
87 : 3,090,089
: 3,092,443
91 : 3,078,525
: 3,088,179
93 : 3,087,210
94 : 3,093,449
: 3,099,522
: 3,107,975
98 : 3,086,263
: 3,088,180
: 3,114,599
102 : 3,078,526
106 : 3,098,703
111 : 3,095,264
120 : 3,080,624

Class 22

1 : 3,110,939
2 : 3,071,829
: 3,074,128
5.5 : 3,075,260
.5 : 3,075,261
9 : 3,082,493
: 3,095,618
: 3,100,919
10 : 3,072,979
: 3,089,205
: 3,095,619
: 3,096,547
: 3,098,268
: 3,100,321
: 3,100,920
: 3,101,514
10 : 3,104,431
: 3,107,402
: 3,114,181
11 : 3,092,878
13 : 3,074,129
: 3,082,494
: 3,102,309
: 3,103,716
: 3,104,432
17 : 3,077,013
: 3,102,310
: 3,110,940
18 : 3,110,067
20 : 3,077,014
: 3,083,421
: 3,103,717
: 3,111,729
26 : 3,111,730
31 : 3,082,495
: 3,092,879
34 : 3,103,044
35 : 3,081,505
36 : 3,075,262
: 3,089,206
: 3,089,207
43 : 3,094,749
57.2 : 3,075,263
.2 : 3,078,527
.2 : 3,079,654
.2 : 3,080,625
.2 : 3,080,626
.2 : 3,082,496
.2 : 3,087,211
.2 : 3,098,269
.2 : 3,101,515
.2 : 3,103,718
.2 : 3,105,275
.2 : 3,112,537
.3 : 3,075,264
.3 : 3,088,181
.4 : 3,080,627
.4 : 3,110,941
58 : 3,103,719
62 : 3,100,322
64 : 3,095,620
65 : 3,072,980
: 3,074,130
: 3,091,009
.1 : 3,095,621
67 : 3,104,433
68 : 3,074,131
: 3,078,528
: 3,085,302
: 3,092,880
: 3,093,871
: 3,106,755
69 : 3,092,881
73 : 3,070,857
: 3,099,052
74 : 3,109,209
75 : 3,095,622
76 : 3,099,867
79 : 3,088,182
: 3,093,872
81 : 3,077,015
82 : 3,105,276
: 3,115,686
84 : 3,087,212
: 3,090,090
85 : 3,083,422
: 3,091,823
: 3,091,824
: 3,103,720
89 : 3,070,858
: 3,082,497
: 3,083,423
: 3,088,183
: 3,090,091
: 3,092,882
: 3,109,210
95.5 : 3,076,238
116 : 3,070,859
: 3,079,655
: 3,091,825
: 3,103,721
: 3,113,359
131 : 3,093,873
134 : 3,114,947
139 : 3,085,303
144 : 3,078,529
147 : 3,072,981
: 3,076,239
: 3,091,826
: 3,092,883
: 3,097,405
: 3,100,921
: 3,103,045
: 3,103,046
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: 3,110,942
152 : 3,075,265
: 3,108,339
153 : 3,070,860
155 : 3,095,623
168 : 3,080,628
174 : 3,076,240
192 : 3,077,646
: 3,087,213
: 3,110,943
: 3,110,944
: 3,113,360
193 : 3,070,861
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: 3,077,648
: 3,079,656
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: 3,096,548
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: 3,108,340
: 3,108,341
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: 3,111,731
: 3,112,538
: 3,113,361
: 3,114,948
194 : 3,099,868
: 3,107,403
195 : 3,085,304
: 3,105,277
196 : 3,070,862
: 3,094,751
200 : 3,072,982
: 3,072,983
: 3,096,549
: 3,112,539
.1 : 3,076,241
.1 : 3,089,208
.1 : 3,089,209
.1 : 3,099,053
.1 : 3,107,404
202 : 3,077,649
: 3,103,722
203 : 3,083,424
: 3,094,752
: 3,112,540
: 3,112,541
204 : 3,094,753
: 3,098,270
: 3,099,869
209 : 3,096,550
: 3,111,732
210 : 3,072,984
215 : 3,072,985
: 3,078,531
: 3,106,002

Class 23

1 : 3,078,140
: 3,079,222
: 3,082,059
: 3,090,667
: 3,093,450
: 3,098,704
: 3,099,523
: 3,104,155
: 3,104,939
: 3,112,988
2 : 3,071,433
: 3,072,457
: 3,072,458
: 3,074,776
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: 3,086,838
: 3,086,839
: 3,092,444
: 3,097,917
: 3,101,996
: 3,103,411
3 : 3,079,223
: 3,084,023
: 3,087,778
: 3,098,705
: 3,100,680
4 : 3,084,024
: 3,097,918
14 : 3,075,824
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: 3,088,797
: 3,093,451
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: 3,112,989
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.5 : 3,073,671
.5 : 3,075,825
.5 : 3,078,141
14.5 : 3,079,225
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.5 : 3,081,148
.5 : 3,081,149
.5 : 3,083,076
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.5 : 3,087,781
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.5 : 3,089,751
.5 : 3,091,512
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.5 : 3,092,447
.5 : 3,093,452
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15 : 3,092,448
18 : 3,099,526
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19 : 3,079,226
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22 : 3,078,142
: 3,092,449
23 : 3,072,459
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24 : 3,102,783
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25 : 3,075,826
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31 : 3,112,168
32 : 3,085,852
: 3,112,169
33 : 3,099,527
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38 : 3,084,026
39 : 3,101,247
48 : 3,073,672
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49 : 3,083,078
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50 : 3,088,801
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51 : 3,077,379
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52 : 3,085,853
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53 : 3,090,668
56 : 3,095,266
59 : 3,103,412
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60 : 3,109,706
63 : 3,073,673
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64 : 3,111,379
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75 : 3,078,143
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77 : 3,094,379
77 : 3,112,174
78 : 3,093,454
79 : 3,112,993
85 : 3,075,827
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86 : 3,094,380
87 : 3,074,777
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88 : 3,080,213
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89 : 3,087,782
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: 3,115,389
91 : 3,092,450
: 3,096,152
92 : 3,082,062
93 : 3,078,145
97 : 3,092,451
100 : 3,097,065
101 : 3,095,268
102 : 3,099,529
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103 : 3,116,108
106 : Re.25,455
: 3,081,150
: 3,087,783
107 : 3,081,151
: 3,085,856
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108 : 3,087,784
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112 : 3,073,674
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119 : 3,085,857
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122 : 3,081,152
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131 : 3,105,738
134 : 3,079,229
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: 3,085,859
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138 : 3,103,414
139 : 3,084,994
140 : 3,087,786
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141 : 3,073,675
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142 : 3,077,380
: 3,094,385
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143 : 3,071,436
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: 3,092,452
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: 3,092,454
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: 3,105,739
: 3,111,382
: 3,112,994
: 3,112,995
144 : 3,096,155
: 3,107,977
145 : 3,074,778
: 3,078,147
149 : 3,111,383
: 3,112,996
150 : 3,100,685
151 : 3,096,156
: 3,097,921
: 3,102,001
: 3,102,269
: 3,104,945
: 3,107,146
: 3,112,177
152 : 3,084,995
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153 : 3,071,437
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155 : 3,085,860
157 : 3,079,232
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159 : 3,098,712
161 : 3,102,788
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182 : 3,079,234
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183 : 3,099,532
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184 : 3,104,157
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: 3,104,949
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186 : 3,082,066
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188 : 3,106,453
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: 3,077,383
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: 3,105,741
191 : 3,084,998
192 : 3,092,455
193 : 3,073,678
196 : 3,107,149

Class 23 – Con.

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: 3,092,456
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: 3,080,215
: 3,081,155
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.4 : 3,103,418
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.8 : 3,088,806
.8 : 3,107,980
.9 : 3,089,754
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216 : 3,075,830
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217 : 3,098,716
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218 : 3,107,155
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219 : 3,103,419
221 : 3,081,157
222 : 3,100,690
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: 3,105,745
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: 3,080,219
: 3,081,158
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: 3,088,811
: 3,092,463
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: 3,095,277
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254 : 3,076,697
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262 : 3,100,693
264 : 3,114,611
267 : 3,107,156
269 : 3,111,393
270 : 3,077,388
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.5 : 3,107,982
.5 : 3,110,568
271 : 3,097,072
273 : 3,071,447
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: 3,078,151
: 3,086,850
: 3,090,673
: 3,096,158
275 : 3,073,683
277 : 3,071,448
: 3,073,684
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: 3,085,865
: 3,086,851
: 3,087,797
: 3,090,674
: 3,090,675
: 3,095,279
: 3,097,073
: 3,101,258
279 : 3,111,394
280 : 3,072,463
281 : 3,088,812
283 : 3,072,464
284 : 3,083,082
: 3,087,798
: 3,092,468
: 3,111,395
285 : 3,089,757
: 3,091,518
: 3,091,519
: 3,092,469
: 3,113,843
288 : 3,071,449
: 3,072,465
: 3,073,685
: 3,083,083
: 3,084,084
: 3,086,852
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: 3,094,394
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: 3,100,141
: 3,109,715
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: 3,113,844
290 : 3,095,280
292 : 3,097,928
293 : 3,080,678
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294 : 3,084,395
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: 3,102,792
: 3,098,718
295 : 3,087,799
296 : 3,089,758
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300 : 3,072,466
: 3,095,281
301 : 3,079,240
: 3,093,456
: 3,101,259
302 : 3,097,075
305 : 3,075,831
306 : 3,097,076
308 : 3,084,032
309 : 3,080,217
: 3,093,457
310 : 3,071,450
: 3,074,786
: 3,108,859
312 : 3,077,389
: 3,080,220
: 3,083,085
: 3,090,679
: 3,095,282
: 3,105,746
: 3,107,157
313 : 3,110,570
314 : 3,102,005

Class 24

3 : 3,084,407
: 3,097,406
: 3,103,723
: 3,104,434
: 3,107,405
: 3,115,687
10 : 3,104,435
13 : 3,114,183
16 : 3,072,986
: 3,098,271
: 3,099,054
: 3,102,311
: 3,109,212
20 : 3,082,498
: 3,106,757
22 : 3,078,532
27 : 3,106,758
30.5 : 3,078,533
: 3,086,264
: 3,086,265
: 3,112,542
: 3,114,184
33 : 3,071,830
: 3,074,132
: 3,084,408
: 3,107,406
49 : 3,086,266
: 3,108,342
66 : 3,083,425
: 3,095,624
: 3,103,724
: 3,105,278
67 : 3,074,133
: 3,082,499
: 3,098,272
68 : 3,083,426
: 3,091,827
: 3,099,055
: 3,107,842
71.1 : 3,078,534
: 3,072,987
: 3,074,134
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: 3,077,019
: 3,079,657
14 : 3,070,865
13 : 3,072,991
14 : 3,075,269
11 : 3,077,651
.1 : 3,078,537
14 : 3,080,632
.1 : 3,082,501
11 : 3,086,269
11 : 3,087,217
14 : 3,093,875
14 : 3,093,876
14 : 3,094,756
.1 : 3,098,277
14 : 3,099,059
.1 : 3,100,325
.1 : 3,103,051
16 : 3,103,728
1 : 3,104,437
11 : 3,104,438
17 : 3,104,439
17 : 3,106,004
17 : 3,106,759
14 : 3,108,347
11 : 3,110,946
12 : 3,110,947
1 : 3,111,738
14 : 3,112,546
1 : 3,114,952
1 : 3,114,953
12 : 3,114,954
.1 : 3,115,690
206 : 3,113,362
208 : 3,083,429
: 3,107,408
211 : 3,072,992
: 3,081,508
: 3,112,547
216 : 3,079,658
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123 : 3,091,829
: 3,100,323
125 : 3,081,507
: 3,103,726
: 3,108,344
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: 3,115,688
126 : 3,071,831
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: 3,078,535
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129 : 3,094,755
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131 : 3,080,631
132 : 3,084,409
: 3,096,551
134 : 3,075,267
: 3,108,345
: 3,110,070
137 : 3,084,410
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138 : 3,076,242
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141 : 3,099,057
143 : 3,110,945
150 : 3,107,407
152 : 3,099,058
161 : 3,072,990
: 3,085,307
: 3,111,734
165 : 3,074,136
166 : 3,096,552
170 : 3,091,830
175 : 3,088,184
178 : 3,083,428
193 : 3,084,411
194 : 3,078,536
198 : 3,104,436
200 : 3,075,268
: 3,077,650
: 3,085,308
201 : 3,070,864
: 3,074,137
: 3,086,268
: 3,098,276
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: 3,108,346
: 3,111,735
: 3,111,736
: 3,111,737
: 3,115,689
203 : 3,076,244
: 3,103,050
204 : 3,101,517
: 3,102,314
: 3,114,951
205 : 3,112,545
14 : 3,070,865
13 : 3,072,991
14 : 3,075,269
11 : 3,077,651
.1 : 3,078,537
14 : 3,080,632
.1 : 3,082,501
11 : 3,086,269
11 : 3,087,217
14 : 3,093,875
14 : 3,093,876
14 : 3,094,756
.1 : 3,098,277
14 : 3,099,059
.1 : 3,100,325
.1 : 3,103,051
16 : 3,103,728
1 : 3,104,437
11 : 3,104,438
17 : 3,104,439
17 : 3,106,004
17 : 3,106,759
14 : 3,108,347
11 : 3,110,946
12 : 3,110,947
1 : 3,111,738
14 : 3,112,546
1 : 3,114,952
1 : 3,114,953
12 : 3,114,954
.1 : 3,115,690
206 : 3,113,362
208 : 3,083,429
: 3,107,408
211 : 3,072,992
: 3,081,508
: 3,112,547
216 : 3,079,658
: 3,079,659
216 : 3,083,430
217 : 3,095,625
218 : 3,107,409
221 : 3,080,633
: 3,080,634
: 3,102,315
: 3,109,214
225 : 3,095,626
227 : 3,101,518
230 : 3,075,270
: 3,078,538
: 3,080,635
: 3,080,092
: 3,092,885
: 3,099,870
: 3,102,316
: 3,102,317
: 3,104,440
: 3,110,071
234 : 3,083,431
: 3,105,280
239 : 3,110,072
241 : 3,082,502
: 3,110,073
: 3,114,955
243 : 3,087,219
246 : 3,096,553
248 : 3,097,407
249 : 3,105,281
: 3,114,188
252 : 4,100,326
255 : 3,093,877
: 3,097,408
257 : 3,113,363
259 : 3,089,211
263 : 3,076,245
: 3,095,627
: 3,096,554
: 3,097,409
265 : 3,071,832
: 3,084,412
: 3,094,757
: 3,102,318
270 : 3,097,410
274 : 3,087,220
: 3,100,327
276 : 3,109,215
278 : 3,086,270
279 : 3,079,660
: 3,087,221
: 3,088,185
: 3,089,212
: 3,099,060
: 3,109,216
: 3,110,948

Class 25

1 : 3,070,866
: 3,080,636
: 3,096,555
2 : 3,091,012
7 : 3,094,758
8 : 3,083,432
11 : 3,111,739
14 : 3,074,138
17 : 3,099,871
18.5 : 3,077,655
.5 : 3,092,888
.5 : 3,098,279
.6 : 3,083,435
.6 : 3,100,925
19 : 3,104,443
27 : 3,087,223
31 : 3,080,637
: 3,102,320
33 : 3,114,189
35 : 3,075,273
51.5 : 3,077,656
54 : 3,094,760
55 : 3,076,249
: 3,078,541
62 : 3,104,444
: 3,106,761
63 : 3,109,218
64 : 3,104,445

Class 27

12 : 3,083,336
: 3,114,190
19 : 3,077,016
21 : 3,103,052
: 3,104,446
: 3,104,447
22 : 3,090,095
24 : 3,104,448
35 : 3,070,868
: 3,103,053

Class 28

1 : 3,070,869
: 3,076,250
118 : 3,076,246
: 3,089,215
121 : 3,071,833
: 3,071,834
: 3,071,835
: 3,071,836
: 3,089,216
: 3,092,886
: 3,110,949
127 : 3,110,074
128 : 3,072,995
: 3,074,140
: 3,101,519
: 3,104,441
130 : 3,098,278
: 3,106,007
131 : 3,071,837
: 3,074,141
: 3,074,142
: 3,075,272
: 3,077,652
: 3,077,653
: 3,086,272
: 3,089,217
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: 3,103,730
.5 : 3,072,996
.5 : 3,076,247
.5 : 3,109,217
142 : 3,091,832
: 3,094,759
: 3,104,442
: 3,108,351
: 3,110,075
143 : 3,091,833
153 : 3,091,014
: 3,099,063
154 : 3,079,662
: 3,082,503
: 3,086,273
: 3,088,187
: 3,107,158
: 3,107,983
: 3,112,183
155 : 3,082,504
.5 : 3,093,458
156 : 3,074,143
: 3,076,248
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: 3,090,094
: 3,097,929
: 3,097,930
: 3,108,860
: 3,111,396
: 3,111,397
: 3,112,184
157 : 3,096,159

Class 26

1 : 3,096,557
: 3,105,283
: 3,114,957
11 : 3,105,284
15 : 3,077,654
17 : 3,099,871
18.5 : 3,077,655
.5 : 3,092,888
.5 : 3,098,279
.6 : 3,083,435
.6 : 3,100,925
19 : 3,104,443
27 : 3,087,223
31 : 3,080,637
: 3,102,320
33 : 3,114,189
35 : 3,075,273
51.5 : 3,077,656
54 : 3,094,760
55 : 3,076,249
: 3,078,541
62 : 3,104,444
: 3,106,761
63 : 3,109,218
64 : 3,104,445

1 : 3,077,017
: 3,079,663
: 3,081,510
: 3,084,413
: 3,090,096
: 3,091,834
: 3,093,878
: 3,095,630
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: 3,099,064
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2 : 3,110,077
4 : 3,108,353
: 3,112,548
: 3,112,549
15 : 3,098,280
19 : 3,072,997
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: 3,103,055
: 3,108,354
: 3,112,550
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21 : 3,081,511
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42 : 3,072,998
46 : 3,110,951
45 : 3,072,999
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46 : 3,103,056
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51 : 3,115,692
59.5 : 3,073,000
5 : 3,087,224
62 : 3,071,838
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: 3,094,761
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71.3 : 3,073,001
.3 : 3,099,872
.3 : 3,108,355
72 : 3,073,002
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: 3,090,098
: 3,091,015
: 3,093,879
: 3,094,762
: 3,095,632
: 3,096,560
: 3,096,561
: 3,099,066
: 3,101,521
: 3,102,321
: 3,102,322
: 3,104,449
: 3,106,763
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: 3,107,412
: 3,112,551
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2 : 3,082,505
2 : 3,090,099
2 : 3,090,100
2 : 3,090,101
2 : 3,093,880
73 : 3,076,252
74 : 3,070,870
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: 3,086,274
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: 3,108,356
: 3,109,219
: 3,110,078
75 : 3,079,664
: 3,079,665
: 3,090,102
: 3,091,016
: 3,091,017
: 3,098,562
: 3,100,926
: 3,113,369
76 : 3,073,003
: 3,081,513
: 3,086,275
: 3,094,763
76 : 3,100,328
: 3,108,357
: 3,114,191
: 3,114,192
77 : 3,114,959
78 : 3,078,543
: 3,081,514
: 3,081,515
: 3,081,516
: 3,081,517
: 3,089,218
: 3,090,103
: 3,096,563
: 3,098,281
79 : 3,074,144
: 3,075,275
: 3,077,657
: 3,085,309
: 3,086,276
: 3,097,413
80 : Re.25,429
: 3,070,871
: 3,073,004
: 3,081,518
: 3,091,018
: 3,091,019
81 : 3,081,519
: 3,092,890
: 3,103,732
: 3,115,437
82 : 3,073,005
: 3,078,544
: 3,084,414
: 3,088,188
: 3,092,891
: 3,092,892
: 3,093,881
: 3,097,414
: 3,097,415
: 3,099,067

Class 29

1.1 : 3,071,840
.1 : 3,112,553
22 : 3,106,008
2 : 3,095,633
15 : 3,106,009
17 : 3,114,193
3 : 3,087,227
10 : 3,099,068
11 : 3,106,010
14 : 3,083,440
20 : 3,091,020
21 : 3,075,276
: 3,083,442
: 3,091,021
: 3,104,453
.1 : 3,110,079
25.13 : 3,077,022
.19 : 3,079,666
.19 : 3,081,520
.19 : 3,081,521
.19 : 3,087,228
.19 : 3,104,451
.17 : 3,110,081
.17 : 3,113,370
.35 : 3,071,841
.3 : 3,073,006
.3 : 3,074,145
.3 : 3,074,146
.3 : 3,076,253
.3 : 3,083,441
.3 : 3,085,310
.3 : 3,089,219
.3 : 3,092,893
.3 : 3,093,882
.3 : 3,094,764
.3 : 3,094,765
.3 : 3,094,766
.31 : 3,100,329
.3 : 3,100,927
.3 : 3,101,523
.3 : 3,103,733
.3 : 3,106,764
.3 : 3,108,359
.3 : 3,109,221
.3 : 3,110,080
.35 : 3,111,741
.3 : 3,112,554
.3 : 3,115,694
.42 : 3,071,842
.42 : 3,073,007
.42 : 3,073,008
.42 : 3,084,415
.42 : 3,087,229
.42 : 3,089,220
.42 : 3,091,835
.42 : 3,093,883
.41 : 3,099,069
.42 : 3,103,734
26 : 3,074,147
: 3,099,873
27 : 3,103,058
: 3,110,082
33 : 3,073,009
: 3,073,010
: 3,077,023
: 3,078,545
: 3,080,638
: 3,085,311
: 3,091,836
: 3,094,767
: 3,102,324
: 3,103,735
: 3,110,083
: 3,115,695
37 : 3,081,522
38 : 3,081,523
39 : 3,112,555
42 : 3,075,277
: 3,113,371
57 : 3,096,564
76 : 3,079,667
: 3,079,668
78 : 3,077,024
: 3,079,669
: 3,086,277
: 3,098,282
79 : 3,074,148
: 3,082,506
: 3,102,325
: 3,102,508
: 3,102,509
: 3,102,510
90 : 3,076,254
: 3,086,278
: 3,093,884
: 3,094,768
: 3,099,070
95 : 3,078,546
: 3,079,670
: 3,109,222
: 3,110,952
1 : 3,099,071
96 : Re.25,461
: 3,079,671
: 3,084,416
: 3,087,230
: 3,090,104
: 3,097,417
: 3,098,283
: 3,102,326
: 3,103,736
: 3,104,452
: 3,113,372
97 : 3,078,547
103 : 3,106,765
: 3,106,766
105 : 3,077,025
: 3,083,442
: 3,091,021
: 3,104,453
: 3,106,011
: 3,107,413
: 3,110,084
113 : 3,070,872
: 3,095,634
: 3,098,284
116 : 3,094,769
: 3,094,770
: 3,094,771
: 3,099,072
: 3,102,327
119 : 3,106,767
121 : 3,100,928
123 : 3,086,279
124 : 3,090,105
125 : 3,088,189
: 3,111,742
132 : 3,087,231
: 3,090,106
: 3,092,895
148.3 : 3,091,837
.4 : 3,075,278
.4 : 3,078,548
.4 : 3,080,639
.4 : 3,088,190
.4 : 3,089,221
.4 : 3,098,285
.4 : 3,099,073
.4 : 3,103,059
.4 : 3,109,223
.4 : 3,110,953
.4 : 3,114,960
149.5 : 3,075,279
.5 : 3,084,417
.5 : 3,085,312
.5 : 3,093,885
.5 : 3,096,565
.5 : 3,098,286
.5 : 3,109,224
.5 : 3,110,085
.5 : 3,111,743
.5 : 3,115,696
155 : 3,093,886
: 3,104,454
: 3,110,086
: 3,113,373
156.4 : 3,076,257
.4 : 3,094,773
156.4 : 3,096,569
.5 : 3,093,890
.5 : 3,093,891
.6 : 3,100,929
.7 : 3,082,512
.7 : 3,090,108
.8 : 3,074,151
.8 : 3,077,028
.8 : 3,080,643
.8 : 3,083,446
.8 : 3,088,192
.8 : 3,095,637
.8 : 3,096,570
.8 : 3,097,420
.8 : 3,107,416
.8 : 3,112,557
.8 : 3,114,961
157 : 3,070,874
: 3,104,456
.1 : 3,077,029
.1 : 3,079,675
.1 : 3,087,232
.1 : 3,089,224
1 : 3,093,892
.1 : 3,103,739
.1 : 3,107,417
.3 : 3,073,012
.3 : 3,083,447
.3 : 3,086,283
.3 : 3,088,193
.3 : 3,089,225
.3 : 3,089,226
.3 : 3,092,898
.3 : 3,098,290
.3 : 3,100,332
.3 : 3,100,930
.3 : 3,108,361
.3 : 3,110,090
.3 : 3,111,747
.3 : 3,112,558
.3 : 3,112,559
.4 : 3,078,551
.4 : 3,108,362
159 : 3,080,644
.2 : 3,100,333
160 : 3,096,571
.6 : 3,088,194
.6 : 3,109,229
163.5 : 3,101,526
.5 : 3,105,289
168 : 3,073,013
180 : 3,071,847
182 : 3,078,552
: 3,087,233
: 3,089,227
: 3,115,698
.2 : 3,114,197
.3 : 3,074,152
.3 : 3,074,153
.5 : 3,078,553
.5 : 3,081,529
.5 : 3,087,234
.5 : 3,097,421
.5 : 3,101,527
.5 : 3,105,290
.5 : 3,110,091
.5 : 3,110,092
183 : 3,115,395
: 3,116,120
.5 : 3,073,015
.5 : 3,084,421
.5 : 3,085,317
.5 : 3,085,318
.5 : 3,086,284
.5 : 3,097,422
.5 : 3,098,723
.5 : 3,099,539
.5 : 3,112,185
.5 : 3,113,845
187 : 3,092,470
: 3,100,142
: 3,116,121
190 : 3,104,161
191.2 : 3,085,319
.2 : 3,091,022
.2 : 3,109,716
.6 : 3,095,283
.6 : 3,113,001
194 : 3,070,875
: 3,078,554
: 3,079,676
: 3,081,530
: 3,085,320
: 3,089,228
195 : 3,097,931
: 3,097,932
: 3,098,724
: 3,107,159
: 3,110,571
: 3,113,002
195 : 3,113,846
: 3,114,612
.5 : 3,102,793
196.1 : 3,079,677
.3 : 3,088,196
.4 : 3,074,154
.5 : 3,078,555
.6 : 3,108,861
197 : 3,077,659
: 3,096,160
.5 : 3,093,459
198 : 3,083,448
199 : 3,086,285
200 : 3,088,197
: 3,092,900
: 3,093,893
: 3,103,062
: 3,114,198
: 3,114,962
201 : 3,079,678
: 3,090,109
202 : 3,095,638
: 3,095,639
: 3,102,330
: 3,114,963
203 : 3,081,531
: 3,082,513
: 3,084,422
: 3,085,321
: 3,090,110
: 3,094,774
: 3,095,640
: 3,098,289
: 3,098,291
: 3,100,931
: 3,102,331
: 3,104,457
: 3,109,230
405 : 3,099,878
: 3,108,366
407 : 3,077,030
: 3,087,238
: 3,090,112
: 3,096,575
: 3,097,423
408 : 3,078,558
410 : 3,089,231
: 3,091,024
: 3,114,967
411 : 3,091,025
: 3,095,641
: 3,109,231
412 : 3,098,292
413 : 3,078,559
: 3,109,232
416 : 3,085,323
: 3,085,324
: 3,085,324
: 3,110,096
417 : Re.25,424
418 : 3,084,426
419 : 3,070,878
: 3,084,427
: 3,091,026
: 3,095,642
420 : 3,099,080
: 3,112,561
421 : 3,073,018
: 3,077,031
: 3,088,200
: 3,090,113
: 3,096,576
: 3,110,097
: 3,114,968
422 : 3,082,515
423 : 3,070,879
: 3,078,560
: 3,082,516
: 3,089,232
: 3,099,081
: 3,110,098
424 : 3,082,517
: 3,114,201
426 : 3,110,099
427 : 3,082,518
: 3,109,233
429 : 3,106,772
430 : 3,108,367
: 3,112,562
432 : 3,079,680
: 3,091,842
: 3,091,843
: 3,108,368
: 3,112,563
436 : 3,099,879
437 : 3,091,844
447 : 3,082,519
: 3,090,114
: 3,105,292
450 : 3,071,850
: 3,090,115
: 3,093,896
: 3,104,463
: 3,114,969
451 : 3,071,851
452 : 3,078,561

Class 29 – Con.

453 : 3,115,701
459 : 3,089,233
460 : 3,073,019
: 3,095,643
: 3,097,424
462 : 3,084,428
469 : 3,074,157
: 3,101,530
470 : 3,071,852
.1 : 3,090,116
.1 : 3,100,933
.1 : 3,106,013
.1 : 3,109,234
.5 : 3,112,564
9 : 3,077,661
9 : 3,100,337
9 : 3,106,014
9 : 3,112,565
9 : 3,114,202
471.1 : 3,070,880
.1 : 3,071,853
.1 : 3,082,520
1 : 3,087,239
1 : 3,091,845
1 : 3,096,775
1 : 3,103,066
1 : 3,106,015
1 : 3,107,421
.1 : 3,110,961
1 : 3,113,376
.5 : 3,091,846
.5 : 3,091,847
.7 : 3,091,848
.9 : 3,088,201
472.5 : 3,103,741
.7 : 3,091,027
.9 : 3,091,849
473.1 : 3,071,854
.1 : 3,077,032
.1 : 3,078,562
.1 : 3,089,234
.1 : 3,091,028
.1 : 3,100,338
.1 : 3,100,339
.1 : 3,103,067
.1 : 3,110,100
.3 : 3,096,577
474.4 : 3,101,531
.4 : 3,105,293
476.5 : 3,076,260
480 : 3,071,855
482 : 3,103,742
483 : 3,101,532
487 : 3,083,451
: 3,083,452
: 3,106,773
: 3,110,101
488 : 3,105,294
: 3,108,369
490 : 3,110,102
491 : 3,076,261
: 3,110,103
492 : 3,097,425
: 3,107,422
493 : 3,085,325
494 : 3,078,563
: 3,080,648
: 3,081,534
: 3,090,117
495 : 3,074,158
: 3,081,535
: 3,081,536
496 : 3,091,029
497 : 3,082,521
: 3,082,522
.5 : 3,115,702
498 : 3,078,564
: 3,106,016
505 : 3,105,295
509 : 3,081,537
517 : 3,076,262
520 : 3,074,159
: 3,084,429
: 3,092,901
: 3,100,340
523 : 3,099,082
: 3,103,068
: 3,113,377
525 : 3,079,681
: 3,113,378
527 : 3,089,235
: 3,090,118
: 3,091,030
: 3,095,644
: 3,096,578
: 3,099,083
: 3,114,970
528 : 3,070,881
: 3,083,453
: 3,087,240
: 3,098,293
528 : 3,098,294
: 3,099,084
: 3,105,296
: 3,109,235
529 : 3,078,565
: 3,080,649
: 3,087,241
: 3,108,370
531 : 3,073,020
: 3,092,894
532 : 3,108,371
534 : 3,078,566
: 3,080,650
: 3,096,579
: 3,114,203
544 : 3,078,567
: 3,099,880
547 : 3,093,897
: 3,115,703
548 : 3,073,021
: 3,102,334
552 : 3,101,533
553 : 3,073,022
: 3,079,682
: 3,101,534
556 : 3,083,454
564 : 3,087,242
566 : 3,073,023
: 3,104,464
: 3,113,379
: 3,114,971
: 3,115,704
567 : 3,088,202
: 3,097,426
568 : 3,073,024

Class 30

1 : 3,077,033
2 : 3,092,903
4 : 3,075,285
: 3,078,568
: 3,079,683
: 3,081,538
: 3,097,427
: 3,100,341
: 3,110,962
: 3,114,972
6.1 : 3,074,160
.1 : 3,081,539
.1 : 3,085,326
.1 : 3,096,580
.3 : 3,077,662
.4 : 3,105,297
9 : 3,083,455
11 : 3,085,327
15 : 3,108,372
.5 : 3,094,776
16 : 3,070,882
23 : 3,088,203
24 : 3,086,286
28 : 3,088,204
: 3,093,898
29.5 : 3,085,328
.5 : 3,101,535
32 : 3,070,883
: 3,078,569
: 3,106,017
: 3,106,774
34 : 3,077,663
: 3,079,684
: 3,088,205
: 3,103,741
: 3,111,753
36 : 3,101,536
40 : 3,114,204
41 : 3,078,570
: 3,081,540
: 3,089,236
: 3,090,119
: 3,103,744
: 3,111,754
43 : 3,070,884
: 3,074,161
: 3,078,571
: 3,081,541
: 3,091,850
: 3,092,904
: 3,092,905
: 3,093,899
: 3,098,295
: 3,101,537
: 3,105,298
: 3,106,775
: 3,111,755
45 : 3,093,900
55 : 3,084,430
60.5 : 3,088,206
61 : 3,080,651
63 : 3,095,645
: 3,111,756
72 : 3,079,685
90 : 3,107,423
90 : 3,109,236
: 3,111,757
.5 : 3,107,424
.5 : 3,108,373
91 : 3,089,237
: 3,091,031
: 3,092,906
95 : 3,098,296
102 : 3,070,885
: 3,082,523
: 3,097,428
: 3,100,934
: 3,106,776
121 : 3,086,287
123.3 : 3,085,329
.3 : 3,107,425
124 : 3,099,085
: 3,103,099
130 : 3,089,238
: 3,108,374
131 : 3,101,538
132 : 3,073,025
133 : 3,073,026
142 : 3,074,162
: 3,089,239
162 : 3,079,686
: 3,107,426
164.9 : 3,084,431
.95 : 3,106,018
165 : 3,090,120
: 3,101,539
167 : 3,091,851
168 : 3,097,429
: 3,106,019
169 : 3,087,243
172 : 3,091,852
180 : 3,074,163
188 : 3,084,432
193 : 3,074,164
200 : 3,100,342
201 : 3,093,901
202 : 3,094,777
210 : 3,079,687
: 3,083,456
212 : 3,099,086
213 : 3,089,240
216 : 3,073,027
: 3,083,457
223 : 3,093,902
226 : 3,089,241
228 : 3,074,165
229 : 3,091,853
232 : 3,100,343
248 : 3,110,963
251 : 3,090,121
254 : 3,084,433
261 : 3,096,581
272 : 3,086,288
273 : 3,097,430
276 : 3,077,664
283 : 3,080,652
: 3,091,854
: 3,095,646
: 3,103,745
: 3,110,964
293 : 3,085,330
: 3,110,104
294 : 3,079,688
: 3,100,935
: 3,102,335
295 : 3,108,375
317 : 3,076,263
: 3,080,653
322 : 3,083,458
330 : 3,073,028
: 3,084,434
333 : 3,078,572
334 : 3,085,331
336 : 3,106,020
339 : 3,077,034
: 3,085,332
342 : 3,114,973
346 : 3,071,856
: 3,079,689
347 : 3,078,573
: 3,082,524
351 : 3,071,857
: 3,071,858
354 : 3,109,237
358 : 3,078,574
359 : 3,091,855
360 : 3,105,299
361 : 3,073,029
362 : 3,099,087

Class 31

10 : 3,113,380
14 : 3,075,286
23 : 3,096,582
25 : 3,096,583
42 : 3,071,859
: 3,101,540
44 : 3,098,297
45 : 3,095,647
46 : 3,071,860
: 3,085,333
48 : 3,102,336
89 : 3,079,241

Class 32

1 : 3,084,435
2 : 3,082,525
: 3,083,459
: 3,083,460
: 3,084,436
: 3,085,334
: 3,104,465
: 3,105,300
5 : 3,076,264
: 3,089,242
: 3,094,778
6 : 3,083,461
: 3,091,032
12 : 3,102,337
14 : 3,075,287
: 3,076,265
: 3,084,437
: 3,085,335
: 3,085,336
: 3,087,244
: 3,087,245
: 3,091,856
: 3,091,857
: 3,092,907
: 3,093,900
: 3,096,584
: 3,110,105
: 3,111,758
15 : 3,082,526
: 3,107,427
17 : 3,082,527
: 3,107,428
19 : 3,074,166
: 3,085,337
: 3,098,298
20 : 3,084,438
22 : 3,077,665
: 3,078,575
: 3,081,542
: 3,085,338
: 3,111,759
23 : 3,076,266
25 : 3,083,462
: 3,106,777
26 : 3,076,267
27 : 3,071,861
: 3,074,167
: 3,078,576
: 3,082,528
: 3,084,439
: 3,092,908
: 3,094,779
: 3,098,299
: 3,101,541
: 3,101,542
: 3,109,238
28 : 3,094,780
: 3,106,021
32 : 3,073,030
: 3,074,168
: 3,078,577
: 3,092,909
: 3,097,431
: 3,107,429
33 : 3,078,578
: 3,078,579
: 3,084,440
: 3,086,289
: 3,090,122
: 3,091,858
: 3,091,859
: 3,101,543
: 3,101,544
: 3,101,545
40 : 3,079,690
: 3,080,654
: 3,095,648
: 3,096,585
: 3,108,376
46 : 3,073,031
48 : 3,083,463
: 3,101,546
56 : 3,082,529
58 : 3,075,288
: 3,091,033
59 : 3,082,530
60 : 3,088,207
: 3,091,860
63 : 3,074,169
: 3,081,543
: 3,082,531
: 3,099,088
: 3,105,301
: 3,108,377
66 : 3,085,339
67 : 3,078,580
: 3,109,344
69 : 3,091,034
: 3,092,910
: 3,102,338
71 : 3,111,760

Class 33

1 : 3,074,170
: 3,077,666
: 3,080,655
: 3,081,544
: 3,083,464
: 3,087,246
: 3,087,247
: 3,089,243
: 3,094,781
: 3,098,300
: 3,099,089
: 3,100,345
: 3,101,547
: 3,106,778
: 3,108,378
: 3,109,239
: 3,110,106
: 3,110,965
: 3,113,381
2 : 3,088,208
: 3,089,244
3 : 3,098,301
8 : 3,094,782
11 : 3,085,340
12 : 3,083,465
: 3,095,649
15 : 3,091,861
19 : 3,108,379
20 : 3,088,209
21 : 3,100,346
: 3,110,107
23 : 3,101,548
: 3,114,205
24 : 3,094,783
25 : 3,103,746
: 3,110,966
26 : 3,094,784
: 3,096,586
27 : 3,074,171
: 3,081,545
: 3,082,533
: 3,089,245
: 3,089,246
: 3,103,070
: 3,104,466
: 3,111,761
28 : 3,105,302
30 : 3,084,441
: 3,085,341
: 3,114,974
32 : 3,082,534
: 3,094,785
: 3,108,380
: 3,108,381
34 : 3,087,248
41 : 3,086,290
42 : 3,113,382
46 : 3,074,172
: 3,081,546
: 3,084,442
: 3,091,862
: 3,092,911
: 3,095,650
: 3,098,302
: 3,099,090
47 : 3,070,886
: 3,091,863
: 3,112,566
49 : 3,091,035
50 : 3,094,786
: 3,097,432
: 3,101,549
52 : 3,090,123
: 3,098,303
58 : 3,100,936
60 : 3,080,656
61 : 3,090,124
62 : 3,099,881
: 3,110,108
64 : 3,073,032
: 3,096,587
: 3,111,762
69 : 3,093,904
72 : 3,084,443
74 : 3,077,035
: 3,105,303
: 3,110,109
: 3,112,567
75 : 3,070,887
: 3,077,667
: 3,079,691
: 3,085,342
: 3,093,905
75 : 3,093,906
: 3,104,467
: 3,115,705
76 : 3,074,173
: 3,088,210
: 3,091,864
77 : 3,107,430
: 3,109,240
79 : 3,083,466
: 3,091,036
: 3,111,763
: 3,115,706
80 : 3,082,535
: 3,085,343
: 3,085,344
: 3,086,291
: 3,106,783
81 : 3,077,668
85 : 3,091,865
: 3,093,907
: 3,096,588
: 3,102,339
: 3,104,468
: 3,111,764
: 3,113,383
: 3,114,975
86 : 3,074,174
87 : 3,078,581
: 3,099,091
91 : 3,082,532
: 3,087,249
92 : 3,112,568
93 : 3,115,707
94 : 3,080,657
97 : 3,104,469
98 : 3,109,241
102 : 3,084,444
: 3,102,340
107 : 3,087,250
108 : 3,111,765
112 : 3,080,658
: 3,103,071
121 : 3,075,289
122 : 3,110,967
125 : 3,070,888
: 3,074,175
126.4 : 3,091,037
.5 : 3,081,547
.6 : 3,100,347
.7 : 3,102,341
129 : 3,091,038
: 3,107,431
137 : 3,070,889
: 3,077,669
: 3,100,937
138 : 3,087,251
143 : 3,076,268
: 3,090,125
180 : 3,070,892
: 3,103,072
: 3,107,432
: 3,107,433
: 3,113,384
: 3,114,976
: 3,115,708
147 : 3,086,292
: 3,092,912
: 3,104,470
: 3,110,968
149 : 3,081,548
: 3,090,126
181 : 3,097,434
: 3,100,938
: 3,110,110
: 3,114,977
: 3,115,709
154 : 3,098,304
: 3,110,111
158 : 3,095,651
161 : 3,094,787
164 : 3,100,348
: 3,101,551
166 : 3,092,913
167 : 3,088,211
: 3,091,866
: 3,111,766
: 3,114,206
168 : 3,079,692
169 : 3,075,290
: 3,092,914
: 3,102,342
: 3,113,385
170 : 3,078,582
: 3,106,022
: 3,106,023
172 : 3,079,693
: 3,083,467
: 3,093,908
: 3,102,343
: 3,113,386
: 3,115,710
174 : 3,070,890
174 : 3,073,033
: 3,073,034
: 3,075,291
: 3,078,583
: 3,078,584
: 3,080,659
: 3,081,549
: 3,081,550
: 3,082,537
: 3,084,445
: 3,085,345
: 3,086,293
: 3,089,247
: 3,089,248
: 3,090,127
: 3,094,788
: 3,098,305
: 3,099,092
: 3,099,093
: 3,100,939
: 3,101,552
: 3,102,344
: 3,103,747
: 3,104,471
: 3,106,779
: 3,106,780
: 3,106,781
: 3,106,782
: 3,109,242
: 3,109,243
: 3,110,112
: 3,111,767
: 3,114,207
: 3,114,978
: 3,115,711
177 : 3,107,434
178 : 3,070,891
: 3,074,176
: 3,075,292
: 3,075,293
: 3,077,670
: 3,093,909
: 3,096,589
: 3,097,433
: 3,100,349
: 3,100,941
: 3,105,305
: 3,104,472
: 3,111,768
179.5 : 3,071,862
.5 : 3,077,671
.5 : 3,086,294
.5 : 3,089,249
.5 : 3,090,128
.5 : 3,095,652
.5 : 3,096,590
.5 : 3,099,882
.12 : 3,079,695
.15 : 3,088,214
.18 : 3,088,215
.18 : 3,101,553

204 : 3,079,696
205.5 : 3,087,252
.5 : 3,100,350
206 : 3,079,697
: 3,096,591
: 3,114,209
207 : 3,103,749
: 3,106,024
: 3,110,114
208 : 3,104,477
211 : 3,088,216
212 : 3,101,554
214 : 3,105,306
: 3,110,115
215 : 3,070,895
: 3,081,552
: 3,083,469
: 3,092,916
216 : 3,113,387
222 : 3,082,539
: 3,088,217
: 3,106,025
223 : 3,079,698
226 : 3,077,672
: 3,098,306
: 3,099,094

Class 34

1 : 3,083,470
: 3,093,460
: 3,096,161
: 3,099,540
: 3,111,898
2 : 3,081,553
5 : 3,077,036
: 3,078,586
7 : 3,088,218
9 : 3,100,143
10 : 3,085,346
: 3,087,253
: 3,092,471
: 3,102,794
: 3,112,186
13 : 3,077,673
: 3,079,699
: 3,094,396
: 3,098,725
: 3,104,953
15 : 3,088,219
: 3,116,122
16 : 3,087,254
17 : 3,088,220
18 : 3,099,541
20 : 3,110,572
23 : Re.25,358
: 3,102,006
: 3,106,460
26 : 3,070,896
30 : 3,110,573
32 : 3,095,284
33 : 3,098,162
: 3,102,795
37 : 3,089,250
39 : 3,110,574
41 : 3,079,700
: 3,097,933
43 : 3,096,163
44 : 3,081,554
45 : 3,071,864
: 3,075,295
: 3,088,221
: 3,096,164
: 3,100,144
: 3,109,717
: 3,112,187
: 3,116,123
46 : 3,070,897
48 : 3,078,587
: 3,082,540
: 3,099,542
: 3,100,145
: 3,102,007
: 3,114,613
49 : 3,085,347
50 : 3,090,130
52 : 3,083,471
53 : 3,077,674
54 : 3,113,003
55 : 3,097,934
56 : 3,092,472
57 : 3,073,036
: 3,078,588
: 3,079,701
: 3,083,472
: 3,089,251
58 : 3,103,420
59 : 3,111,399
62 : 3,071,865
: 3,082,541
63 : 3,076,269
68 : 3,113,847
73 : 3,071,866
75 : 3,075,296
: 3,102,796
77 : 3,078,589
: 3,109,718
: 3,112,188
79 : 3,081,555
: 3,085,348
: 3,102,008
80 : 3,071,867
85 : 3,104,954
86 : 3,079,702
87 : 3,070,898
: 3,079,703
: 3,085,349
89 : 3,085,350
91 : 3,088,222
92 : 3,097,077
93 : 3,070,899
95 : 3,113,004
99 : 3,073,037
: 3,084,446
: 3,108,862
: 3,113,848
102 : 3,078,590
104 : 3,078,591
105 : 3,071,868
110 : 3,073,038
111 : 3,110,575
114 : 3,071,869
: 3,089,252
115 : 3,077,037
: 3,081,556
: 3,084,447
: 3,088,223
122 : 3,077,675
: 3,078,592
: 3,116,124
123 : 3,071,870
124 : 3,099,543
128 : 3,076,270
: 3,094,397
133 : 3,098,726
144 : 3,110,576
150 : 3,071,871
: 3,075,297
: 3,079,704
155 : 3,084,448
: 3,097,078
: 3,108,863
156 : 3,070,900
: 3,070,901
: 3,070,902
159 : 3,074,178
: 3,084,449
: 3,088,224
: 3,102,009
160 : 3,074,179
164 : 3,084,450
: 3,089,253
: 3,092,473
166 : 3,075,298
167 : 3,087,255
168 : 3,104,955
170 : 3,084,451
171 : 3,090,131
173 : 3,082,542
174 : 3,079,705
: 3,090,132
: 3,090,133
: 3,107,160
183 : 3,096,165
187 : 3,084,452
191 : 3,082,543
202 : 3,075,299
207 : 3,089,254
212 : 3,094,398
213 : 3,074,180
218 : 3,115,396
229 : 3,085,351
231 : 3,073,039
236 : 3,107,984
238 : 3,085,352
: 3,103,421
: 3,103,422
242 : 3,090,134

Class 35

2 : 3,084,453
: 3,108,383
5 : 3,093,911
: 3,112,569
6 : 3,080,661
: 3,100,351
: 3,114,210
7 : 3,074,181
8 : 3,070,903
: 3,071,872
: 3,078,593
: 3,082,544
: 3,093,912
: 3,097,435
: 3,100,942
9 : 3,070,904
: 3,077,038
: 3,082,545
: 3,085,353
: 3,087,256
: 3,089,255
: 3,093,913
: 3,095,653
: 3,096,592
: 3,100,352
: 3,103,073
: 3,103,750
: 3,105,307
: 3,108,026
: 3,108,027
: 3,105,784
: 3,107,435
: 3,107,436
: 3,111,774
: 3,111,775
: 3,111,776
10 : 3,082,546
: 3,094,789
.2 : 3,071,873
.2 : 3,092,683
.2 : 3,114,788
.4 : 3,077,039
.4 : 3,082,547
.4 : 3,090,135
.4 : 3,090,136
.4 : 3,091,040
.4 : 3,092,684
.4 : 3,096,387
.4 : 3,100,238
.4 : 3,109,046
.4 : 3,113,170
.4 : 3,113,989
.4 : 3,115,535
11 : 3,071,874
: 3,107,437
: 3,108,384
12 : Re.25,325
: 3,071,875
: 3,073,040
: 3,075,300
: 3,076,271
: 3,078,594
: 3,078,595
: 3,081,557
: 3,083,473
: 3,084,454
: 3,085,355
: 3,085,356
: 3,085,357
: 3,097,437
: 3,109,244
16 : 3,083,475
: 3,091,870
: 3,095,655
: 3,100,943
31 : 3,085,358
: 3,087,258
: 3,094,792
33 : 3,076,272
: 3,092,917
36 : 3,073,041
: 3,075,303
: 3,077,677
: 3,081,560
: 3,086,297
: 3,087,259
: 3,089,258
: 3,090,137
: 3,093,914
: 3,098,307
: 3,101,556
: 3,103,074
: 3,105,310
: 3,110,116
: 3,114,980
41 : 3,078,598
: 3,086,298
43 : 3,092,918
45 : 3,074,183
: 3,088,228
: 3,089,259
: 3,107,441
46 : 3,077,040
: 3,086,299
: 3,096,593
: 3,100,353
48 : 3,086,300
: 3,089,260
: 3,093,915
: 3,099,095
49 : 3,100,944
50 : 3,106,788
53 : 3,080,664
54 : 3,084,456
59 : 3,070,906
: 3,101,557
60 : 3,088,229
: 3,106,789
61 : 3,103,751
63 : 3,107,442
66 : Re.25,363
: 3,084,457
69 : 3,075,304
73 : 3,077,041
74 : 3,101,558
: 3,114,212

Class 36

1 : 3,077,678
: 3,084,458
: 3,097,438
2.5 : 3,074,184
.5 : 3,075,305
.5 : 3,081,561
.5 : 3,082,548
.5 : 3,082,549
.5 : 3,086,301
.5 : 3,091,042
.5 : 3,095,656
.5 : 3,099,884
.5 : 3,107,443
.5 : 3,109,245
.5 : 3,110,117
.5 : 3,114,981
.5 : 3,114,982
4.5 : Re.25,472
7.1 : 3,084,459
.2 : 3,087,260
.3 : 3,075,306
.3 : 3,077,679
.6 : 3,095,657
.7 : 3,075,307
.7 : 3,076,273
.7 : 3,082,550
8.3 : 3,070,907
.3 : 3,081,562
.3 : 3,091,043
9 : 3,093,916
: 3,106,790
11.5 : 3,070,908
14 : 3,070,909
: 3,074,185
: 3,082,551
: 3,098,308
15 : 3,073,042
: 3,083,476
17 : 3,075,308
24.5 : 3,099,096
25 : 3,100,354
28 : 3,079,707
: 3,079,708
: 3,083,477
: 3,087,261
: 3,087,262
34 : 3,074,186
: 3,086,302
: 3,087,263
34 : 3,106,791
135 : 3,109,246
35 : 3,087,264
: 3,087,265
36 : 3,077,680
: 3,083,478
: 3,094,793
39 : 3,085,359
42 : 3,074,187
: 3,078,599
: 3,079,709
: 3,109,247
44 : 3,071,877
: 3,095,658
48 : 3,114,213
49 : 3,081,563
50 : 3,078,600
: 3,108,385
51 : 3,084,460
54 : 3,076,274
59 : 3,099,885
: 3,110,971
68 : 3,082,552
70 : 3,102,346
: 3,112,571
72 : 3,073,043
: 3,082,553
: 3,091,871
: 3,095,659
: 3,101,559
: 3,102,347
: 3,104,479
: 3,108,386
76 : 3,091,872
: 3,103,075
78 : 3,078,601
.5 : 3,113,388

Class 37

2 : 3,078,602
: 3,081,564
: 3,090,138
: 3,103,076
: 3,111,777
4 : 3,092,919
: 3,094,794
: 3,105,311
8 : 3,090,139
12 : 3,106,792
19 : 3,099,097
42 : 3,086,303
: 3,087,266
: 3,098,309
43 : 3,074,188
: 3,074,189
: 3,078,603
: 3,081,565
: 3,086,304
: 3,095,660
: 3,115,714
45 : 3,103,077
: 3,115,715
47 : 3,105,312
53 : 3,078,604
: 3,088,230
58 : 3,111,778
67 : 3,094,795
73 : 3,086,305
80 : 3,107,444
86 : 3,099,098
90 : 3,108,387
91 : 3,077,042
97 : 3,081,566
104 : 3,080,665
108 : 3,088,231
110 : 3,111,779
117.5 : 3,092,920
.5 : 3,097,439
.5 : 3,104,480
.5 : 3,109,248
118 : 3,076,275
: 3,089,261
: 3,102,348
: 3,107,445
119 : 3,084,309
: 3,113,389
123 : 3,082,554
126 : 3,083,479
: 3,100,355
: 3,108,388
: 3,110,972
129 : 3,073,044
: 3,073,045
: 3,077,681
: 3,089,262
: 3,092,921
: 3,097,440
: 3,097,441
: 3,100,945
: 3,109,249
: 3,110,118
: 3,115,716
130 : 3,107,446
135 : 3,112,572
141 : 3,088,232
: 3,093,917
: 3,103,752
142 : 3,079,710
: 3,082,555
: 3,089,263
: 3,091,044
: 3,113,390
143 : 3,077,682
: 3,089,264
: 3,090,140
: 3,091,873
: 3,106,793
144 : 3,083,480
: 3,084,461
145 : 3,074,190
: 3,112,573
152 : 3,081,567
156 : 3,094,796
176 : 3,110,973
: 3,113,391
180 : 3,080,666
: 3,090,141
: 3,092,922
: 3,103,078
187 : 3,103,753
190 : 3,091,874
191 : 3,104,481
192 : 3,103,754
195 : 3,074,191
: 3,102,349

Class 38

2 : Re.25,370
: 3,083,481
: 3,110,974
10 : 3,107,447
12 : 3,080,667
: 3,101,560
15 : 3,071,878
22 : Re.25,357
: 3,094,797
34 : 3,088,233
36 : 3,084,462
66 : 3,097,442
: 3,099,886
: 3,105,313
: 3,112,574
: 3,115,717
69 : 3,089,265
71 : 3,070,910
77 : 3,071,879
: 3,075,309
: 3,078,605
: 3,101,561
126 : 3,093,918
128 : 3,089,268
: 3,102,353
: 3,111,782
129 : 3,075,311
130 : 3,070,913
: 3,073,051
: 3,076,277
: 3,076,278
: 3,086,308
: 3,104,484
: 3,115,719
131 : 3,109,252
132 : 3,084,463
135 : 3,096,596
: 3,106,032
137 : 3,082,560
140 : 3,077,687
: 3,081,569
142 : 3,081,570
: 3,084,464
: 3,093,919
143 : 3,089,269
152 : 3,073,052
: 3,083,489
: 3,090,145
: 3,097,443
.1 : 3,078,608
.1 : 3,080,670
155 : 3,105,316
156 : 3,070,914
: 3,095,661
158 : 3,070,915
: 3,071,881
: 3,076,279
: 3,077,688
: 3,089,270
: 3,090,146
: 3,091,047
: 3,103,756
159 : 3,079,715
213 : 3,089,271
: 3,114,214
307 : 3,079,716
308 : 3,077,689
: 3,088,236
28.1 : 3,083,485
.6 : 3,111,781
31 : 3,109,250
33 : 3,078,606
: 3,094,800
36 : 3,079,712
: 3,080,668
37 : 3,088,235
39 : 3,073,047
: 3,090,142
52 : 3,077,685
: 3,080,669
: 3,086,306
62 : 3,106,029
65 : 3,083,486
: 3,102,350
68 : 3,075,310
: 3,079,713
: 3,109,251
70 : 3,094,801
: 3,103,080
: 3,106,030
77 : 3,086,307
: 3,105,315
78 : 3,110,976
79 : Re.25,327
: 3,070,912
: 3,092,923
: 3,106,031
: 3,110,120
85 : 3,073,048
86 : 3,083,487
: 3,104,483
95 : 3,077,043
102 : 3,091,046
: 3,107,448
104 : 3,073,049
: 3,087,268
106.1 : 3,076,276
.22 : 3,078,607
.22 : 3,101,564
107 : 3,096,595
: 3,098,310
119 : 3,090,143
120 : 3,110,977
124 : 3,073,050
.1 : 3,083,488
.1 : 3,090,144
.1 : 3,091,877
.5 : 3,082,559
125 : 3,077,686
: 3,079,714
: 3,094,802
: 3,102,351
: 3,102,352
: 3,107,449
: 3,113,392
126 : 3,093,918
128 : 3,089,268
: 3,102,353
: 3,111,782
129 : 3,075,311
130 : 3,070,913
: 3,073,051
: 3,076,277
: 3,076,278
: 3,086,308
: 3,104,484
: 3,115,719
131 : 3,109,252
132 : 3,084,463
135 : 3,096,596
: 3,106,032
137 : 3,082,560
140 : 3,077,687
: 3,081,569
142 : 3,081,570
: 3,084,464
: 3,093,919
143 : 3,089,269
152 : 3,073,052
: 3,083,489
: 3,090,145
: 3,097,443
.1 : 3,078,608
.1 : 3,080,670
155 : 3,105,316
156 : 3,070,914
: 3,095,661
158 : 3,070,915
: 3,071,881
: 3,076,279
: 3,077,688
: 3,089,270
: 3,090,146
: 3,091,047
: 3,103,756
159 : 3,079,715
213 : 3,089,271
: 3,114,214
307 : 3,079,716
308 : 3,077,689
: 3,088,236

Class 39

5 : 3,089,267
6 : 3,083,483
56 : 3,099,887
74 : 3,091,045
87 : 3,079,711

Class 40

1.5 : 3,083,484
2 : 3,077,683
: 3,082,556
: 3,087,267
: 3,094,799
5 : 3,074,193
10 : 3,081,568
: 3,082,557
11 : 3,070,911
: 3,071,880
: 3,091,875
12 : 3,082,558
16 : 3,074,194
17 : 3,100,356
18 : 3,110,119
21 : 3,077,684
: 3,088,234
: 3,106,028
23 : 3,073,046
28 : 3,091,876
: 3,096,594
: 3,106,794

Class 40—Con.

308 : 3,115,720
309 : 3,086,309
312 : 3,071,882
: 3,110,121
316 : 3,088,237
329 : 3,077,690
330 : 3,093,920
: 3,113,393
334 : 3,077,691
: 3,077,692
: 3,093,921

Class 41

11 : 3,093,461
13 : 3,097,079
15 : 3,084,465
: 3,090,147
21 : 3,079,959
24 : 3,087,269
25 : 3,073,053
26 : 3,081,571
: 3,093,462
: 3,099,544
35 : 3,097,080
37 : 3,088,238
41 : 3,081,159

Class 42

1 : 3,084,466
: 3,089,272
: 3,109,253
18 : 3,094,803
: 3,098,311
22 : 3,092,924
25 : 3,077,044
: 3,090,148
: 3,090,149
: 3,103,757
41 : 3,077,045
: 3,102,354
50 : 3,087,270
: 3,110,122
54 : 3,080,671
57 : 3,079,717
: 3,080,672
62 : 3,093,922
66 : 3,085,360
69 : 3,075,312
: 3,079,718
: 3,091,878
: 3,103,758
: 3,106,033
: 3,106,795
70 : 3,086,310
71 : 3,075,313
: 3,075,314
: 3,090,150
72 : 3,100,357
76 : 3,107,450
78 : 3,100,358
.5 : 3,112,087
79 : 3,089,273
86 : 3,076,280

Class 43

3 : 3,074,195
: 3,079,719
: 3,115,721
4 : 3,098,312
.5 : 3,070,916
.5 : 3,089,274
.5 : 3,110,978
5 : 3,092,925
: 3,095,662
6 : 3,071,883
: 3,083,490
: 3,090,151
: 3,102,355
.5 : 3,091,879
.5 : 3,113,394
8 : 3,091,880
: 3,112,575
9 : 3,076,281
: 3,079,720
: 3,087,271
: 3,102,356
: 3,102,357
11 : 3,077,693
: 3,082,561
: 3,099,888
15 : 3,078,609
: 3,091,048
: 3,104,485
17 : 3,074,196
: 3,078,610
: 3,091,881
: 3,103,759
17.1 : 3,071,884
.1 : 3,073,054
.1 : 3,083,491
.5 : 3,079,721
.5 : 3,091,882
.6 : 3,077,046
18 : 3,088,239
19 : 3,084,467
: 3,111,783
.2 : 3,074,197
21.2 : 3,095,663
.2 : 3,115,722
22 : 3,074,198
: 3,080,673
: 3,098,313
: 3,102,358
23 : 3,073,055
24 : 3,099,889
25 : 3,086,311
.2 : 3,086,312
26.1 : 3,106,796
.2 : 3,085,361
.2 : 3,088,240
.2 : 3,099,099
.2 : 3,105,317
35 : 3,076,282
: 3,081,572
: 3,086,313
: 3,100,359
41 : 3,087,272
42.65 : 3,078,611
.06 : 3,079,722
.06 : 3,087,273
.08 : 3,091,883
.09 : 3,091,884
.05 : 3,096,597
.06 : 3,096,598
.02 : 3,100,360
.06 : 3,108,389
.09 : 3,108,390
.17 : 3,077,047
.15 : 3,082,562
.11 : 3,093,923
.19 : 3,095,664
.17 : 3,104,486
.14 : 3,112,576
.24 : 3,070,917
.26 : 3,079,723
.24 : 3,081,573
.28 : 3,087,274
.23 : 3,094,804
.31 : 3,091,049
.47 : 3,090,152
.52 : 3,091,885
.74 : 3,110,979
43.1 : 3,076,283
.1 : 3,076,284
.12 : 3,077,048
.12 : 3,077,694
.12 : 3,081,574
.12 : 3,081,575
.16 : 3,082,563
.13 : 3,083,492
.11 : 3,084,468
.14 : 3,084,469
.13 : 3,090,153
.16 : 3,101,565
.14 : 3,102,359
.11 : 3,104,487
.15 : 3,105,318
.11 : 3,106,034
.11 : 3,106,797
.14 : 3,111,784
44.4 : 3,105,319
.87 : 3,087,275
.88 : 3,091,050
.88 : 3,104,488
.87 : 3,107,451
.9 : 3,077,049
.91 : 3,084,470
.99 : 3,084,471
.9 : 3,096,599
.9 : 3,114,984
53.5 : 3,081,576
.5 : 3,099,100
.5 : 3,106,035
54.5 : 3,070,918
.5 : 3,075,315
.5 : 3,081,577
.5 : 3,104,489
55 : 3,078,612
: 3,084,472
56 : 3,077,695
: 3,105,320
57 : 3,092,926
.5 : 3,071,885
.5 : 3,115,723
61 : 3,113,395
67 : 3,075,316
69 : 3,085,362
79 : 3,103,081
81 : 3,100,361
83.5 : 3,114,985
85 : 3,109,254
93 : 3,106,036
100 : 3,096,600
: 3,099,890
102 : 3,082,564
112 : 3,077,050
113 : 3,108,391
129 : 3,074,199
131 : 3,094,805
: 3,105,321
146 : 3,100,362

Class 44

7 : 3,072,467
: 3,084,033
: 3,113,849
10 : 3,093,463
23 : 3,094,399
41 : 3,089,760
51 : 3,105,747
53 : 3,082,070
: 3,108,864
56 : 3,098,727
57 : 3,085,866
58 : 3,095,285
59 : 3,076,698
62 : 3,087,800
: 3,100,695
63 : 3,089,761
: 3,115,397
66 : 3,084,034
: 3,084,035
: 3,085,867
: 3,091,521
: 3,092,474
: 3,100,360
: 3,108,389
: 3,108,390
: 3,115,398
: 3,115,399
68 : 3,082,071
: 3,110,577
: 3,116,125
69 : 3,074,787
: 3,074,788
: 3,080,221
: 3,082,072
: 3,083,086
: 3,083,087
: 3,083,088
: 3,085,002
: 3,087,801
: 3,087,802
: 3,088,813
: 3,088,814
: 3,090,680
: 3,098,728
: 3,113,005
: 3,113,850
: 3,116,126
: 3,116,127
71 : 3,088,815
: 3,095,286
: 3,116,128
72 : 3,080,222
: 3,092,475
: 3,102,797
: 3,115,400
73 : 3,071,451
: 3,080,223
: 3,116,129
75 : 3,090,681
76 : 3,102,798
: 3,114,614
78 : 3,075,832
: 3,085,003
: 3,089,762
: 3,095,287
79 : 3,085,868

Class 45

47 : 3,071,891
: 3,079,720
: 3,086,315
: 3,106,039
50 : 3,086,316
51 : 3,082,571
53 : 3,070,919
59 : 3,104,495
60 : 3,076,287
: 3,093,926
61 : 3,089,277
65 : 3,083,498
: 3,108,395
66 : 3,110,125
: 3,113,986
72 : 3,081,578
74 : 3,084,475
: 3,084,476
: 3,085,363
: 3,086,317
: 3,091,052
74 : 3,109,256
: 3,113,396
77 : 3,080,676
: 3,089,278
: 3,093,927
: 3,097,445
: 3,107,452
: 3,110,126
: 3,110,127
78 : 3,074,204
: 3,111,785
79 : 3,091,889
81 : 3,084,477
82 : 3,082,572
86 : 3,109,257
87 : 3,098,317
88 : 3,071,892
: 3,073,058
90 : 3,088,242
: 3,094,807
: 3,098,396
: 3,098,397
92 : 3,077,697
: 3,089,275
: 3,095,667
: 3,101,568
: 3,104,492
137 : 3,089,276
: 3,099,103
: 3,099,891
: 3,108,393
138 : 3,083,495
: 3,083,496
: 3,090,154
: 3,096,601
: 3,099,892
: 3,103,082
: 3,105,323
139 : 3,071,887
: 3,104,493

Class 46

1 : 3,071,888
: 3,074,200
: 3,078,614
: 3,087,277
: 3,100,946
: 3,104,494
: 3,105,324
: 3,105,325
: 3,110,123
4 : 3,091,887
7 : 3,108,394
: 3,109,255
8 : 3,093,925
: 3,100,947
9 : 3,074,201
12 : 3,078,615
14 : 3,091,051
16 : 3,077,696
17 : 3,074,202
: 3,078,616
: 3,082,569
: 3,091,888
19 : 3,076,286
22 : 3,090,155
25 : 3,080,674
: 3,095,668
29 : 3,074,203
34 : 3,092,927
39 : 3,071,889
40 : 3,071,890
: 3,106,038
: 3,110,124
41 : 3,079,727
43 : 3,080,675
: 3,092,928
: 3,098,316
44 : 3,082,570
: 3,083,497
: 3,087,278
47 : 3,071,891
: 3,079,728
: 3,090,158
230 : 3,083,502
232 : 3,080,678
: 3,080,679
: 3,103,762
: 3,084,478
235 : 3,113,398
236 : 3,102,362
: 3,106,800
240 : 3,098,319
: 3,099,104
: 3,106,042
: 3,111,986
241 : 3,074,206
: 3,097,448
: 3,099,105
: 3,100,949
: 3,114,217
243 : 3,071,895
: 3,091,892
: 3,096,294
: 3,097,081
243 : 3,082,574
: 3,093,929
: 3,115,724
244 : 3,083,503
: 3,086,319
: 3,091,895
: 3,101,569
: 3,102,363
247 : 3,083,504

Class 47*

1 : 3,077,700
: 3,085,364
: 3,090,159
: 3,091,054
: 3,099,106
: 3,099,896
: 3,113,399
.1 : 3,086,320
.2 : 3,103,763
.3 : 3,104,497
.5 : 3,077,701
9 : 3,077,054
: 3,094,809
: 3,099,897
10 : 3,086,321
17 : 3,077,053
: 3,095,670
: 3,106,801
: 3,108,399
18 : 3,108,400
29 : 3,088,244
: 3,093,930
: 3,103,764
33 : 3,087,279
34 : 3,073,061
: 3,104,498
37 : 3,080,680
: 3,082,575
: 3,091,896
: 3,094,810
: 3,102,364
: 3,110,128
41 : 3,073,062
: 3,087,280
45 : 3,113,400
47 : 3,088,245
: 3,094,811
: 3,105,327
48.5 : 3,101,570
.5 : 3,109,258
55 : 3,073,063
: 3,106,802
: 3,108,401
56 : 3,080,681
: 3,098,320
: 3,098,321
57.5 : 3,074,207
58 : Re.25,638
: 3,073,064
: 3,076,291
: 3,086,322
: 3,089,280
: 3,099,107
: 3,099,898
: 3,108,402
: 3,110,129

Class 48

37 : 3,098,729
54 : 3,077,390
63 : 3,088,816
87 : 3,104,956
180 : 3,072,668
: 3,073,686
: 3,077,391
: 3,085,869
184 : 3,081,160
190 : 3,071,452
: 3,075,833
192 : 3,079,242
195 : 3,112,189
196 : 3,071,453
: 3,071,454
: 3,090,682
: 3,090,683
197 : 3,086,853
: 3,104,957
: 3,107,985
: 3,111,400
203 : 3,110,578
212 : 3,090,684
214 : 3,103,423
215 : 3,072,469
: 3,097,081
: 3,097,082
215 : 3,097,935
216 : 3,090,685

Class 50

1 : 3,103,083
4 : 3,098,322
5 : 3,077,055
: 3,080,682
9 : 3,091,055
13 : 3,106,044
14 : 3,090,160
16 : 3,085,365
: 3,086,323
: 3,111,786
45 : 3,090,161
48 : 3,091,056
: 3,102,365
51 : 3,100,950
52 : 3,077,702
: 3,085,366
: 3,090,162
: 3,092,932
: 3,094,812
55 : 3,070,923
58 : 3,084,479
: 3,115,725
61 : 3,081,579
: 3,089,281
64 : 3,082,576
: 3,113,434
66 : 3,086,324
: 3,093,931
: 3,100,951
71 : 3,078,621
: 3,099,108
73 : 3,089,282
79 : 3,115,726
80 : 3,073,065
: 3,089,283
83 : 3,073,066
: 3,093,932
: 3,111,787
92 : 3,076,292
100 : 3,106,045
: 3,108,403
101 : 3,086,325
102 : 3,110,981
103 : 3,080,683
: 3,108,404
115 : 3,097,449
122 : 3,086,326
126 : 3,076,293
: 3,084,480
127 : 3,074,208
: 3,093,933
128 : 3,099,109
: 3,109,259
: 3,115,727
: 3,115,728
: 3,116,578
191 : 3,110,982
194 : 3,112,579
: 3,113,401
198 : 3,093,935
: 3,114,218
199 : 3,115,728
202 : 3,086,328
203 : 3,084,483
214 : 3,107,454
222 : 3,091,057
225 : 3,091,058
230 : 3,108,405
235 : 3,085,367
236 : 3,111,788
240 : 3,112,580
243 : 3,079,729
: 3,082,577
245 : 3,110,130
249 : 3,101,571
251 : 3,083,506
: 3,095,671
261 : 3,091,898
262 : 3,090,163
265 : 3,091,899
267 : 3,076,294
: 3,101,572
: 3,090,164
302 : 3,077,057
313 : 3,077,058
331 : 3,077,058
341 : 3,077,059
346 : 3,077,703
: 3,079,730
: 3,099,110
: 3,114,219
381 : 3,102,366
395 : 3,086,330
398 : 3,114,220
399 : 3,110,131
406 : 3,094,813
413 : 3,100,952
416 : 3,089,284
424 : 3,100,953
439 : 3,108,406
445 : 3,090,165
453 : 3,102,367
477 : 3,095,672
500 : 3,099,899
514 : 3,114,221
531 : 3,082,578
: 3,113,402
532 : 3,077,704
: 3,113,403
533 : 3,099,900
538 : 3,093,936

Class 51

3 : 3,088,247
: 3,099,111
: 3,105,328
5 : 3,109,261
7 : 3,073,069
: 3,098,323
8 : 3,070,924
: 3,073,070
: 3,075,318
: 3,075,319
: 3,084,484
: 3,089,285
: 3,103,084
: 3,103,765
: 3,104,499
: 3,109,262
9 : 3,090,166
: 3,098,324
: 3,107,455
: 3,110,983
11 : 3,102,368
13 : 3,081,580
: 3,097,450
: 3,097,451
: 3,097,452
: 3,103,766
14 : 3,085,368
: 3,103,767
26 : 3,099,901
: 3,102,369
32 : 3,091,059
33 : 3,099,902
34 : 3,087,281
: 3,089,286
: 3,090,167
: 3,097,453
: 3,101,573
: 3,114,222
35 : 3,075,320
: 3,089,287
39 : 3,087,282
45 : 3,080,684
48 : 3,099,112
49 : 3,070,925
50 : 3,089,288
52 : 3,085,369
: 3,090,168
55 : 3,114,223
: 3,114,988
58 : 3,079,731
: 3,079,732
: 3,089,289
: 3,107,456
59 : 3,091,060
: 3,094,814
60 : 3,094,815
67 : 3,093,937
72 : 3,073,071
73 : 3,111,789
80 : 3,082,579
84 : 3,087,283
88 : 3,110,984
89 : 3,071,896
: 3,104,500
90 : 3,076,295
: 3,087,284
: 3,106,804
92 : 3,073,072
: 3,080,685
: 3,085,370
: 3,094,816
: 3,101,574
94 : 3,079,733
: 3,099,903
: 3,104,501
95 : 3,071,897
: 3,098,325
: 3,106,805
: 3,110,132
: 3,110,133
97 : 3,077,705
98 : 3,102,370
: 3,103,073
: 3,088,248
: 3,089,290
: 3,095,673
99 : 3,081,581
100 : 3,106,046
: 3,109,263
: 3,110,134
101 : 3,087,285
102 : 3,110,985
103 : 3,071,898
: 3,075,321
: 3,080,686
: 3,081,582
: 3,089,291
: 3,093,938
: 3,094,817
: 3,108,407
: 3,115,729
105 : 3,077,060
: 3,088,249
: 3,092,934
: 3,092,935
: 3,110,986
: 3,111,790
: 3,112,581
: 3,113,404
: 3,114,989
108 : 3,073,074
: 3,110,135
112 : 3,073,075
: 3,103,085
: 3,107,457
: 3,107,458
117 : 3,110,987
118 : 3,089,292
122 : 3,073,076
: 3,086,331
123 : 3,102,371
: 3,112,582
124 : 3,077,706
: 3,078,622
: 3,084,485
: 3,093,939
125 : 3,084,486
: 3,098,326
: 3,098,327
: 3,110,136
128 : 3,071,899
: 3,075,322
129 : 3,101,575
: 3,111,791
131 : 3,090,169
: 3,110,988
134.5 : 3,082,580
.5 : 3,113,405
135 : 3,104,502
: 3,110,989
138 : 3,074,210
: 3,092,936
140 : 3,090,170
141 : 3,095,674
: 3,099,904
142 : 3,079,734
: 3,103,768
145 : 3,083,507
148 : 3,095,675
163 : 3,071,900
: 3,071,901
: 3,073,077
: 3,073,078
: 3,073,079
: 3,073,080
: 3,073,081
: 3,073,082
: 3,079,735
: 3,093,940
: 3,103,086
: 3,108,408
164 : 3,078,623
: 3,086,332
: 3,093,941
: 3,094,818
165 : 3,076,296
: 3,082,581
: 3,085,371
: 3,087,286
: 3,088,250
: 3,089,293
: 3,090,171
: 3,093,942
: 3,097,454
165 : 3,097,455
: 3,098,328
: 3,100,954
: 3,103,769
: 3,109,264
: 3,109,265
: 3,112,583
168 : 3,088,251
169 : 3,095,676
: 3,107,459
170 : 3,073,083
: 3,083,508
: 3,091,061
: 3,094,819
: 3,099,905
: 3,108,409
173 : 3,097,456
174 : 3,103,087
176 : 3,107,460
177 : 3,081,583
: 3,098,329
: 3,102,372
: 3,111,792
181 : 3,110,990
184.1 : 3,070,926
.1 : 3,094,820
.3 : 3,075,323
.3 : 3,084,487
.3 : 3,109,266
185 : 3,080,687
: 3,080,688
: 3,085,372
: 3,112,584
: 3,113,406
186 : 3,089,294
: 3,105,329
187 : 3,073,084
: 3,106,806
189 : 3,104,503
190 : 3,110,137
193 : 3,080,689
: 3,086,333
: 3,110,138
: 3,115,730
.5 : 3,078,624
.5 : 3,099,113
.5 : 3,109,267
.5 : 3,110,139
195 : 3,082,582
: 3,110,140
: 3,113,407
197 : 3,092,937
: 3,098,330
204 : 3,108,410
: 3,112,585
206 : Re.25,434
: 3,074,211
209 : 3,081,584
215 : 3,104,504
217 : 3,079,736
: 3,079,737
: 3,089,295
: 3,094,821
: 3,100,955
: 3,105,330
218 : 3,088,252
: 3,114,990
219 : 3,100,956
: 3,107,461
221 : 3,107,462
225 : 3,087,287
: 3,094,822
227 : 3,089,296
229 : 3,073,085
: 3,109,268
234 : 3,081,585
236 : 3,091,900
: 3,108,411
237 : 3,077,061
: 3,090,172
: 3,090,173
: 3,106,047
240 : 3,109,269
241 : 3,071,902
: 3,071,903
: 3,092,938
: 3,098,331
: 3,103,088
244 : 3,114,225
246 : 3,097,457
: 3,102,373
247 : 3,079,738
248 : Re.25,314
259 : 3,104,505
263 : 3,087,288
: 3,110,991
: 3,110,992
267 : 3,110,993
270 : 3,098,332
273 : 3,083,509
277 : 3,079,739
: 3,091,062
: 3,114,991
281 : 3,071,904
: 3,079,740
: 3,097,458
: 3,105,331
283 : 3,078,625
: 3,081,586
: 3,088,253
: 3,088,254
: 3,101,576
: 3,107,463
284 : 3,077,707
: 3,114,992
287 : 3,105,332
288 : 3,098,333
: 3,109,270
289 : 3,079,741
: 3,101,577
: 3,103,770
293 : 3,072,470
: 3,074,789
: 3,092,476
: 3,101,260
: 3,110,579
: 3,115,401
295 : 3,089,763
: 3,093,464
297 : 3,102,010
298 : 3,079,243
: 3,081,161
: 3,087,803
: 3,098,730
: 3,099,545
: 3,102,011
: 3,111,401
: 3,113,006
307 : 3,097,083
308 : 3,071,455
: 3,089,764
309 : 3,080,224
316 : 3,071,456
317 : 3,073,687
: 3,073,688
: 3,082,073
323 : 3,107,464
: 3,110,141
324 : 3,073,689
325 : 3,073,690

Class 53

1 : 3,111,793
3 : 3,073,086
: 3,074,212
: 3,078,626
7 : 3,078,627
8 : 3,087,587
: 3,088,257
: 3,091,065
: 3,106,049
: 3,110,142
: 3,111,794
: 3,071,905
: 3,074,214
: 3,077,063
: 3,082,585
: 3,096,602
: 3,096,335
: 3,096,336
: 3,097,462
: 3,110,993
: 3,110,995
: 3,070,931
: 3,082,586
: 3,083,513
: 3,092,942
: 3,114,994
: 3,092,939
: 3,088,256
: 3,090,175
: 3,091,902
: 3,094,823
: 3,070,927
: 3,075,324
: 3,082,583
: 3,085,374
: 3,092,940
: 3,107,465
: 3,112,586
: 3,071,906
: 3,085,375
: 3,085,677
: 3,113,408
: 3,086,338
: 3,093,943
: 3,099,117
: 3,075,326
: 3,093,944
: 3,093,945
: 3,112,589
: 3,078,638
: 3,078,639
: 3,078,640
: 3,078,641
: 3,078,642
220 : 3,110,143
222 : 3,078,632
224 : 3,110,144
228 : 3,080,691
243 : 3,074,215
244 : 3,091,067
246 : 3,090,178
251 : 3,088,258
: 3,105,337
254 : 3,085,378
: 3,107,467
259 : 3,106,051
260 : 3,091,903
276 : 3,092,944
281 : 3,070,932
282 : 3,070,933
: 3,112,590
296 : 3,099,119
306 : 3,111,798
313 : 3,099,120
315 : 3,071,909
316 : 3,112,591
317 : 3,100,366
331 : 3,076,300
: .5 : 3,073,090
341 : 3,107,468
349 : 3,091,068
353 : 3,075,331
371 : 3,115,736
373 : 3,092,945
374 : Re.25,450
: 3,070,934
375 : 3,077,064
: 3,114,226
376 : 3,071,910
: 3,107,469
377 : 3,107,470
378 : 3,078,633
381 : 3,071,911
: 3,094,827
: 3,108,415
382 : 3,075,332
: 3,081,589
389 : 3,084,491
390 : 3,091,904
392 : 3,103,773
393 : 3,103,774

Class 54

24 : 3,098,336
44 : 3,088,259
: 3,112,592
71 : 3,104,507
78 : 3,077,710
81 : 3,104,508

Class 55

5 : 3,091,069
9 : 3,100,146
13 : 3,109,720
15 : 3,103,424
: 3,109,721
18 : 3,076,301
: 3,080,692
19 : 3,116,130
20 : 3,106,462
21 : 3,071,912
: 3,073,091
: 3,109,722
22 : 3,073,092
23 : 3,085,379
: 3,102,012
26 : 3,086,339
31 : 3,102,013
32 : 3,104,958
: 3,105,748
33 : 3,078,634
: 3,116,131
35 : 3,078,635
46 : 3,112,190
47 : 3,105,749
48 : 3,073,093
: 3,104,959
58 : 3,101,261
: 3,104,162
: 3,116,132
60 : 3,093,465
62 : 3,085,380
: 3,087,291
: 3,095,288
: 3,103,425
63 : 3,078,636
: 3,113,851
66 : 3,086,340
68 : 3,078,637
: 3,078,638
: 3,078,639
73 : 3,078,640
: 3,078,641
75 : 3,078,642
75 : 3,078,643
: 3,078,644
: 3,078,645
84 : 3,077,711
: 3,113,007
96 : 3,078,646
97 : 3,107,986
102 : 3,094,400
103 : 3,105,750
112 : 3,086,341
: 3,113,852
120 : 3,110,580
121 : 3,114,615
131 : 3,073,094
: 3,108,865
143 : 3,114,616
158 : 3,104,960
163 : 3,080,693
164 : 3,104,163
167 : 3,116,133
169 : 3,093,466
170 : 3,070,935
175 : 3,087,292
: 3,105,751
178 : 3,116,134
185 : 3,074,216
194 : 3,112,191
196 : 3,092,477
197 : 3,078,647
198 : 3,096,166
201 : 3,071,913
202 : 3,078,648
206 : 3,078,649
: 3,094,401
208 : 3,077,712
216 : 3,074,217
218 : 3,093,467
219 : 3,077,713
222 : 3,103,426
225 : 3,070,936
227 : 3,102,799
228 : 3,109,723
230 : 3,073,095
233 : 3,075,333
: 3,090,179
237 : 3,104,961
238 : 3,077,714
: 3,093,468
257 : 3,073,096
: 3,102,800
262 : 3,092,478
265 : 3,084,492
267 : 3,114,617
271 : 3,102,014
273 : 3,097,936
274 : 3,071,914
: 3,098,731
: 3,099,546
282 : 3,090,180
283 : 3,073,097
284 : 3,080,694
290 : 3,083,515
292 : 3,097,937
293 : 3,095,289
294 : 3,107,987
302 : 3,097,938
: 3,104,962
: 3,105,752
310 : 3,077,715
311 : 3,107,988
316 : 3,086,342
323 : 3,085,381
324 : 3,071,915
: 3,093,469
332 : 3,104,963
337 : 3,077,716
: 3,078,650
338 : 3,071,916
: 3,083,516
341 : 3,092,479
: 3,099,547
343 : 3,074,218
348 : 3,074,219
357 : 3,075,334
367 : 3,113,853
374 : 3,088,260
376 : 3,090,181
378 : 3,097,939
381 : 3,107,989
385 : 3,075,335
387 : 3,070,937
: 3,110,581
404 : 3,077,717
406 : 3,104,964
407 : 3,094,828
417 : 3,104,965
422 : 3,078,651
423 : 3,092,480
442 : 3,075,336
446 : 3,075,337
: 3,110,582
449 : 3,085,382

*For Subclasses 59 through 62 see Classification of Plants, page 1107.

Class 55—Con.

456 : 3,086,343
470 : 3,080,695
480 : 3,108,866
487 : 3,076,302
491 : 3,107,990
495 : 3,082,587
502 : 3,095,290
504 : 3,085,383
505 : 3,115,402
510 : 3,104,966
511 : 3,076,303
: 3,107,991
514 : 3,109,724

Class 56

1 : 3,082,588
: 3,082,589
: 3,085,384
: 3,086,344
: 3,090,182
: 3,090,183
: 3,100,367
: 3,101,578
: 3,104,509
: 3,105,338
: 3,106,052
: 3,110,145
: 3,111,799
: 3,114,995
: 3,115,737
6 : 3,070,938
: 3,103,090
: 3,115,738
: 3,115,739
7 : 3,085,385
: 3,090,184
: 3,097,465
: 3,100,958
: 3,105,811
8 : 3,087,293
11 : 3,081,590
12 : 3,100,368
: 3,114,227
14 : 3,108,416
15 : 3,095,679
: 3,108,417
16 : 3,100,369
: 3,103,091
17 : 3,090,185
: 3,095,680
: 3,109,271
18 : 3,070,939
: 3,088,261
: 3,091,070
: 3,096,604
: 3,101,579
19 : 3,073,098
: 3,105,339
20 : 3,073,099
: 3,089,299
: 3,093,946
: 3,094,829
21 : 3,100,370
23 : Re.25,385
: 3,079,742
: 3,091,071
: 3,096,605
: 3,114,228
24 : 3,070,940
: 3,084,493
: 3,087,294
: 3,092,946
: 3,094,830
: 3,112,593
25 : 3,086,345
: 3,089,300
: 3,091,072
: 3,092,947
: 3,109,272
: 3,110,146
: 3,113,411
: 3,114,996
.4 : Re.25,379
.4 : 3,070,941
.4 : 3,074,220
.4 : 3,075,338
.4 : 3,077,065
.4 : 3,077,718
.4 : 3,079,743
.4 : 3,080,696
.4 : 3,084,494
.4 : 3,085,386
.4 : 3,085,387
.4 : 3,086,346
.4 : 3,087,295
.4 : 3,087,296
.4 : 3,090,186
.4 : 3,091,073
.4 : 3,091,905
.4 : 3,091,906
.4 : 3,093,947
25.4 : 3,093,948
.4 : 3,094,831
.4 : 3,097,466
.4 : 3,097,467
.4 : 3,098,337
.4 : 3,100,371
.4 : 3,101,580
.4 : 3,106,812
.4 : 3,107,472
.4 : 3,110,996
.4 : 3,110,997
.4 : 3,111,800
.4 : 3,112,594
.4 : 3,112,595
.4 : 3,112,596
.4 : 3,114,229
26 : 3,073,100
: 3,077,066
: 3,096,606
.5 : 3,074,221
.5 : 3,094,832
27.5 : 3,079,744
.5 : 3,083,517
.5 : 3,093,949
28 : 3,092,948
: 3,101,581
: 3,108,418
35 : 3,070,942
41 : 3,088,262
: 3,093,950
42 : 3,082,590
: 3,107,471
: 3,108,419
44 : 3,092,949
: 3,103,092
: 3,114,997
48 : 3,105,340
49 : 3,107,473
50 : 3,096,607
98 : 3,075,339
104 : 3,075,340
: 3,101,582
119 : 3,088,263
: 3,107,474
121.44 : 3,099,121
190 : 3,109,273
192 : 3,105,341
199 : 3,099,122
: 3,100,372
: 3,110,147
202 : 3,087,297
: 3,099,123
: 3,110,998
: 3,112,597
205 : 3,108,420
210 : 3,088,264
214 : 3,100,373
219 : 3,077,719
238 : 3,083,518
249 : 3,070,943
: 3,073,101
: 3,089,301
: 3,099,124
: 3,106,813
255 : 3,084,495
: 3,102,375
291 : 3,106,053
294 : 3,093,951
: 3,102,376
295 : 3,080,697
: 3,087,298
: 3,090,187
: 3,093,952
: 3,096,608
: 3,097,468
: 3,097,469
: 3,103,093
: 3,103,094
: 3,104,510
: 3,109,274
: 3,109,275
: 3,112,599
296 : 3,098,338
: 3,104,511
: 3,113,412
297 : 3,108,421
: 3,114,230
305 : 3,099,125
309 : 3,083,519
311 : 3,098,339
327 : 3,070,944
: 3,084,496
328 : 3,077,720
: 3,077,721
: 3,080,698
: 3,100,959
: 3,101,583
: 3,105,342
: 3,105,343
: 3,105,344
: 3,105,345
: 3,107,475
: 3,115,740
329 : 3,105,346
: 3,105,347
: 3,114,998
332 : 3,109,276
334 : 3,083,520
339 : 3,081,591
341 : 3,103,775
: 3,106,814
345 : 3,098,340
347 : 3,110,148
364 : 3,088,265
366 : 3,097,470
: 3,103,776
: 3,111,801
370 : 3,084,497
372 : 3,083,521
376 : 3,074,222
377 : Re.25,366
: 3,073,102
: 3,077,067
: 3,077,722
: 3,080,699
: 3,091,907
: 3,092,950
: 3,092,951
: 3,093,953
: 3,093,954
: 3,098,341
: 3,101,584
: 3,103,777
: 3,103,778
: 3,104,512
: 3,104,513
: 3,107,476
: 3,108,422
: 3,108,423
: 3,108,424
: 3,108,425
: 3,110,149
: 3,111,802
400 : 3,096,609
: 3,102,377
.01 : 3,070,945
.04 : 3,084,498
.01 : 3,108,426
.18 : 3,073,103
17 : 3,078,652
.12 : 3,095,682
.12 : 3,105,348
503 : 3,090,188
: 3,115,741
504 : 3,106,054

Class 57

1 : 3,070,946
: 3,075,341
: 3,080,700
: 3,094,833
: 3,103,095
6 : 3,082,591
7 : 3,085,388
12 : 3,073,104
: 3,091,074
: 3,097,471
13 : 3,106,815
: 3,111,803
15 : 3,077,068
: 3,097,472
: 3,097,473
: 3,098,342
: 3,115,742
17 : 3,110,999
18 : 3,074,223
22 : 3,070,947
23 : 3,097,474
24 : 3,109,277
32 : 3,077,723
: 3,091,075
: 3,111,000
34 : 3,071,917
: 3,077,724
: 3,079,745
: 3,083,522
: 3,085,389
: 3,085,390
: 3,091,908
: 3,091,909
: 3,092,952
: 3,093,955
: 3,095,683
: 3,096,610
: 3,098,343
: 3,098,344
: 3,105,349
: 3,112,600
: 3,113,413
.5 : 3,073,105
36 : 3,070,948
: 3,073,106
: 3,092,953
: 3,098,346
38.3 : 3,086,347
50 : 3,107,477
51 : 3,079,746
.6 : 3,114,231
52 : 3,112,601
53 : 3,070,949
: 3,077,725
: 3,088,266
: 3,088,267
: 3,103,096
54 : 3,074,224
: 3,075,342
: 3,080,701
: 3,095,684
: 3,101,585
: 3,113,414
55.5 : 3,094,834
.5 : 3,114,999
56 : 3,071,918
: 3,086,348
: 3,115,000
57 : 3,095,685
58.3 : 3,095,686
.3 : 3,108,427
.59 : 3,106,055
.52 : 3,106,816
.52 : 3,114,232
.67 : 3,079,747
.65 : 3,093,956
.7 : 3,099,126
.83 : 3,077,726
.89 : 3,110,150
.95 : 3,107,478
.91 : 3,115,001
66.5 : 3,082,592
71 : 3,114,224
73 : 3,104,514
: 3,107,479
76 : 3,075,343
.5 : 3,111,804
77.3 : 3,087,299
.33 : 3,091,910
.45 : 3,074,225
.45 : 3,074,226
4 : 3,103,097
.45 : 3,115,743
78 : 3,108,428
81 : 3,084,499
: 3,107,749
: 3,102,378
.5 : 3,086,352
58 : 3,082,594
: 3,093,958
96 : 3,089,302
99 : 3,097,475
: 3,108,429
: 3,112,602
100 : 3,095,687
102 : 3,098,345
103 : 3,098,346
104 : 3,086,349
106 : 3,076,304
: 3,084,500
: 3,094,835
.5 : 3,095,688
.5 : 3,103,779
.5 : 3,086,350
.5 : 3,097,476
.5 : 3,114,238
90 : 3,091,917
121 : 3,077,728
125 : 3,102,380
126 : 3,077,729
: 3,111,003
140 : 3,080,703
: 3,104,518
142 : 3,091,918
144 : 3,101,587
: 3,103,099
: 3,111,004
145 : 3,089,303

Class 59

7 : 3,075,346
: 3,075,347
: 3,097,477
: 3,099,130
8 : 3,084,502
: 3,092,957
22 : 3,096,612
29 : 3,070,952
35 : 3,082,595
78.1 : 3,098,349
79 : 3,084,503
: 3,099,908
: 3,112,606
86 : 3,104,519
88 : 3,095,691

Class 60

6 : 3,071,921
: 3,079,750
: 3,107,482
: 3,082,596
10.5 : 3,109,282
12 : 3,071,922
: 3,077,730
156 : 3,096,611
: 3,099,907
: 3,106,056
157 : 3,070,950
: 3,081,593
: 3,098,348
: 3,104,516
: 3,108,430
: 3,109,279
: 3,110,151
: 3,114,235
: 3,115,744
163 : 3,078,654
: 3,115,745

Class 58

2 : 3,106,817
: 3,113,415
16 : 3,099,127
: 3,101,586
: 3,109,280
20 : 3,080,702
23 : 3,070,951
: 3,107,481
26 : 3,078,655
28 : Re.25,328
: 3,075,345
: 3,091,914
: 3,095,690
: 3,111,806
: 3,111,807
34 : 3,090,191
38 : 3,086,351
: 3,091,076
: 3,100,961
39.5 : 3,088,270
.5 : 3,090,192
43 : 3,115,002
44 : 3,091,915
50 : 3,079,748
: 3,081,594
: 3,114,236
53 : 3,073,107
: 3,090,193
57.5 : 3,079,749
.5 : 3,086,352
58 : 3,082,594
: 3,093,958
59 : 3,099,128
68 : 3,111,002
70 : 3,099,129
71 : 3,114,237
82 : 3,087,300
: 3,104,517
: 3,106,818
: 3,109,281
: 3,113,416
85.5 : 3,071,920
.5 : 3,091,916
.5 : 3,106,819
.5 : 3,112,605
.5 : 3,113,417
.5 : 3,114,238
90 : 3,091,917
121 : 3,077,728
125 : 3,102,380
126 : 3,077,729
: 3,111,003
140 : 3,080,703
: 3,104,518
142 : 3,091,918
144 : 3,101,587
: 3,103,099
: 3,111,004
145 : 3,089,303

Class 59

7 : 3,075,346
: 3,075,347
: 3,097,477
: 3,099,130
8 : 3,084,502
: 3,092,957
22 : 3,096,612
29 : 3,070,952
35 : 3,082,595
78.1 : 3,098,349
79 : 3,084,503
: 3,099,908
: 3,112,606
86 : 3,104,519
88 : 3,095,691

Class 60

6 : 3,071,921
: 3,079,750
: 3,107,482
: 3,082,596
10.5 : 3,109,282
12 : 3,071,922
: 3,077,730
12 : 3,090,195
: 3,096,613
13 : 3,077,071
: 3,077,731
: 3,080,704
: 3,080,705
: 3,089,304
: 3,090,194
: 3,091,077
: 3,093,959
: 3,094,836
: 3,095,692
: 3,096,614
: 3,096,615
: 3,097,478
: 3,102,381
: 3,102,382
: 3,103,100
: 3,103,780
: 3,104,520
: 3,107,483
: 3,112,607
: 3,073,108
: 3,092,958
: 3,110,152
: 3,074,228
: 3,106,057
: 3,108,656
: 3,085,391
: 3,085,392
: 3,089,305
: 3,077,741
: 3,090,203
: 3,091,088
: 3,097,494
: 3,106,825
: 3,108,442
: 3,108,443
: 3,115,754
: 3,115,014
46 : 3,086,367
: 3,088,286
: 3,091,089
: 3,074,235
.6 : 3,078,677
.6 : 3,078,678
.6 : 3,079,757
.6 : 3,082,604
.5 : 3,088,280
.6 : 3,088,285
.5 : 3,091,086
.6 : 3,094,844
.6 : 3,100,379
.6 : 3,103,786
.6 : 3,103,787
.6 : 3,109,287
.6 : 3,113,433
.5 : 3,115,012
59 : 3,076,316
.5 : 3,092,971
60 : 3,080,721
: 3,094,845
62.6 : 3,078,679
64 : 3,070,962
67 : 3,091,933
: 3,101,595
73 : 3,083,536
: 3,097,487
: 3,097,488
: 3,097,489
: 3,097,490
: 3,100,967
: 3,105,357
95 : 3,074,236
97 : 3,075,355
: 3,075,356
: 3,079,758
: 3,082,605
: 3,085,403
: 3,087,307
: 3,093,971
: 3,100,380
: 3,107,493
102 : 3,106,067
105 : 3,077,739
106 : 3,089,308
107 : 3,102,394
108 : 3,080,722
: 3,115,753

Class 61

.5 : 3,083,537
.5 : 3,084,515
.5 : 3,089,309
.5 : 3,105,358
.5 : 3,106,824
.5 : 3,107,494
.5 : 3,108,438
.5 : 3,108,439
1 : 3,075,357
: 3,083,538
: 3,109,288
4 : 3,091,087
: 3,096,621
5 : 3,085,404
3 : 3,070,964
: 3,071,932
: 3,073,126
: 3,073,127
: 3,074,242
: 3,075,360
: 3,077,079
: 3,077,080
: 3,077,743
: 3,078,682
: 3,080,723
: 3,083,543
: 3,085,405
: 3,087,309
: 3,088,288
: 3,088,289
: 3,090,206
: 3,090,207
: 3,091,939
: 3,091,940
: 3,095,709
: 3,096,624
: 3,099,137
: 3,100,969
: 3,100,970
: 3,108,444
: 3,109,290
: 3,111,008
: 3,111,813
4 : 3,075,361
: 3,091,091
: 3,095,291
5 : 3,074,243
: 3,090,208
: 3,103,104
6 : 3,074,244
: 3,078,683
: 3,091,092
62 : 3,074,246
: 3,080,725
: 3,092,974
63 : 3,070,970
: 3,074,247
7 : 3,109,291
9 : 3,094,402
: 3,098,732
: 3,109,725
10 : 3,077,081
11 : 3,076,318
: 3,116,135
12 : 3,070,965
: 3,073,128
: 3,074,245
: 3,075,362
: 3,089,311
64 : 3,078,687
: 3,079,762
: 3,100,971
: 3,114,248
70 : 3,108,449
71 : 3,071,933
: 3,101,598
: 3,103,796
76 : 3,109,296
77 : 3,081,603
78 : 3,070,971
: 3,088,290
84 : 3,079,763
: 3,081,604
: 3,081,605
: 3,091,097
: 3,113,437
89 : 3,071,934
: 3,082,609
: 3,091,942
113 : 3,082,610
117 : 3,092,976
: 3,095,710
: 3,112,618
118 : 3,079,764
123 : 3,103,792
126 : 3,100,383
: 3,105,362
: 3,106,072
132 : 3,094,850
135 : 3,074,248
: 3,089,312
138 : 3,080,726
140 : 3,077,747
: 3,103,793
: 3,107,499
148 : 3,105,363
149 : 3,074,249
: 3,076,319
150 : 3,083,546
151 : 3,098,363
155 : 3,071,935
: 3,084,519
: 3,102,395
: 3,113,438
: 3,115,017
156 : 3,080,727
: 3,108,450
: 3,110,158
: 3,111,009
: 3,111,814
: 3,112,619
157 : 3,075,363
159 : 3,078,688
: 3,105,365
160 : 3,103,794
: 3,113,439
: 3,115,018
161 : 3,100,972
162 : 3,110,159
164 : 3,110,160
170 : 3,113,440
172 : 3,080,728
: 3,103,105
173 : 3,105,366
176 : 3,111,010
178 : 3,096,627
180 : 3,070,972
: 3,070,973
: 3,090,209
: 3,091,098
: 3,099,139
: 3,107,502
183 : 3,073,132
: 3,112,620
184 : 3,108,451
187 : 3,108,452
188 : 3,110,161
192 : 3,084,521
: 3,088,291
196 : 3,088,292
: 3,091,943
: 3,093,976
: 3,103,106
: 3,103,795
: 3,110,162
197 : 3,070,974
: 3,081,606
: 3,088,293
: 3,090,210
: 3,091,944
: 3,099,140
: 3,109,297
200 : 3,108,453
202 : 3,092,977
208 : 3,093,977
209 : 3,103,107
: 3,111,815
212 : 3,111,816
216 : 3,092,978
217 : 3,082,611
: 3,107,503
222 : 3,086,372
234 : 3,103,796
235 : 3,108,454
236 : 3,093,978
237 : 3,110,163
238 : 3,070,975
: 3,101,599
239 : 3,077,083
: 3,089,313
: 3,092,979
240 : 3,076,320
: 3,102,397
241 : 3,087,312
: 3,097,504
243 : 3,102,398
256 : 3,082,612
: 3,090,211
: 3,094,851
: 3,115,019
259 : 3,074,250
: 3,079,765
260 : 3,100,973
261 : 3,097,505
262 : 3,084,522
263 : 3,097,506
264 : 3,070,976
265 : 3,096,628
268 : 3,103,108
270 : 3,076,321
275 : 3,115,020
276 : 3,099,914
278 : 3,071,936
: 3,077,084
: 3,081,607
279 : 3,089,314
280 : 3,079,766
: 3,079,767
: 3,079,768
: 3,079,769
283 : 3,096,629
: 3,111,817
285 : 3,097,507
292 : 3,093,979
293 : 3,077,085
296 : 3,084,523
: 3,088,294
: 3,091,945
305 : 3,099,915
: 3,112,621
320 : 3,112,622
324 : 3,077,086
: 3,077,087

35.6 : 3,098,353
.6 : 3,099,909
.6 : 3,100,962
.6 : 3,100,963
.6 : 3,101,590
.6 : 3,102,385
.6 : 3,102,386
.6 : 3,102,387
.6 : 3,102,388
.6 : 3,103,102
.6 : 3,103,784
.6 : 3,104,522
.6 : 3,104,523
.6 : 3,105,352
.6 : 3,106,059
.6 : 3,106,060
.6 : 3,106,822
.6 : 3,107,486
.6 : 3,107,487
.6 : 3,107,488
.6 : 3,108,433
.6 : 3,109,284
.6 : 3,109,285
.6 : 3,110,154
.6 : 3,111,005
.6 : 3,112,611
.6 : 3,112,612
.6 : 3,112,613
.6 : 3,112,614
.6 : 3,112,615
.6 : 3,115,006
.6 : 3,115,007
.6 : 3,115,008
.6 : 3,115,009
.6 : 3,115,010
.6 : 3,115,746
.6 : 3,115,747
36 : 3,095,698
39 : 3,087,304
.08 : 3,075,349
.02 : 3,078,662
.02 : 3,078,663
.02 : 3,078,664
.02 : 3,078,665
.06 : 3,078,666
.08 : 3,078,667
.09 : 3,089,306
.09 : 3,092,964
.09 : 3,094,839
.02 : 3,095,699
.07 : 3,108,434
.14 : 3,073,114
.16 : 3,073,115
.16 : 3,073,116
.14 : 3,086,361
.18 : 3,086,362
.14 : 3,087,305
.14 : 3,088,277
.16 : 3,088,278
.14 : 3,090,199
.14 : 3,097,485
.18 : 3,097,486
.14 : 3,098,355
.16 : 3,100,378
.16 : 3,104,524
.16 : 3,106,062
.14 : 3,107,489
.16 : 3,108,435
.16 : 3,114,240
.14 : 3,115,749
.16 : 3,115,750
.25 : 3,073,117
28 : 3,073,119
28 : 3,075,350
28 : 3,075,351
28 : 3,076,310
28 : 3,076,311
28 : 3,076,312
.25 : 3,078,668
28 : 3,078,669
28 : 3,078,670
29 : 3,080,712
29 : 3,080,713
28 : 3,083,531
28 : 3,084,510
28 : 3,085,397
28 : 3,091,925
28 : 3,091,926
26 : 3,092,965
28 : 3,092,966
.21 : 3,093,968
28 : 3,093,969
2 : 3,095,700
28 : 3,095,701
28 : 3,095,702
28 : 3,098,356
28 : 3,103,785
28 : 3,105,354
28 : 3,111,809
.31 : 3,077,074
.35 : 3,077,075
.36 : 3,077,076
.37 : 3,078,671
39.37 : 3,082,602
.32 : 3,085,398
.35 : 3,085,399
.37 : 3,086,363
.36 : 3,088,279
.34 : 3,089,307
.34 : 3,091,927
.35 : 3,092,967
.35 : 3,095,703
.31 : 3,098,357
.3 : 3,100,964
.35 : 3,102,391
.32 : 3,104,525
.31 : 3,105,355
.34 : 3,109,286
.31 : 3,113,430
.36 : 3,115,011
.47 : 3,070,958
.46 : 3,071,925
.47 : 3,073,120
.47 : 3,077,077
.48 : 3,077,078
.47 : 3,077,736
.46 : 3,080,714
.45 : 3,084,511
.47 : 3,087,306
.45 : 3,091,083
.47 : 3,091,084
.47 : 3,092,968
.43 : 3,094,840
.45 : 3,095,704
.46 : 3,095,705
.46 : 3,101,592
.48 : 3,104,526
.48 : 3,105,356
.47 : 3,111,810
.52 : 3,077,737
.51 : 3,079,754
.61 : 3,073,118
.65 : 3,075,352
.65 : 3,080,715
.66 : 3,080,716
.65 : 3,082,603
.66 : 3,083,532
.66 : 3,085,400
.6 : 3,088,276
.65 : 3,088,280
.65 : 3,088,281
.66 : 3,095,706
.65 : 3,099,134
.63 : 3,104,527
.65 : 3,113,431
.74 : 3,075,353
.71 : 3,078,672
.72 : 3,085,401
.74 : 3,095,707
.74 : 3,099,910
.71 : 3,101,593
.72 : 3,102,392
.74 : 3,102,393
.82 : 3,073,121
.82 : 3,073,122
.82 : 3,079,755
.82 : 3,085,402
.82 : 3,088,282
.82 : 3,090,200
.82 : 3,096,618
46.5 : 3,115,013
51 : 3,078,673
: 3,080,717
: 3,083,533
: 3,083,534
: 3,100,965
52 : 3,071,926
: 3,071,927
: 3,078,674
: 3,078,675
: 3,080,718
: 3,083,535
: 3,084,512
: 3,084,513
: 3,085,364
: 3,085,365
: 3,088,283
: 3,091,928
: 3,091,929
: 3,092,969
: 3,094,841
: 3,094,842
: 3,098,358
: 3,099,135
: 3,099,136
: 3,101,594
: 3,104,528
: 3,106,063
: 3,106,064
: 3,106,065
: 3,106,066
: 3,108,436
: 3,113,432
: 3,115,751
53 : 3,073,123
: 3,074,233
53 : 3,080,719
: 3,081,598
: 3,091,930
: 3,092,970
: 3,095,708
12 : 3,082,606
: 3,114,243
19 : 3,097,491
22 : 3,071,931
23 : 3,070,963
28 : 3,086,366
: 3,090,202
: 3,098,360
29 : 3,084,516
: 3,091,934
: 3,108,440
35 : 3,099,911
: 3,100,381
36 : 3,076,317
: 3,077,740
: 3,091,935
: 3,091,936
: 3,094,846
: 3,097,492
: 3,108,441
: 3,111,006
40 : 3,106,068
41 : 3,074,237
: 3,089,310
42 : 3,111,811
43 : 3,097,493
: 3,106,069
45 : 3,077,741
: 3,090,203
: 3,091,088
: 3,097,494
: 3,106,825
: 3,108,442
: 3,108,443
: 3,115,754
46 : 3,086,367
: 3,088,286
: 3,091,089
.5 : 3,076,316
.5 : 3,107,496
.5 : 3,109,289
48 : 3,074,238
: 3,074,239
: 3,081,601
: 3,084,517
: 3,088,287
: 3,094,848
: 3,096,623
: 3,100,968
: 3,106,826
49 : 3,114,244
51 : 3,091,938
53 : 3,075,358
: 3,091,090
: 3,104,532
.58 : 3,074,240
.58 : 3,084,518
.52 : 3,087,308
.5 : 3,100,382
.64 : 3,073,124
.66 : 3,090,204
.6 : 3,113,436
.62 : 3,114,245
.72 : 3,107,497
54 : 3,103,103
64 : 3,083,539
65 : 3,073,125
: 3,077,742
: 3,083,540
: 3,114,246
67 : 3,074,241
: 3,083,541
69 : 3,091,913
70 : 3,090,205
72.1 : 3,083,542
.1 : 3,111,007
.3 : 3,086,369
.4 : 3,103,790
.6 : 3,078,681
81 : 3,111,812
85 : 3,075,359

Class 62

1 : 3,086,370
: 3,098,361
3 : 3,070,964
: 3,071,932
: 3,073,126
: 3,073,127
: 3,074,242
: 3,075,360
: 3,077,079
: 3,077,080
: 3,077,743
: 3,078,682
: 3,080,723
: 3,083,543
: 3,085,405
: 3,087,309
: 3,088,288
: 3,088,289
: 3,090,206
: 3,090,207
: 3,091,939
: 3,091,940
: 3,095,709
: 3,096,624
: 3,099,137
: 3,100,969
: 3,100,970
: 3,108,444
: 3,109,290
: 3,111,008
: 3,111,813
4 : 3,075,361
: 3,091,091
: 3,095,291
5 : 3,074,243
: 3,090,208
: 3,103,104
6 : 3,074,244
: 3,078,683
: 3,091,092
62 : 3,074,246
: 3,080,725
: 3,092,974
63 : 3,070,970
: 3,074,247
7 : 3,109,291
9 : 3,094,402
: 3,098,732
: 3,109,725
10 : 3,077,081
11 : 3,076,318
: 3,116,135
12 : 3,070,965
: 3,073,128
: 3,074,245
: 3,075,362
: 3,089,311
64 : 3,078,687
: 3,079,762
: 3,100,971
: 3,114,248
70 : 3,108,449
71 : 3,071,933
: 3,101,598
: 3,103,796
76 : 3,109,296
77 : 3,081,603
78 : 3,070,971
: 3,088,290
84 : 3,079,763
: 3,081,604
: 3,081,605
: 3,091,097
: 3,113,437
89 : 3,071,934
: 3,082,609
: 3,091,942
113 : 3,082,610
117 : 3,092,976
: 3,095,710
: 3,112,618
118 : 3,079,764
123 : 3,103,792
126 : 3,100,383
: 3,105,362
: 3,106,072
132 : 3,094,850
135 : 3,074,248
: 3,089,312
138 : 3,080,726
140 : 3,077,747
: 3,103,793
: 3,107,499
148 : 3,105,363
149 : 3,074,249
: 3,076,319
150 : 3,083,546
151 : 3,098,363
155 : 3,071,935
: 3,084,519
: 3,102,395
: 3,113,438
: 3,115,017
156 : 3,080,727
: 3,108,450
: 3,110,158
: 3,111,009
: 3,111,814
: 3,112,619
157 : 3,075,363
159 : 3,078,688
: 3,105,365
160 : 3,103,794
: 3,113,439
: 3,115,018
161 : 3,100,972
162 : 3,110,159
164 : 3,110,160
170 : 3,113,440
172 : 3,080,728
: 3,103,105
173 : 3,105,366
176 : 3,111,010
178 : 3,096,627
180 : 3,070,972
: 3,070,973
: 3,090,209
: 3,091,098
: 3,099,139
: 3,107,502
183 : 3,073,132
: 3,112,620
184 : 3,108,451
187 : 3,108,452
188 : 3,110,161
192 : 3,084,521
: 3,088,291
196 : 3,088,292
: 3,091,943
: 3,093,976
: 3,103,106
: 3,103,795
: 3,110,162
197 : 3,070,974
: 3,081,606
: 3,088,293
: 3,090,210
: 3,091,944
: 3,099,140
: 3,109,297
200 : 3,108,453
202 : 3,092,977
208 : 3,093,977
209 : 3,103,107
: 3,111,815
212 : 3,111,816
216 : 3,092,978
217 : 3,082,611
: 3,107,503
222 : 3,086,372
234 : 3,103,796
235 : 3,108,454
236 : 3,093,978
237 : 3,110,163
238 : 3,070,975
: 3,101,599
239 : 3,077,083
: 3,089,313
: 3,092,979
240 : 3,076,320
: 3,102,397
241 : 3,087,312
: 3,097,504
243 : 3,102,398
256 : 3,082,612
: 3,090,211
: 3,094,851
: 3,115,019
259 : 3,074,250
: 3,079,765
260 : 3,100,973
261 : 3,097,505
262 : 3,084,522
263 : 3,097,506
264 : 3,070,976
265 : 3,096,628
268 : 3,103,108
270 : 3,076,321
275 : 3,115,020
276 : 3,099,914
278 : 3,071,936
: 3,077,084
: 3,081,607
279 : 3,089,314
280 : 3,079,766
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: 3,079,769
283 : 3,096,629
: 3,111,817
285 : 3,097,507
292 : 3,093,979
293 : 3,077,085
296 : 3,084,523
: 3,088,294
: 3,091,945
305 : 3,099,915
: 3,112,621
320 : 3,112,622
324 : 3,077,086
: 3,077,087

Class 62 – Con.

324	3,077,088	8	3,113,442	18	3,116,137	60	3,090,214	7.1	3,083,554	134	3,082,616	224	3,077,100	355	3,073,163
	3,078,689	9	3,070,979	19	3,109,727	63	3,102,403	.1	3,083,555	139	3,070,985	232	3,112,636		3,075,386
	3,109,298		3,080,732	20	3,104,164	64	3,102,404	.1	3,085,412		3,089,327	240	3,115,764		3,080,755
	3,110,164		3,095,713	21	3,074,257		3,103,110	.1	3,088,301	140	3,100,978	258	3,112,637		3,081,632
326	3,089,315	11	3,074,254	23	3,091,104	65	3,115,760	.1	3,089,324	148	3,103,802	262	3,113,447		3,092,997
332	3,081,068		3,082,613	30	3,099,549	82	3,079,776	.1	3,092,988		3,111,832	271	3,083,562		3,094,001
	3,102,399		3,093,982	31	3,113,008		3,079,777	.1	3,093,990		3,112,633	272	3,076,329		3,096,650
	3,102,399		3,095,714		3,113,855	84	3,070,983	.1	3,096,636	150	3,100,979		3,115,027		3,107,530
			3,112,626	32	3,083,551		3,074,259	.1	3,111,015	158	3,092,989	276	3,111,834	356	3,082,624
340	3,074,251		3,115,759	33	3,113,009		3,092,985	.1	3,112,629	173	3,085,420	278	3,100,389		3,090,234
341	3,111,011	12	3,087,313	35	3,075,371		3,115,023	.1	3,113,444	177	3,091,109	288	3,115,028	357	3,083,574
346	3,089,316	14	3,084,524	44	3,088,298	85	3,079,778	.1	3,114,249	181	3,078,703	303	3,073,145		3,098,387
347	3,074,252		3,094,853	45	3,106,463		3,099,919	22	3,088,302		3,081,613	313	3,099,150	358	3,090,235
353	3,075,364		3,102,402	48	3,083,552	86	3,097,511		3,091,952		3,088,306	315	3,090,219		3,090,236
355	3,075,365	15	3,071,942	49	3,088,299		3,099,920		3,105,373		3,112,634		3,115,765	359	3,075,387
367	3,093,980		3,079,773	54	3,113,010		3,099,921		3,107,511	188	3,093,991	333	3,098,376		3,094,875
369	3,077,748		3,080,738	55	3,078,692	88	3,111,828	23	3,071,952	189	3,087,322		3,106,083		3,100,397
374	3,083,547		3,080,734	58	3,086,375	90	3,093,986	25	3,091,106		3,092,990		3,111,022		3,111,032
376	3,091,099		3,091,947	59	3,073,137	95	3,100,167	31	3,087,318	196	3,103,803	339	3,103,806		3,114,263
382	3,075,366		3,096,631	60	3,078,693	96	3,100,975		3,106,080	198	3,086,381	346	3,095,725	361	3,073,164
	3,108,455		3,096,632	65	3,083,505	107	3,071,947		3,111,016		3,097,515	352	3,093,993		3,085,436
389	3,086,373		3,104,535		3,107,161	108	3,080,740		3,114,250		3,115,025	363	3,084,533	362	3,071,967
391	3,086,374	17	3,070,980	68	3,103,428		3,094,854	55	3,081,612	203	3,099,146		3,099,151		3,076,338
395	3,091,100		3,074,255	78	3,071,946		3,104,537		3,097,514	207	3,079,783		3,102,412	29	3,076,700
402	3,097,508		3,087,314	85	3,097,942		3,115,024	87	3,085,413		3,091,110	364	3,080,744		3,087,806
	3,108,073		3,088,296	103	3,087,315	110	3,073,138	111	3,114,251		3,095,722	383	3,070,987	30	3,073,694
408	3,093,981		3,091,948	106	3,077,753	112	3,078,698			208	3,091,111		3,073,146		3,101,606
419	3,077,749		3,103,798	107	3,102,016	125	3,080,741	**Class 68**		210	3,084,531		3,078,705		3,092,486
	3,081,608		3,106,076	109	3,078,694		3,095,718				3,094,860		3,095,726		3,104,541
	3,103,109		3,107,506	113	3,114,619	131	3,115,761	3	3,098,370	213	3,074,263	417	3,083,563	37	3,091,523
	3,103,797		3,110,166	121	3,085,408	132	3,073,139	4	3,091,107		3,105,376	419	3,078,706		3,092,487
	3,104,533	20	3,075,368	128	3,080,737		3,090,215	5	3,074,261	235	3,098,375	434	3,093,994		3,098,737
	3,111,012		3,103,799	136	3,077,094		3,099,143		3,083,556	242	3,111,019	447	3,086,384		3,111,488
	3,111,013	21	3,071,943	138	3,113,011	133	3,095,719		3,085,414	253	3,105,377	451	3,095,727	39	3,092,488
	3,111,818		3,071,944	139	3,079,774	134	3,081,609		3,094,858	258	3,101,563	455	3,077,101	41	3,074,792
	3,112,623		3,076,322	145	3,114,620	138	3,101,601		3,098,371			456	3,079,784	42	3,109,728
440	3,112,624		3,076,323	152	3,097,943		3,102,405		3,105,374	**Class 69**		459	3,112,638		3,109,729
447	3,100,385		3,083,548		3,100,148		3,108,461		3,110,169						3,113,858
448	3,104,534		3,083,549		3,103,429	140	3,077,097	12	3,078,700	1	3,073,141	**Class 71**		43	3,076,701
	3,109,299		3,092,982		3,113,012		3,079,779		3,080,742	6.5	3,077,098			44	3,078,156
452	3,092,980		3,095,715	153	3,077,754		3,083,553		3,084,530	.5	3,113,446	1	3,071,457		3,114,623
455	3,079,770		3,105,369	154	3,080,738		3,090,216		3,085,415	8	3,099,147		3,082,074	50	3,088,819
457	3,089,317		3,106,077	159	3,074,258		3,090,217		3,086,379	10	3,083,559		3,091,522		3,104,969
462	3,111,014		3,108,456	165	3,116,138		3,092,986		3,087,319	16	3,091,112		3,095,297	54	3,079,245
464	3,106,074	23	Re.25,489	177	3,077,095		3,097,512		3,088,303	21	3,101,602		3,107,163	59	3,096,169
465	3,091,946		3,073,134		3,113,013	145	3,075,374		3,088,304		3,114,254	2.1	3,096,167	61	3,110,583
467	3,089,318		3,073,135	178	3,104,967		3,097,513		3,091,953	22	3,081,614	.1	3,102,017	64	Re.25,394
	3,090,212		3,105,370	183	3,078,695		3,100,976		3,100,387	28	3,099,148	.2	3,095,298		3,077,395
	3,100,386		3,108,457	196	3,107,162		3,100,977		3,105,375	32	3,099,149	.3	3,072,471		3,082,077
468	3,092,981	.5	3,112,627	253	3,077,755		3,113,443		3,106,081	42	3,085,421	.3	3,072,472	28	3,104,542
469	3,097,509	.7	3,099,917	268	3,084,526	147	3,099,144		3,106,831	46	3,081,615	.3	3,074,790	30	3,082,618
471	3,111,819	25	3,098,366		3,087,316	149	3,071,948		3,110,170			.3	3,078,152		3,092,489
473	3,070,977	26	3,091,103	271	3,091,105		3,108,462		3,111,017	**Class 70**		.3	3,080,225		3,096,170
491	3,078,690		3,093,983	272	3,114,621	150	3,071,949		3,111,830			.3	3,088,817		3,096,171
497	3,080,729	27	3,077,090	283	3,105,753		3,096,634		3,112,630	1.5	3,077,099	.3	3,094,405		3,107,514
498	3,102,400		3,091,949	288	3,086,376	154	3,089,322		3,113,445	.5	3,104,538	.3	3,094,406	39	3,088,311
505	3,111,820		3,095,716		3,087,317		3,093,987		3,114,252	63	3,084,532	.3	3,097,086		3,103,808
506	3,096,630		3,099,918		3,088,300		3,099,145		3,114,253		3,115,762	.3	3,100,149	40	3,076,130
507	3,071,937		3,101,600	4	3,089,319	155	3,110,168	13	3,085,416	68	3,070,986	.3	3,101,263		3,081,620
	3,115,757		3,103,800		3,092,481	163	3,094,855	15	3,094,859		3,089,328	.3	3,102,018	3	3,073,147
511	3,105,367		3,108,458		3,094,403		3,106,829	16	3,102,406	69	3,095,723	.3	3,102,803		3,087,325
512	3,095,255	28	3,071,945		3,102,802	164	3,098,367	17	3,070,984	71	3,100,980	.3	3,103,431		3,092,991
514	3,095,711		3,080,735	290	3,086,377	166	3,108,463		3,085,417		3,103,114	.3	3,107,993		3,100,391
			3,111,822		3,103,430	172	Re.25,331		3,085,418		3,103,115	.3	3,111,403		3,100,986
Class 63			3,111,823		3,115,403		3,094,856		3,086,380	74	3,106,082	.3	3,116,139	4	Re.25,392
		29	3,091,950	291	3,092,482	175	3,096,635		3,088,305	75	3,071,956	.4	3,076,699		3,077,102
2	3,098,364		3,093,984		3,098,736	176	3,078,699		3,091,108	90	3,071,957	.4	3,077,392		3,077,761
3	3,077,089	30	3,075,369		3,106,464		3,092,987		3,102,407		3,078,704	.4	3,080,226	.5	3,071,960
5	3,073,133		3,090,213	319	3,094,404		3,103,111		3,107,512		3,082,617	.4	3,083,089	76	3,074,270
	3,102,401		3,091,951	323	3,077,096	177	3,075,375	18	3,071,953	92	3,073,142	.4	3,097,087	77	3,110,173
13	3,071,938		3,092,983	335	3,113,856		3,093,988		3,074,262		3,076,328	.4	3,103,432	80	3,070,997
14	3,071,939		3,092,984	356	3,078,696		3,109,300		3,078,701		3,083,560	.4	3,104,968		3,095,735
15	3,071,940		3,100,974	374	3,070,982		3,109,301		3,085,419		3,087,323	.5	3,073,691		3,100,990
	3,115,758		3,105,371			178	3,071,950		3,089,325		3,104,539	.5	3,073,692	81	3,077,771
.5	3,077,750		3,106,828	**Class 66**			3,077,757		3,091,954	93	3,071,958	.5	3,075,834		3,078,710
19	3,079,771		3,107,507				3,098,368		3,102,408		3,081,616	.5	3,077,393		3,084,531
20	3,088,295		3,111,824	1	3,099,142		3,098,369		3,102,409		3,101,603	.5	3,078,153		3,094,860
26	3,075,367	31	3,106,078	8	3,084,527	179	3,079,780		3,103,112	95	3,075,376	.5	3,078,154		3,105,376
		32	3,075,370		3,095,717		3,112,628		3,111,831		3,094,861	.5	3,086,854		3,098,375
Class 64			3,104,536	9	3,078,697	180	Re.25,416	19	3,087,320	100	3,102,411	.5	3,086,855		3,098,464
			3,111,825		3,107,508		3,085,409		3,091,955		3,112,635	.5	3,087,804		3,108,464
1	3,080,730			14	3,107,509	185	3,085,410		3,108,464		3,115,763	.5	3,092,483		3,112,631
	3,094,852	**Class 65**		24	3,084,528		3,089,323		3,112,631	107	3,101,604	.5	3,097,088	20	3,078,702
	3,099,141			41	3,108,459		3,107,510	20	3,078,702		3,111,020	.5	3,097,944		3,083,557
	3,106,075	2	3,077,091	42	3,080,739	191	3,094,857		3,083,557	135	3,089,329	.5	3,107,994		3,096,637
2	3,085,406	3	3,073,136		3,093,985	192	3,077,758		3,096,637		3,115,026	.5	3,112,192		3,106,832
3	3,095,712		3,076,324		3,111,826	193	3,073,140		3,106,832	139	3,083,561	.6	3,072,473		3,111,018
	3,110,165		3,077,751	43	3,089,320		3,084,529		3,111,018		3,103,804	.6	3,074,791	22	3,079,782
	3,113,441		3,082,614		3,089,321		3,105,372	22	3,079,782	140	3,089,330	.6	3,075,835	23	3,083,558
4	3,074,253		3,083,550		3,096,633		3,106,079	23	3,083,558		3,111,833	.6	3,077,394		3,087,321
	3,080,731		3,097,941	47	3,115,021		3,109,302		3,087,321	142	3,103,805	.6	3,079,244		3,091,956
	3,091,101	4	3,070,981	48	3,115,022	194	3,111,829		3,091,956	146	3,093,992	.6	3,081,162		3,102,410
	3,105,368	5	3,099,548	49	3,111,827	195	3,071,951		3,102,410		3,095,724	.6	3,087,805		3,103,113
	3,111,821	6	3,077,092	50	3,075,372	198	3,106,830		3,103,113		3,111,021	.6	3,089,765	24	3,089,326
5	3,099,916		3,084,525		3,076,325	200	3,093,989	24	3,089,326	147	3,087,324	.6	3,092,484		3,098,372
6	3,085,407	7	3,077,093		3,076,326				3,098,372	150	3,100,388	.6	3,093,471		3,108,465
7	3,070,978	8	3,080,736		3,077,756	**Class 67**			3,108,465	151	3,073,143	.6	3,095,299	27	3,071,954
	3,071,941		3,097,085		3,079,775			27	3,071,954	153	3,081,617	.6	3,102,019		3,098,373
	3,098,365	11	3,074,256		3,086,378	7	3,085,411		3,098,373	156	3,086,383	.6	3,107,164		3,098,374
	3,107,504	12	3,078,691		3,097,510	.1	3,074,260		3,098,374	169	Re.25,459	.6	3,113,857	43	3,095,720
	3,107,505		3,082,615		3,103,801	.1	3,077,759	43	3,095,720	179	3,090,218	.7	3,078,155	53	3,071,955
8	3,079,772	13	3,088,297		3,108,460	.1	3,079,781	53	3,071,955	208	3,080,743	.7	3,084,036	54	3,112,632
	3,091,102	14	3,114,618	54	3,076,327	.1	3,081,610	54	3,112,632	211	3,073,144	.7	3,088,818	133	3,095,721
	3,112,625	18	3,077,752	60	3,075,373	.1	3,081,611	133	3,095,721	213	3,107,513	.7	3,092,485		

2	7 : 3,093,472	15	: 3,088,309	53	: 3,102,418	91	: 3,095,733	162	: 3,112,643	221	: 3,110,171	355	: 3,073,163		
	7 : 3,093,473		: 3,106,085		: 3,103,809		: 3,113,452	167	: 3,081,626	223	: 3,078,714		: 3,075,386		
	7 : 3,094,407		: 3,114,255		: 3,106,090	93	: 3,079,789		: 3,090,228		: 3,087,336		: 3,080,755		
	7 : 3,101,264	.6	: 3,075,378		: 3,106,836		: 3,101,610		: 3,100,394		: 3,088,316	.3	: 3,081,632		
	7 : 3,101,265	.6	: 3,078,708		: 3,107,519	94	: 3,115,772	168	: 3,086,392		: 3,094,872	.3	: 3,092,997		
	7 : 3,102,020	16	: 3,086,385		: 3,111,837	95	: 3,079,790		: 3,091,116		: 3,096,645	.3	: 3,094,001		
	7 : 3,102,021		: 3,106,086	54	: 3,073,150		: 3,091,960		: 3,098,382		: 3,100,396	.3	: 3,096,650		
	7 : 3,102,022	17	: 3,077,763		: 3,073,151		: 3,099,152		: 3,099,163		: 3,101,613	.3	: 3,107,530		
	7 : 3,102,023		: 3,077,764		: 3,082,620		: 3,113,453	170	: 3,086,393		: 3,115,038	356	: 3,082,624		
	7 : 3,103,433		: 3,081,619		: 3,093,997	97	: 3,102,421		: 3,098,380	224	: 3,071,002		: 3,090,234		
6	: 3,115,404		: 3,083,565		: 3,110,172	99	: 3,105,381		: 3,110,178		: 3,081,630	357	: 3,083,574		
9	: 3,113,014		: 3,084,535		: 3,111,838	100	: 3,099,153	172	: 3,100,992		: 3,083,571		: 3,098,387		
	: 3,114,622		: 3,107,516	55	: 3,071,961		: 3,110,174	178	: 3,077,109		: 3,090,230	358	: 3,090,235		
10	: 3,102,804	19	: 3,077,765		: 3,074,266	101	: 3,080,749		: 3,077,110		: 3,101,614		: 3,090,236		
13	: 3,073,693		: 3,092,992		: 3,081,621		: 3,090,225		: 3,085,429	228	: 3,085,432	359	: 3,075,387		
21	: 3,108,868	23	: 3,070,989		: 3,105,379	103	: 3,098,378		: 3,086,394		: 3,090,231		: 3,094,875		
23	: 3,101,266		: 3,077,103		: 3,115,768		: 3,086,599		: 3,107,522		: 3,096,646		: 3,100,397		
24	: 3,075,836		: 3,077,766	59	: 3,071,962		: 3,107,523		: 3,087,333		: 3,096,647		: 3,111,032		
	: 3,111,404		: 3,086,386		: 3,079,787		: 3,107,524		: 3,091,962		: 3,098,384		: 3,114,263		
27	: 3,082,075		: 3,094,862		: 3,079,788	105	: 3,087,329		: 3,094,868		: 3,104,549	361	: 3,073,164		
	: 3,082,076		: 3,095,728		: 3,090,223		: 3,112,642		: 3,104,545		: 3,114,261		: 3,085,436		
28	: 3,096,168		: 3,097,517		: 3,113,450	114	: 3,084,539		: 3,104,546	229	: 3,071,003	362	: 3,071,967		
	: 3,100,698		: 3,097,518		: 3,115,769	116	: 3,076,332		: 3,112,644	230	: 3,091,118		: 3,076,338		
29	: 3,076,700		: 3,097,519	60	: 3,107,520		: 3,098,379	179	: 3,085,430	231	: 3,075,383		: 3,076,339		
	: 3,087,806		: 3,100,984	61	: 3,070,994		: 3,099,154		: 3,098,381		: 3,084,545		: 3,077,111		
30	: 3,073,694		: 3,101,606		: 3,073,152		: 3,100,988		: 3,111,029		: 3,091,964		: 3,082,625		
	: 3,092,486		: 3,103,807		: 3,084,537		: 3,101,611	180	: 3,077,773		: 3,097,529		: 3,087,337		
	: 3,105,754		: 3,104,541		: 3,085,425		: 3,107,525		: 3,082,622		: 3,101,615		: 3,087,338		
37	: 3,091,523		: 3,106,087		: 3,086,388		: 3,109,304		: 3,105,382	233	: 3,088,317		: 3,089,339		
	: 3,092,487		: 3,107,517		: 3,086,389		: 3,111,841	181	: 3,070,999		: 3,095,741		: 3,091,965		
	: 3,098,737		: 3,111,023		: 3,093,998		: 3,115,033		: 3,083,568	234	: 3,075,384		: 3,092,998		
39	: 3,092,488		: 3,111,024		: 3,108,468	118	: 3,075,381		: 3,095,738	249	: 3,073,159		: 3,100,996		
41	: 3,074,792		: 3,111,025		: 3,111,839	119	: 3,081,623		: 3,104,547	258	: 3,100,993		: 3,102,425		
42	: 3,109,728		: 3,111,835	65	: 3,106,091	133	: 3,096,643		: 3,114,260	263	: 3,101,616		: 3,104,550		
	: 3,109,729		: 3,112,639	67	: 3,070,995	134	: 3,092,994	182	: 3,082,623	270	: 3,098,385		: 3,107,531		
	: 3,113,858		: 3,112,640		: 3,095,730		: 3,099,155		: 3,084,543	272	: 3,107,528		: 3,111,033		
43	: 3,076,701		: 3,115,766	.1	: 3,070,996		: 3,115,034		: 3,088,314	290	: 3,080,752		: 3,113,458		
44	: 3,078,156	25	: 3,070,990	.1	: 3,108,469	136	: 3,079,791		: 3,090,229		: 3,094,873		: 3,115,779		
	: 3,114,623	27	: 3,075,379	.2	: 3,106,837		: 3,081,624	184	: 3,089,335		: 3,100,994	.2	: 3,091,966		
50	: 3,088,819		: 3,080,745	.2	: 3,106,838		: 3,084,540	186	: 3,104,548		: 3,113,456	363.1	: 3,107,532		
	: 3,104,969		: 3,084,536	.2	: 3,113,451		: 3,085,427	187	: 3,101,612	295	: 3,085,433	.5	: 3,077,112		
54	: 3,079,245		: 3,088,310	.5	: 3,074,267		: 3,095,734	188	: 3,108,473		: 3,089,337	.5	: 3,078,717		
59	: 3,096,169		: 3,091,957	.5	: 3,074,268		: 3,104,544		: 3,112,645		: 3,111,031	.5	: 3,088,320		
61	: 3,110,583		: 3,097,520	.5	: 3,101,608		: 3,108,471	189	: 3,071,964	297	: 3,098,386	.5	: 3,115,039		
64	: Re.25,394		: 3,100,985	.5	: 3,115,770		: 3,111,028		: 3,079,794	298	: 3,113,457	.7	: 3,092,999		
	: 3,077,395		: 3,106,088	.6	: 3,097,522	139	: 3,088,313		: 3,094,869	299	: 3,094,874	.9	: 3,089,340		
	: 3,082,077	28	: 3,104,542	.7	: 3,100,987		: 3,089,334		: 3,105,383	302	: 3,106,841	.9	: 3,096,651		
	: 3,085,870	30	: 3,082,618	.8	: 3,077,107		: 3,108,472	190	: 3,071,965		: 3,110,181	.9	: 3,099,161		
	: 3,092,489		: 3,082,619	.8	: 3,077,768	140	: 3,087,330		: 3,095,739	304	: 3,073,160	368	: 3,079,798		
	: 3,096,170		: 3,091,113	.8	: 3,077,769		: 3,100,989		: 3,111,844		: 3,074,273		: 3,086,398		
	: 3,096,171		: 3,107,518	.8	: 3,086,390	141	: 3,073,155	192	: 3,100,395		: 3,079,797		: 3,104,551		
	: 3,113,015	32	: 3,100,390	.8	: 3,091,959		: 3,074,272	193	: 3,110,179		: 3,083,572	.2	: 3,091,120		
	: 3,114,624	35	: 3,108,466	.8	: 3,105,380		: 3,076,333	194	: 3,071,000		: 3,103,815	.3	: 3,080,756		
	: 3,114,625	36	: 3,096,640	.8	: 3,106,839		: 3,077,772		: 3,073,157		: 3,111,845	.3	: 3,103,818		
		37	: 3,102,415	.8	: 3,107,521		: 3,078,712		: 3,078,711		: 3,112,647	.4	: 3,082,626		
Class 73		.5	: 3,074,264	.8	: 3,111,027		: 3,081,625		: 3,079,795		: 3,114,262	.4	: 3,100,398		
		.5	: 3,077,767	.9	: 3,090,224		: 3,084,541		: 3,080,750	306	: 3,080,753	.4	: 3,107,533		
1	3,070,988	.5	: 3,094,863	.9	: 3,114,258		: 3,084,542		: 3,083,569	309	: 3,074,274	.7	: 3,075,388		
	3,077,959	38	3,070,991	.9	: 3,115,771		: 3,087,331		: 3,084,544	311	: 3,086,397	376	: 3,099,162		
	3,077,760		3,073,149	69	: 3,097,523		: 3,090,226		: 3,088,315	313	: 3,078,715	378.3	: 3,086,399		
	3,079,785		3,102,416		: 3,104,543		: 3,090,227		: 3,089,336	317	: 3,078,716	.3	: 3,091,121		
	3,088,307		3,111,026	71.2	: 3,094,864		: 3,091,961		: 3,091,117	321	: 3,085,434	379	: 3,081,633		
	3,111,838		3,111,836	.4	: 3,081,622		: 3,092,995		: 3,094,000		: 3,088,318		: 3,081,634		
	3,096,639		3,114,256	.4	: 3,089,332		: 3,093,999		: 3,094,870		: 3,090,232		: 3,084,547		
	3,102,413		3,115,767	.4	: 3,089,333		: 3,096,644		: 3,097,526		: 3,099,158		: 3,088,321		
	3,107,514	39	3,088,311	.4	: 3,106,092		: 3,097,524		: 3,098,383	322	: 3,099,159	380	: 3,078,718		
	3,113,448		3,103,808	.4	: 3,115,032		: 3,099,156		: 3,102,422	323	: 3,103,816		: 3,088,322		
	3,115,039	40	3,076,130	.6	: 3,074,269		: 3,103,810		: 3,102,423	324	: 3,089,338	382	: 3,073,165		
	3,115,040		3,081,620	.6	: 3,087,328		: 3,110,175		: 3,108,474	334	: 3,096,648		: 3,076,340		
3	3,073,147		3,090,221	.6	: 3,100,393		: 3,110,176		: 3,108,475	335	: 3,075,385		: 3,095,744		
	3,087,325		3,097,521	.6	: 3,106,840		: 3,115,035		: 3,110,180	336	: 3,095,742		: 3,103,819		
	3,092,991		3,100,391	73	: 3,073,153		: 3,115,773		: 3,115,777	.5	: 3,073,161		: 3,103,820		
	3,100,986		3,101,605		: 3,077,770	143	: 3,073,156	195	: 3,083,570	.5	: 3,077,774		: 3,114,264		
4	Re.25,392		3,101,607		: 3,091,115		: 3,110,177		: 3,107,526	.5	: 3,083,573	384	: 3,083,575		
	3,077,102		3,115,031		: 3,103,117	147	: 3,070,998	198	: 3,076,335	.5	: 3,112,648		: 3,093,000		
	3,077,761	.5	: 3,071,960	76	: 3,074,270		: 3,077,108		: 3,076,336	337	: 3,073,162		: 3,098,388		
	3,077,762	.5	: 3,075,380	77	: 3,110,173		: 3,087,332		: 3,087,334	338.6	: 3,092,996		: 3,098,389		
	3,089,331	.5	: 3,085,423	80	: 3,070,997		: 3,095,735		: 3,107,527	339	: 3,080,754	385	: 3,114,265		
	3,097,516	.5	: 3,086,387		: 3,095,731		: 3,100,990	199	: 3,076,337		: 3,095,743	386	: 3,075,389		
	3,104,540	.5	: 3,105,378	81	: 3,077,771		: 3,109,305	200	: 3,081,627		: 3,107,529		: 3,077,778		
	3,106,084	.5	: 3,106,089		: 3,078,710		: 3,111,842	201	: 3,111,030	340	: 3,074,275		: 3,079,799		
	3,106,833	.5	: 3,108,467		: 3,102,417		: 3,111,843	202	: 3,102,424		: 3,097,530		: 3,111,847		
	3,107,515	.7	: 3,070,992		: 3,106,093		: 3,113,454		: 3,103,814		: 3,111,846		: 3,112,649		
7	3,078,707	.7	: 3,087,327		: 3,114,259	149	: 3,075,382	204	: 3,081,628	341	: 3,077,775	388	: 3,071,004		
	3,087,326

Class 73 – Con.

407 : 3,084,549
: 3,084,550
: 3,085,437
: 3,091,123
: 3,094,876
: 3,100,999
: 3,106,094
: 3,106,095
409 : 3,083,576
410 : 3,084,551
: 3,115,040
412 : 3,095,745
414 : 3,080,758
417 : 3,084,552
418 : 3,111,848
419 : 3,073,166
: 3,102,426
: 3,113,460
420 : 3,102,427
421 : 3,071,969
: 3,085,438
: 3,102,428
: 3,110,182
: 3,111,034
.5 : 3,075,391
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.5 : 3,085,439
.5 : 3,085,440
.5 : 3,093,001
.5 : 3,106,843
.5 : 3,107,535
422 : 3,071,005
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: 3,110,183
424 : 3,098,390
425 : 3,074,276
: 3,081,635
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.2 : 3,073,167
.2 : 3,080,760
.2 : 3,091,968
.2 : 3,091,969
.2 : 3,109,307
.4 : 3,077,780
.4 : 3,091,124
.4 : 3,097,532
.6 : 3,106,845
.6 : 3,115,783
431 : 3,077,113
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: 3,096,654
: 3,108,477
432 : 3,071,006
: 3,071,970
: 3,093,003
: 3,094,002
: 3,109,308
: 3,113,461
438 : 3,081,636
439 : 3,074,277
450 : 3,085,441
451 : 3,071,971
457 : 3,078,720
458 : 3,094,003
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: 3,102,429
463 : 3,106,846
: 3,107,538
465 : 3,077,781
466 : 3,071,007
: 3,079,802
: 3,115,041
: 3,115,042
468 : 3,108,478
471 : 3,101,620
480 : 3,084,556
481 : 3,108,479
483 : 3,085,442
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: 3,096,655
485 : 3,098,392
486 : 3,074,278
490 : 3,097,533
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: 3,114,267
492 : 3,071,973
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: 3,103,120
: 3,109,309
: 3,111,035
497 : 3,071,974
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: 3,104,552
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: 3,083,578
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515 : 3,090,238
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516 : 3,078,724
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: 3,109,310
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: 3,073,168
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: 3,078,725
: 3,081,637
: 3,084,558
: 3,090,239
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: 3,091,972
: 3,094,877
: 3,096,656
: 3,096,657
: 3,101,003
: 3,109,311
: 3,110,185
: 3,111,036
: 3,111,850
: 3,113,464
: 3,114,268
519 : 3,111,037
521 : 3,071,009
531 : 3,074,281
535 : 3,110,186
541 : 3,106,097
551 : 3,098,394
: 3,103,822

Class 74

1 : 3,071,010
: 3,073,169
: 3,075,392
: 3,105,386
: 3,109,312
.5 : 3,076,344
.5 : 3,103,121
2 : 3,077,114
: 3,078,726
: 3,082,627
: 3,091,973
: 3,094,004
: 3,111,851
3.52: 3,074,282
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.5 : 3,081,638
.54: 3,091,126
.54: 3,107,539
5 : 3,077,785
: 3,077,786
: 3,078,727
: 3,078,728
: 3,080,762
: 3,084,559
: 3,091,127
: 3,104,553
: 3,112,651
.12: 3,082,630
.1 : 3,110,187
.1 : 3,111,038
.1 : 3,114,269
.12: 3,115,784
.34: 3,071,012
.34: 3,071,977
.34: 3,075,393
5.4 : 3,073,170
.47: 3,077,787
.4 : 3,082,628
.4 : 3,082,629
.47: 3,082,631
.4 : 3,085,444
.43: 3,093,004
.4 : 3,107,540
.5 : 3,079,803
.6 : 3,071,976
.6 : 3,078,729
.6 : 3,084,560
.7 : 3,071,011
.7 : 3,074,283
.7 : 3,080,763
.7 : 3,086,400
.7 : 3,094,878
.7 : 3,097,535
.7 : 3,102,430
6 : 3,084,561
: 3,089,344
: 3,114,270
7 : 3,071,013
: 3,071,978
: 3,077,115
: 3,090,241
: 3,090,242
10.33: 3,074,284
.33: 3,086,401
.45: 3,073,171
.85: 3,090,243
.8 : 3,106,098
15.2 : 3,074,285
.2 : 3,094,005
.63: 3,111,852
.86: 3,077,116
.84: 3,080,764
.84: 3,096,658
16 : 3,105,387
18.1 : 3,075,394
.1 : 3,077,117
.1 : 3,082,632
.1 : 3,087,341
.2 : 3,097,536
.2 : 3,104,554
.2 : 3,106,099
22 : 3,094,006
25 : 3,081,639
: 3,083,579
26 : 3,095,747
36 : 3,087,342
: 3,096,657
: 3,100,401
41 : 3,094,879
: 3,109,313
44 : 3,084,562
: 3,095,748
: 3,112,652
45 : 3,089,345
54 : 3,103,823
: 3,113,465
57 : 3,080,765
: 3,103,122
: 3,107,541
59 : 3,074,286
60 : 3,071,014
: 3,076,345
: 3,077,118
: 3,094,880
: 3,101,621
61 : 3,097,537
: 3,112,653
69 : 3,111,853
75 : 3,091,128
84 : 3,095,749
87 : 3,076,346
: 3,078,730
88 : 3,071,015
89 : 3,074,287
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: 3,078,731
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: 3,101,622
91 : 3,094,007
95 : 3,087,343
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: 3,107,542
96 : 3,103,123
97 : 3,094,008
99 : 3,107,543
100 : 3,088,325
102 : 3,071,016
: 3,087,346
104 : 3,075,396
105 : 3,098,395
107 : 3,095,750
108 : 3,077,788
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110 : 3,073,172
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112 : 3,097,538
113 : 3,083,580
: 3,105,388
116 : 3,073,173
: 3,103,824
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124 : 3,115,043
125 : 3,071,017
: 3,078,732
: 3,099,164
: 3,115,785
126 : 3,086,402
: 3,090,245
: 3,111,854
128 : 3,078,733
: 3,083,581
: 3,087,347
130 : 3,078,734
141.5 : 3,071,979
142 : 3,095,751
: 3,106,849
148 : 3,101,004
152 : 3,109,314
157 : 3,096,659
: 3,107,544
190 : 3,076,347
: 3,106,850
.5 : 3,106,100
196 : 3,108,480
198 : 3,071,018
: 3,097,539
199 : 3,082,634
200 : 3,087,348
: 3,115,044
205 : 3,078,735
206 : 3,077,119
216.5 : 3,082,635
217 : 3,081,641
: 3,095,752
: 3,111,855
220 : 3,108,481
221 : 3,076,348
: 3,108,482
229 : 3,083,582
: 3,083,583
: 3,091,129
239.17 : 3,071,019
.17 : 3,074,289
.17 : 3,079,804
.17 : 3,081,642
.17 : 3,082,636
.17 : 3,085,445
.17 : 3,085,446
.18 : 3,087,349
.17 : 3,088,326
.17 : 3,088,327
.17 : 3,090,246
.17 : 3,097,540
.17 : 3,102,431
.17 : 3,107,545
.17 : 3,108,483
.17 : 3,108,484
.17 : 3,108,485
.17 : 3,109,315
.17 : 3,110,188
.17 : 3,110,189
.17 : 3,111,857
.17 : 3,111,858
.17 : 3,114,271
.17 : 3,115,045
.3 : 3,074,288
.3 : 3,096,660
.3 : 3,111,856
.4 : 3,094,009
.7 : 3,083,584
.8 : 3,094,881
231 : 3,105,389
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.5 : 3,104,557
234 : 3,103,124
236 : 3,071,020
: 3,089,346
237 : 3,105,390
241 : 3,079,805
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242 : 3,098,396
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.11: 3,081,643
.15: 3,091,974
.14: 3,098,397
.1 : 3,103,125
.15: 3,110,190
.11: 3,111,039
.14: 3,113,467
.11: 3,115,046
.3 : 3,109,316
.9 : 3,086,403
.9 : 3,104,555
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254 : 3,086,404
258 : 3,096,661
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330 : 3,091,975
331 : Re.25,458
333 : 3,080,766
: 3,110,191
335 : 3,074,291
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: 3,106,851
336 : 3,096,662
.5 : 3,076,350
339 : 3,103,826
342 : 3,099,165
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353 : 3,113,468
354 : 3,073,174
: 3,076,347
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359 : 3,071,982
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: 3,106,102
360 : 3,080,767
: 3,102,432
: 3,115,047
364 : 3,091,976
365 : 3,106,852
366 : 3,098,399
368 : 3,087,351
: 3,090,248
: 3,110,192
372 : 3,099,925
: 3,111,860
375 : 3,084,563
: 3,115,048
377 : 3,071,021
: 3,073,175
379 : 3,075,398
388 : 3,084,564
: 3,086,405
: 3,094,010
: 3,099,167
394 : 3,076,351
397 : 3,104,556
410 : 3,091,009
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411 : 3,109,317
412 : 3,075,399
415 : 3,079,807
421 : 3,073,176
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424.8 : 3,081,644
.8 : 3,083,586
.8 : 3,101,006
.8 : 3,101,623
.8 : 3,103,827
.8 : 3,108,487
432 : 3,115,786
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441 : 3,094,011
443 : 3,076,352
458 : 3,071,022
: 3,079,808
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459 : Re.25,426
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465 : 3,108,488
470 : 3,109,318
471 : 3,083,587
: 3,085,447
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: 3,095,754
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: 3,103,127
: 3,112,656
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: 3,077,122
: 3,078,736
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: 3,102,434
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: 3,103,828
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472 : 3,109,319
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473 : 3,080,769
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: 3,088,329
477 : 3,104,558
479 : 3,103,829
481 : 3,096,663
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484 : 3,111,041
489 : 3,104,559
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501 : 3,088,330
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513 : 3,088,331
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527 : 3,094,883
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564 : 3,114,272
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571 : 3,073,178
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603 : 3,112,658
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606 : 3,082,645
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607 : 3,103,132
609 : 3,111,863
615 : 3,108,491
625 : 3,075,407
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645 : 3,073,179
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650 : 3,111,043
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661 : 3,079,811
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664 : 3,088,334
665 : 3,073,180
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677 : 3,073,181
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680 : 3,075,410
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754 : 3,095,763
757 : 3,088,338
759 : 3,091,981
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763 : 3,071,025
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797 : 3,115,794
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Class 75

.5 : 3,073,695
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.5 : 3,102,024
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11 : 3,072,474
12 : 3,079,247
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26 : 3,076,702
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27 : 3,116,141
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31 : 3,077,396
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40 : 3,094,410
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52 : 3,076,703
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53 : 3,079,250
56.5 : 3,097,993
59 : 3,084,039
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60 : 3,096,173
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63 : 3,078,159
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68 : 3,087,808
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74 : 3,102,806
75 : 3,081,163
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.5 : 3,104,166
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86 : 3,094,411
87 : 3,073,696
97 : 3,102,808
: 3,104,167
: 3,113,018
101 : 3,085,875
: 3,100,701
: 3,109,732
108 : 3,082,079
: 3,107,996
115 : 3,087,809
: 3,113,860
117 : 3,104,971
119 : 3,082,080
: 3,082,081
122.5 : 3,098,742
.7 : 3,072,475
.7 : 3,084,040
.7 : 3,089,768
123 : 3,075,838
: 3,078,160
: 3,081,164
: 3,095,300
: 3,109,733
: 3,113,861
124 : 3,071,460
: 3,099,556
: 3,107,997
: 3,108,870
: 3,111,405
: 3,115,406
125 : 3,075,839
: 3,082,082
: 3,083,095
126 : 3,077,397
: 3,092,491
: 3,097,091
: 3,104,168
: 3,112,195
: 3,113,862
: 3,114,630
128 : 3,076,704
: 3,082,083
: 3,086,858
: 3,097,092
: 3,102,025
: 3,105,758
: 3,110,586
129 : 3,072,476
130 : 3,076,705
: 3,080,228
: 3,113,019
.5 : 3,085,004
133.5 : 3,074,793
134 : 3,079,251
135 : 3,071,461
: 3,094,412
: 3,094,413
: 3,113,020
153 : 3,107,998
156.5 : 3,097,093
159 : 3,091,527
161 : 3,079,252
165 : 3,087,810
166 : 3,078,161
168 : 3,071,462
: 3,092,492
: 3,101,269
169 : 3,087,811
170 : 3,072,477
171 : 3,085,005
: 3,087,812
: 3,089,769
: 3,093,476
: 3,094,414
: 3,098,743
: 3,107,167
: 3,107,999
: 3,110,587
: 3,110,588
173 : 3,114,631
174 : 3,075,840
: 3,086,859
: 3,109,734
: 3,113,863
: 3,115,407
175 : 3,087,813
.5 : 3,105,759
.5 : 3,110,589
.5 : 3,111,406
.5 : 3,112,196
.5 : 3,114,632
176 : 3,080,229
: 3,085,006
: 3,085,007
: 3,110,590
: 3,116,145
177 : 3,072,478
: 3,097,094
: 3,104,972
178 : 3,083,096
200 : 3,115,408
206 : 3,082,084
: 3,085,876
: 3,105,760
208 : 3,073,697
: 3,087,814
: 3,094,415
: 3,108,871
211 : 3,076,706
212 : 3,073,698
213 : 3,084,041
214 : 3,071,463
: 3,108,000
: 3,116,146
221 : 3,084,042
222 : 3,086,860
223 : 3,103,435
224 : 3,109,735
226 : 3,096,174

Class 76

1 : 3,103,833
5 : 3,104,561
12 : 3,077,126
24 : 3,077,127
31 : 3,083,591
35 : 3,114,274
36 : 3,071,987
: 3,089,351
: 3,091,136
: 3,093,016
37 : 3,103,134
40 : 3,071,026
: 3,109,327
78 : 3,114,275
69 : 3,104,564
: 3,111,866
72 : 3,080,777
73 : 3,078,743
.5 : 3,087,359
.5 : 3,099,174
75 : 3,087,360

Class 78

1 : 3,086,411
: 3,094,887
: 3,106,113
9 : 3,091,139
: 3,108,502
13 : 3,114,276
17 : 3,100,409
: 3,101,632
: 3,107,557
: 3,110,201
: 3,112,660
20 : 3,098,402
21 : 3,071,031
: 3,084,571
: 3,087,361
39 : 3,099,175
42 : 3,103,136
: 3,105,398
: 3,108,503
: 3,111,867
: 3,113,476
43 : 3,080,778
44 : 3,075,416
45 : 3,101,633
46 : 3,089,360
: 3,091,982
: 3,094,017
: 3,111,045
: 3,111,868
: 3,111,869
47 : 3,079,816
49 : 3,093,017
60 : 3,115,797
63 : 3,087,362
82 : 3,083,595
: 3,088,343
: 3,090,262
: 3,093,018
: 3,101,634
: 3,101,635
: 3,103,137
: 3,106,856
89 : 3,090,263
96 : 3,105,399
98 : 3,073,190
99 : 3,079,817
: 3,089,361
: 3,091,140

Class 79

3 : 3,083,596
5 : 3,091,141

Class 80

1 : 3,074,299
5 : 3,077,130
.1 : 3,088,344
6 : 3,089,362
: 3,107,558
: 3,110,202
9 : 3,076,358
11 : 3,071,992
: 3,078,744
: 3,101,015
12 : 3,076,359
: 3,106,114
13 : 3,104,565
14 : 3,081,650
: 3,112,661
16 : 3,078,745
: 3,084,572
: 3,090,264
: 3,090,265
: 3,094,888
: 3,096,669
: 3,115,052
19 : 3,107,559
22 : 3,091,142
25 : 3,102,443
29 : 3,077,131
32 : 3,077,800
: 3,103,138
35 : 3,078,746
: 3,081,651
: 3,101,016
: 3,109,330
: 3,110,203
: 3,110,204
: 3,113,477
124.1 : 3,076,360
126 : 3,098,403
127 : 3,103,139
51 : 3,071,032
54 : 3,074,300
55 : 3,098,404
56 : 3,075,417
: 3,078,747
: 3,081,652
: 3,081,653
: 3,081,654
: 3,089,363
: 3,089,364
: 3,089,365
: 3,096,670
: 3,096,671
: 3,100,410
: 3,104,566
: 3,104,567
: 3,111,046
: 3,111,047
: 3,112,662
57 : 3,101,636
58 : 3,078,748
60 : 3,076,361
: 3,096,672
: 3,097,549
: 3,099,176
: 3,105,400
: 3,109,331

Class 81

1 : 3,088,345
: 3,105,401
3 : 3,103,836
.2 : 3,085,454
.43: 3,084,573
.5 : 3,108,504
5.1 : 3,094,018
6 : 3,106,115
7 : 3,086,412
9.1 : 3,089,366
.3 : 3,091,143
.3 : 3,111,870
.51: 3,074,301
.51: 3,084,574
.51: 3,085,455
.5 : 3,087,363
.5 : 3,089,367
.5 : 3,094,019
.51: 3,095,768
.5 : 3,102,444
.5 : 3,103,837
.5 : 3,108,505
.5 : 3,109,332
.5 : 3,114,277
13 : 3,094,020
15 : 3,071,993
: 3,080,779
: 3,084,575
: 3,088,346
: 3,088,347
: 3,091,983
: 3,101,017
: 3,104,568
: 3,105,402
: 3,107,560
: 3,109,333
: 3,113,478
: 3,115,053
.2 : 3,088,348
.2 : 3,111,048
.7 : 3,073,191
.7 : 3,079,818
.7 : 3,083,597
.7 : 3,110,205
.8 : 3,099,928
52.35: 3,071,994
.3 : 3,083,598
.3 : 3,094,021
.3 : 3,108,506
.3 : 3,108,507
.4 : 3,076,362
.4 : 3,088,349
53 : 3,086,413
: 3,087,364
: 3,094,022
: 3,097,550
: 3,104,569
56 : 3,097,551
57 : 3,111,049
61 : 3,077,801
63.2 : 3,099,177
66 : 3,097,552
71 : 3,105,403
90 : 3,071,995
: 3,086,414
: 3,088,350
: 3,095,769
100 : 3,109,334
101 : 3,085,456
121 : 3,073,192
: 3,079,819
124.1 : 3,114,278
126 : 3,104,570
127 : 3,101,018
166 : 3,093,019
177 : 3,113,479
179 : 3,079,820
180 : 3,083,599
329 : 3,091,984
351 : 3,097,553
380 : 3,104,571
415 : 3,082,652

Class 82

1 : 3,077,802
: 3,079,821
: 3,115,054
2 : 3,073,193
: 3,075,418
: 3,076,363
: 3,090,266
: 3,095,770
: 3,099,178
: 3,103,140
: 3,106,116
: 3,107,561
.5 : 3,096,673
.5 : 3,101,019
4 : 3,076,364
: 3,078,749
: 3,083,600
: 3,114,279
: 3,115,055
5 : 3,073,194
: 3,087,365
: 3,090,267
: 3,102,445
: 3,111,050
12 : 3,082,653
14 : 3,079,822
: 3,106,857
: 3,111,051
20 : 3,099,929
: 3,112,663
23 : 3,104,572
24 : 3,101,637
27 : 3,109,335
28 : 3,096,674
: 3,099,179
: 3,103,838
29 : 3,111,871
32 : 3,106,117
33 : 3,071,996
34 : 3,094,023
: 3,095,771
: 3,112,664
: 3,115,798
35 : 3,071,997
: 3,094,024
36 : 3,088,351
: 3,094,025
: 3,101,020
: 3,103,839
: 3,107,562
: 3,109,336
: 3,115,799
38 : 3,091,985
: 3,103,840
: 3,115,800
40 : 3,071,998
: 3,105,404
46 : 3,084,576
: 3,094,026
48 : 3,083,601
: 3,084,577
: 3,107,563
49 : 3,086,415
59 : 3,088,352
: 3,097,554
60 : 3,084,578
76 : 3,071,033
100 : 3,095,772
101 : 3,107,564

Class 83

1 : 3,089,368
2 : 3,095,773
: 3,107,565
: 3,109,337
: 3,109,338
3 : 3,089,369
4 : 3,109,339
: 3,111,872
: 3,106,858
6 : 3,097,555
11 : 3,106,118
13 : 3,108,508
15 : 3,091,144
24 : 3,088,353
27 : 3,103,841
33 : 3,107,566
36 : 3,112,665
37 : 3,094,027
: 3,095,774
40 : 3,074,302
58 : 3,078,750

Class 83 – Con.

61 : 3,104,573
62 : 3,110,206
63 : 3,076,365
71 : 3,094,028
72 : 3,078,751
74 : 3,084,579
75 : 3,083,602
: 3,105,405
76 : 3,071,999
81 : 3,077,803
: 3,108,509
82 : 3,106,119
87 : 3,110,207
89 : 3,089,370
95 : 3,082,654
: 3,101,638
98 : 3,076,366
: 3,088,354
: 3,111,873
99 : 3,101,021
: 3,103,842
100 : 3,090,268
: 3,111,052
105 : 3,080,780
: 3,109,340
106 : 3,093,020
107 : 3,103,843
: 3,111,874
111 : 3,079,823
112 : 3,072,000
: 3,081,655
123 : 3,084,580
124 : 3,107,567
: 3,111,053
125 : 3,081,656
128 : 3,091,986
: 3,106,120
133 : 3,112,666
135 : 3,082,655
138 : 3,100,411
140 : 3,079,824
: 3,114,280
145 : 3,087,366
147 : 3,072,001
152 : 3,106,121
153 : 3,072,002
155 : 3,114,281
162 : 3,080,781
163 : 3,100,412
167 : 3,103,844
: 3,104,574
168 : 3,104,575
169 : 3,104,576
174 : 3,111,875
177 : 3,088,355
180 : 3,100,413
182 : 3,104,577
184 : 3,091,145
191 : 3,073,195
201 : 3,077,132
: 3,089,371
: 3,093,021
: 3,104,578
203 : 3,114,282
207 : 3,111,876
209 : 3,079,825
213 : 3,072,003
227 : 3,076,367
230 : 3,099,180
233 : 3,088,356
236 : 3,085,457
: 3,098,405
240 : 3,085,458
244 : 3,076,368
247 : 3,088,357
250 : 3,091,987
287 : 3,097,556
294 : 3,081,657
295 : 3,075,419
298 : 3,075,420
: 3,076,369
300 : 3,084,581
302 : 3,110,208
308 : 3,077,133
311 : 3,075,421
313 : 3,080,782
314 : 3,079,826
317 : 3,088,358
318 : 3,072,004
: 3,089,372
319 : 3,075,422
320 : 3,082,656
: 3,093,022
: 3,111,054
322 : 3,110,209
337 : 3,111,055
341 : 3,073,196
: 3,084,582
: 3,094,029
345 : 3,077,804
: 3,086,416
: 3,106,859
347 : 3,074,303
349 : 3,099,181
355 : 3,091,988
: 3,104,579
368 : 3,073,197
370 : 3,093,023
375 : 3,115,801
383 : 3,099,182
384 : 3,077,805
403 : 3,104,580
411 : 3,077,806
: 3,088,359
416 : 3,086,417
425 : 3,081,658
431 : 3,085,459
433 : 3,091,146
437 : 3,100,414
454 : 3,097,557
456 : 3,074,304
468 : 3,089,373
473 : 3,090,269
479 : 3,080,783
482 : 3,080,784
504 : 3,073,198
529 : 3,094,889
530 : 3,083,603
532 : 3,077,807
549 : 3,073,199
550 : 3,110,210
554 : 3,081,659
555 : 3,094,030
559 : 3,077,134
560 : 3,089,374
563 : 3,081,660
568 : 3,091,147
: 3,093,024
571 : 3,089,375
578 : 3,071,034
581 : 3,077,808
588 : 3,087,367
: 3,098,406
601 : 3,090,270
602 : 3,073,200
614 : 3,079,827
: 3,090,271
619 : 3,089,376
635 : 3,083,604
: 3,086,418
640 : 3,086,419
647.5 : 3,073,201
648 : 3,097,558
657 : 3,111,877
676 : 3,081,661
687 : 3,077,135
698 : 3,101,639
: 3,103,845
: 3,106,122

Class 84

1 : 3,085,460
.01 : 3,077,136
.04 : 3,077,137
.04 : 3,083,605
.01 : 3,095,465
.03 : 3,105,106
.14 : 3,073,202
.16 : 3,073,203
.16 : 3,080,785
.16 : 3,084,583
.17 : 3,084,584
.19 : 3,091,148
.11 : 3,095,466
.11 : 3,098,407
.17 : 3,098,888
.18 : 3,098,889
.19 : 3,099,700
.12 : 3,109,878
.16 : 3,113,990
.16 : 3,116,357
.8 : 3,091,990
26 : 3,073,204
25 : 3,074,305
26 : 3,074,306
: 3,079,829
27 : 3,075,423
25 : 3,076,370
25 : 3,078,752
27 : 3,078,753
25 : 3,080,786
25 : 3,083,606
24 : 3,084,585
26 : 3,090,272
22 : 3,093,700
24 : 3,093,701
24 : 3,093,702
25 : 3,095,467
22 : 3,097,253
27 : 3,109,047
26 : 3,112,353
28 : 3,114,789
25 : 3,116,358
94 : 3,090,273
103 : 3,077,138
160 : 3,115,802
171 : 3,104,581
174 : 3,072,005
177 : 3,100,415
183 : 3,072,006
195 : 3,086,420
209 : 3,090,274
: 3,091,149
: 3,096,675
237 : 3,076,371
240 : 3,100,416
: 3,106,861
246 : 3,088,360
255 : 3,101,640
267 : 3,072,007
275 : 3,084,586
279 : 3,090,275
283 : 3,107,568
293 : 3,091,150
298 : 3,081,662
302 : 3,096,676
314 : 3,103,846
322 : 3,112,668
327 : 3,102,446
332 : 3,094,890
343 : 3,103,141
345 : 3,103,847
376 : 3,100,417
380 : 3,094,032
382 : 3,079,828
383 : 3,091,989
: 3,094,891
400 : 3,099,183
402 : 3,084,587
: 3,106,860
404 : 3,101,022
406 : 3,074,307
407 : 3,084,588
409 : 3,083,607
411 : 3,105,406
: 3,113,480
415 : 3,113,481
418 : 3,076,372
421 : 3,096,677
: 3,106,123
423 : 3,087,368
: 3,109,341
: 3,110,211
425 : 3,111,056
433 : 3,099,930
448 : 3,103,848
456 : 3,083,608
457 : 3,091,151
: 3,106,124
464 : 3,111,057
470 : 3,084,589
: 3,115,803
477 : 3,113,482
478 : 3,091,152
482 : 3,101,023
484 : 3,095,775

Class 85

1 : 3,085,461
: 3,087,369
: 3,093,025
: 3,099,184
: 3,102,447
2.4 : 3,077,809
.4 : 3,080,787
.4 : 3,082,657
.4 : 3,089,377
.4 : 3,093,026
.4 : 3,094,892
.4 : 3,096,678
.4 : 3,104,582
.4 : 3,107,569
.4 : 3,107,570
.4 : 3,110,212
.4 : 3,115,056
.8 : 3,091,990
4 : 3,115,804
5 : 3,077,810
: 3,079,829
: 3,081,663
: 3,085,462
: 3,093,027
: 3,097,559
: 3,101,641
6 : 3,096,679
7 : 3,095,776
: 3,107,571
8.6 : 3,077,811
.8 : 3,115,805
9 : 3,087,370
11 : 3,072,008
: 3,082,658
23 : 3,076,373
: 3,091,991
28 : 3,088,361
: 3,096,680
: 3,112,667
31 : 3,095,777
32 : 3,079,830
32 : 3,086,421
40 : 3,072,009
: 3,073,205
: 3,085,463
: 3,099,931
: 3,105,407
: 3,107,572
: 3,109,342
: 3,110,213
41 : 3,093,028
45 : 3,073,206
: 3,078,754
: 3,106,862
46 : 3,104,583
47 : 3,079,831
: 3,083,609
: 3,094,893
: 3,094,894
: 3,094,895
48 : 3,073,207
49 : 3,077,812
62 : 3,087,371

Class 86

1 : 3,083,610
: 3,107,573
17 : 3,091,153
20 : 3,082,659
: 3,104,584
: 3,107,574
: 3,111,058
: 3,111,059
21 : 3,075,424
: 3,079,832
23 : 3,073,208
: 3,113,483
25 : 3,087,372
: 3,105,408
27 : 3,097,560
32 : 3,089,378
33 : 3,090,276
36 : 3,110,214
38 : 3,105,409
44 : 3,082,660
: 3,107,575

Class 87

1 : 3,099,932
4 : 3,088,362
: 3,097,561
6 : 3,073,209
8 : 3,090,277
9 : 3,078,755
13 : 3,111,060
18 : 3,101,642
22 : 3,107,576
23 : 3,089,379
33 : 3,088,363

Class 88

1 : 3,071,035
: 3,071,036
: 3,073,210
: 3,075,425
: 3,082,661
: 3,083,611
: 3,084,590
: 3,085,464
: 3,087,373
: 3,087,374
: 3,087,378
: 3,102,920
: 3,109,048
: 3,114,790
.5 : 3,081,664
.5 : 3,082,662
.5 : 3,087,375
.5 : 3,087,376
.5 : 3,089,380
.5 : 3,094,579
.5 : 3,107,269
2.3 : 3,082,663
.3 : 3,085,465
.6 : 3,072,010
.7 : 3,073,211
.7 : 3,079,833
14 : 3,071,037
: 3,071,038
: 3,072,011
: 3,072,012
: 3,073,212
: 3,074,308
: 3,074,309
: 3,075,426
: 3,076,374
: 3,077,139
: 3,077,813
: 3,078,756
: 3,079,834
: 3,079,835
: 3,080,788
: 3,080,789
14 : 3,081,665
: 3,081,666
: 3,082,661
: 3,084,591
: 3,084,592
: 3,085,466
: 3,086,422
: 3,087,377
: 3,088,364
: 3,089,381
: 3,089,382
: 3,089,383
: 3,090,278
: 3,090,279
: 3,090,993
: 3,091,154
: 3,094,416
: 3,096,175
: 3,096,388
: 3,097,254
: 3,098,408
: 3,102,155
: 3,102,921
: 3,103,546
: 3,107,168
: 3,109,049
: 3,112,354
: 3,113,171
: 3,113,991
: 3,114,791
: 3,115,536
15 : 3,096,681
: 3,099,933
: 3,100,418
: 3,111,878
16 : 3,071,039
: 3,077,814
: 3,078,757
: 3,079,836
: 3,081,667
: 3,088,365
: 3,106,125
: 3,106,126
: 3,110,215
: 3,111,879
2 : 3,081,668
4 : 3,091,155
6 : 3,083,612
6 : 3,088,366
6 : 3,101,643
6 : 3,101,644
6 : 3,107,577
6 : 3,113,484
8 : 3,078,758
17 : 3,074,310
: 3,074,311
: 3,075,427
: 3,083,613
: 3,085,467
: 3,091,992
: 3,094,033
: 3,095,778
: 3,095,779
: 3,096,682
: 3,098,409
: 3,102,448
18.4 : 3,084,593
19.5 : 3,078,759
.5 : 3,079,837
20 : 3,071,040
: 3,079,838
: 3,087,378
23 : 3,073,213
: 3,076,375
: 3,076,376
: 3,080,790
: 3,087,379
: 3,087,380
: 3,105,107
24 : Re.25,408
: 3,071,041
: 3,072,013
: 3,072,014
: 3,073,214
: 3,073,215
: 3,074,312
: 3,074,313
: 3,075,428
: 3,076,377
: 3,076,378
: 3,076,379
: 3,076,380
: 3,077,140
: 3,077,141
: 3,077,815
: 3,077,816
: 3,078,760
: 3,078,761
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24 : 3,085,468
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: 3,089,384
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: 3,090,281
: 3,093,029
: 3,094,034
: 3,094,035
: 3,094,036
: 3,094,037
: 3,097,562
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: 3,099,185
: 3,099,934
: 3,100,419
: 3,101,024
: 3,101,025
: 3,101,645
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: 3,102,449
: 3,102,450
: 3,102,921
: 3,103,849
: 3,103,850
: 3,104,585
: 3,104,586
: 3,105,410
: 3,106,127
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: 3,106,129
: 3,107,578
: 3,107,581
: 3,107,582
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: 3,112,680
: 3,113,492
: 3,115,813
.01 : 3,073,216
.01 : 3,104,596
.5 : 3,087,390
.6 : 3,078,768
.6 : 3,114,300
37 : 3,101,652
: 3,106,876
: 3,109,348
39.2 : 3,103,857
41 : 3,080,796
: 3,102,456
.1 : 3,076,389
.1 : 3,078,769
.1 : 3,088,381
44 : 3,105,418
.1 : 3,079,845
.1 : 3,093,035
.1 : 3,104,597
45 : 3,111,064
49 : 3,071,048
: 3,083,619
: 3,096,692
: 3,097,575
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: 3,110,232
: 3,111,065
: 3,111,885
51 : 3,081,675
: 3,085,479
: 3,086,427
: 3,087,391
: 3,089,393
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: 3,115,073
52 : 3,073,217
: 3,085,480
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53 : 3,074,326
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: 3,097,577
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: 3,108,515
: 3,111,066
54 : 3,086,428
: 3,101,655
55.1 : 3,104,599
58 : 3,074,327
: 3,105,420
: 3,107,589
.2 : 3,087,392
.2 : 3,093,037
.2 : 3,111,067
.3 : 3,079,846
59 : 3,094,906
62 : 3,077,821
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: 3,088,382
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73 : 3,075,435
77 : 3,114,301
80 : 3,085,481
: 3,099,190
: 3,102,458
: 3,108,516
81 : 3,073,218
: 3,105,421
82 : 3,081,676
84 : 3,077,148
: 3,110,233
88 : 3,086,429
: 3,095,787
93 : 3,089,394
: 3,105,422
94 : 3,087,393

Class 94

1 : 3,086,430
: 3,107,590
: 3,114,302
.5 : 3,084,604
.5 : 3,091,996
.5 : 3,091,997
.5 : 3,093,038
.5 : 3,094,046
.5 : 3,096,694
.5 : 3,106,878
.5 : 3,114,303
3 : 3,085,482
: 3,091,998
4 : 3,094,907
7 : 3,112,681
: 3,114,304
8 : 3,104,600
: 3,105,423
: 3,111,068
11 : 3,096,695
13 : 3,076,390
17 : 3,089,395
18 : 3,094,908
: 3,097,579
: 3,106,879
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: 3,113,493
22 : 3,103,858
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: 3,107,591
23 : 3,103,860
30 : 3,077,149
: 3,083,620
: 3,109,349
31.1 : 3,089,396
39 : 3,083,621
: 3,086,431
: 3,096,696
: 3,098,413
: 3,109,350
44 : 3,091,999
: 3,095,788
: 3,100,425
: 3,103,220
: 3,108,517
: 3,109,351
45 : 3,080,798
: 3,091,158
: 3,094,047
: 3,094,048
: 3,095,789
: 3,110,234
: 3,113,494
46 : 3,071,049
: 3,088,383
: 3,088,384
: 3,098,414
: 3,098,415
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: 3,108,518
: 3,109,352
: 3,109,353
: 3,115,074
48 : 3,073,219
: 3,076,391
: 3,087,394
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49 : 3,075,436
: 3,088,385
: 3,090,286
: 3,091,159
: 3,109,354
50 : 3,071,050
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: 3,072,025
: 3,075,437
: 3,080,799
: 3,080,800
: 3,082,668
: 3,085,483
: 3,085,484
: 3,099,942
: 3,105,424
: 3,108,519
: 3,108,520
: 3,114,305

Class 95

1 : 3,110,235
.1 : 3,080,801
.1 : 3,082,669
.1 : 3,102,459
.1 : 3,111,886
.1 : 3,111,887
.7 : 3,072,026
.7 : 3,076,392
.7 : 3,077,150
.7 : 3,078,770
.7 : 3,081,677
.7 : 3,083,622
.7 : 3,083,623
.7 : 3,088,386
.7 : 3,090,287
.7 : 3,091,160
.7 : 3,093,039
.7 : 3,094,049
.7 : 3,094,909
.7 : 3,094,910
.7 : 3,097,580
.7 : 3,099,943
.7 : 3,099,944
.7 : 3,100,426
.7 : 3,100,427
.7 : 3,105,425
.7 : 3,105,426
.7 : 3,109,355
.7 : 3,115,075
.7 : 3,115,076
.7 : 3,115,814
4.5 : Re.25,354
.5 : 3,074,328
.5 : 3,076,393
.5 : 3,078,771
.5 : 3,080,802
.5 : 3,082,670
.5 : 3,083,624
.5 : 3,092,000
.5 : 3,094,050
.5 : 3,098,416
.5 : 3,099,945
.5 : 3,106,880
.5 : 3,106,881
.5 : 3,108,521
.5 : 3,115,815
10 : 3,071,052
: 3,071,053
: 3,071,054
: 3,071,055
: 3,072,027
: 3,072,028
: 3,072,029
: 3,072,030
: 3,072,031
: 3,072,032
: 3,072,033
: 3,072,034
: 3,072,220
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: 3,075,438
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: 3,075,441
: 3,075,442
: 3,076,394
: 3,077,151
: 3,077,822
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: 3,082,671
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: 3,083,625
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: 3,084,605
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: 3,086,436
: 3,086,437
: 3,087,395
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: 3,088,387
: 3,089,397
: 3,089,398
: 3,089,399
: 3,090,800
: 3,090,801
: 3,091,161
: 3,091,162
: 3,093,040
: 3,093,041
: 3,093,042
: 3,093,043
: 3,093,044
: 3,093,052
: 3,093,053
: 3,094,911
: 3,094,912
: 3,095,790
: 3,095,791
: 3,095,792
: 3,095,793
: 3,097,581
: 3,097,582
: 3,097,583
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: 3,099,194
: 3,100,428
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: 3,103,149
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: 3,104,601
: 3,105,427
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: 3,106,141
: 3,106,882
: 3,108,522
: 3,109,356
: 3,110,236
: 3,111,071
: 3,111,072
: 3,111,888
: 3,111,889
: 3,112,682
: 3,115,077
11 : 3,073,227
: 3,089,398
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: 3,107,593
: 3,108,523
: 3,115,078
: 3,080,805
: 3,101,656
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: 3,113,496
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16 : 3,099,946
18 : 3,076,395
: 3,115,816
19 : 3,073,228
31 : 3,073,229
: 3,079,850
: 3,081,679
: 3,084,606
: 3,087,399
: 3,088,388
: 3,088,389
: 3,093,045
: 3,094,055
: 3,096,699
: 3,098,418
: 3,103,861
: 3,106,142
: 3,110,237
: 3,112,683
34 : 3,078,775
: 3,113,498
36 : 3,088,390
37 : 3,099,195
40 : 3,077,152
: 3,087,400
: 3,091,163
: 3,103,151
42 : 3,074,333
: 3,075,443
: 3,081,680
: 3,081,681
: 3,083,627
: 3,094,057
: 3,100,432
: 3,103,865
: 3,103,866
: 3,110,241
: 3,115,081
44 : 3,083,628
: 3,101,658
: 3,108,526
45 : 3,074,334
: 3,075,444
: 3,076,396
: 3,081,682
: 3,092,001
: 3,095,794
: 3,108,527
: 3,110,238
47 : 3,073,230
53 : 3,073,231
: 3,093,046
: 3,095,795
.3 : 3,115,080
.3 : 3,103,862
54 : 3,091,164
55 : 3,078,776
: 3,082,673
: 3,109,357
57 : 3,087,401
58 : 3,092,002
: 3,103,863
59 : 3,081,683
: 3,093,047
63 : 3,073,232
: 3,075,445
: 3,083,629
: 3,084,607
: 3,089,400
: 3,089,401
: 3,092,003
: 3,093,048
: 3,096,700
: 3,099,196
: 3,099,197
: 3,102,462
: 3,105,429
: 3,115,817
64 : 3,071,056
: 3,071,057
: 3,071,058
: 3,072,035
: 3,072,036
: 3,073,233
: 3,074,335
: 3,074,336
: 3,074,337
: 3,076,397
: 3,076,398
: 3,077,153
: 3,077,154
: 3,079,851
: 3,080,806
: 3,081,684
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: 3,082,674
: 3,084,608
: 3,085,486
: 3,085,487
: 3,091,165
: 3,091,166
: 3,091,167
: 3,093,049
: 3,094,056
: 3,098,420
: 3,098,421
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: 3,103,152
: 3,106,144
: 3,106,883
: 3,107,594
: 3,108,528
: 3,110,240
: 3,111,890
: 3,111,891
: 3,112,684
66 : 3,091,168
: 3,103,864
73 : 3,076,399
: 3,077,823
: 3,081,686
: 3,087,402
: 3,090,288
: 3,090,289
: 3,092,004
: 3,093,050
: 3,099,199
: 3,100,431
: 3,102,463
: 3,106,145
75 : 3,073,234
: 3,076,400
: 3,085,488
: 3,087,403
: 3,092,005
: 3,094,057
: 3,100,432
: 3,103,865
: 3,103,866
: 3,110,241
: 3,115,081
76 : 3,087,404
77.5 : 3,077,824
.5 : 3,091,169

Class 95 – Con.

77.5 : 3,092,006
.5 : 3,101,034
.5 : 3,104,602
.5 : 3,107,595
.5 : 3,113,499
85 : 3,075,446
: 3,089,402
: 3,099,947
86 : 3,074,338
: 3,101,035
: 3,105,430
89 : 3,078,777
: 3,079,852
: 3,081,687
: 3,081,688
: 3,082,675
: 3,090,290
: 3,093,051
: 3,094,914
: 3,095,796
: 3,095,797
: 3,097,585
: 3,097,586
: 3,101,036
: 3,103,153
: 3,104,603
: 3,107,596
: 3,112,685
: 3,113,500
93 : 3,088,391
94 : 3,072,037
: 3,076,401
: 3,086,438
: 3,087,405
: 3,087,406
: 3,093,052
: 3,093,053
: 3,095,798
: 3,096,701
: 3,099,948
97 : 3,101,659
98 : 3,077,155
100 : 3,086,439
102 : 3,075,447

Class 96

1 : Re.25,444
: 3,072,479
: 3,077,398
: 3,079,253
: 3,081,165
: 3,082,085
: 3,084,043
: 3,092,493
: 3,095,301
: 3,097,095
: 3,102,026
: 3,104,169
: 3,107,169
: 3,110,591
: 3,112,197
: 3,113,022
: 3,114,633
: 3,116,147
2 : 3,107,170
3 : 3,077,399
: 3,077,400
: 3,087,815
11 : 3,095,302
20 : 3,114,634
22 : 3,113,864
27 : 3,071,464
: 3,077,401
: 3,080,230
: 3,081,166
: 3,085,877
: 3,096,176
: 3,105,761
: 3,111,407
: 3,114,635
28 : 3,091,528
: 3,091,529
: 3,094,417
29 : 3,072,480
: 3,077,402
: 3,081,167
: 3,083,097
: 3,087,816
: 3,087,817
: 3,089,770
: 3,091,530
: 3,108,001
: 3,114,636
30 : 3,097,096
: 3,099,557
: 3,103,436
33 : 3,086,861
: 3,091,531
: 3,092,494
: 3,095,303
: 3,100,702
33 : 3,100,703
: 3,102,809
: 3,102,810
: 3,106,465
: 3,113,023
35 : 3,073,699
: 3,074,794
: 3,080,231
: 3,080,232
: 3,081,168
: 3,093,478
: 3,097,097
: 3,099,558
: 3,110,592
36 : 3,079,254
42 : 3,095,304
45 : 3,110,593
: 3,110,594
47 : 3,102,027
48 : 3,072,481
: 3,082,086
: 3,090,687
: 3,091,532
: 3,099,559
: 3,102,811
: 3,104,973
: 3,106,466
: 3,110,595
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: 3,113,024
: 3,116,148
49 : 3,078,162
: 3,091,533
: 3,113,865
50 : 3,113,866
52 : 3,093,479
55 : 3,079,255
: 3,079,256
: 3,112,198
63 : 3,088,824
66 : 3,071,465
: 3,084,044
67 : 3,078,163
: 3,079,257
: 3,105,762
75 : 3,072,482
: 3,076,707
: 3,081,169
: 3,085,008
: 3,102,812
77 : 3,075,841
78 : 3,086,862
: 3,099,560
83 : 3,091,534
.9 : 3,102,028
84 : 3,091,535
: 3,094,418
87 : 3,071,466
: 3,072,483
: 3,072,484
: 3,082,087
: 3,091,536
: 3,112,199
: 3,113,867
90 : 3,079,258
: 3,102,029
: 3,109,736
: 3,112,200
91 : 3,108,872
: 3,113,025
93 : 3,100,150
: 3,102,030
94 : 3,087,818
100 : 3,077,403
: 3,079,259
: 3,080,233
: 3,092,495
106 : 3,071,467
: 3,084,045
107 : 3,085,009
: 3,085,010
: 3,113,026
108 : 3,086,863
: 3,109,737
109 : 3,081,170
: 3,082,088
: 3,106,467
: 3,114,637
111 : 3,091,537
: 3,100,704
: 3,103,437
: 3,106,468
: 3,110,597
115 : 3,072,485
: 3,101,270
118 : 3,085,878

Class 98

1 : 3,075,448
: 3,093,054
: 3,096,702
: 3,103,154
.5 : 3,078,778
2 : 3,075,449
: 3,078,779
: 3,080,807
: 3,083,630
: 3,086,440
: 3,090,291
: 3,090,292
: 3,093,055
: 3,101,037
: 3,101,660
: 3,102,464
: 3,103,867
: 3,105,431
6 : 3,092,007
14 : 3,083,631
29 : 3,111,074
31 : 3,101,661
32 : 3,073,235
33 : 3,093,056
: 3,106,146
36 : 3,086,441
: 3,089,403
: 3,092,008
: 3,097,587
: 3,112,686
: 3,113,501
: 3,115,818
37 : 3,078,780
: 3,085,489
: 3,095,799
: 3,112,687
: 3,115,082
38 : 3,106,147
: 3,114,307
39 : 3,093,057
40 : Re.25,352
: 3,072,038
: 3,074,339
: 3,076,402
: 3,081,689
: 3,082,676
: 3,083,632
: 3,084,609
: 3,084,610
: 3,087,407
: 3,088,392
: 3,092,009
: 3,093,058
: 3,099,200
: 3,099,949
: 3,101,038
: 3,103,155
: 3,103,156
: 3,103,157
: 3,103,868
: 3,103,869
: 3,107,597
: 3,108,529
: 3,110,242
: 3,111,075
: 3,113,502
: 3,115,819
42 : 3,079,853
: 3,080,808
: 3,083,633
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: 3,094,915
: 3,103,870
: 3,107,598
43 : 3,078,781
: 3,085,490
: 3,101,662
46 : 3,075,450
: 3,075,451
: 3,082,677
: 3,087,408
57 : 3,106,148
59 : 3,101,039
: 3,110,239
60 : 3,115,820
62 : 3,105,432
76 : 3,100,433
82 : 3,072,039
84 : 3,087,409
88 : 3,084,611
94 : 3,081,690
: 3,084,612
: 3,094,916
: 3,111,076
96 : 3,107,599
97 : 3,094,058
99.5 : 3,099,950
101 : 3,099,201
106 : 3,082,678
: 3,103,158
110 : 3,082,679
: 3,093,060
: 3,096,703
114 : 3,087,410
115 : 3,071,059
: 3,071,060
: 3,072,040
: 3,077,825
: 3,082,680
115 : 3,087,411
: 3,096,704
: 3,098,423
: 3,109,358
: 3,111,077
116 : 3,072,041
119 : 3,085,491
: 3,111,078
121 : 3,086,442
: 3,086,443
: 3,087,412
: 3,096,705

Class 99

1 : 3,097,946
: 3,098,744
2 : 3,074,795
: 3,077,404
: 3,078,164
: 3,079,260
: 3,079,261
: 3,081,171
: 3,084,046
: 3,087,819
: 3,087,820
: 3,092,496
: 3,098,745
: 3,106,469
4 : 3,086,864
: 3,089,771
6 : Re.25,337
7 : 3,071,468
: 3,076,708
: 3,099,561
: 3,114,638
: 3,115,409
14 : 3,080,234
: 3,102,031
: 3,108,873
: 3,111,408
18 : 3,078,165
: 3,099,562
21 : 3,073,700
23 : 3,098,746
: 3,108,874
26 : 3,085,879
28 : 3,086,865
29 : 3,100,705
: 3,100,706
41 : 3,112,201
43 : 3,078,166
48 : 3,071,469
: 3,082,089
: 3,083,098
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50.5 : 3,079,262
.5 : 3,092,497
.5 : 3,104,974
51 : 3,081,172
52 : 3,082,090
: 3,102,813
: 3,113,027
54 : 3,076,709
55 : 3,074,796
: 3,105,763
: 3,108,875
56 : Re.25,322
: 3,072,486
: 3,078,167
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: 3,090,688
59 : 3,080,236
: 3,086,866
: 3,096,177
60 : 3,072,487
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: 3,094,419
63 : 3,097,947
65 : 3,084,047
66 : 3,071,470
68 : 3,088,825
: 3,106,470
69 : 3,108,876
71 : 3,077,405
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: 3,088,826
: 3,089,772
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: 3,100,151
76 : 3,108,877
77 : 3,080,237
: 3,113,028
.1 : 3,083,100
.1 : 3,083,101
78 : 3,082,091
: 3,100,909
: 3,108,002
: 3,113,029
80 : 3,071,471
: 3,083,102
: 3,083,103
80 : 3,085,011
: 3,086,867
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: 3,115,410
81 : 3,077,406
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: 3,085,013
: 3,104,975
83 : 3,113,868
85 : 3,082,092
: 3,113,869
86 : 3,104,976
90 : 3,076,710
: 3,084,048
: 3,091,538
: 3,102,033
: 3,108,878
91 : 3,085,014
: 3,088,828
: 3,111,409
92 : 3,108,003
: 3,116,149
93 : 3,077,407
: 3,077,408
: 3,115,411
94 : 3,071,472
: 3,078,168
: 3,089,773
: 3,096,178
: 3,096,179
: 3,100,708
: 3,109,738
: 3,116,150
96 : 3,089,774
98 : 3,082,093
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93 : 3,100,448
94 : 3,111,902
95 : 3,095,817
98 : 3,073,242
: 3,099,963
: 3,107,620
: 3,109,374
: 3,109,375

Class 103

1 : 3,084,629
: 3,088,411
: 3,115,837
2 : 3,073,243
: 3,080,818
: 3,093,079
: 3,099,217
: 3,100,449
: 3,106,163
: 3,115,838
3 : 3,077,835
4 : 3,078,804
: 3,081,706
: 3,084,630
: 3,098,449
: 3,100,450
: 3,107,621
: 3,107,622
: 3,109,376
5 : 3,072,057
: 3,077,836
: 3,093,080
: 3,102,481
: 3,102,482
6 : 3,088,412
: 3,094,073
: 3,097,604
: 3,097,605
: 3,102,483
7 : 3,108,541
10 : 3,080,819
11 : 3,087,430
: 3,092,029
: 3,093,081
: 3,095,818
: 3,105,441
: 3,105,442
: 3,109,377
12 : 3,072,058
: 3,105,443
13 : 3,111,903
17 : 3,101,670
22 : 3,072,059

Class 103—Con.

23 : 3,093,082
: 3,097,606
: 3,115,095
25 : 3,072,060
: 3,073,244
: 3,075,466
: 3,087,431
: 3,091,179
: 3,093,083
: 3,094,936
: 3,104,614
: 3,106,894
: 3,114,320
37 : 3,074,345
: 3,082,692
: 3,087,432
: 3,090,312
: 3,090,313
: 3,096,716
: 3,099,218
: 3,101,056
: 3,101,057
: 3,107,623
: 3,109,378
: 3,112,705
38 : 3,072,061
: 3,089,422
: 3,101,058
: 3,102,484
: 3,102,485
: 3,102,486
: 3,102,487
: 3,103,173
: 3,103,890
: 3,106,164
: 3,106,895
39 : 3,082,693
41 : 3,071,074
: 3,073,245
: 3,077,837
: 3,079,862
: 3,090,314
: 3,091,180
: 3,097,607
: 3,099,219
: 3,103,174
: 3,114,321
42 : 3,094,937
: 3,102,488
: 3,102,489
: 3,103,891
43 : 3,097,608
44 : 3,073,246
: 3,075,467
: 3,075,468
: 3,080,820
: 3,080,821
: 3,087,433
: 3,094,074
: 3,107,624
45 : 3,091,181
46 : 3,079,863
: 3,096,717
: 3,103,175
: 3,109,379
: 3,113,522
47 : 3,077,838
: 3,085,512
50 : 3,086,470
: 3,094,938
52 : 3,090,315
: 3,090,316
: 3,095,819
53 : 3,074,346
: 3,080,822
: 3,113,523
54 : 3,088,413
: 3,090,317
: 3,106,896
57 : 3,079,864
58 : 3,099,220
87 : 3,071,075
: 3,072,062
: 3,073,247
: 3,073,248
: 3,074,347
: 3,074,348
: 3,074,349
: 3,075,469
: 3,077,161
: 3,078,805
: 3,079,865
: 3,085,513
: 3,086,471
: 3,086,472
: 3,086,473
: 3,087,434
: 3,089,423
: 3,090,318
: 3,093,084
: 3,102,490
: 3,103,176
87 : 3,105,444
: 3,110,263
: 3,111,090
: 3,112,706
: 3,112,707
: 3,114,322
: 3,114,323
: 3,115,096
: 3,115,839
: 3,115,840
: 3,115,841
88 : 3,112,708
89 : 3,083,644
: 3,087,435
: 3,115,842
93 : 3,071,076
94 : 3,088,414
96 : 3,095,820
: 3,111,904
97 : 3,106,165
: 3,109,380
102 : 3,076,411
103 : 3,071,077
: 3,079,866
: 3,088,415
: 3,088,416
: 3,090,319
: 3,091,182
: 3,092,030
: 3,094,075
: 3,095,821
: 3,101,671
: 3,107,625
: 3,115,097
: 3,115,843
: 3,115,844
106 : 3,110,264
108 : 3,073,249
: 3,098,450
: 3,099,221
: 3,103,892
111 : 3,076,412
: 3,090,320
: 3,096,718
113 : 3,072,063
: 3,078,806
: 3,080,823
: 3,082,694
: 3,090,321
: 3,091,183
: 3,091,184
: 3,093,085
: 3,102,491
: 3,103,177
: 3,107,626
114 : 3,095,822
: 3,105,445
: 3,115,099
115 : 3,082,695
: 3,101,672
: 3,107,627
117 : 3,073,250
: 3,074,350
: 3,080,824
: 3,084,631
: 3,091,185
: 3,095,823
: 3,097,609
: 3,104,615
118 : 3,097,610
120 : 3,103,893
: 3,106,897
: 3,107,628
: 3,107,629
: 3,109,381
: 3,110,265
121 : 3,111,905
123 : 3,079,867
124 : 3,081,707
126 : 3,071,078
: 3,072,064
: 3,073,251
: 3,075,470
: 3,076,413
: 3,077,839
: 3,077,840
: 3,078,807
: 3,083,645
: 3,090,322
: 3,096,719
: 3,096,720
: 3,101,673
: 3,104,616
: 3,105,446
: 3,106,166
: 3,113,524
: 3,113,525
128 : 3,072,065
129 : 3,092,031
130 : 3,102,492
130 : 3,113,526
133 : 3,089,424
135 : 3,102,493
136 : 3,071,079
: 3,072,066
: 3,072,067
: 3,076,414
: 3,076,415
: 3,084,632
: 3,086,475
: 3,098,451
: 3,099,964
: 3,102,494
: 3,110,266
: 3,112,709
: 3,113,527
140 : 3,114,324
142 : 3,101,059
143 : 3,109,382
144 : 3,072,068
: 3,083,646
: 3,086,476
148 : 3,083,647
149 : 3,079,868
: 3,101,674
: 3,101,675
: 3,103,178
: 3,105,447
: 3,109,383
150 : 3,071,080
: 3,080,825
: 3,092,032
: 3,093,086
: 3,094,076
: 3,096,721
: 3,096,722
: 3,100,451
: 3,104,617
151 : 3,075,471
152 : 3,074,351
: 3,089,425
: 3,095,824
: 3,099,222
: 3,107,630
153 : 3,093,087
: 3,095,825
: 3,103,179
: 3,114,325
: 3,114,326
157 : 3,107,631
158 : 3,092,033
: 3,114,327
159 : 3,077,162
160 : 3,103,180
161 : 3,078,808
: 3,081,708
: 3,082,696
: 3,084,633
: 3,086,477
: 3,087,437
: 3,094,077
: 3,099,223
: 3,101,060
: 3,074,350
: 3,080,824
162 : 3,073,252
: 3,073,253
: 3,073,254
: 3,075,472
: 3,079,869
: 3,079,870
: 3,082,697
: 3,089,426
: 3,089,427
: 3,092,034
: 3,092,035
: 3,092,036
: 3,094,078
: 3,096,723
: 3,107,632
: 3,108,542
: 3,108,543
: 3,108,544
: 3,110,267
163 : 3,104,618
165 : 3,098,452
171 : 3,075,473
173 : 3,085,514
: 3,108,545
174 : 3,092,037
178 : 3,085,515
: 3,090,323
: 3,114,328
179 : 3,074,352
: 3,075,474
: 3,089,428
: 3,109,384
181 : 3,102,495
188 : 3,094,939
191 : 3,076,416
203 : 3,083,648
: 3,114,329
204 : 3,073,255
: 3,091,186
: 3,104,619
205 : 3,106,168
208 : 3,088,417
218 : 3,072,069
: 3,104,620
219 : 3,072,070
: 3,103,181
220 : 3,090,324
225 : 3,072,071
: 3,089,429
228 : 3,073,256
: 3,089,430
: 3,106,169
230 : 3,076,417
231 : 3,111,906
.5 : 3,081,709
232 : 3,075,475
: 3,078,809
: 3,089,431
: 3,093,088
: 3,100,452
234 : 3,106,170
235 : 3,082,698
238 : 3,090,325
243 : 3,099,224
248 : 3,077,163
255 : 3,073,257
: 3,087,438
262 : 3,084,634
: 3,111,091
263 : 3,099,965
272 : 3,071,081

Class 104

2 : 3,095,826
: 3,098,453
7 : 3,073,258
: 3,091,187
: 3,101,676
: 3,103,182
: 3,111,907
: 3,111,908
: 3,114,330
12 : 3,071,082
: 3,096,724
: 3,099,225
: 3,111,909
14 : 3,093,089
17 : 3,114,331
25 : 3,096,725
29 : 3,091,188
44 : 3,079,871
63 : 3,114,332
71 : 3,114,333
73 : 3,113,528
88 : 3,074,353
: 3,077,164
: 3,078,810
: 3,081,710
: 3,089,432
: 3,103,183
: 3,103,895
89 : 3,084,635
91 : 3,088,418
: 3,099,226
: 3,101,677
: 3,104,621
93 : 3,074,354
94 : 3,091,189
: 3,106,171
: 3,109,385
95 : 3,081,711
: 3,101,678
96 : 3,099,966
98 : 3,094,940
: 3,102,496
: 3,073,259
104 : 3,096,726
107 : 3,086,478
108 : 3,103,184
: 3,104,623
110 : 3,072,072
111 : 3,084,636
113 : 3,114,334
115 : 3,091,190
120 : 3,111,910
121 : 3,083,649
124 : 3,090,326
128 : 3,100,453
130 : 3,093,090
: 3,094,941
: 3,095,827
: 3,106,898
: 3,096,727
134 : 3,086,479
: 3,089,433
: 3,090,327
: 3,096,728
: 3,109,386
: 3,111,092
: 3,111,093
138 : 3,087,439
: 3,089,434
: 3,090,328
: 3,094,942
138 : 3,100,454
: 3,108,546
139 : 3,099,227
148 : 3,115,845
152 : 3,087,440
162 : 3,107,633
172 : 3,072,073
: 3,074,355
: 3,074,356
: 3,074,357
: 3,076,418
: 3,076,419
: 3,078,811
: 3,079,872
: 3,081,712
: 3,083,650
: 3,086,480
: 3,088,419
: 3,091,191
: 3,092,038
: 3,094,943
: 3,094,944
: 3,099,228
: 3,106,172
: 3,111,911
173 : 3,103,896
: 3,110,268
: 3,112,710
178 : 3,071,083
: 3,115,846
: 3,115,847
243 : 3,084,637
247 : 3,077,165
: 3,082,699
: 3,085,516
: 3,098,454
: 3,113,529
248 : 3,080,826
250 : 3,081,713
: 3,086,481
256 : 3,075,476
258 : 3,097,611
259 : 3,094,945
260 : 3,096,729
272 : 3,112,711
279 : 3,103,897

Class 105

1 : 3,072,074
101 : 3,080,827
114 : Re. 25,501
141 : 3,111,912
144 : 3,095,828
145 : 3,115,848
148 : 3,074,358
150 : 3,072,075
: 3,092,039
: 3,092,040
: 3,094,079
: 3,103,183
153 : 3,092,041
155 : 3,086,482
159 : 3,086,483
163 : 3,095,829
165 : 3,111,094
174 : 3,081,714
: 3,115,100
: 3,104,621
197 : 3,072,076
: 3,080,828
: 3,092,042
: 3,109,387
199 : 3,104,622
206 : 3,079,873
215 : 3,093,091
221 : 3,091,192
: 3,110,269
224.1 : 3,099,967
247 : 3,075,477
248 : 3,080,829
: 3,103,184
: 3,104,623
253 : 3,082,700
: 3,082,701
: 3,100,455
: 3,100,456
: 3,108,899
: 3,109,388
: 3,109,389
: 3,110,270
254 : 3,099,229
255 : 3,077,841
271 : 3,082,702
282 : 3,082,703
: 3,082,704
: 3,082,705
: 3,082,706
: 3,085,517
: 3,089,435
: 3,097,612
: 3,100,457
344 : 3,115,101
355 : 3,106,900
358 : 3,084,638
366 : 3,071,084
: 3,085,518
366 : 3,107,634
367 : 3,079,874
368 : 3,081,715
: 3,096,730
: 3,099,230
: 3,101,679
: 3,101,680
: 3,102,497
369 : 3,071,085
: 3,071,086
: 3,072,077
: 3,073,260
: 3,074,359
: 3,075,478
: 3,078,812
: 3,078,813
: 3,082,707
: 3,089,436
: 3,090,329
: 3,092,043
: 3,092,044
: 3,093,092
: 3,095,830
: 3,098,455
: 3,103,898
: 3,114,335
: 3,114,336
: 3,114,337
: 3,114,338
: 3,115,102
376 : 3,073,261
: 3,104,624
: 3,108,547
: 3,112,712
379 : 3,098,456
386 : 3,091,193
392.5 : 3,082,708
397 : 3,100,458
: 3,102,498
404 : 3,078,814
: 3,098,457
409 : 3,087,441
410 : 3,095,831
411 : 3,089,437
416 : 3,081,716
422 : 3,088,420
455 : 3,075,479
458 : 3,094,946

Class 106

1 : 3,083,109
: 3,092,504
: 3,093,490
: 3,095,309
2 : 3,089,778
4 : 3,072,492
10 : 3,071,479
: 3,073,706
: 3,074,799
: 3,086,870
14 : 3,086,871
: 3,090,690
: 3,093,491
: 3,093,492
: 3,093,493
15 : 3,081,175
: 3,081,176
: 3,085,885
: 3,096,183
62 : 3,102,821
20 : 3,096,184
: 3,098,751
: 3,111,413
22 : 3,073,707
: 3,074,800
: 3,086,872
24 : 3,086,873
27 : 3,075,844
30 : 3,074,801
31 : 3,075,845
34 : 3,079,264
38,22 : 3,075,847
.2 : 3,093,494
.23 : 3,115,414
.3 : 3,074,802
.35 : 3,083,110
.4 : 3,094,422
.5 : 3,074,803
: 3,081,177
: 3,086,874
.5 : 3,086,875
.5 : 3,092,706
.5 : 3,095,310
.5 : 3,112,206
.9 : 3,075,846
.9 : 3,077,413
39 : 3,074,804
: 3,080,239
95 : 3,082,099
: 3,084,053
97 : 3,078,175
: 3,096,188
: 3,089,779
39 : 3,090,691
: 3,096,185
: 3,097,954
: 3,098,752
: 3,103,440
: 3,103,441
: 3,103,442
: 3,111,414
: 3,112,207
40 : 3,082,100
41 : 3,085,886
42 : 3,091,540
45 : 3,103,443
46 : 3,097,101
47 : 3,074,805
: 3,080,240
: 3,081,178
: 3,082,101
48 : 3,098,753
: 3,108,885
: 3,114,646
49 : 3,079,265
: 3,099,569
: 3,115,415
50 : 3,081,179
: 3,085,887
: 3,095,311
52 : Re. 25,312
: Re. 25,456
: 3,071,480
: 3,073,708
: 3,077,414
: 3,081,180
: 3,082,102
: 3,084,054
: 3,084,055
: 3,094,423
: 3,096,186
: 3,113,877
53 : 3,072,493
: 3,088,833
: 3,088,834
: 3,088,835
: 3,106,474
54 : 3,100,714
: 3,113,033
: 3,113,878
55 : 3,082,103
: 3,096,187
: 3,108,886
: 3,110,601
56 : 3,079,266
: 3,083,111
: 3,112,208
57 : 3,076,716
58 : 3,074,806
: 3,075,848
: 3,082,104
: 3,093,495
: 3,106,475
: 3,111,415
: 3,116,155
59 : 3,082,105
: 3,093,496
: 3,093,497
: 3,094,424
: 3,108,007
: 3,116,156
61 : 3,086,876
62 : 3,078,173
: 3,093,498
: 3,100,155
: 3,108,887
: 3,108,888
64 : 3,079,267
65 : 3,080,242
: 3,113,879
67 : 3,080,243
69 : 3,116,157
71 : 3,103,444
72 : 3,106,476
: 3,109,742
: 3,115,416
75 : 3,077,415
: 3,095,312
79 : 3,095,571
84 : 3,085,021
: 3,102,038
88 : 3,098,754
89 : 3,087,825
: 3,114,647
90 : 3,071,481
: 3,079,268
: 3,093,499
: 3,094,425
92 : 3,090,692
93 : 3,090,693
95 : 3,097,955
97 : 3,078,175
: 3,096,188
: 3,102,039

98 : 3,082,106
99 : 3,092,505
101 : 3,085,022
: 3,114,648
109 : 3,094,426
110 : 3,100,715
111 : 3,072,494
: 3,108,008
118 : 3,076,717
120 : 3,100,156
: 3,116,158
121 : 3,073,709
122 : 3,081,181
: 3,110,602
123 : 3,112,209
124 : 3,080,244
: 3,095,313
142 : 3,108,889
146 : 3,081,182
: 3,111,416
148 : 3,071,482
155 : 3,071,483
160 : 3,107,172
163 : 3,084,056
169 : 3,097,956
: 3,106,477
172 : 3,071,484
176 : 3,097,100
177 : 3,075,849
: 3,090,694
178 : 3,104,979
179 : 3,110,603
180 : 3,076,718
: 3,082,107
183 : 3,109,743
186 : 3,082,108
: 3,108,890
187 : 3,075,850
: 3,091,541
: 3,100,716
: 3,113,880
188 : 3,091,542
189 : 3,077,416
193 : 3,082,109
194 : 3,082,110
: 3,100,717
195 : 3,111,417
197 : 3,081,183
199 : 3,109,744
202 : 3,088,836
205 : 3,084,057
210 : 3,097,102
213 : 3,071,485
: 3,081,184
: 3,083,112
: 3,108,891
218 : 3,081,185
219 : 3,085,889
235 : 3,081,186
236 : 3,096,189
238 : 3,102,822
241 : 3,085,890
254 : 3,083,113
262 : 3,088,837
269 : 3,095,314
270 : 3,081,187
: 3,092,506
: 3,102,040
: 3,105,767
271 : 3,083,114
273 : 3,074,807
: 3,085,891
: 3,093,500
: 3,094,427
: 3,096,190
: 3,114,649
275 : 3,096,191
277 : 3,110,604
278 : 3,080,245
: 3,085,892
279 : 3,091,543
281 : 3,073,710
: 3,096,192
: 3,110,605
284 : 3,102,041
285 : 3,080,246
: 3,097,957
286 : 3,080,247
: 3,082,111
287 : 3,075,851
: 3,082,112
: 3,082,113
: 3,084,058
: 3,087,826
: 3,088,838
: 3,088,839
: 3,096,193
: 3,100,157
: 3,106,478
: 3,081,881
288 : 3,081,188
: 3,081,189
: 3,084,059
: 3,085,023
288 : 3,091,544
: 3,099,570
: 3,105,768
291 : 3,087,827
: 3,087,828
: 3,087,829
296 : 3,072,495
: 3,073,711
297 : 3,080,248
299 : 3,085,893
300 : 3,073,712
: 3,076,719
: 3,079,269
: 3,086,877
: 3,088,840
: 3,112,210
306 : 3,085,894
: 3,110,606
307 : 3,094,428
308 : 3,083,115
: 3,100,718
: 3,100,719
309 : 3,108,892

Class 107

1 : 3,072,078
: 3,075,480
: 3,083,651
: 3,095,832
: 3,112,713
4 : 3,111,913
8 : 3,073,262
: 3,080,830
: 3,080,831
: 3,082,709
: 3,085,519
: 3,085,520
: 3,086,484
9 : 3,115,103
14 : 3,097,613
15 : 3,071,087
: 3,109,390
19 : 3,093,093
29 : 3,106,173
47 : 3,111,914
49 : 3,108,548
54 : 3,082,710
: 3,091,194
: 3,094,947
: 3,115,104
57 : 3,109,391
59 : 3,074,360

Class 108

1 : 3,080,202
38 : 3,076,420
58.5 : 3,072,079
59 : 3,110,271
80 : 3,095,838
82 : 3,082,713

Class 109

1 : 3,093,097
: 3,093,098
: 3,104,628
38 : 3,076,420
58.5 : 3,072,079
59 : 3,110,271
80 : 3,095,838
82 : 3,082,713

Class 110

1 : 3,073,263
32 : 3,087,445
35 : 3,077,844
37 : 3,081,719
38 : 3,104,634
47 : 3,080,836
52 : 3,101,684
58 : 3,088,426
64 : 3,084,643
65 : 3,082,719
68 : 3,113,535
79 : 3,074,362
: 3,075,481
: 3,075,482
: 3,080,837
: 3,084,644
: 3,084,645
: 3,089,442
: 3,091,199
: 3,093,100
: 3,095,840
: 3,095,841
: 3,096,734
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: 3,103,187
: 3,103,188
: 3,103,903
: 3,108,553
: 3,108,554
: 3,109,395
: 3,112,717
.5 : 3,109,396
83 : 3,092,054
86 : 3,072,082
91 : 3,072,083
95 : 3,078,817
95 : 3,104,635
: 3,104,636
102 : 3,082,720
: 3,082,721
: 3,112,718
103 : 3,111,919
104 : 3,094,084
: 3,095,842
: 3,104,637
: 3,111,920
105 : 3,109,397
110 : 3,089,443
113 : 3,086,486
114 : 3,098,459
: 3,099,971
125 : 3,074,363
137 : 3,112,719
151 : 3,096,735
: 3,115,854
158 : 3,074,364
: 3,075,483
: 3,081,724
: 3,083,656
: 3,083,657
: 3,084,646
: 3,085,526
: 3,090,334
: 3,091,200
: 3,094,085
: 3,094,086
: 3,101,685
: 3,103,904
: 3,104,638
: 3,105,449
: 3,106,176
: 3,108,555
: 3,108,556
: 3,111,099
: 3,113,536
: 3,113,537
: 3,113,538
159 : 3,089,444
160 : 3,074,365
162 : 3,079,879
: 3,101,686
176 : 3,099,236
178 : 3,100,468
: 3,105,450
180 : 3,072,084
181 : 3,082,722
: 3,096,736
: 3,099,972
: 3,115,110
184 : 3,103,189
186 : 3,105,451
199 : 3,094,955
: 3,099,973
: 3,111,100
200 : 3,112,720
203 : 3,081,720
: 3,087,446
204 : 3,079,880
: 3,096,737
206 : 3,094,087
207 : 3,099,974
208 : 3,089,445
210 : 3,074,366
: 3,082,723
: 3,084,647
: 3,087,447
211 : 3,089,446
: 3,094,088
214 : 3,071,089
: 3,083,658
: 3,084,639
218 : 3,109,398
219 : 3,071,090
: 3,077,845
: 3,101,687
: 3,103,905
: 3,114,340
220 : 3,077,169
: 3,103,190
221 : 3,077,846
: 3,092,055
225 : 3,085,527
227 : 3,107,639
228 : 3,074,367
: 3,095,840
230 : 3,095,841
: 3,097,619
231 : 3,087,447
: 3,090,335
: 3,091,721
235 : 3,081,721
: 3,089,447
: 3,089,089
: 3,098,460
237 : 3,093,101
240 : 3,083,660
241 : 3,103,191
242 : 3,083,661
248 : 3,103,192
252 : 3,081,722
: 3,084,647
: 3,087,448
: 3,087,449
252 : 3,106,902
: 3,108,557
: 3,109,399
253 : 3,115,856
255 : 3,113,539
256 : 3,079,881
: 3,081,723
: 3,084,648
258 : 3,115,111
260 : 3,071,091
: 3,079,882
: 3,100,469
261 : 3,111,921
262 : 3,094,090
: 3,099,237
: 3,099,975
265 : 3,077,847
266 : 3,110,276
: 3,112,721
269 : 3,082,724

Class 113

1 : 3,080,838
: 3,089,448
: 3,101,688
7 : 3,093,102
8 : 3,071,092
11 : 3,100,470
12 : 3,086,487
33 : 3,075,484
: 3,077,170
: 3,085,528
35 : 3,078,818
: 3,085,529
: 3,090,336
: 3,092,056
: 3,093,103
: 3,106,177
: 3,114,341
.5 : 3,073,273
.7 : 3,107,641
20 : 3,087,451
: 3,109,401
23 : 3,083,666
: 3,089,451
: 3,096,739
: 3,102,505
: 3,105,452
25 : 3,083,667
26 : 3,091,204
32 : 3,111,102
39 : 3,077,850
: 3,085,534
: 3,103,196
: 3,112,725
43.5 : 3,073,274
.5 : 3,095,845
50 : 3,091,205
54 : 3,080,844
56 : 3,085,535
: 3,090,338
: 3,092,061
61 : 3,078,819
: 3,085,536
: 3,088,428
: 3,094,959
: 3,101,692
62 : 3,077,172
: 3,077,851
66 : 3,081,726
.5 : 3,075,488
.5 : 3,077,173
.5 : 3,081,727
.5 : 3,081,728
.5 : 3,081,729
.5 : 3,085,537
.5 : 3,087,452
.5 : 3,090,339
.5 : 3,091,206
.5 : 3,092,062
.5 : 3,094,960
.5 : 3,094,961
.5 : 3,094,962
.5 : 3,095,846
.5 : 3,099,239
.5 : 3,099,240
.5 : 3,103,197
.5 : 3,104,642
.5 : 3,106,178
.5 : 3,106,179
.5 : 3,108,561
.5 : 3,110,280
.5 : 3,111,103
.5 : 3,111,923
.5 : 3,111,924
.5 : 3,113,543
.5 : 3,114,343
.5 : 3,115,860
67 : 3,075,489
: 3,077,174
: 3,084,655
72 : 3,078,820
: 3,086,489
120 : 3,077,171
: 3,089,450
: 3,099,238
: 3,113,542
121 : 3,083,663
123 : 3,110,278
126 : 3,084,650
: 3,092,059
: 3,094,093
: 3,100,471
127 : 3,091,202
128 : 3,077,849
130 : 3,080,843
: 3,110,279
133 : 3,094,958

Class 114

.5 : 3,073,271
.5 : 3,073,272
.5 : 3,083,664
.5 : 3,083,665
.5 : 3,084,651
.5 : 3,084,652
.5 : 3,091,203
.5 : 3,102,503
.5 : 3,103,907
16 : 3,084,653
: 3,084,654
: 3,085,533
: 3,092,060
: 3,093,105
: 3,101,066
: 3,101,691
: 3,102,504
: 3,103,195
: 3,104,641
: 3,106,903
: 3,107,640
: 3,112,724
.5 : 3,073,273
.7 : 3,107,641
20 : 3,087,451
: 3,109,401
23 : 3,083,666
: 3,089,451
: 3,096,739
: 3,102,505
: 3,105,452
25 : 3,083,667
26 : 3,091,204
32 : 3,111,102
39 : 3,077,850
: 3,085,534
: 3,103,196
: 3,112,725
43.5 : 3,073,274
.5 : 3,095,845
50 : 3,091,205
54 : 3,080,844
56 : 3,085,535
: 3,090,338
: 3,092,061
61 : 3,078,819
: 3,085,536
: 3,088,428
: 3,094,959
: 3,101,692
62 : 3,077,172
: 3,077,851
66 : 3,081,726
.5 : 3,075,488
.5 : 3,077,173
.5 : 3,081,727
.5 : 3,081,728
.5 : 3,081,729
.5 : 3,085,537
.5 : 3,087,452
.5 : 3,090,339
.5 : 3,091,206
.5 : 3,092,062
.5 : 3,094,960
.5 : 3,094,961
.5 : 3,094,962
.5 : 3,095,846
.5 : 3,099,239
.5 : 3,099,240
.5 : 3,103,197
.5 : 3,104,642
.5 : 3,106,178
.5 : 3,106,179
.5 : 3,108,561
.5 : 3,110,280
.5 : 3,111,103
.5 : 3,111,923
.5 : 3,111,924
.5 : 3,113,543
.5 : 3,114,343
.5 : 3,115,860
67 : 3,075,489
: 3,077,174
: 3,084,655
72 : 3,078,820
: 3,086,489

Class 114—Con.

72 : 3,087,453
: 3,111,104
74 : 3,071,094
: 3,072,087
: 3,072,088
: 3,076,423
: 3,082,726
: 3,083,668
: 3,083,669
: 3,085,538
: 3,087,454
: 3,092,063
: 3,094,963
: 3,113,544
: 3,114,344
75 : 3,083,670
76 : 3,109,402
77 : 3,111,925
79 : 3,114,345
89 : 3,085,539
91 : 3,099,976
102 : 3,090,340
105 : 3,084,656
111 : 3,103,908
112 : 3,092,064
124 : 3,083,671
125 : 3,083,672
: 3,083,673
: 3,083,674
: 3,094,094
: 3,097,622
: 3,103,198
: 3,109,403
126 : 3,089,452
139 : 3,110,281
140 : 3,080,845
141 : 3,074,368
144 : 3,105,453
: 3,111,105
145 : 3,076,424
150 : 3,073,275
152 : 3,082,727
162 : 3,085,540
163 : 3,101,693
166 : 3,082,728
: 3,115,112
199 : 3,091,207
: 3,106,904
201 : 3,074,369
: 3,090,341
202 : 3,090,342
: 3,092,065
: 3,095,847
: 3,104,643
: 3,114,346
203 : 3,072,089
206 : 3,094,095
: 3,111,926
208 : 3,071,095
: 3,071,096
: 3,082,729
: 3,101,694
: 3,111,106
: 3,111,107
210 : 3,071,097
: 3,074,370
: 3,082,730
: 3,083,675
: 3,101,067
: 3,106,180
: 3,106,181
211 : 3,081,730
218 : 3,090,343
: 3,093,106
: 3,112,726
: 3,113,545
: 3,115,113
219 : 3,077,175
: 3,079,884
: 3,107,642
: 3,109,404
: 3,109,405
: 3,113,546
220 : 3,106,182
221 : 3,071,098
: 3,092,066
: 3,098,462
: 3,103,199
: 3,111,927
222 : 3,085,541
: 3,088,429
227 : 3,094,964
230 : Re.25,372
: 3,073,276
: 3,074,371
: 3,081,731
: 3,083,676
: 3,090,344
: 3,095,848
: 3,101,695
: 3,103,200
230 : 3,108,563
235 : 3,071,099
: 3,081,732
: 3,081,733
: 3,082,731
: 3,085,542
: 3,085,543
: 3,086,490
: 3,086,491
: 3,089,453
: 3,092,067
: 3,094,096
: 3,098,463
: 3,109,406
: 3,110,331
: 3,113,547
238 : 3,106,905
: 3,108,562
240 : 3,110,282

Class 115

.5 : 3,076,425
.5 : 3,094,965
.5 : 3,099,241
.5 : 3,111,928
.5 : 3,115,114
1 : 3,091,208
: 3,099,977
: 3,107,643
: 3,108,564
: 3,112,727
: 3,114,347
: 3,114,348
2 : 3,083,677
: 3,091,209
6.1 : 3,071,100
.1 : 3,079,885
.1 : 3,090,345
.1 : 3,092,068
12 : 3,071,101
: 3,071,102
: 3,073,277
: 3,089,454
: 3,090,346
: 3,097,623
: 3,113,548
14 : 3,076,426
: 3,109,407
: 3,111,108
15 : 3,094,966
16 : 3,076,427
: 3,082,732
: 3,098,464
17 : 3,102,506
18 : 3,073,278
: 3,084,657
: 3,095,849
: 3,107,644
: 3,107,929
25 : 3,087,455
: 3,095,850
26.1 : 3,111,109
28 : 3,086,492
: 3,091,210
: 3,108,565
29 : 3,110,283
31 : 3,111,110
34 : 3,083,678
: 3,083,679
: 3,083,680
: 3,105,454
: 3,111,111
35 : 3,072,090
: 3,094,967
37 : 3,105,455
: 3,112,728
: 3,113,549
41 : 3,073,279
: 3,075,490
: 3,076,428
: 3,085,544
: 3,088,430
: 3,091,211
: 3,094,097
42 : 3,075,491
: 3,099,242
70 : 3,071,103
: 3,113,550

Class 116

22 : 3,071,104
: 3,085,545
27 : 3,093,107
: 3,094,968
: 3,105,456
: 3,109,408
28 : 3,075,492
: 3,089,455
: 3,099,243
: 3,102,507
: 3,103,201
30 : 3,089,456
31 : 3,072,091
: 3,088,431
: 3,103,909
34 : 3,093,108
: 3,106,183
: 3,111,930
50 : 3,091,212
57 : 3,074,372
60 : 3,072,092
: 3,083,681
: 3,092,069
63 : 3,077,852
: 3,077,853
: 3,085,546
: 3,099,244
: 3,105,457
: 3,113,551
: 3,113,552
67 : 3,082,733
: 3,097,624
: 3,099,245
70 : 3,077,176
: 3,077,854
: 3,091,213
: 3,094,969
: 3,101,068
103 : 3,109,409
105 : 3,087,456
106 : 3,079,886
: 3,092,070
110 : 3,112,730
112 : 3,089,457
114 : 3,072,093
: 3,077,177
: 3,077,178
: 3,079,887
: 3,084,658
: 3,100,472
: 3,101,069
: 3,102,508
: 3,104,644
: 3,104,645
: 3,105,458
: 3,106,184
: 3,113,553
: 3,114,349
: 3,115,861
: 3,115,862
116 : 3,088,432
117 : 3,093,109
: 3,103,910
: 3,107,645
: 3,108,566
119 : 3,090,347
124 : 3,073,280
: 3,074,373
: 3,077,179
: 3,084,659
: 3,086,493
: 3,090,348
: 3,095,851
: 3,105,459
: 3,107,646
: 3,109,410
: 3,109,411
: 3,109,412
129 : 3,071,105
: 3,077,855
: 3,084,660
: 3,086,494
: 3,091,214
: 3,092,071
: 3,092,072
: 3,094,970
: 3,094,971
: 3,106,185
: 3,106,186
: 3,110,284
: 3,115,863
133 : 3,073,281
: 3,073,282
: 3,104,646
135 : 3,087,457
: 3,108,567
: 3,115,115
136.5 : 3,073,283
.5 : 3,106,906
137 : 3,073,284
: 3,077,856
: 3,094,098
: 3,102,509
: 3,103,911
: 3,105,460
: 3,107,647
: 3,111,931
142 : 3,090,349
147 : 3,072,094
: 3,089,458
: 3,094,972
148 : 3,102,510
173 : 3,081,734
: 3,091,215
173 : 3,106,187
: 3,107,648

Class 117

.5 : 3,075,852
1 : 3,088,841
2 : 3,096,194
: 3,104,173
: 3,105,769
4 : 3,085,024
: 3,104,174
: 3,113,034
: 3,113,882
5.1 : 3,084,060
.1 : 3,085,895
.3 : 3,109,745
.5 : 3,072,496
.5 : 3,089,780
6 : 3,114,650
: 3,114,651
7 : 3,073,713
: 3,088,842
: 3,101,272
: 3,102,042
8 : 3,071,486
: 3,086,878
: 3,090,695
: 3,092,508
: 3,110,607
: 3,113,883
.5 : 3,096,195
9 : 3,080,249
: 3,085,025
10 : 3,071,487
: 3,078,176
: 3,088,843
: 3,095,315
: 3,104,175
: 3,108,893
: 3,110,608
11 : 3,073,714
: 3,089,781
13 : 3,083,116
15 : 3,076,720
: 3,109,746
: 3,111,418
16 : 3,095,316
17.5 : 3,080,250
.5 : 3,080,251
.5 : 3,083,117
.5 : 3,084,061
.5 : 3,094,429
.5 : 3,103,445
.5 : 3,105,770
.5 : 3,106,479
.5 : 3,108,894
18 : 3,074,808
: 3,080,252
: 3,109,747
19 : 3,108,895
20 : 3,097,958
21 : 3,078,177
: 3,090,696
: 3,102,043
: 3,102,823
: 3,111,419
: 3,112,211
22 : 3,071,489
: 3,097,959
: 3,102,044
: 3,112,212
25 : 3,073,715
: 3,110,609
26 : 3,080,253
29 : 3,093,501
32 : 3,087,830
: 3,096,196
: 3,105,771
33 : 3,085,896
: 3,098,755
: 3,101,273
: 3,104,176
.3 : 3,075,853
.5 : 3,082,114
.5 : 3,084,062
.5 : 3,095,317
.5 : 3,096,197
.5 : 3,097,103
.5 : 3,115,417
34 : 3,078,178
: 3,085,897
35 : 3,084,063
: 3,087,831
: 3,094,430
: 3,098,756
: 3,098,757
: 3,105,772
36.1 : 3,099,571
.1 : 3,102,824
.1 : 3,111,421
.1 : 3,111,422
.2 : 3,107,174
36.4 : 3,087,832
.4 : 3,104,980
.7 : 3,079,270
.7 : 3,079,271
.7 : 3,090,697
.7 : 3,109,748
.8 : 3,074,809
.8 : 3,076,721
.8 : 3,080,254
.8 : 3,108,896
.8 : 3,111,423
.87 : 3,075,854
: 3,076,722
: 3,079,272
: 3,096,198
: 3,102,045
: 3,108,897
: 3,113,884
38 : 3,082,115
: 3,085,898
: 3,085,899
: 3,086,879
: 3,087,833
: 3,089,782
: 3,091,545
: 3,093,502
: 3,097,104
: 3,097,960
: 3,102,046
: 3,108,880
40 : 3,086,880
41 : 3,097,105
43 : 3,073,716
: 3,074,810
: 3,108,480
44 : Re.25,504
: 3,106,481
45 : 3,091,546
46 : 3,079,273
: 3,096,199
: 3,101,274
: 3,102,047
: 3,104,981
: 3,108,009
: 3,113,885
47 : 3,072,497
: 3,075,855
: 3,075,856
: 3,078,179
: 3,080,255
: 3,083,118
: 3,088,844
: 3,099,572
: 3,101,275
: 3,108,010
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: 3,113,886
: 3,115,418
: 3,114,652
.2 : 3,092,510
.31 : 3,076,723
.31 : 3,104,983
.4 : 3,083,121
.4 : 3,112,216
.4 : 3,112,217
.4 : 3,112,218
.4 : 3,113,037
94 : 3,079,274
: 3,102,049
95 : 3,098,759
: 3,108,012
97 : 3,105,774
98 : 3,085,904
: 3,094,433
: 3,096,204
: 3,102,825
: 3,109,750
: 3,112,219
100 : 3,071,492
: 3,080,258
: 3,085,905
: 3,086,885
: 3,099,574
: 3,102,050
: 3,110,614
: 3,112,220
102 : 3,086,886
: 3,093,504
: 3,097,107
: 3,111,427
104 : 3,073,718
: 3,077,422
: 3,093,505
105 : 3,073,719
: 3,073,720
: 3,079,275
.1 : 3,073,721
.5 : 3,091,551
106 : 3,090,702
: 3,094,434
: 3,104,178
107 : 3,071,493
: 3,075,858
: 3,083,122
: 3,095,319
65.2 : 3,091,547
66 : 3,089,783
: 3,090,700
67 : 3,074,811
68 : 3,081,193
: 3,083,120
: 3,085,027
: 3,095,318
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.5 : 3,078,182
.5 : 3,096,202
69 : 3,073,717
70 : 3,087,834
: 3,089,784
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71 : 3,077,421
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: 3,106,484
: 3,110,613
: 3,113,888
: 3,116,159
72 : 3,080,256
: 3,080,257
: 3,105,773
: 3,109,749
: 3,111,420
73 : 3,087,835
75 : 3,084,065
: 3,084,066
: 3,088,847
: 3,091,549
: 3,096,203
: 3,103,446
: 3,108,898
: 3,111,426
: 3,113,036
76 : 3,075,857
: 3,082,117
: 3,082,118
: 3,084,067
: 3,084,068
: 3,085,901
: 3,085,902
: 3,085,903
: 3,086,884
: 3,090,701
: 3,094,550
: 3,092,509
: 3,103,447
: 3,108,899
93.1 : 3,108,900
.1 : 3,114,652
.2 : 3,092,510
.31 : 3,076,723
.31 : 3,104,983
.4 : 3,083,121
.4 : 3,112,216
.4 : 3,112,217
.4 : 3,112,218
.4 : 3,113,037
94 : 3,079,274
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95 : 3,098,759
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98 : 3,085,904
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: 3,111,427
104 : 3,073,718
: 3,077,422
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105 : 3,073,719
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.1 : 3,073,721
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106 : 3,090,702
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107 : 3,071,493
: 3,075,858
: 3,083,122
: 3,095,319
107 : 3,097,962
.2 : 3,079,276
.2 : 3,092,511
.2 : 3,096,205
.2 : 3,108,013
.2 : 3,108,014
111 : 3,084,069
113 : 3,072,498
: 3,081,194
: 3,109,751
114 : 3,082,119
: 3,085,028
: 3,115,421
115 : 3,076,724
118 : 3,083,123
: 3,110,615
: 3,116,161
119.2 : 3,106,485
.6 : 3,074,812
6 : 3,095,320
121 : 3,076,725
: 3,079,277
: 3,096,206
122 : 3,078,183
: 3,079,278
: 3,085,906
: 3,088,848
: 3,089,786
: 3,100,160
: 3,104,179
123 : 3,106,486
126 : 3,081,195
: 3,082,120
: 3,085,907
: 3,097,963
: 3,108,902
127 : 3,071,494
: 3,073,722
: 3,081,196
: 3,085,908
: 3,088,849
: 3,090,703
: 3,110,616
129 : 3,095,321
: 3,109,752
130 : 3,072,499
: 3,107,175
132 : 3,074,813
: 3,078,184
: 3,094,435
: 3,097,108
: 3,101,277
: 3,102,826
: 3,115,422
134 : 3,108,015
135.5 : 3,074,814
.5 : 3,100,721
136 : 3,082,121
: 3,087,836
137 : 3,085,029
: 3,101,278
: 3,101,279
: 3,108,016
138.5 : 3,085,909
.5 : 3,108,903
.8 : 3,085,910
.8 : 3,090,704
.8 : 3,091,552
.8 : 3,091,553
.8 : 3,092,512
.8 : 3,095,322
.8 : 3,096,207
.8 : 3,096,208
.8 : 3,100,722
.8 : 3,106,487
.8 : 3,108,017
.8 : 3,110,617
.8 : 3,116,162
139.4 : 3,079,279
.4 : 3,087,837
.5 : 3,079,280
.5 : 3,084,070
.5 : 3,086,887
.5 : 3,101,295
.5 : 3,103,448
140 : 3,081,197
: 3,085,911
: 3,113,038
: 3,116,163
: 3,116,164
141 : 3,078,185
: 3,080,259
143 : 3,074,815
: 3,077,423
: 3,084,071
: 3,095,323
: 3,098,760
144 : 3,084,072
: 3,091,554
: 3,082,122
: 3,085,030
: 3,098,761
147 : 3,103,449

148 : 3,077,424
: 3,104,984
152 : 3,080,260
154 : 3,082,123
: 3,090,705
155 : 3,076,726
: 3,081,198
: 3,083,119
: 3,093,506
: 3,097,964
156 : 3,081,199
161 : 3,073,723
: 3,079,281
: 3,084,073
: 3,108,018
: 3,110,618
162 : 3,097,109
: 3,097,110
: 3,097,111
163 : 3,083,124
200 : 3,111,428
201 : 3,075,859
: 3,078,186
: 3,083,125
: 3,091,555
: 3,093,507
: 3,096,209
: 3,097,112
: 3,101,280
: 3,108,019
: 3,109,753
202 : 3,108,020
204 : 3,084,074
: 3,102,827
205 : 3,107,176
211 : 3,074,816
: 3,075,860
: 3,075,861
: 3,076,727
: 3,082,124
: 3,088,850
: 3,093,508
: 3,107,177
: 3,108,904
212 : 3,071,495
: 3,072,500
: 3,079,282
: 3,080,261
: 3,085,912
: 3,085,913
: 3,090,706
: 3,099,575
: 3,099,576
: 3,108,021
: 3,113,039
: 3,115,423
213 : 3,081,200
: 3,087,838
: 3,091,556
: 3,093,509
: 3,102,051
: 3,108,905
: 3,113,040
: 3,115,424
215 : 3,081,201
: 3,089,787
: 3,094,436
: 3,095,324
: 3,106,488
: 3,110,619
216 : 3,074,817
: 3,081,202
: 3,096,210
217 : 3,100,723
: 3,106,489
: 3,107,178
: 3,109,754
: 3,110,620
: 3,112,221
: 3,112,222
: 3,113,889
: 3,116,165
218 : 3,071,496
: 3,110,621
221 : 3,088,851
: 3,106,490
224 : 3,096,211
: 3,099,577
226 : 3,099,578
: 3,104,985
: 3,107,179
: 3,107,180
: 3,108,906
227 : 3,086,889
: 3,089,788
: 3,110,622
228 : 3,098,762
230 : 3,093,510
: 3,099,579
231 : 3,097,965
232 : 3,074,818
232 : 3,093,511
: 3,105,775
: 3,110,623
: 3,112,223

Class 118

1 : 3,088,433
2 : 3,071,106
: 3,077,857
: 3,078,821
: 3,086,495
: 3,090,350
: 3,104,986
: 3,106,491
6 : 3,072,095
7 : 3,077,858
: 3,079,888
: 3,082,734
: 3,095,325
: 3,101,281
: 3,111,429
8 : 3,079,889
9 : 3,110,624
11 : 3,075,493
: 3,095,326
19 : 3,097,967
: 3,102,052
31.5 : 3,083,682
.5 : 3,089,459
33 : 3,078,822
: 3,082,735
40 : 3,101,282
43 : 3,112,225
48 : 3,103,450
: 3,114,653
49 : 3,088,496
: 3,097,113
: 3,104,180
.5 : 3,075,494
.5 : 3,098,763
50 : 3,084,661
: 3,084,662
: 3,104,987
52 : 3,105,776
55 : 3,098,764
58 : 3,108,022
60 : 3,089,460
62 : 3,106,492
: 3,106,889
66 : 3,080,846
68 : 3,112,226
: 3,116,166
70 : 3,104,181
: 3,111,430
101 : 3,095,327
105 : 3,111,431
106 : 3,083,683
109 : 3,085,547
111 : 3,096,212
118 : 3,084,663
125 : 3,110,625
126 : 3,080,847
: 3,113,890
204 : 3,104,182
211 : 3,107,181
212 : 3,092,513
215 : 3,108,023
223 : 3,090,351
233 : 3,099,580
235 : 3,084,664
236 : 3,081,735
: 3,104,183
243 : 3,099,581
246 : 3,083,684
249 : 3,080,848
252 : 3,080,849
: 3,107,182
255 : 3,084,665
258 : 3,109,755
259 : 3,097,968
268 : 3,082,736
: 3,095,328
: 3,101,283
: 3,104,988
301 : 3,102,053
: 3,107,183
303 : 3,110,626
305 : 3,099,582
306 : 3,071,107
: 3,078,823
308 : 3,085,548
: 3,100,724
309 : 3,082,737
310 : 3,104,184
317 : 3,085,549
322 : 3,076,429
323 : 3,081,736
324 : 3,074,374
325 : 3,100,161
326 : 3,077,859
405 : 3,090,352
406 : 3,091,216
408 : 3,108,024
: 3,112,227
410 : 3,078,824
: 3,083,685
: 3,088,434
: 3,102,829
413 : 3,076,430
: 3,078,825
420 : 3,091,217
425 : 3,110,627
500 : 3,113,041
504 : 3,088,435
505 : 3,091,218
: 3,099,583
621 : 3,090,353
627 : 3,104,185
: 3,114,654
637 : 3,079,890
: 3,081,737
: 3,091,219
: 3,098,765
: 3,105,777
: 3,113,042
638 : 3,096,213

Class 119

1 : 3,076,431
: 3,084,666
: 3,085,550
: 3,085,551
: 3,100,473
: 3,100,474
: 3,100,568
: 3,111,932
: 3,115,864
2 : 3,086,497
3 : 3,076,432
: 3,083,686
: 3,085,852
: 3,110,285
4 : 3,103,202
: 3,105,461
: 3,113,554
5 : 3,091,220
: 3,095,853
: 3,113,555
1.5 : 3,079,891
14.01 : 3,077,180
: 3,077,860
: 3,092,073
: 3,092,074
: 3,095,854
: 3,103,912
: 3,111,112
: 3,115,116
: 3,100,475
: 3,111,113
: 3,071,108
: 3,082,738
: 3,099,246
: 3,111,933
: 3,072,096
: 3,094,099
: 3,096,740
15 : 3,092,075
: 3,097,625
: 3,098,465
: 3,107,649
.5 : 3,099,247
.6 : 3,080,850
17 : 3,077,181
: 3,086,498
: 3,087,458
: 3,087,459
: 3,107,650
: 3,074,375
: 3,084,667
: 3,091,221
: 3,099,978
: 3,108,569
20 : 3,077,861
: 3,084,668
: 3,095,855
: 3,105,462
: 3,106,188
21 : 3,075,495
22 : 3,071,109
: 3,071,110
: 3,099,979
: 3,110,286
23 : 3,078,826
: 3,087,460
: 3,108,570
: 3,111,934
26 : 3,092,076
29 : 3,072,097
: 3,097,626
: 3,099,248
: 3,104,648
: 3,107,651
37 : 3,088,436
48 : 3,107,652
48 : 3,109,413
49 : 3,104,647
51 : 3,076,433
: 3,083,687
: 3,086,499
: 3,089,461
: 3,094,100
: 3,104,649
: 3,108,571
: 3,114,350
.11 : 3,097,627
.12 : 3,112,731
.11 : 3,113,556
52 : Re.25,336
: 3,077,182
: 3,077,862
: 3,087,461
: 3,089,462
: 3,090,354
: 3,092,077
: 3,093,110
: 3,094,973
: 3,101,070
: 3,103,913
: 3,105,463
: 3,108,572
: 3,111,114
: 3,111,115
: 3,112,732
: 3,115,865
53 : 3,074,376
: 3,102,511
54 : 3,074,377
56 : 3,088,437
: 3,115,117
: 3,115,866
57 : 3,085,552
: 3,099,980
59 : 3,103,203
61 : 3,082,739
: 3,099,981
62 : 3,077,863
71 : 3,081,738
: 3,089,463
: 3,090,355
72 : 3,093,111
: 3,106,907
: 3,110,287
73 : 3,103,914
: 3,106,189
74 : 3,086,500
75 : 3,076,434
: 3,095,856
77 : 3,076,435
: 3,112,733
78 : 3,101,071
79 : 3,079,892
81 : 3,092,078
: 3,108,573
82 : 3,103,915
95 : 3,090,356
96 : 3,088,438
: 3,104,650
98 : 3,084,669
99 : 3,099,249
100 : 3,085,553
103 : 3,092,079
: 3,094,101
: 3,103,204
106 : 3,072,098
: 3,096,741
109 : 3,095,857
111 : 3,074,378
112 : 3,113,557
114 : 3,099,250
121 : 3,100,476
137 : 3,115,867
143 : 3,083,688
: 3,101,696
: 3,107,653
151 : 3,095,858
152 : 3,099,982
155 : 3,072,099
: 3,072,100
157 : 3,071,111
: 3,074,379
: 3,076,436
: 3,079,893
: 3,098,466
: 3,101,072
: 3,103,916
159 : 3,108,574
160 : 3,105,464

Class 120

1 : 3,073,285
: 3,114,351
11 : 3,101,073
14.1 : 3,093,112
.5 : 3,098,467
.9 : 3,072,101
15 : 3,077,183
38 : 3,082,743
: 3,083,693
: 3,083,694
: 3,084,675
: 3,084,676
: 3,085,556
: 3,088,441
: 3,088,442
: 3,090,359
: 3,090,360
: 3,093,115
: 3,093,116
: 3,093,117
: 3,093,118
: 3,093,119
: 3,093,120
40 : Re.25,334
: 3,072,105
: 3,074,384
: 3,092,082
41 : 3,072,106
: 3,075,500
: 3,075,501
: 3,075,502
: 3,076,442
: 3,078,828
: 3,079,898
: 3,079,899
: 3,080,853
: 3,081,744
: 3,082,744
: 3,082,745
: 3,083,695
: 3,083,696
: 3,087,468
: 3,087,469
: 3,087,470
: 3,087,471
: 3,092,083
: 3,093,121
42 : 3,083,697
: 3,092,084
45 : 3,075,503
: 3,077,864
46 : 3,082,746
: 3,086,502
.4 : 3,072,107
48 : 3,072,108
: 3,077,186
: 3,083,698
50 : 3,078,829
: 3,090,361
52 : 3,075,498
54 : 3,074,385
: 3,077,118
: 3,093,122
: 3,082,749
: 3,090,364
: 3,079,900
: 3,081,746

Class 121

1 : 3,076,439
: 3,076,440
7 : 3,074,381
: 3,082,741
10 : 3,078,827
: 3,085,555
11 : 3,082,742
: 3,083,692
: 3,088,440
21 : 3,071,114
: 3,081,740
: 3,081,741
: 3,081,742
: 3,084,672
: 3,086,501
: 3,087,466
22 : 3,072,103
28 : 3,084,673
33 : 3,084,674
: 3,093,114
34 : 3,071,115
: 3,080,851
37 : 3,087,467
38 : 3,071,116
: 3,071,117
: 3,072,104
: 3,073,287
: 3,074,382
33 : 3,074,383
: 3,075,499
34 : 3,076,441
: 3,079,896
: 3,079,897
: 3,080,852
: 3,081,743
34 : 3,114,353
37 : 3,105,465
95 : 3,115,121
156 : 3,091,225
225 : 3,081,747
: 3,104,654
235 : 3,088,443
: 3,097,631
: 3,105,466
: 3,106,193
: 3,115,122
236 : 3,107,656
240 : 3,089,467
356 : 3,105,467
379 : 3,095,862
392 : 3,089,468
: 3,101,698
406 : 3,081,748
: 3,081,749
: 3,102,513
407 : 3,101,699
: 3,103,918
448 : 3,081,750
: 3,086,503
451 : 3,082,750
: 3,086,504
: 3,094,106
: 3,105,468
.1 : 3,092,086
456 : 3,088,444
459 : 3,076,445
477 : 3,103,207
478 : 3,072,109
: 3,098,469
: 3,110,289
: 3,115,123
479 : 3,095,863
: 3,095,864
: 3,096,743
: 3,096,744
: 3,110,290
: 3,110,291
: 3,111,936
480 : 3,102,514
: 3,105,469
491 : 3,089,469
498 : 3,077,866
: 3,081,751
: 3,081,752
: 3,104,655
: 3,112,736
499 : 3,106,911
: 3,112,737
504 : 3,109,415

Class 123

1 : 3,074,386
: 3,087,472
: 3,098,470
: 3,102,515
: 3,106,194
7 : 3,071,120
8 : 3,075,505
: 3,077,867
: 3,081,753
: 3,096,745
: 3,096,746
: 3,096,747
: 3,097,632
: 3,102,516
: 3,102,517
: 3,102,518
: 3,102,519
: 3,102,520
: 3,103,208
: 3,108,578
: 3,115,871
12 : 3,101,700
: 3,106,912
: 3,115,124
13 : 3,071,121
: 3,073,288
16 : 3,074,387
: 3,076,446
: 3,098,471
: 3,101,076
: 3,103,919
: 3,103,920
: 3,114,354
17 : 3,108,579
18 : 3,080,856
21 : 3,100,478
25 : 3,089,470
: 3,107,657
: 3,115,872
26 : 3,073,289
32 : 3,074,388
: 3,077,868
: 3,079,901
: 3,082,751
: 3,082,752
: 3,083,700

Class 123 – Con.

32 : 3,085,557
: 3,089,471
: 3,092,087
: 3,094,974
: 3,102,521
: 3,103,921
: 3,105,470
: 3,107,658
: 3,110,292
: 3,110,293
: 3,111,117
: 3,112,738
: 3,113,560
41 : 3,088,445
.08 : 3,082,753
.08 : 3,090,365
.08 : 3,105,472
.12 : Re.25,481
.1 : 3,080,857
.16 : 3,081,754
.12 : 3,094,975
.15 : 3,096,748
.31 : 3,092,088
.42 : 3,115,125
.52 : 3,078,831
.54 : 3,083,701
.69 : 3,073,290
.65 : 3,078,832
.69 : 3,079,902
.65 : 3,091,226
.61 : 3,099,983
.73 : 3,074,389
.77 : 3,081,755
.72 : 3,105,473
.77 : 3,115,126
.82 : 3,077,187
.8 : 3,086,505
.85 : 3,096,506
.84 : 3,087,473
.86 : 3,087,474
.82 : 3,115,127
42 : 3,090,366
43 : 3,075,506
44 : 3,077,870
46 : 3,077,188
: 3,081,756
: 3,082,754
: 3,106,913
51 : 3,071,122
: 3,084,678
54 : 3,114,355
55 : 3,088,446
: 3,095,865
: 3,111,937
56 : 3,073,291
: 3,075,507
59 : 3,105,474
: 3,109,416
65 : 3,077,189
: 3,103,209
: 3,113,561
73 : 3,083,702
: 3,104,656
: 3,107,659
: 3,114,356
76 : 3,092,089
79 : 3,071,123
: 3,097,633
90 : 3,073,292
: 3,079,903
: 3,082,755
: 3,086,507
: 3,087,475
: 3,087,476
: 3,087,477
: 3,087,478
: 3,087,479
: 3,089,472
: 3,089,473
: 3,090,367
: 3,090,368
: 3,091,227
: 3,094,107
: 3,096,749
: 3,096,750
: 3,098,472
: 3,098,473
: 3,101,077
: 3,105,475
: 3,106,195
: 3,108,580
: 3,109,417
: 3,109,418
: 3,111,118
: 3,111,119
: 3,112,739
: 3,112,740
: 3,115,128
102 : 3,080,858
: 3,099,254
103 : 3,071,124
103 : 3,072,110
: 3,072,111
: 3,081,757
: 3,092,090
: 3,103,210
: 3,104,657
119 : Re.25,492
: 3,072,112
: 3,073,293
: 3,074,390
: 3,076,447
: 3,077,871
: 3,078,833
: 3,087,480
: 3,088,447
: 3,089,474
: 3,091,228
: 3,091,229
: 3,092,091
: 3,093,123
: 3,094,976
: 3,096,751
: 3,105,471
: 3,105,476
: 3,105,477
: 3,106,196
: 3,108,581
: 3,110,294
: 3,110,295
: 3,111,120
: 3,115,873
120 : 3,114,357
: 3,114,358
122 : Re.25,361
: 3,074,391
: 3,075,508
: 3,085,558
: 3,107,660
: 3,110,296
: 3,112,741
133 : 3,072,113
136 : 3,093,124
: 3,101,701
138 : 3,090,369
139 : 3,072,114
: 3,079,903
: 3,081,758
: 3,085,559
: 3,091,230
: 3,101,078
: 3,105,478
: 3,106,197
: 3,107,661
: 3,114,359
140 : 3,075,509
: 3,077,872
: 3,077,873
: 3,088,448
142.5 : 3,093,126
.5 : 3,114,360
146.5 : 3,087,000
.5 : 3,087,980
.5 : 3,105,479
148 : 3,073,879
: 3,075,029
: 3,081,360
: 3,087,001
: 3,094,108
: 3,099,984
: 3,100,479
: 3,100,480
: 3,104,658
: 3,105,480
149 : 3,096,752
169 : 3,079,453
: 3,110,297
179 : 3,071,125
: 3,071,126
: 3,075,510
: 3,076,448
: 3,078,834
: 3,081,759
: 3,081,760
: 3,084,679
: 3,088,449
: 3,089,475
: 3,094,109
: 3,097,633
: 3,099,255
: 3,102,523
: 3,104,659
: 3,105,481
: 3,106,198
180 : 3,081,761
188 : 3,073,294
: 3,077,874
: 3,090,370
188 : 3,102,524
: 3,106,199
: 3,110,298
: 3,114,361
191 : 3,094,977
196 : 3,095,866
: 3,115,874
197 : 3,092,092
198 : 3,101,702

Class 124

2 : 3,075,511
: 3,094,110
: 3,098,474
: 3,101,703
4 : 3,092,093
5 : 3,095,867
: 3,115,129
6 : 3,108,582
7 : 3,094,111
8 : 3,094,127
: 3,097,635
11 : 3,077,875
: 3,080,859
: 3,087,481
: 3,089,476
: 3,102,525
: 3,103,212
13 : 3,077,876
: 3,109,419
15 : 3,111,121
16 : 3,084,680
17 : 3,071,127
19 : 3,111,938
: 3,114,362
20 : 3,099,256
: 3,101,704
21 : 3,102,526
22 : 3,108,583
23 : 3,082,756
: 3,085,560
: 3,085,561
24 : 3,108,584
26 : 3,088,450
27 : 3,088,451
: 3,102,527
29 : 3,094,112
30 : 3,103,213
35 : 3,072,115
43 : 3,088,452

Class 125

3 : Re.25,410
6 : 3,073,295
11 : 3,072,116
: 3,075,512
: 3,075,513
: 3,077,877
: 3,078,835
: 3,079,905
: 3,079,906
: 3,079,907
: 3,081,762
: 3,093,126
: 3,094,360
: 3,097,080
: 3,097,128
: 3,101,705
: 3,102,528
: 3,102,529
: 3,113,563
13 : 3,103,922
15 : 3,092,094
17 : 3,079,908
20 : 3,074,392
21 : 3,088,475
23 : 3,086,509
: 3,089,477
: 3,095,868
: 3,098,476
: 3,100,481
: 3,101,706
24 : 3,087,482
: 3,110,299
26 : 3,080,860
: 3,087,483
30 : 3,105,482
: 3,113,564
35 : 3,086,510
: 3,089,478

Class 126

9 : 3,105,483
: 3,109,420
21 : 3,074,393
: 3,081,763
: 3,089,479
: 3,090,371
25 : 3,079,909
: 3,082,757
: 3,085,562
: 3,090,372
25 : 3,095,869
: 3,101,080
30 : 3,094,113
38 : 3,080,861
39 : 3,078,836
: 3,096,753
41 : 3,090,373
: 3,098,477
: 3,114,363
42 : 3,084,681
59 : 3,107,662
.5 : 3,105,484
62 : 3,080,862
65 : 3,093,129
85 : 3,083,703
: 3,094,978
: 3,107,663
: 3,111,122
90 : 3,099,257
: 3,109,421
91 : 3,079,910
: 3,113,565
92 : 3,087,484
93 : 3,099,258
: 3,106,914
96 : 3,085,563
99 : 3,102,530
104 : 3,111,939
109 : 3,110,300
110 : 3,078,296
: 3,078,837
: 3,078,838
: 3,082,758
: 3,090,374
: 3,092,095
: 3,094,979
: 3,105,485
: 3,109,422
: 3,115,130
113 : 3,073,297
: 3,087,485
: 3,092,096
: 3,102,531
: 3,104,660
116 : 3,076,449
: 3,084,682
: 3,090,260
: 3,093,923
: 3,103,923
: 3,106,200
: 3,111,940
120 : 3,096,754
121 : 3,085,564
: 3,094,980
: 3,082,759
137 : 3,111,123
179 : 3,078,839
190 : 3,091,232
: 3,099,259
191 : Re.25,326
: 3,072,117
: 3,096,755
: 3,114,364
194 : 3,090,375
: 3,092,097
: 3,113,566
208 : 3,110,301
247 : 3,075,514
261 : 3,074,394
263 : 3,079,911
: 3,094,981
: 3,101,707
270 : 3,085,565
: 3,089,480
: 3,102,532
: 3,105,486
: 3,106,201
271 : 3,076,450
: 3,077,190
.2 : 3,082,760
.2 : 3,095,870
.2 : 3,108,586
.2 : 3,112,742
.3 : 3,105,487
273 : 3,088,453
288 : 3,094,114
290 : 3,084,683
295 : 3,089,481
303 : 3,102,533
335 : 3,086,511
340 : 3,106,202
343.5 : 3,080,863
.5 : 3,086,512
.5 : 3,091,233
.5 : 3,092,098
.5 : 3,098,478
.5 : 3,106,915
345 : 3,111,941
350 : 3,090,376
360 : 3,078,840
: 3,109,423
362 : 3,081,764
: 3,111,942
363 : 3,110,302
386 : 3,110,303
390 : 3,079,912
: 3,079,913

Class 127

19 : 3,114,655
30 : 3,085,914
32 : 3,103,451
33 : 3,078,187
: 3,097,969
38 : 3,073,724
: 3,087,839
: 3,114,656
43 : 3,100,725
46 : 3,073,725
: 3,074,819
: 3,074,820
: 3,090,707
: 3,097,114
: 3,108,907
48 : 3,097,970
: 3,113,043
: 3,113,044
50 : 3,089,789
: 3,098,766
: 3,113,045
55 : 3,078,188
: 3,095,329
63 : 3,074,821
: 3,098,767
67 : 3,072,501
: 3,079,283
69 : 3,086,890
: 3,101,284
: 3,102,054
: 3,105,778

Class 128

1 : 3,071,128
: 3,076,451
: 3,083,704
: 3,084,684
: 3,089,482
: 3,089,260
: 3,099,261
: 3,101,081
: 3,106,203
: 3,111,943
2 : 3,074,395
: 3,074,396
: 3,081,765
: 3,088,454
: 3,095,871
: 3,097,636
: 3,097,637
: 3,115,131
.05 : 3,075,515
.05 : 3,076,452
.05 : 3,078,841
.08 : 3,081,766
.07 : 3,082,761
.05 : 3,083,705
.05 : 3,085,567
.05 : 3,086,513
.05 : 3,086,514
.08 : 3,086,515
.05 : 3,087,488
.05 : 3,090,377
.05 : 3,095,872
.05 : 3,095,873
.07 : 3,097,638
.08 : 3,097,639
.05 : 3,099,262
.05 : 3,101,082
.05 : 3,102,534
.05 : 3,103,214
.05 : 3,104,661
.05 : 3,107,664
.1 : 3,083,706
.1 : 3,085,566
.1 : 3,087,486
.1 : 3,087,487
.1 : 3,089,483
.1 : 3,091,234
.1 : 3,094,115
4 : 3,090,378
6 : 3,071,129
: 3,075,516
: 3,081,767
: 3,089,484
: 3,090,379
: 3,091,235
: 3,096,756
: 3,100,482
9 : 3,110,304
10 : 3,082,762
17 : 3,110,305
23 : 3,086,516
24 : 3,094,116
: 3,102,535
.1 : 3,075,517
25 : 3,071,130
: 3,075,518
: 3,079,914
: 3,100,483
28 : 3,094,117
29 : 3,071,131
: 3,073,298
: 3,077,191
: 3,079,915
: 3,079,916
: 3,080,864
: 3,083,707
: 3,088,455
: 3,088,456
: 3,089,485
: 3,090,380
: 3,091,236
: 3,099,985
: 3,101,708
: 3,105,488
: 3,106,204
: 3,106,916
: 3,114,365
30 : 3,078,842
32 : 3,094,982
33 : 3,071,132
: 3,077,869
: 3,085,568
: 3,088,457
: 3,092,099
: 3,092,100
: 3,113,567
36 : 3,096,757
39 : 3,083,708
: 3,094,118
40 : 3,094,983
41 : 3,094,119
: 3,096,758
: 3,103,925
49 : 3,075,519
52 : 3,078,843
: 3,104,662
57 : 3,077,878
: 3,081,768
: 3,083,709
: 3,088,458
: 3,095,874
60 : 3,091,237
: 3,107,665
65 : 3,081,769
66 : 3,075,520
: 3,086,517
: 3,088,459
: 3,092,101
: 3,099,986
69 : 3,111,944
70 : 3,092,102
75 : 3,075,521
: 3,086,518
: 3,086,519
: 3,103,215
: 3,105,489
: 3,108,587
: 3,114,366
76 : 3,108,588
.5 : 3,074,397
.5 : 3,082,763
78 : 3,071,133
: 3,094,984
: 3,095,875
: 3,097,640
80 : 3,084,685
: 3,086,520
: 3,086,521
: 3,086,522
: 3,093,130
: 3,109,424
81 : 3,094,985
: 3,110,306
83 : 3,114,367
84 : 3,087,489
: 3,088,460
: 3,090,381
: 3,094,986
: 3,094,988
85 : 3,093,131
87 : 3,072,118
: 3,074,398
: 3,075,522
: 3,114,368
89 : 3,110,307
90 : 3,089,486
91 : 3,085,569
92 : 3,076,453
: 3,094,120
: 3,102,536
: 3,103,926
: 3,107,666
: 3,111,945
: 3,112,743
94 : 3,073,299
: 3,096,759
: 3,103,216
: 3,108,589
95 : 3,091,238
: 3,096,760
96 : 3,097,641
98 : 3,080,865
99 : 3,078,844
130 : 3,077,879
132 : 3,074,399
: 3,085,570
: 3,092,103
133 : 3,082,764
: 3,084,686
: 3,115,132
134 : 3,093,132
: 3,098,479
: 3,100,484
136 : 3,073,300
: 3,082,765
: 3,089,487
: 3,096,761
: 3,103,217
: 3,107,667
: 3,107,668
: 3,112,744
141 : 3,077,880
: 3,078,845
: 3,109,425
142 : 3,071,133
: 3,073,301
: 3,076,454
: 3,078,846
: 3,085,571
: 3,092,104
: 3,099,987
: 3,100,485
: 3,102,537
: 3,106,205
: 3,107,669
: 3,111,946
: 3,112,745
144 : 3,077,881
: 3,103,927
145 : 3,082,766
: 3,084,687
146 : 3,072,119
: 3,073,302
: 3,079,917
: 3,082,767
: 3,092,105
: 3,095,876
: 3,097,642
: 3,101,709
151 : 3,102,538
152 : 3,097,643
153 : 3,086,523
: 3,088,461
156 : 3,073,303
: 3,073,304
: 3,077,882
: 3,085,572
: 3,089,488
: 3,113,568
157 : 3,097,644
159 : 3,083,710
165 : 3,074,400
166 : 3,073,305
171 : 3,103,218
172 : 3,082,768
: Re.25,483
173 : 3,086,524
: 3,107,670
: 3,108,590
: 3,115,133
184 : 3,090,261
188 : 3,106,917
190 : 3,096,762
191 : 3,075,523
: 3,090,382
: 3,111,947
192 : 3,115,134
194 : 3,097,645
203 : 3,106,918
214 : 3,074,401
: 3,074,402
: 3,075,524
: 3,078,847
: 3,087,490
: 3,091,239
: 3,092,106
: 3,097,646
: 3,098,480
: 3,100,486
: 3,101,083
: 3,101,710
: 3,103,928
: 3,105,490
: 3,110,308
: 3,112,746
215 : 3,072,120
: 3,073,306
216 : 3,089,489
: 3,090,383

216 : 3,092,107
: 3,093,133
: 3,094,987
: 3,094,988
: 3,114,369
217 : 3,072,121
218 : 3,075,525
: 3,076,455
: 3,076,456
: 3,080,866
: 3,084,688
: 3,089,490
: 3,089,491
: 3,091,240
: 3,092,108
: 3,094,121
: 3,094,989
: 3,101,084
: 3,101,711
: 3,101,712
: 3,102,539
: 3,108,591
: 3,108,592
: 3,110,309
: 3,110,310
: 3,112,747
: 3,114,370
: 3,115,135
: 3,115,136
: 3,115,137
: 3,115,875
220 : 3,098,482
: 3,098,483
221 : 3,071,135
: 3,073,307
: 3,076,457
: 3,081,770
: 3,082,769
: 3,090,384
: 3,093,134
: 3,094,122
: 3,096,763
: 3,097,647
: 3,099,988
224 : 3,104,663
225 : 3,110,311
227 : 3,075,526
: 3,100,487
229 : 3,104,664
: 3,107,671
232 : 3,071,136
: 3,086,525
: 3,102,540
240 : 3,085,573
: 3,109,426
241 : 3,096,764
251 : 3,078,848
252 : 3,082,770
: 3,113,569
253 : 3,072,122
: 3,074,403
260 : 3,075,527
: 3,086,526
: 3,095,877
261 : 3,079,918
: 3,109,427
263 : 3,085,574
: 3,086,527
: 3,090,385
: 3,101,713
: 3,103,929
: 3,115,876
268 : 3,089,492
270 : 3,084,689
: 3,091,241
271 : 3,104,665
: 3,114,371
272 : 3,075,528
: 3,079,919
: 3,079,920
: 3,087,491
275 : 3,084,690
276 : 3,071,137
: 3,086,528
: 3,106,206
278 : 3,084,691
: 3,115,138
283 : 3,074,404
: 3,076,458
: 3,077,192
: 3,081,771
: 3,089,493
: 3,100,488
284 : 3,072,123
: 3,072,124
: 3,077,193
: 3,089,494
: 3,113,570
285 : 3,079,921
: 3,101,714
286 : 3,103,930
287 : 3,073,308
: 3,081,772
: 3,096,765
: 3,110,312
289 : 3,092,109
: 3,094,990
: 3,096,766
290 : 3,071,138
: 3,073,309
: 3,076,459
: 3,076,460
: 3,078,849
: 3,084,692
: 3,085,575
: 3,088,462
: 3,088,463
: 3,088,464
: 3,095,878
: 3,097,648
: 3,105,491
: 3,106,207
: 3,111,948
: 3,115,877
291 : 3,079,922
: 3,085,879
: 3,088,484
293 : 3,074,405
: 3,092,110
295 : 3,072,125
: 3,077,883
296 : 3,074,406
: 3,089,495
: 3,097,649
303 : 3,073,310
: 3,074,407
: 3,081,773
.14 : 3,089,496
.1 : 3,093,135
.17 : 3,100,489
305 : 3,072,126
: 3,076,461
: 3,076,462
: 3,104,666
322 : 3,101,715
323 : 3,088,465
325 : 3,083,711
: 3,101,085
327 : 3,086,529
328 : 3,074,408
: 3,108,593
329 : 3,086,530
334 : 3,090,386
: 3,105,492
335 : 3,086,531
.5 : 3,105,493
.5 : 3,114,372
339 : 3,074,409
: 3,094,123
340 : 3,073,311
343 : 3,077,194
346 : 3,080,867
: 3,106,919
: 3,111,124
348 : 3,094,124
349 : 3,084,693
350 : 3,071,139
: 3,087,492
: 3,100,490
: 3,108,595
: 3,109,439
: 3,111,125
: 3,112,748
.1 : 3,073,313
.1 : 3,092,114
.7 : 3,093,140
.8 : 3,074,411
351 : 3,087,493
352 : 3,113,571
354 : 3,115,139
355 : 3,092,111
361 : 3,112,749
369 : 3,085,576
375 : 3,101,716
395 : 3,096,767
396 : 3,084,694
399 : 3,103,219
: 3,108,596
400 : 3,074,410
402 : 3,091,242
: 3,097,650
: 3,097,192
403 : 3,075,529
: 3,092,112
404 : 3,077,195
405 : 3,107,672
410 : 3,115,140
418 : 3,085,577
: 3,095,880
419 : 3,078,850
422 : 3,096,768
: 3,108,597
: 3,109,430
423 : 3,077,884
: 3,083,712
: 3,093,136
443 : 3,093,137
: 3,110,313
454 : 3,093,138
: 3,099,265
455 : 3,098,485
460 : 3,087,494
463 : 3,077,196
: 3,101,717
465 : 3,093,139
: 3,114,374
472 : 3,109,431
477 : 3,075,530
479 : 3,077,197
483 : 3,094,125
484 : 3,115,141
489 : 3,077,198
: 3,094,991
491 : 3,075,531
494 : 3,082,771
498 : 3,090,387
501 : 3,076,463
505 : 3,078,851
510 : 3,071,140
: 3,077,885
: 3,112,750
: 3,115,878
513 : 3,078,852
516 : 3,108,598
520 : 3,101,718
521 : 3,075,532
: 3,076,464
: 3,098,486
: 3,112,751
526 : 3,097,651
: 3,108,599
528 : 3,087,495
: 3,113,572
529 : 3,094,126
540 : 3,088,868
541 : 3,099,266
: 3,115,879
542 : 3,080,869
548 : 3,073,312
: 3,094,992
: 3,096,769
11 : Re.25,355
17 : 3,076,728
: 3,076,729
: 3,082,125
: 3,095,881
: 3,108,600
553 : 3,095,881
567 : 3,092,113
: 3,115,880
579 : 3,087,496
582 : 3,103,931
586 : 3,086,532
590 : 3,085,578
607 : 3,077,886
615 : 3,081,774
: 3,084,695
: 3,099,267

Class 129

1 : 3,077,887
: 3,099,268
: 3,107,673
8 : 3,097,652
11 : 3,083,713
: 3,104,667
13 : 3,098,487
15 : 3,113,573
16 : 3,098,488
: 3,102,542
: 3,106,920
: 3,115,881
.1 : 3,073,313
.1 : 3,092,114
.7 : 3,093,140
.8 : 3,074,411
23 : 3,079,923
: 3,083,714
: 3,085,579
: 3,087,497
: 3,087,498
24 : 3,077,888
: 3,098,489
: 3,098,490
: 3,101,719
: 3,105,494
: 3,111,949
25 : 3,111,126
28 : 3,108,585
29 : 3,073,314
30 : 3,081,775
31 : 3,106,208
: 3,109,432
35 : 3,105,495
37 : 3,099,269
41 : 3,073,315
: 3,078,853
: 3,080,562

Class 130

5 : 3,074,412
: 3,090,388
5 : 3,098,491
: 3,100,491
: 3,101,720
: 3,110,314
: 3,112,752
: 3,113,574
20 : 3,093,141
24 : 3,109,433
: 3,109,434
27 : 3,079,924
: 3,092,115
: 3,092,116
: 3,101,721
: 3,103,932
: 3,105,496
: 3,106,921
: 3,115,142
30 : 3,073,316
: 3,079,925
: 3,082,772
: 3,084,696
: 3,087,499
: 3,112,753

Class 131

2 : 3,100,492
: 3,106,209
: 3,112,754
4 : 3,081,776
: 3,091,243
: 3,102,543
7 : 3,080,870
: 3,109,435
8 : 3,111,950
9 : 3,112,755
10 : 3,079,926
: 3,081,777
: 3,087,500
: 3,093,142
: 3,103,220
: 3,103,221
: 3,110,315
: 3,113,575
11 : Re.25,355
17 : 3,076,728
: 3,076,729
: 3,082,125
: 3,095,881
: 3,108,600
553 : 3,095,881
567 : 3,092,113
: 3,115,880
579 : 3,087,496
582 : 3,103,931
586 : 3,086,532
590 : 3,085,578
607 : 3,077,886
615 : 3,081,774
: 3,084,695
: 3,099,267

Class 132

1 : 3,097,656
5 : 3,077,891
: 3,081,780
7 : 3,086,534
: 3,093,146
9 : 3,088,469
: 3,101,724
: 3,103,933
: 3,105,501
: 3,109,437
31 : 3,109,438
33 : 3,083,715
: 3,103,934
: 3,107,675
: 3,086,891
34 : 3,094,994
36 : 3,108,603
37 : 3,106,923
39 : 3,097,657
: 3,099,990
: 3,108,604
40 : 3,074,416
: 3,092,118
: 3,105,502
: 3,105,503
: 3,106,213
: 3,113,578
: 3,111,951
41 : 3,073,318
: 3,086,535
: 3,090,389
: 3,091,244
: 3,095,883
: 3,095,884
: 3,097,654
94 : 3,077,889
: 3,080,871
: 3,081,778
: 3,091,245
: 3,093,143
: 3,094,128
: 3,099,989
.5 : 3,077,892
.6 : 3,081,782
96 : 3,103,222
110 : 3,092,117
133 : 3,105,499
136 : 3,101,722
140 : 3,077,890
: 3,081,779
: 3,085,580
: 3,086,533
: 3,098,492
: 3,110,326
: 3,115,883
143 : 3,096,773
144 : 3,085,581
145 : 3,074,415
170 : 3,080,872
174 : 3,073,317
175 : 3,100,493
176 : 3,106,922
186 : 3,104,668
194 : 3,079,927
194 : 3,084,698
195 : 3,091,246
201 : 3,079,928
203 : 3,098,493
207 : 3,097,655
: 3,115,884
208 : 3,079,929
: 3,079,930
: 3,093,144
: 3,101,723
: 3,105,500
209 : 3,089,498
225 : 3,079,931
232 : 3,112,756
235 : 3,093,145
: 3,094,993
237 : 3,108,602
: 3,113,577
238 : 3,094,129
240 : 3,099,270
246 : 3,079,932
: 3,110,316
256 : 3,078,854
: 3,107,674
: 3,111,128
259 : 3,071,141
3 : 3,072,502
: 3,073,726
: 3,080,262
4 : 3,079,284
: 3,080,263
5 : 3,102,055
6 : 3,099,585
: 3,115,425
7 : 3,071,498
: 3,074,822
: 3,100,726
8 : 3,072,503
: 3,084,075
: 3,104,989
9 : 3,102,056
10 : 3,078,190
: 3,079,285
: 3,086,891
12 : 3,079,286
13 : 3,100,727
15 : 3,090,708
: 3,091,558
: 3,096,214
: 3,097,971
16 : 3,094,437
17 : 3,104,186
18 : 3,074,823
: 3,089,791
21 : 3,073,727
: 3,089,792
: 3,104,187
22 : 3,080,264
: 3,084,076
: 3,085,915
: 3,085,916
: 3,103,223
23 : 3,102,057
24 : 3,080,265
: 3,113,046
25 : Re.25,486
: 3,076,730
: 3,083,126
: 3,092,515
: 3,096,925
26 : 3,071,499
: 3,078,189
27 : 3,085,917
: 3,087,841
28 : 3,074,824
: 3,081,203
: 3,097,972
: 3,114,657
30 : 3,085,918
: 3,115,426
: 3,084,077
38 : 3,106,929
41 : 3,074,825
44 : 3,108,605
45 : 3,079,935
: 3,102,545
46 : 3,071,144
: 3,078,857
: 3,083,716
: 3,094,997
: 3,099,275
47 : 3,092,120
: 3,106,925
48 : 3,076,467
56 : 3,094,998
: 3,106,926
57 : 3,072,128
: 3,072,129
: 3,073,321
: 3,078,858
: 3,083,717
: 3,085,582
: 3,087,504
58 : 3,073,322
: 3,088,473
: 3,092,121
: 3,092,122
: 3,095,885
: 3,103,225
: 3,106,217
: 3,107,676
: 3,115,144
60 : Re.25,421
61 : 3,086,537
: 3,092,123
63 : 3,082,774
66 : 3,078,859
69. : 3,074,068
: 3,078,860
70 : 3,073,323
: 3,098,494
72 : 3,103,936
73 : 3,079,936
74 : 3,104,670
: 3,109,439
76 : 3,074,417
: 3,074,418
: 3,106,927
77 : 3,073,324
: 3,098,495
79 : 3,096,774
: 3,106,928
81 : 3,097,658
93 : 3,092,124
94 : 3,103,226
95 : 3,115,145
96 : 3,078,861
98 : 3,094,131
99 : 3,072,130
: 3,101,728
: 3,103,227
102 : 3,076,468
104 : 3,090,391
105 : 3,087,505
: 3,111,952
107 : 3,099,276
: 3,111,953
109 : 3,085,583
111 : 3,082,775
: 3,083,718
: 3,086,538
: 3,103,937
: 3,103,938
113 : 3,088,474
115 : 3,080,874
: 3,084,701
122 : 3,071,145
123 : 3,072,131
: 3,096,775
125 : 3,090,392
: 3,092,125
127 : 3,107,677
129 : 3,111,131
130 : 3,075,533
132 : 3,094,999
134 : 3,103,939
137 : 3,072,132
: 3,085,584
: 3,115,146
138 : 3,075,534
: 3,114,375
140 : 3,103,940
141 : 3,089,499
143 : 3,099,991
: 3,101,087
144 : 3,084,702
145 : 3,101,729
: 3,113,579
148 : 3,073,325
: 3,086,539
149 : 3,093,149
151 : 3,101,088
152 : 3,082,776
156 : 3,089,500
157 : 3,083,719
158 : 3,082,777
164 : 3,095,000
166 : 3,079,937
: 3,082,778
: 3,098,496
: 3,099,277
167 : 3,075,535
: 3,086,540
: 3,095,001
: 3,101,730
168 : 3,104,671
: 3,104,672
169 : 3,081,785
: 3,085,585
: 3,090,393
: 3,111,954
174 : 3,082,779
: 3,096,776
: 3,110,317
176 : 3,077,200

Class 134—Con.
176 : 3,115,885
182 : 3,099,992
183 : 3,072,133
186 : 3,101,089
: 3,106,930
: 3,108,607
: 3,111,132
198 : 3,108,608
199 : 3,081,784

Class 135
1 : 3,073,326
: 3,080,875
: 3,084,703
: 3,088,475
: 3,093,150
: 3,102,546
: 3,109,440
: 3,111,955
: 3,114,376
3 : 3,114,377
4 : 3,082,780
: 3,085,586
: 3,105,505
5 : 3,075,536
: 3,092,126
: 3,095,886
: 3,101,731
: 3,102,547
6 : 3,106,218
: 3,106,931
16 : 3,091,249
22 : 3,073,327
: 3,074,419
50 : 3,074,420

Class 136
3 : 3,080,440
4 : 3,071,636
: 3,075,030
: 3,076,051
: 3,077,505
: 3,079,454
: 3,081,361
: 3,081,362
: 3,081,363
: 3,081,364
: 3,081,365
: 3,082,275
: 3,082,276
: 3,083,248
: 3,085,125
: 3,086,067
: 3,087,002
: 3,088,988
: 3,088,989
: 3,097,973
: 3,106,493
: 3,109,756
: 3,110,628
: 3,110,629
: 3,111,432
: 3,116,167
: 3,116,168
5 : 3,072,733
: 3,073,881
: 3,073,882
: 3,073,883
: 3,075,031
: 3,076,859
: 3,077,506
: 3,079,455
: 3,080,441
: 3,082,277
: 3,086,068
: 3,095,330
6 : 3,075,032
: 3,081,366
: 3,081,367
: 3,089,913
: 3,094,438
: 3,096,215
: 3,096,216
: 3,108,908
: 3,108,909
: 3,113,047
: 3,114,658
10 : 3,087,003
13 : 3,083,249
20 : 3,104,990
24 : 3,075,033
: 3,076,860
26 : 3,100,162
27 : 3,084,207
29 : 3,108,910
30 : 3,082,278
34 : 3,082,279
36 : 3,071,637
38 : 3,083,250
43 : 3,081,368
43 : 3,082,280
: 3,099,586
75 : 3,082,281
82 : 3,090,823
83 : 3,078,327
: 3,107,184
86 : 3,077,507
: 3,080,442
: 3,082,282
: 3,083,251
: 3,087,004
: 3,088,990
: 3,092,516
: 3,092,517
: 3,098,768
: 3,098,769
: 3,099,587
: 3,100,163
: 3,106,494
: 3,110,631
: 3,112,228
: 3,112,229
: 3,113,048
: 3,113,049
: 3,115,427
: 3,116,169
: 3,116,170
87 : 3,081,369
89 : 3,076,861
: 3,078,328
: 3,081,370
: 3,082,283
: 3,094,439
: 3,104,188
: 3,112,230
: 3,116,171
90 : 3,075,034
: 3,075,035
: 3,079,456
: 3,083,252
: 3,100,164
: 3,102,058
: 3,103,452
100 : 3,073,884
: 3,080,443
: 3,080,444
: 3,093,512
: 3,093,513
: 3,093,514
: 3,098,770
: 3,110,632
103 : 3,098,771
106 : 3,088,991
107 : 3,090,824
: 3,095,331
: 3,096,217
: 3,115,428
: 3,115,429
: 3,116,172
108 : 3,078,329
111 : 3,080,445
: 3,081,371
120 : 3,082,284
: 3,097,115
: 3,097,116
: 3,097,974
: 3,098,772
: 3,101,285
121 : 3,077,508
: 3,096,218
123 : 3,113,050
125 : 3,071,638
133 : 3,082,285
134 : 3,075,036
137 : 3,081,204
143 : 3,089,914
145 : 3,081,372
: 3,097,975
146 : 3,085,126
: 3,092,518
: 3,092,519
154 : 3,110,630
: 3,113,891
160 : 3,083,253
161 : 3,110,633
162 : 3,082,286
166 : 3,092,520
: 3,093,515
168 : 3,113,892
170 : 3,077,509
173 : 3,071,639
: 3,085,127
: 3,088,992
: 3,110,634
175 : 3,076,052
: 3,116,173
176 : 3,087,005
177 : 3,078,330
: 3,081,373
: 3,083,254
: 3,083,255
: 3,083,256
: 3,093,516
: 3,098,773
177 : 3,100,165
: 3,108,911
178 : 3,114,659
181 : 3,102,059

Class 137
1 : 3,103,941
: 3,103,942
: 3,110,318
3 : 3,095,887
4 : 3,085,587
9 : 3,080,876
: 3,092,127
10 : 3,095,888
13 : 3,099,993
: 3,102,548
14 : 3,095,889
15 : 3,096,777
16 : 3,075,537
: 3,115,886
18 : 3,073,328
33 : 3,073,329
38 : 3,083,720
: 3,100,495
: 3,105,506
43 : 3,084,704
46 : 3,109,441
51 : 3,103,943
53 : 3,089,501
56 : 3,086,541
: 3,088,476
: 3,090,394
63 : 3,083,721
: 3,095,890
: 3,096,778
: 3,101,732
64 : 3,088,477
: 3,099,278
: 3,107,678
66 : 3,099,279
: 3,099,994
67 : 3,078,862
68 : 3,074,421
: 3,084,705
: 3,088,478
: 3,093,151
: 3,101,733
: 3,106,932
: 3,111,133
69 : 3,111,956
71 : 3,104,673
73 : 3,105,507
74 : 3,076,469
: 3,098,497
80 : 3,084,706
81 : 3,092,128
82 : 3,078,863
: 3,080,877
: 3,083,722
: 3,099,995
: 3,105,508
: 3,115,887
83 : 3,081,786
: 3,081,787
: 3,082,781
: 3,099,280
85 : 3,080,878
: 3,082,782
: 3,094,132
: 3,095,002
: 3,095,891
: 3,107,679
: 3,107,680
86 : 3,090,395
: 3,095,003
: 3,098,498
: 3,099,281
: 3,114,378
87 : 3,093,152
: 3,099,282
89 : 3,106,933
90 : 3,089,502
93 : 3,073,330
: 3,088,479
98 : 3,099,996
: 3,103,228
: 3,114,379
99 : 3,101,090
100 : 3,092,129
101 : 3,113,581
: 3,114,380
.11 : 3,094,133
.11 : 3,095,892
.19 : 3,096,779
.27 : 3,074,422
.25 : 3,080,879
.25 : 3,114,381
102 : 3,084,707
: 3,086,542
: 3,093,153
: 3,105,509
: 3,111,134
107 : 3,103,229
108 : 3,073,331
: 3,112,757
111 : 3,089,503
: 3,099,283
: 3,100,496
: 3,109,442
112 : 3,073,332
: 3,092,130
: 3,107,681
113 : 3,080,880
114 : 3,072,134
: 3,101,734
115 : 3,093,154
: 3,113,582
116 : 3,085,588
: 3,088,480
: 3,114,382
.3 : 3,071,146
.3 : 3,102,549
.3 : 3,103,230
.3 : 3,111,957
.5 : 3,071,147
.5 : 3,072,135
.5 : 3,115,147
117 : Re.25,391
: 3,088,481
: 3,099,284
: 3,106,934
118 : 3,079,938
119 : 3,080,881
: 3,100,497
: 3,108,609
128 : 3,079,939
132 : 3,094,134
155 : 3,077,894
: 3,092,131
: 3,101,735
170.1 : 3,082,783
171 : 3,111,135
172 : 3,115,888
185 : 3,114,383
193 : 3,071,148
197 : 3,072,136
198 : 3,081,788
200 : 3,088,482
202 : 3,073,333
: 3,091,250
204 : 3,080,882
: 3,101,091
: 3,109,443
205 : 3,074,423
: 3,115,148
207 : 3,082,784
209 : 3,096,780
: 3,097,659
216 : 3,072,137
: 3,086,543
: 3,095,893
218 : 3,076,470
: 3,083,723
: 3,104,674
: 3,106,935
: 3,107,682
219 : 3,086,471
: 3,092,132
: 3,102,550
220 : 3,092,133
: 3,099,285
: 3,113,583
223 : 3,078,864
: 3,079,940
: 3,100,498
: 3,107,683
224.5 : 3,075,538
225 : 3,076,472
: 3,104,675
234.5 : 3,104,676
236 : 3,105,510
: 3,107,684
: 3,114,384
238 : 3,081,789
240 : 3,075,539
: 3,094,135
: 3,115,149
: 3,115,150
242 : 3,089,504
: 3,101,736
243.3 : 3,071,149
246.13 : 3,080,883
.11 : 3,094,136
.11 : 3,095,004
.13 : 3,111,958
.19 : 3,115,151
.22 : 3,078,865
.22 : 3,100,499
251 : 3,111,959
266 : 3,079,941
: 3,113,584
267 : 3,095,894
268 : 3,095,005
269 : 3,073,334
: 3,093,155
: 3,106,936
5 : 3,095,006
270 : 3,076,473
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: 3,101,092
307 : 3,076,474
312 : 3,075,540
314 : 3,096,781
315 : 3,077,201
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: 3,111,137
: 3,111,960
: 3,112,758
: 3,112,759
: 3,113,585
: 3,114,385
316 : 3,074,424
: 3,097,660
: 3,101,093
: 3,114,386
317 : 3,103,945
318 : 3,072,138
: 3,094,137
: 3,115,889
319 : 3,087,506
324 : 3,077,202
327 : 3,107,685
: 3,111,961
328 : 3,093,156
329.01 : 3,075,541
.06 : 3,077,896
330 : 3,095,007
332 : 3,109,444
335 : 3,097,661
337 : 3,103,946
338 : 3,075,542
: 3,097,662
340 : 3,073,335
: 3,101,094
: 3,110,319
343 : 3,086,545
351 : 3,097,663
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354 : 3,109,445
355.12 : 3,088,483
.17 : 3,092,134
.28 : 3,091,251
360 : 3,088,484
: 3,096,782
: 3,107,686
362 : 3,107,687
363 : 3,112,760
375 : 3,072,139
: 3,073,336
: 3,090,396
: 3,100,500
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383 : 3,089,507
384.6 : 3,109,446
386 : 3,082,785
387 : 3,095,895
390 : 3,075,543
391 : 3,071,150
: 3,078,866
: 3,079,943
: 3,090,397
: 3,095,008
: 3,104,677
392 : 3,077,203
: 3,084,708
: 3,091,252
398 : 3,073,337
399 : 3,105,511
400 : 3,077,897
403 : 3,104,678
404 : 3,083,724
408 : 3,102,551
: 3,112,762
: 3,115,152
413 : 3,081,790
: 3,088,485
414 : 3,087,507
416 : 3,078,867
: 3,101,737
: 3,105,512
418 : 3,091,253
423 : 3,115,890
426 : 3,115,153
428 : 3,072,140
433 : 3,089,508
434 : 3,096,783
436 : 3,086,546
: 3,109,447
448 : 3,094,138
: 3,095,896
453 : 3,079,944
: 3,095,009
454.2 : 3,081,791
454.2 : 3,081,792
.2 : 3,083,725
.2 : 3,095,897
.2 : 3,095,898
.2 : 3,103,231
.5 : 3,082,786
.5 : 3,084,709
.5 : 3,095,899
.6 : 3,089,509
.6 : 3,089,510
.6 : 3,094,139
.6 : 3,100,501
456 : 3,089,511
: 3,098,500
: 3,099,287
458 : 3,083,726
: 3,092,135
: 3,092,136
460 : 3,089,512
: 3,109,448
463 : 3,096,784
: 3,098,499
466 : 3,086,547
: 3,087,508
467 : 3,087,509
468 : 3,082,787
471 : 3,080,885
477 : 3,074,425
480 : 3,111,138
484.2 : 3,075,544
.8 : 3,086,548
.8 : 3,105,513
487 : 3,097,664
488 : 3,105,514
489 : 3,073,338
: 3,083,727
: 3,101,738
491 : 3,077,898
: 3,090,398
: 3,097,665
: 3,100,502
: 3,100,503
492 : 3,103,949
493 : 3,086,549
: 3,092,137
: 3,108,610
.5 : 3,112,763
.8 : 3,099,997
.8 : 3,115,154
494 : 3,100,504
: 3,102,552
: 3,103,950
: 3,107,688
: 3,108,611
: 3,114,387
495 : 3,105,515
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: 3,115,891
496 : 3,071,151
498 : 3,085,589
499 : 3,094,140
501 : 3,085,590
: 3,115,892
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505 : 3,088,486
.18 : 3,075,545
.13 : 3,098,501
.18 : 3,111,962
.25 : 3,074,426
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.21 : 3,076,475
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.1 : 3,072,142
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: 3,092,138
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: 3,106,220
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.11 : 3,109,451
.29 : 3,071,153
516.29 : 3,075,547
.29 : 3,091,254
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525 : 3,077,204
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.3 : 3,099,998
.3 : 3,115,893
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.29 : 3,092,139
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543.23 : 3,099,999
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557 : 3,103,952
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564.5 : 3,084,712
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565 : 3,073,340
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: 3,112,765
567 : 3,100,506
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568 : 3,079,948
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576 : 3,115,894
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: 3,114,389
588 : 3,094,143
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589 : 3,084,714
590 : 3,109,453
592 : 3,077,206
594 : 3,092,140
: 3,101,095
595 : 3,074,430
: 3,115,895
596 : 3,099,289
: 3,101,740
14 : 3,094,146
1 : 3,100,001
.16 : 3,108,612
.15 : 3,110,321
.13 : 3,113,580
.2 : 3,096,786
597 : 3,072,147
: 3,075,549
: 3,080,886
: 3,098,503
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598 : 3,106,221
599 : 3,075,550
.1 : 3,079,949
.1 : 3,083,728
.1 : 3,107,689
.1 : 3,109,454
.2 : 3,114,391
601 : 3,084,715
: 3,095,010
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604 : 3,077,900
605 : 3,078,872
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606 : 3,079,950
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607 : 3,082,789
: 3,099,290
608 : 3,071,154
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: 3,111,139
609 : 3,073,341
: 3,075,551
: 3,094,144
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: 3,108,613
610 : 3,089,515
613 : 3,106,937
614 : 3,106,222
.03 : 3,073,342
.01 : 3,106,223
.05 : 3,112,766
.06 : 3,112,767
.06 : 3,113,588
.14 : 3,090,399
.11 : 3,092,142

614.19 : 3,107,691
.11 : 3,113,589
.2 : 3,094,145
615 : 3,073,343
: 3,085,593
: 3,086,552
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620 : 3,075,552
: 3,075,553
: 3,081,793
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: 3,083,730
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: 3,091,255
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622 : 3,072,148
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.5 : 3,088,489
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.11 : 3,075,555
.18 : 3,078,874
.14 : 3,082,790
.14 : 3,083,732
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.14 : 3,105,518
.13 : 3,111,140
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.16 : 3,108,614
.18 : 3,109,457
.18 : 3,114,393
.24 : 3,071,157
.28 : 3,074,432
.27 : 3,075,556
.21 : 3,082,791
.27 : 3,092,145
.25 : 3,095,903
.28 : 3,095,904
.25 : 3,101,742
.24 : 3,102,554
.25 : 3,103,233
.2 : 3,104,679
.27 : 3,107,692
.23 : 3,110,322
.23 : 3,115,160
.27 : 3,115,161
.31 : 3,075,557
.33 : 3,083,733
.38 : 3,086,553
.3 : 3,092,144
.33 : 3,095,905
.31 : 3,110,323
.4 : 3,071,156
.49 : 3,079,952
.47 : 3,092,146
.41 : 3,115,896
.5 : 3,112,768
.69 : 3,095,011
.62 : 3,095,906
.67 : 3,095,907
.66 : 3,100,508
.6 : 3,101,741
.63 : 3,106,224
.68 : 3,106,938
.69 : 3,106,939
.66 : 3,107,693
.66 : 3,108,615
.6 : 3,113,590
.64 : 3,114,394
627.5 : 3,074,433
.5 : 3,091,257
.5 : 3,096,789
.5 : 3,107,694
.5 : 3,109,455
.5 : 3,109,456
.5 : 3,112,769
.5 : 3,113,591
628 : 3,074,434
: 3,087,511
: 3,096,790
: 3,098,507
: 3,101,096
: 3,108,616
630.15 : 3,078,875
.15 : 3,102,555
.22 : 3,111,141
636.1 : 3,073,347
.1 : 3,107,695
.3 : Re.25,494
637 : 3,088,490
.3 : 3,086,554
.4 : 3,098,508
778 : 3,089,518
: 3,089,519
: 3,090,401
779 : 3,085,595
784 : 3,080,890
: 3,084,716
785 : 3,073,348
786 : 3,074,435
788 : 3,072,150
: 3,078,876
790 : 3,071,158
: 3,082,792
791 : 3,090,402
793 : 3,079,953
: 3,090,403
795 : 3,083,734
802 : 3,074,436
: 3,088,491

Class 138
30 : 3,075,558
: 3,076,479
: 3,077,208
: 3,082,793
: 3,088,492
: 3,091,258
: 3,095,012
: 3,095,013
: 3,103,234
: 3,109,458
: 3,113,592
: 3,115,162
31 : 3,074,437
: 3,084,717
: 3,088,493
: 3,100,509
: 3,115,897
32 : 3,097,667
37 : 3,075,559
: 3,088,494
: 3,092,147
38 : 3,071,159
39 : 3,076,480
: 3,105,520
: 3,111,963
: 3,113,593
40 : 3,071,160
: 3,084,718
: 3,109,459
41 : 3,079,954
43 : 3,078,877
45 : 3,072,151
: 3,073,349
: 3,077,903
: 3,099,291
: 3,104,680
: 3,106,225
: 3,106,226
46 : 3,073,350
: 3,078,878
: 3,093,159
: 3,111,142
: 3,113,594
89 : 3,077,904
: 3,082,794
: 3,083,735
: 3,107,696
.2 : 3,112,770
90 : 3,091,259
: 3,105,521
92 : 3,101,097
94 : 3,091,260
: 3,115,163
.3 : 3,099,292
96 : 3,078,879
: 3,087,512
: 3,104,681
97 : 3,084,719
: 3,101,743
: 3,103,235
: 3,114,395
99 : 3,086,555
107 : 3,095,908
109 : 3,087,513
113 : 3,113,595
114 : 3,087,514
: 3,098,509
115 : 3,105,522
118 : 3,111,964
119 : 3,090,404
120 : 3,071,161
121 : 3,082,795
122 : 3,080,891
: 3,083,736
: 3,091,261
: 3,094,147
: 3,115,898
124 : 3,111,143
125 : 3,106,940
: 3,115,164
128 : 3,080,892
: 3,088,495
: 3,104,682
: 3,106,941
129 : 3,112,771
130 : 3,107,698
131 : 3,073,351
: 3,085,596
: 3,086,556
: 3,107,697
132 : 3,109,460
136 : 3,086,557
137 : 3,109,461
138 : 3,089,520
: 3,112,772
139 : 3,101,744
140 : 3,071,162
: 3,073,352
: 3,093,160
141 : 3,078,880
: 3,080,893
: 3,099,293
143 : 3,091,262
: 3,093,161
145 : 3,087,515
: 3,097,668
148 : 3,073,353
: 3,110,324
150 : 3,086,558
: 3,093,162
151 : 3,092,148
: 3,095,014
: 3,096,791
157 : 3,086,559
158 : 3,089,521
175 : 3,076,481
176 : 3,106,227
: 3,111,965
177 : 3,081,795
178 : 3,102,556

Class 139
1 : 3,095,015
7 : 3,072,152
13 : 3,071,163
: 3,076,482
: 3,105,523
25 : 3,072,153
33 : 3,106,228
39 : 3,073,354
: 3,100,510
44 : 3,077,209
46 : 3,083,737
: 3,092,149
55 : 3,103,953
: 3,108,617
58 : 3,085,597
: 3,112,773
59 : 3,096,792
66 : 3,101,745
68 : 3,101,746
75 : 3,095,909
76 : 3,115,899
80 : 3,080,894
82 : 3,106,229
85 : 3,115,900
88 : 3,106,942
91 : 3,074,438
92 : 3,071,164
: 3,088,496
: 3,096,793
107 : 3,100,511
109 : 3,101,747
110 : 3,072,154
: 3,086,560
: 3,087,516
: 3,105,524
: 3,115,901
122 : 3,077,905
: 3,081,796
: 3,081,797
: 3,085,598
: 3,088,497
: 3,092,150
124 : 3,078,881
: 3,090,405
: 3,102,557
: 3,104,683
: 3,115,902
126 : 3,072,155
: 3,076,483
126 : 3,083,738
: 3,111,144
: 3,111,966
127 : 3,081,798
: 3,095,910
: 3,110,325
128 : 3,100,003
144 : 3,114,396
145 : 3,109,462
147 : 3,083,739
161 : 3,114,397
165 : 3,077,210
: 3,094,148
185 : 3,096,794
188 : 3,075,560
: 3,081,799
: 3,103,954
: 3,114,398
190 : 3,097,669
: 3,110,327
191 : 3,115,903
192 : 3,107,699
195 : 3,079,955
196 : 3,089,522
198 : 3,082,796
232 : 3,099,294
: 3,101,098
: 3,101,748
243 : 3,074,439
247 : 3,074,440
: 3,101,099
257 : 3,086,561
: 3,095,016
: 3,108,618
: 3,108,619
262 : 3,107,700
263 : 3,112,774
329 : 3,101,749
334 : 3,110,328
336.4 : 3,102,558
338 : 3,083,740
353 : 3,099,295
370 : 3,095,911
371 : 3,103,236
383 : Re.25,332
: 3,094,149
384 : 3,090,406
: 3,102,559
387 : 3,095,017
391 : 3,110,905
396 : 3,093,163
399 : 3,077,906
402 : 3,091,263
413 : 3,104,684
420 : 3,100,004
: 3,109,220
426 : 3,071,165

Class 140
1 : 3,071,166
: 3,110,329
: 3,112,775
2 : 3,103,237
3 : 3,084,720
7 : 3,083,741
71 : 3,073,355
: 3,079,956
: 3,079,957
: 3,082,797
: 3,092,151
: 3,103,238
: 3,104,685
.5 : 3,074,441
.5 : 3,075,561
.5 : 3,081,800
.5 : 3,094,150
.5 : 3,100,005
.5 : 3,101,100
.5 : 3,102,560
.5 : 3,106,943
.5 : 3,106,944
.5 : 3,113,596
.6 : 3,073,356
.6 : 3,074,442
.6 : 3,084,721
.6 : 3,088,498
.6 : 3,093,164
.6 : 3,096,795
.6 : 3,099,296
81.5 : 3,071,167
88 : 3,113,597
90 : 3,071,168
92.2 : 3,086,562
.3 : 3,101,750
.7 : 3,090,407
.8 : 3,098,510
93 : 3,078,882
: 3,115,904
.2 : 3,083,742
.2 : 3,114,399
.4 : 3,103,955
.6 : 3,072,156
102 : 3,100,512
106 : 3,094,151
109 : 3,077,907
115 : 3,082,798
118 : 3,091,264
119 : 3,092,152
123.5 : 3,104,686
124 : 3,077,211
: 3,095,912
: 3,095,913
: 3,096,796
: 3,108,620
147 : 3,075,562
: 3,079,958
: 3,083,743
: 3,106,945
: 3,107,701
: 3,114,400

Class 141
1 : 3,087,517
: 3,100,006
: 3,107,702
3 : 3,103,956
8 : 3,081,801
: 3,108,621
10 : 3,106,230
11 : 3,111,967
12 : 3,103,957
17 : 3,076,484
18 : 3,085,599
19 : 3,094,152
20 : 3,081,802
: 3,106,946
21 : 3,111,968
24 : 3,101,751
26 : 3,111,145
27 : 3,095,914
31 : 3,073,357
57 : 3,090,408
59 : 3,073,358
: 3,113,598
61 : 3,105,525
67 : 3,094,153
: 3,095,018
: 3,112,776
68 : 3,095,019
69 : 3,086,563
76 : 3,115,905
80 : 3,071,169
: 3,112,777
81 : 3,086,564
: 3,088,499
82 : 3,076,485
83 : 3,087,518
: 3,097,670
: 3,115,165
86 : 3,107,703
88 : 3,094,154
92 : 3,101,752
96 : 3,103,958
102 : 3,100,513
103 : 3,107,704
107 : 3,106,947
116 : 3,097,671
131 : 3,103,959
140 : 3,093,165
142 : 3,073,359
: 3,097,672
160 : 3,103,960
171 : 3,105,526
181 : 3,081,803
198 : 3,078,883
207 : 3,076,486
: 3,099,297
: 3,101,101
208 : 3,088,500
209 : 3,075,563
: 3,077,212
: 3,085,600
: 3,100,007
: 3,101,102
232 : 3,079,960
: 3,095,020
248 : 3,101,753
253 : 3,106,231
: 3,115,906
272 : 3,097,673
275 : 3,105,527
282 : 3,090,409
286 : 3,102,561
293 : 3,072,157
: 3,074,443
: 3,085,601
295 : 3,093,166
: 3,115,907
302 : 3,090,410
: 3,092,153
329 : 3,094,155
330 : 3,115,908
347 : 3,086,565
353 : 3,074,444
358 : 3,077,213
360 : 3,081,804
360 : 3,109,463
361 : 3,074,445
: 3,107,705
362 : 3,084,722
366 : 3,097,674
383 : 3,091,265
387 : 3,093,167
: 3,096,797
392 : 3,113,599

Class 142
17 : 3,086,566
53 : 3,078,884

Class 143
6 : 3,073,360
: 3,092,154
: 3,104,687
: 3,105,528
8 : 3,079,961
17 : 3,111,146
19 : 3,072,158
: 3,092,155
: 3,115,909
22 : 3,073,361
24 : 3,084,723
32 : 3,092,156
: 3,098,511
: 3,101,103
36 : 3,085,602
37 : 3,093,168
38 : 3,080,895
43 : 3,078,885
: 3,080,896
: 3,111,969
: 3,115,910
44 : 3,086,567
52 : 3,115,166
58 : 3,084,724
68 : 3,085,603
: 3,087,519
72 : 3,080,897
: 3,111,147
85 : 3,115,911
99 : 3,105,529
108 : 3,084,725
118 : 3,088,501
125 : 3,071,170
: 3,079,962
126 : 3,086,568
: 3,089,523
133 : 3,091,266
: 3,109,464
: 3,111,970
135 : 3,106,232
137 : 3,107,706
141 : 3,091,267
151 : 3,088,502
157 : 3,101,754
: 3,101,755
158 : 3,097,675
159 : 3,101,104
: 3,104,688
: 3,105,530
162 : 3,109,465
168 : 3,082,799
169 : 3,083,744
174 : 3,092,157

Class 144
1 : 3,072,159
: 3,096,798
: 3,099,298
2 : 3,092,158
: 3,103,961
3 : 3,074,446
: 3,074,447
: 3,079,963
: 3,093,169
: 3,102,562
: 3,102,563
13 : 3,084,726
27 : 3,082,800
30 : 3,073,362
: 3,111,971
32 : 3,107,707
34 : 3,084,727
72 : 3,088,503
94 : 3,092,159
136 : 3,087,520
: 3,104,689
: 3,111,148
144 : 3,091,268
: 3,099,299
: 3,109,466
.5 : 3,095,915
176 : 3,101,756
185 : 3,087,521
193 : 3,077,214
208 : 3,078,886
: 3,080,898
208 : 3,082,801
: 3,086,569
: 3,088,504
: 3,093,170
: 3,096,799
: 3,097,676
: 3,098,512
: 3,098,513
: 3,100,514
: 3,108,622
: 3,115,167
209 : 3,073,363
: 3,078,887
: 3,088,505
: 3,110,330
216 : 3,073,364
267 : 3,104,690
281 : 3,098,514
: 3,111,149
288 : 3,080,899
: 3,084,728
: 3,094,156
: 3,099,300
: 3,100,008
310 : 3,093,171
311 : 3,101,757
312 : 3,089,524
314 : 3,102,564
316 : 3,074,448
: 3,083,745
318 : 3,077,908
320 : 3,090,411
321 : 3,099,301
326 : 3,078,888
: 3,082,802
327 : 3,101,105
: 3,107,708

Class 145
1 : 3,106,233
17 : 3,084,729
25 : 3,095,021
29 : 3,089,525
34 : 3,082,803
35 : 3,101,106
: 3,112,778
36 : 3,088,506
50 : 3,108,623
: 3,114,401
: 3,115,168
52 : 3,102,565
61 : 3,093,172
: 3,115,912
: 3,115,913
75 : 3,080,900
108 : 3,114,402
129 : 3,113,600

Class 146
1 : 3,084,730
: 3,115,169
: 3,115,170
2 : 3,082,804
: 3,090,412
: 3,090,413
: 3,106,234
: 3,111,150
3 : 3,072,160
: 3,072,161
: 3,073,365
: 3,081,805
: 3,085,604
: 3,088,507
: 3,099,302
: 3,101,758
: 3,102,566
: 3,103,239
: 3,105,531
4 : 3,077,909
6 : 3,073,366
13 : 3,074,449
16 : 3,105,532
28 : 3,080,901
: 3,093,173
: 3,113,601
: 3,113,602
42 : 3,078,889
43 : 3,088,508
: 3,112,779
: 3,113,603
: 3,115,171
: 3,115,914
47 : 3,093,174
: 3,115,915
49 : 3,085,605
52 : 3,072,162
: 3,080,902
: 3,093,175
: 3,096,800
: 3,108,624
55 : 3,103,240
: 3,104,691

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Class 146 – Con.

56 : 3,078,890
59 : 3,090,414
68 : 3,082,805
: 3,115,916
70.1 : 3,101,759
72 : 3,099,303
73 : 3,080,903
: 3,087,522
: 3,092,160
: 3,112,780
76 : 3,085,606
: 3,086,570
: 3,100,009
: 3,101,107
: 3,106,948
: 3,109,467
: 3,110,332
78 : 3,077,215
: 3,078,891
: 3,091,269
: 3,096,801
: 3,109,468
: 3,109,469
: 3,114,403
: 3,115,172
81 : 3,072,163
: 3,080,904
: 3,088,509
: 3,111,972
86 : 3,102,567
88 : 3,072,164
: 3,077,910
: 3,096,802
: 3,106,235
94 : 3,099,304
95 : 3,088,510
: 3,107,709
: 3,115,917
98 : 3,072,165
: 3,079,864
: 3,082,806
102 : 3,092,161
103 : 3,099,305
106 : 3,087,523
107 : 3,103,241
115 : 3,075,564
117 : 3,077,911
: 3,095,916
123 : 3,078,892
: 3,083,746
124 : 3,085,607
130 : 3,100,515
138 : 3,101,760
150 : 3,071,171
: 3,075,565
151 : 3,107,710
153 : 3,078,893
: 3,089,526
155 : 3,086,571
158 : 3,101,761
160 : 3,083,747
162 : 3,108,625
: 3,109,470
164 : 3,077,216
169 : 3,112,781
182 : 3,076,487
: 3,076,488
: 3,076,489
: 3,099,306
: 3,109,471
: 3,109,472
: 3,115,173
189 : 3,081,806
192 : 3,095,022
: 3,108,626
203 : 3,091,270
: 3,099,307
: 3,107,711
215 : 3,106,236
221.5 : 3,080,905
.7 : 3,077,217
.7 : 3,089,527
232 : 3,115,174
234 : 3,115,175
235 : 3,115,176
238 : 3,075,566
: 3,102,568
241 : 3,105,533
242 : 3,112,782
253 : 3,098,515
: 3,102,569
279 : 3,078,894
293 : 3,104,692

Class 148

1.5 : 3,072,504
.5 : 3,074,826
.5 : 3,076,731
.5 : 3,076,732
.5 : 3,079,287
1.5 : 3,082,126
.5 : 3,082,127
.5 : 3,084,078
.5 : 3,084,079
.5 : 3,085,031
.5 : 3,085,032
.5 : 3,085,033
.5 : 3,086,892
.5 : 3,088,852
.5 : 3,089,793
.5 : 3,089,794
.5 : 3,092,521
.5 : 3,092,522
.5 : 3,093,517
.5 : 3,095,332
.5 : 3,096,219
.5 : 3,097,976
.5 : 3,098,774
.5 : 3,099,588
.5 : 3,100,166
.5 : 3,104,991
.5 : 3,104,992
.5 : 3,116,174
.6 : 3,088,853
.6 : 3,116,175
2 : 3,115,430
3 : 3,087,842
4 : 3,094,440
6.14 : 3,072,505
.16 : 3,074,827
.15 : 3,076,733
.16 : 3,076,734
.1 : 3,077,425
.16 : 3,079,288
.15 : 3,082,128
.11 : 3,085,034
.14 : 3,085,035
.15 : 3,090,709
.1 : 3,092,523
.16 : 3,094,441
.14 : 3,097,117
.15 : 3,097,118
.14 : 3,097,977
.14 : 3,097,978
.15 : 3,100,728
.15 : 3,101,286
.16 : 3,101,287
.16 : 3,102,830
.15 : 3,104,993
.1 : 3,108,026
.15 : 3,109,757
.1 : 3,114,660
.14 : 3,116,177
.15 : 3,116,178
.24 : 3,082,129
.21 : 3,090,710
.2 : 3,096,220
.2 : 3,098,775
.2 : 3,112,231
.2 : 3,113,051
.2 : 3,116,176
9 : 3,088,854
11.5 : 3,078,191
.5 : 3,084,080
.5 : 3,103,453
.5 : 3,113,052
.5 : 3,113,053
12 : 3,094,442
: 3,102,060
: 3,102,831
.3 : 3,100,729
.3 : 3,103,454
.4 : 3,088,855
.4 : 3,116,180
13 : 3,071,500
: 3,092,524
: 3,100,730
: 3,106,495
: 3,111,433
: 3,113,893
.1 : 3,074,828
.1 : 3,111,434
14 : 3,084,081
16 : 3,105,780
.5 : 3,078,192
18 : 3,072,506
20.3 : 3,096,221
.3 : 3,099,589
23 : 3,086,893
: 3,099,590
26 : 3,076,735
: 3,078,193
: 3,097,979
29 : 3,113,054
31 : 3,078,194
: 3,093,518
: 3,093,519
.55: 3,073,728
.5 : 3,074,829
.57: 3,085,036
.55: 3,096,222
.57: 3,100,167
.55: 3,108,912
31.57: 3,116,181
.57 3,116,182
32.5 3,104,189
33 3,072,507
3,078,195
3,078,196
3,082,130
3,082,131
3,088,856
3,093,520
3,099,591
3,103,455
.1 : 3,109,758
.5 : 3,116,183
36 : 3,110,635
39 : 3,108,913
103 : 3,078,197
3,113,055
111 : 3,078,198
3,089,795
3,090,711
3,105,781
112 : 3,073,729
3,106,496
113 : 3,105,782
120 : 3,084,042
3,102,832
121 : 3,095,333
3,116,179
122 : 3,098,776
3,114,661
127 : 3,111,435
133 : 3,078,199
135 : 3,097,980
136 : 3,082,132
138 : 3,109,759
142 : 3,114,662
143 : 3,111,436
3,112,232
144 : 3,099,592
146 : 3,090,712
148 : 3,110,636
160 : 3,072,508
171 : 3,113,056
179 : 3,114,663
3,116,184
181 : 3,114,664
185 : 3,110,637
186 : 3,108,914
187 : 3,109,760
3,108,915

Class 149

1 : 3,094,443
3,103,456
2 : 3,072,509
3,074,830
3,092,525
3,107,185
3,108,916
4 : 3,112,233
5 : 3,086,894
6 : 3,110,638
7 : 3,116,185
17 : 3,106,497
19 : 3,072,510
3,073,730
3,074,831
3,084,083
3,084,084
3,086,895
3,087,843
3,087,844
3,089,796
3,092,526
3,092,527
3,093,521
3,094,444
3,097,981
3,098,777
3,102,833
3,104,994
3,104,995
3,107,186
3,108,027
3,109,761
3,113,057
3,113,058
3,113,894
3,116,186
21 : 3,095,334
3,095,335
3,101,288
3,111,437
22 : 3,097,119
3,107,187
30 : 3,089,797
37 : 3,089,798
3,094,445
3,111,438
38 : 3,088,857
39 : 3,090,713
40 : 3,104,996
41 : 3,092,528
3,113,059
42 : 3,109,762
43 : 3,090,714
46 : 3,093,522
3,103,457
47 : 3,110,639
3,113,060
59 : 3,083,127
60 : 3,091,559
3,097,120
3,097,121
74 : 3,116,187
76 : 3,096,223
88 : 3,116,188
91 : 3,088,858
92 : 3,073,731
3,086,896
3,097,122
3,110,640
3,111,439
96 : 3,116,189
3,078,200
98 : 3,106,498
97 : 3,102,834
98 : 3,093,523
3,103,458
3,104,190
3,110,641
100 : 3,086,897
3,097,123
3,116,190
105 : 3,108,917
109 : 3,113,895

Class 150

.5 : 3,107,712
1 : 3,074,450
3,074,451
3,074,452
3,078,895
3,079,965
3,085,608
3,097,677
3,109,473
.5 : 3,101,108
.6 : 3,078,896
2.1 : 3,073,367
.1 : 3,099,308
3 : 3,102,570
4 : 3,105,534
9 : 3,095,023
11 : 3,079,966
3,084,731
13 : 3,078,897
28 : 3,085,609
3,108,627
29 : 3,077,912
3,093,176
3,097,678
30 : 3,110,333
3,111,151
35 : 3,085,610
3,086,572
3,111,152
37 : 3,110,334
39 : 3,078,898
40 : 3,101,762
42 : 3,083,748
3,110,335
48 : 3,111,153
52 : 3,071,172
3,072,166
3,072,167
3,079,967
3,081,807
3,085,611
3,085,612
3,087,524
3,101,109
3,109,474
3,110,336
3,111,154

Class 151

7 : 3,079,968
3,093,177
3,102,571
3,115,918
8 : 3,100,516
20 : 3,087,525
21 : 3,079,969
3,102,572
23 : 3,105,535
25 : 3,091,271
35 : 3,072,168
3,077,218
3,101,763
36 : 3,097,679
37 : 3,078,899
41.75 : 3,073,368
.73 : 3,078,900
.73 : 3,079,970
.73 : 3,081,808
.76 : 3,081,809
.75 : 3,082,807
.72 : 3,085,613
.75 : 3,091,272
.72 : 3,092,162
.73 : 3,093,178
.73 : 3,103,962
.75 : 3,110,337
.75 : 3,110,338
.75 : 3,114,404
.76 : 3,115,177
54 : 3,077,913
68 : 3,100,517
69 : 3,093,179
3,114,405

Class 152

61 : 3,072,169
3,090,415
153 : 3,113,604
155 : 3,095,917
175 : 3,080,906
176 : 3,087,526
179 : 3,079,971
187 : 3,091,273
3,107,713
188 : 3,105,536
204 : 3,111,973
208 : 3,095,918
3,112,783
209 : 3,094,157
3,095,024
3,104,693
3,115,919
210 : 3,078,901
3,098,516
211 : Re.25,374
3,113,605
3,115,178
212 : 3,084,732
213 : 3,073,369
3,078,902
3,079,972
3,114,406
3,114,407
214 : 3,111,974
216 : 3,071,173
3,079,973
3,089,528
3,089,529
3,093,180
3,112,784
3,088,511
218 : 3,073,370
3,091,274
3,106,949
3,115,920
221 : 3,092,163
222 : 3,107,714
225 : 3,109,475
226 : 3,087,527
229 : 3,085,614
230 : 3,103,242
236 : 3,095,919
237 : 3,074,453
3,096,803
239 : 3,072,170
3,092,164
3,111,155
241 : 3,095,025
288 : 3,089,530
313 : 3,112,785
323 : 3,114,408
330 : 3,073,371
3,077,219
3,077,914
3,087,528
3,089,531
3,106,950
3,107,715
3,114,409
331 : 3,097,680
334 : 3,106,951
339 : 3,110,339
340 : 3,085,615
341 : 3,074,454
347 : 3,090,416
3,100,518
350 : 3,081,810
352 : 3,074,455
3,097,681
354 : 3,074,456
3,090,417
3,108,628
3,115,179
355 : 3,077,915
3,081,811
3,085,616
355 : 3,095,026
3,095,027
357 : 3,101,110
361 : 3,083,749
3,093,181
3,111,975
3,115,921
362 : 3,072,171
3,106,952
3,111,976
367 : 3,080,907
3,101,764
370 : 3,088,512
3,113,606
410 : 3,106,237
415 : 3,079,974
416 : 3,099,309
3,101,111
3,102,573
427 : 3,074,457
3,077,220
3,087,529
3,106,953
429 : 3,097,682

Class 153

1 : 3,071,174
3,074,458
3,075,567
3,076,490
3,083,750
3,086,573
3,086,574
3,087,530
3,089,532
3,091,275
3,091,276
3,093,182
3,096,804
3,097,683
3,098,517
3,101,765
3,101,766
3,111,156
3,111,157
3,115,922
.5 : 3,082,808
2 : 3,071,175
3,072,172
3,074,459
3,076,491
3,087,531
3,092,165
3,093,183
3,094,158
3,095,028
3,096,805
3,097,684
3,103,243
.7 : 3,089,799
.7 : 3,094,446
3 : 3,083,751
6 : 3,080,908
10 : 3,102,574
12 : 3,071,176
13 : 3,083,752
16 : 3,078,903
3,111,158
3,112,786
17 : 3,080,909
21 : 3,074,460
3,074,461
3,081,812
3,090,418
3,091,277
3,094,159
3,102,575
3,109,476
3,110,340
24 : 3,078,904
32 : 3,074,462
3,074,463
3,088,513
3,091,278
3,094,160
3,103,963
3,108,629
3,110,341
3,111,159
35 : 3,082,809
3,103,964
3,107,716
3,113,607
38 : 3,073,372
3,112,787
39 : 3,072,173
3,075,568
3,100,010
3,105,537
40 : 3,074,464
3,096,806
3,096,807
46 : 3,077,221
48 : 3,073,373
3,073,374
3,083,753
3,096,808
3,107,717
53 : 3,084,733
54 : 3,079,975
3,103,965
3,107,718
3,113,608
60 : 3,091,279
63 : 3,105,538
3,109,477
64 : 3,074,465
3,082,810
3,084,734
3,090,419
.5 3,106,954
66 : 3,081,813
3,099,310
67 : 3,071,177
3,093,184
3,096,809
3,101,112
3,109,478
70 : 3,089,533
3,095,029
3,104,694
73 : 3,083,754
3,091,280
3,099,311
3,103,244
3,105,539
79 : 3,078,905
3,083,755
3,098,518
3,103,245
3,109,479
80 : 3,077,916
.5 : 3,072,174
.5 : 3,078,906
.5 : 3,086,575
81 : 3,072,175
3,073,375
3,078,907
85 : 3,076,492
86 : 3,078,908
3,078,909
3,079,976
3,102,576
92 : 3,101,767
94 : 3,100,519

Class 154

2.2 : 3,086,898
.2 : 3,095,336
.4 : 3,100,168
.6 : 3,082,133
.74 3,081,205
.7 : 3,089,799
.7 : 3,094,446
43 : 3,073,732
3,074,832
3,074,833
3,078,201
3,079,289
3,080,266
3,080,267
3,081,206
3,082,134
3,084,085
3,085,919
3,085,920
3,085,921
3,087,845
3,090,715
3,093,524
3,115,271
44 : 3,081,207
3,092,529
3,092,530
3,097,124
45 : 3,080,268
3,085,922
3,095,337
3,075,862
.9 : 3,077,426
.9 : 3,078,202
.9 : 3,083,128
.9 : 3,085,037
.9 : 3,086,899
.9 : 3,096,224
46 : 3,072,511
3,072,512
3,073,733
3,074,834
3,075,863
3,077,427
3,079,290
3,081,208
3,095,338
.8 : 3,075,864

46.8 : 3,082,135
.8 : 3,089,800
47 : 3,089,801
49 : 3,074,835
3,075,865
50 : 3,077,428
51 : 3,095,339
52 : 3,091,560
.1 : 3,076,736
.1 : 3,090,716
.2 : 3,098,778
53.5 : 3,073,734
.6 : 3,091,561
54 : 3,072,513
57 : 3,081,209

Class 156

1.17 : 3,113,609
3 : 3,113,896
3,116,191
8 : 3,072,514
3,074,836
3,081,210
3,095,340
9 : 3,081,211
13 : 3,075,866
14 : 3,105,783
17 : 3,082,136
3,095,341
3,102,061
3,105,784
3,107,188
18 : 3,078,203
3,082,137
3,108,918
3,108,919
19 : 3,083,129
20 : 3,072,515
3,072,516
3,100,169
3,100,170
21 : 3,106,499
24 : 3,092,531
26 : 3,088,859
28 : 3,110,642
29 : 3,102,835
32 : 3,115,431
33 : 3,082,138
38 : 3,073,735
3,096,225
3,097,125
47 : 3,115,432
48 : 3,076,737
51 : 3,079,291
58 : 3,085,923
69 : 3,074,837
71 : 3,094,447
3,099,593
3,111,440
72 : 3,075,867
75 : 3,085,924
78 : 3,094,448
79 : 3,093,525
82 : Re.25,493
3,075,868
83 : 3,072,517
85 : 3,093,526
87 : 3,080,269
88 : 3,087,846
91 : 3,106,500
97 : 3,095,342
98 : Re.25,463
99 : 3,075,869
3,093,527
104 : 3,074,838
107 : 3,071,501
108 : 3,089,802
122 : 3,087,847
128 : 3,105,785
130 : Re.25,349
132 : 3,078,204
133 : 3,101,289
137 : 3,078,205
3,101,290
140 : 3,078,206
143 : 3,083,130
3,084,086
152 : 3,099,594
153 : 3,092,139
3,089,803
155 : 3,086,900
3,113,897
3,114,665
157 : 3,092,532
3,100,731
3,111,441
159 : 3,077,429
3,086,901
164 : 3,081,212
165 : 3,100,171
166 : 3,084,087
167 : 3,084,088
167 : 3,086,902
3,089,804
3,092,533
3,113,061
3,116,192
169 : 3,112,234
172 : 3,099,595
173 : 3,105,786
174 : 3,083,131
3,104,191
175 : 3,072,518
3,082,140
178 : 3,108,028
180 : 3,095,343
3,106,501
181 : 3,084,089
184 : 3,094,449
187 : 3,089,805
189 : 3,082,141
192 : 3,081,213
3,111,442
196 : 3,071,502
197 : 3,074,839
3,082,142
3,114,666
200 : 3,072,519
209 : 3,094,450
3,104,192
211 : 3,097,982
212 : 3,107,189
213 : 3,072,520
215 : 3,113,898
3,116,193
219 : 3,107,190
222 : 3,088,860
3,105,787
3,110,643
228 : 3,098,779
3,100,172
229 : 3,082,143
233 : 3,080,270
234 : 3,083,132
244 : 3,082,144
3,107,191
245 : 3,074,840
3,091,562
246 : 3,083,133
247 : 3,078,207
3,083,134
249 : 3,094,451
251 : 3,106,502
264 : 3,089,806
269 : 3,079,292
272 : 3,071,503
3,081,214
273 : 3,086,903
3,113,899
275 : 3,094,452
276 : 3,109,763
280 : 3,087,848
285 : 3,085,925
286 : 3,081,215
290 : 3,106,503
295 : 3,075,870
296 : 3,081,216
298 : 3,110,644
299 : 3,084,090
3,113,900
307 : 3,073,736
3,087,849
310 : 3,108,920
3,112,235
320 : 3,086,904
322 : 3,075,871
324 : 3,087,850
325 : 3,074,841
3,079,293
3,093,529
328 : 3,081,217
330 : 3,108,029
331 : 3,076,738
332 : 3,079,294
3,108,030
334 : 3,079,295
335 : 3,096,226
342 : 3,103,459
345 : 3,071,178
3,108,031
346 : 3,083,756
350 : 3,104,193
351 : 3,106,504
353 : 3,079,977
357 : 3,089,534
3,112,236
361 : 3,108,032
364 : 3,097,983
372 : 3,096,227
373 : 3,098,781
378 : 3,075,569
378 : 3,104,997
380 : 3,099,596
382 : 3,074,466
383 : 3,093,530
384 : 3,114,667
394 : 3,081,814
400 : 3,075,570
3,093,531
401 : 3,111,443
403 : 3,082,811
3,112,237
405 : 3,071,179
408 : 3,097,984
416 : 3,077,917
3,097,985
3,107,192
3,111,444
3,111,445
3,113,902
417 : 3,105,788
420 : 3,077,918
425 : Re.25,457
430 : 3,093,532
432 : 3,108,921
433 : 3,086,576
441 : 3,079,978
443 : 3,089,535
446 : 3,076,493
461 : 3,106,505
468 : 3,108,922
473 : 3,077,222
475 : 3,111,446
479 : 3,089,536
484 : 3,113,903
492 : 3,108,033
494 : 3,094,453
495 : 3,086,577
497 : 3,080,910
3,097,986
3,111,447
499 : 3,112,238
500 : 3,085,617
3,116,194
502 : 3,075,571
3,110,645
505 : 3,074,467
3,075,572
3,092,534
510 : 3,108,923
513 : 3,075,573
515 : 3,083,757
517 : 3,078,910
518 : 3,080,911
519 : 3,071,180
3,106,506
521 : 3,081,815
527 : 3,107,193
530 : 3,085,618
541 : 3,113,904
542 : 3,079,979
548 : 3,077,223
566 : 3,095,344
575 : 3,116,195
577 : 3,098,782
579 : 3,098,783
3,100,173
581 : 3,078,911
3,113,905
582 : 3,078,912
3,108,034
3,109,764
584 : 3,077,919

Class 157

1.1 : 3,077,224
.1 : 3,081,816
.17: 3,094,161
.1 : 3,095,920
.24: 3,074,468
.2 : 3,082,812
.24: 3,086,578
.22: 3,100,011
.24: 3,100,520
.22: 3,104,695
13 : 3,075,574
3,075,575
3,081,817
3,097,685

Class 158

1 : 3,074,469
3,097,686
3,108,540
3,111,978
4 : 3,071,181
3,101,768
3,104,696
7 : 3,077,920
3,106,955
11 : 3,092,166
3,093,185
11 : 3,101,769
3,111,979
12 : 3,110,342
13.6 : 3,079,980
27.4 : 3,076,494
.4 : 3,078,913
.4 : 3,091,281
.4 : 3,095,921
.4 : 3,111,980
28 : 3,071,182
3,071,183
3,072,176
3,074,470
3,074,471
3,076,495
3,079,981
3,079,982
3,082,813
3,083,758
3,086,579
3,088,516
3,091,282
3,096,810
3,096,811
3,106,238
3,109,480
3,111,160
3,113,610
32 : 3,101,770
36 : 3,090,420
.3 : 3,073,376
.3 : 3,086,580
.3 : 3,090,421
.3 : 3,101,771
.4 : 3,073,377
.4 : 3,074,472
.4 : 3,077,921
.4 : 3,080,910
.4 : 3,085,619
.4 : 3,085,620
.4 : 3,086,581
.4 : 3,092,167
.4 : 3,095,030
.4 : 3,115,923
38 : 3,073,378
42.1 : 3,094,162
.4 : 3,112,788
50.1 : 3,075,576
53 : 3,079,983
3,088,514
3,103,966
3,106,956
3,107,719
66 : 3,102,577
67 : 3,102,578
73 : 3,115,924
76 : 3,091,283
77 : 3,090,422
79 : 3,097,687
91 : 3,084,735
3,089,537
89 : 3,078,914
3,078,915
3,081,818
3,089,538
3,095,031
3,101,772
3,114,410
100 : 3,113,611
104 : 3,076,496
3,105,541
105 : 3,077,922
106 : 3,091,284
3,099,312
107 : 3,088,515
108 : 3,096,812
109 : 3,076,497
3,086,582
3,101,773
113 : 3,076,498
3,078,916
3,083,759
3,101,774
114 : 3,073,379
3,080,912
3,084,736
115 : 3,092,168
3,092,169
3,104,697
3,109,481
3,109,482
116 : 3,096,813
3,107,720
117.5 : 3,087,532
.5 : 3,089,539
.5 : 3,112,789
.5 : 3,115,925
122 : 3,075,577
123 : 3,072,177
3,106,239
3,108,630
124 : 3,115,180
125 : 3,079,984
125 : 3,082,814
3,086,583
3,090,423
3,100,521
3,111,161
131 : 3,091,285
3,107,721
3,112,790
3,115,926
140 : 3,104,698

Class 159

2 : 3,074,473
3 : 3,102,062
4 : 3,112,239
6 : 3,113,062
3,082,815
3,107,194
3,110,646
11 : 3,115,433
13 : 3,087,533
15 : 3,097,126
17 : 3,075,578
48 : 3,079,985
3,087,534
3,113,063
49 : 3,073,380
3,082,816

Class 160

11 : 3,110,343
19 : 3,111,162
3,115,181
23 : Re.25,422
3,074,474
3,090,424
3,101,775
3,111,163
24 : 3,087,535
25 : 3,090,425
3,090,426
3,115,182
26 : 3,092,170
28 : 3,105,542
30 : 3,097,688
38 : 3,077,923
40 : 3,071,184
3,073,381
3,082,817
3,090,427
3,092,171
3,098,519
3,101,776
3,104,699
3,111,981
79 : 3,097,687
91 : 3,084,737
3,085,621
3,087,537
98 : 3,089,540
113 : 3,079,987
3,096,814
165 : 3,113,906
3,113,907
3,114,669
126 : 3,083,760
133 : 3,072,178
3,092,172
3,102,580
3,113,612
136 : 3,083,761
160 : 3,074,475
167 : 3,093,186
168 : 3,079,988
3,086,584
3,090,428
3,100,013
271 : 3,104,196
3,101,113

Class 161

8 : 3,115,434
10 : 3,112,240
24 : 3,101,291
3,115,435
31 : 3,110,647
36 : 3,107,195
39 : 3,109,765
51 : 3,104,194
65 : 3,115,436
68 : 3,109,766
69 : 3,103,460
3,112,552
72 : 3,106,507
89 : 3,104,195
92 : 3,111,448
94 : 3,116,196
109 : 3,104,998
116 : 3,114,668
127 : 3,108,924
151 : 3,111,449
163 : 3,109,767
164 : 3,107,196
165 : 3,113,906
3,113,907
3,114,669
170 : 3,116,197
173 : 3,109,768
189 : 3,107,197
3,111,450
213 : 3,107,198
216 : 3,111,451
217 : 3,116,198
221 : 3,108,035
227 : 3,101,292
231 : 3,107,199
3,108,925
271 : 3,104,196

Class 162

5 : 3,072,521
3,098,784
11 : 3,098,785
16 : 3,085,038
17 : 3,076,739
3,097,987
18 : 3,073,737
19 : 3,081,218
21 : 3,085,926
31 : 3,097,988
36 : 3,092,535
50 : 3,092,536
55 : 3,085,927
66 : 3,074,842
68 : 3,078,208
72 : 3,081,219
78 : 3,085,039
3,100,732
86 : 3,088,861
103 : 3,084,091
3,106,508
108 : 3,080,271
3,100,733
3,102,836
3,102,837
112 : 3,096,228
113 : Re.25,335
3,072,522
3,104,197
116 : 3,103,461
117 : 3,072,523
121 : 3,111,452
135 : 3,096,229
3,097,989
3,097,990
136 : 3,103,462
137 : 3,096,230
145 : 3,093,533
146 : 3,093,534
3,095,345
3,097,127
3,101,294
3,104,198
3,114,670
3,116,199
151 : 3,116,200
152 : 3,100,734
3,102,838
154 : 3,095,346
155 : 3,076,740
3,102,063
3,113,064
3,114,671
156 : 3,108,926
157 : 3,080,272
3,094,454
3,096,231
3,097,991
3,098,786
3,114,672
158 : 3,082,145
3,084,092
3,102,064
159 : 3,092,537
164 : 3,109,769
3,112,241
3,113,065
168 : 3,077,430
3,079,296
3,084,093
171 : 3,087,851
172 : 3,085,040
3,096,232
175 : 3,087,852
3,102,065
179 : 3,112,242
181 : 3,074,843
3,095,347
184 : 3,115,438
193 : 3,096,233
198 : 3,086,905
199 : 3,071,504
3,093,535
201 : 3,111,453
209 : 3,102,066
216 : 3,092,538
3,095,348
3,098,787
217 : 3,091,563
223 : 3,075,872
225 : 3,112,243
236 : 3,085,623
3,095,349
237 : 3,076,501
3,085,624
3,096,234
246 : 3,081,820
255 : 3,097,992
3,097,993
259 : 3,077,924
3,092,539
274 : 3,098,788
297 : 3,087,538
3,097,994
3,111,454
310 : 3,075,579
319 : 3,072,180
323 : 3,104,999
339 : 3,076,502
341 : 3,103,463
342 : 3,074,476
343 : 3,092,540
348 : 3,082,819
349 : 3,072,181
350 : 3,072,182
3,079,990
360 : 3,105,789
357 : 3,081,821

Class 162—Con.

360 : 3,080,913
367 : 3,077,925
: 3,115,439
371 : 3,097,995
372 : 3,111,455
373 : 3,084,740
374 : 3,096,235
393 : 3,090,432
404 : 3,082,820

Class 165

1 : 3,075,580
: 3,092,178
: 3,109,485
: 3,109,486
2 : 3,078,918
7 : 3,077,926
: 3,079,991
: 3,098,521
: 3,114,413
8 : 3,083,762
9 : 3,072,182
: 3,073,384
: 3,085,625
: 3,088,518
: 3,095,036
: 3,100,014
: 3,108,632
10 : 3,081,822
: 3,088,519
: 3,101,778
11 : 3,085,626
22 : 3,071,185
26 : 3,074,695
28 : 3,084,741
: 3,112,791
30 : 3,094,164
: 3,111,166
31 : 3,114,414
32 : 3,081,823
: 3,090,433
35 : 3,107,724
39 : 3,094,165
40 : 3,106,241
46 : 3,112,792
47 : 3,095,037
48 : 3,091,288
50 : 3,090,434
: 3,101,779
51 : 3,108,633
53 : 3,079,132
55 : 3,072,183
: 3,091,289
56 : 3,074,477
: 3,080,914
60 : 3,092,179
: 3,096,817
: 3,102,586
61 : 3,084,914
66 : 3,082,821
67 : 3,071,186
: 3,101,114
: 3,103,970
: 3,113,614
69 : 3,093,189
72 : 3,077,927
: 3,080,915
76 : 3,079,992
: 3,080,150
81 : 3,078,919
88 : 3,092,180
94 : 3,079,993
101 : 3,074,478
110 : 3,074,479
111 : 3,096,818
125 : 3,077,226
133 : 3,084,742
142 : 3,105,544
143 : 3,101,930
144 : 3,099,315
146 : 3,073,575
148 : 3,104,701
149 : 3,113,615
151 : 3,080,916
154 : 3,074,480
157 : 3,106,957
158 : 3,111,167
: 3,114,415
159 : 3,083,763
160 : 3,100,523
164 : 3,095,923
165 : 3,103,971
: 3,111,168
166 : 3,079,994
: 3,098,522
: 3,101,780
: 3,106,242
: 3,111,982
167 : 3,106,243
170 : 3,071,187
175 : 3,112,793
179 : 3,081,824
180 : 3,077,928
181 : 3,073,385
: 3,106,958
182 : 3,081,825

Class 166

1 : 3,076,503
: 3,096,819
2 : 3,074,481
3 : 3,107,725
4 : 3,072,184
: 3,095,924
: 3,115,183
8 : 3,107,726
: 3,111,983
9 : 3,073,386
: 3,076,504
: 3,080,917
: 3,082,822
: 3,083,764
: 3,084,743
: 3,084,744
: 3,087,589
: 3,091,291
: 3,093,190
: 3,096,820
: 3,096,821
: 3,100,524
: 3,101,781
: 3,101,782
: 3,102,587
: 3,103,972
: 3,104,702
: 3,109,487
: 3,110,344
: 3,111,984
: 3,111,985
: 3,113,616
: 3,113,617
: 3,113,618
11 : 3,072,185
: 3,072,186
: 3,072,187
: 3,076,505
: 3,076,506
: 3,079,995
: 3,080,918
: 3,087,540
: 3,087,541
: 3,091,292
: 3,093,191
: 3,095,925
: 3,097,690
: 3,102,588
: 3,106,244
: 3,110,345
: 3,111,986
: 3,111,987
: 3,113,619
: 3,113,620
: 3,115,928
: 3,115,929
12 : 3,107,727
15 : 3,102,589
20 : 3,113,621
21 : 3,083,765
: 3,086,587
: 3,093,192
: 3,100,525
: 3,104,703
: 3,110,346
25 : 3,072,188
30 : 3,087,543
31 : 3,100,526
: 3,104,704
32 : 3,086,588
33 : 3,078,920
: 3,087,544
: 3,088,520
: 3,097,692
: 3,100,527
: 3,103,248
: 3,114,419
: 3,115,930
35 : Re.25,407
: 3,076,507
: 3,096,822
: 3,097,693
: 3,115,184
37 : 3,106,959
39 : 3,072,189
: 3,072,190
: 3,072,191
: 3,080,919
39 : 3,087,545
: 3,104,705
: 3,105,545
: 3,113,622
41 : 3,077,929
: 3,108,634
: 3,108,635
42 : 3,072,192
: 3,075,581
: 3,077,930
: 3,080,920
: 3,083,766
: 3,089,542
: 3,097,694
: 3,100,528
: 3,101,115
: 3,103,975
: 3,104,706
: 3,108,636
: 3,111,988
: 3,115,931
45 : 3,073,387
: 3,076,508
: 3,098,523
46 : 3,075,582
: 3,083,767
: 3,087,546
: 3,092,181
: 3,095,038
: 3,099,316
: 3,100,015
: 3,103,976
: 3,104,707
: 3,104,708
: 3,110,347
: 3,114,420
48 : 3,098,524
52 : 3,100,529
53 : 3,100,530
54.5 : 3,073,388
55 : 3,091,290
: 3,095,926
.1 : 3,104,709
1 : 3,104,710
.1 : 3,105,546
1 : 3,115,932
3 : 3,111,989
6 : 3,074,482
6 : 3,080,241
6 : 3,106,245
7 : 3,114,416
8 : 3,073,389
58 : 3,106,246
59 : 3,107,728
: 3,113,623
60 : 3,101,116
: 3,104,711
: 3,114,417
63 : Re.25,453
: 3,090,436
: 3,094,166
: 3,111,990
64 : 3,112,794
65 : 3,086,589
: 3,105,547
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: 3,105,550
: 3,105,551
: 3,106,960
66 : 3,107,729
.5 : 3,071,188
.5 : 3,080,921
.5 : 3,086,590
.5 : 3,090,437
.5 : 3,098,525
.5 : 3,099,317
.5 : 3,115,933
67 : 3,101,117
: 3,109,488
68 : 3,071,189
: 3,073,390
: 3,102,590
70 : 3,076,509
71 : 3,089,543
75 : 3,071,190
: 3,090,438
: 3,090,439
: 3,095,927
: 3,095,928
: 3,097,695
: 3,101,118
: 3,102,591
: 3,105,552
: 3,115,934
86 : 3,078,921
88 : 3,109,489
89 : 3,077,931
: 3,084,745
: 3,087,547
: 3,094,167
97 : 3,095,929
99 : 3,108,637
100 : 3,104,712
100 : 3,107,730
105 : 3,072,193
: 3,077,932
114 : 3,080,922
: 3,083,768
: 3,100,531
: 3,109,490
115 : 3,079,996
117.5 : 3,075,583
.6 : 3,095,039
.6 : 3,115,935
118 : 3,094,168
119 : 3,115,185
120 : 3,080,923
: 3,083,769
: 3,085,627
: 3,112,795
: 3,112,796
123 : 3,091,293
124 : 3,083,770
: 3,108,638
125 : 3,100,532
: 3,100,533
: 3,102,592
: 3,102,593
: 3,102,594
127 : 3,087,548
128 : Re.25,323
: 3,098,526
130 : 3,101,783
133 : 3,105,553
134 : Re.25,381
: 3,075,584
: 3,079,997
: 3,082,824
: 3,093,169
: 3,109,961
135 : 3,097,696
: 3,115,186
138 : 3,097,697
: 3,114,421
142 : 3,087,549
: 3,104,713
145 : 3,111,169
146 : 3,083,771
150 : 3,098,823
151 : 3,086,591
: 3,100,534
: 3,104,714
155 : 3,090,440
156 : 3,102,595
158 : 3,101,784
162 : 3,089,544
: 3,090,441
: 3,097,698
: 3,100,535
: 3,104,715
163 : 3,095,930
164 : 3,075,585
165 : 3,104,716
169 : 3,105,554
170 : 3,072,194
172 : 3,073,391
: 3,074,483
: 3,109,491
: 3,109,492
173 : 3,071,191
: 3,087,550
: 3,111,170
174 : 3,105,555
176 : 3,079,998
: 3,083,772
: 3,083,773
: 3,106,962
177 : 3,079,999
185 : 3,082,825
: 3,100,536
187 : 3,083,774
: 3,085,628
: 3,104,717
192 : 3,090,442
193 : 3,091,294
201 : 3,083,775
202 : 3,114,422
204 : 3,109,493
206 : 3,089,545
: 3,101,119
207 : 3,111,991
210 : 3,096,824
212 : 3,080,924
214 : 3,078,922
: 3,088,521
216 : 3,074,484
217 : 3,071,192
: 3,074,485
: 3,077,933
: 3,107,731
222 : 3,074,486
224 : 3,073,392
: 3,075,586
: 3,078,923
: 3,085,629
: 3,086,592
224 : 3,086,593
: 3,087,551
: 3,089,546
: 3,090,443
: 3,094,170
: 3,095,040
: 3,096,825
: 3,097,699
: 3,115,187
: 3,115,188
225 : 3,111,171
226 : 3,071,193
: 3,086,594
: 3,100,537
227 : 3,099,318
235 : 3,095,041
236 : 3,080,925
237 : 3,100,538
240 : 3,115,189
241 : 3,072,195
: 3,072,196
: 3,080,926
: 3,092,182
: 3,100,016
: 3,104,718
243 : 3,073,393
: 3,087,552
: 3,095,042
: 3,104,719

Class 167

13 : 3,113,066
17 : 3,082,146
: 3,087,853
: 3,102,839
22 : 3,071,505
: 3,072,524
: 3,074,844
: 3,075,873
: 3,077,431
: 3,077,432
: 3,078,209
: 3,078,210
: 3,080,273
: 3,080,274
: 3,080,275
: 3,080,276
: 3,081,220
: 3,083,135
: 3,084,094
: 3,084,095
: 3,085,041
: 3,085,042
: 3,085,043
: 3,085,928
: 3,085,929
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: 3,089,807
: 3,090,719
: 3,092,541
: 3,092,542
: 3,093,536
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: 3,094,455
: 3,095,350
: 3,096,236
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: 3,097,996
: 3,097,997
: 3,097,998
: 3,097,999
: 3,100,735
: 3,102,067
: 3,102,068
: 3,103,464
: 3,104,199
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: 3,105,001
: 3,105,002
: 3,105,003
: 3,106,509
: 3,106,510
: 3,108,036
: 3,109,770
: 3,109,771
: 3,112,244
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: 3,087,854
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: 3,073,739
: 3,075,874
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: 3,078,212
: 3,080,277
: 3,082,147
: 3,082,148
: 3,083,137
30 : 3,084,096
: 3,084,097
: 3,084,098
: 3,085,044
: 3,085,045
: 3,085,930
: 3,087,855
: 3,088,863
: 3,089,808
: 3,091,564
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: 3,091,566
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: 3,095,351
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: 3,096,238
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: 3,098,001
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: 3,101,297
: 3,102,069
: 3,102,070
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: 3,102,841
: 3,102,842
: 3,105,004
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: 3,108,037
: 3,108,038
: 3,110,648
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: 3,113,068
: 3,113,069
: 3,113,070
: 3,114,673
31 : 3,072,525
: 3,079,297
: 3,081,221
: 3,086,906
: 3,090,720
: 3,097,131
: 3,108,927
32 : 3,080,278
33 : 3,071,506
: 3,077,433
: 3,078,213
: 3,079,298
: 3,080,279
: 3,081,222
: 3,085,046
: 3,085,931
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: 3,089,809
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: 3,094,458
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: 3,098,002
: 3,098,003
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: 3,104,200
: 3,105,005
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38.5 : 3,083,138
.5 : 3,089,810
.5 : 3,094,459
.5 : 3,099,598
.6 : 3,111,456
39 : 3,076,742
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42 : 3,074,845
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: 3,090,722
: 3,091,567
: 3,092,546
: 3,098,789
43 : 3,095,353
46 : 3,076,743
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47 : 3,085,047
48 : 3,072,526
: 3,076,744
49.5 : 3,080,281
51.5 : 3,072,527
52 : 3,085,932
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: 3,095,354
52 : 3,097,133
: 3,102,072
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53 : 3,071,507
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54 : 3,095,355
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67 : 3,077,436
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68 : 3,076,747
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70 : 3,081,232
72 : 3,092,552
73 : 3,072,532
74 : 3,073,746
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74 : 3,085,944
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75 : 3,091,573
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77 : 3,079,301
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78 : 3,073,747
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81 : 3,072,533
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83 : 3,071,513
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84 : 3,072,534
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: 3,109,777
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87.1 : 3,103,468
.1 : 3,109,778
88 : 3,088,877
: 3,088,878
: 3,092,555
: 3,098,013
: 3,100,739
90 : 3,075,885
: 3,084,105
: 3,090,728
: 3,098,795
91 : 3,072,537
: 3,100,180
93 : 3,081,235
: 3,083,143
: 3,085,048
: 3,095,356
: 3,104,205
: 3,105,013
: 3,105,798
: 3,112,247
: 3,116,208
94 : 3,080,295

Class 168

7 : 3,090,718
25 : 3,078,924

Class 169

1 : 3,093,193
5 : 3,113,624
15 : 3,090,444
: 3,094,171
17 : 3,100,017
19 : 3,098,527
25 : 3,104,720
: 3,106,247
26 : 3,089,547
: 3,107,732
31 : 3,088,522
: 3,092,183
: 3,101,120
41 : 3,080,000

Class 170

33 : 3,093,194
40 : 3,076,510
135.2 : 3,072,197
.24 : 3,082,827
.21 : 3,085,630
.28 : 3,087,553
.28 : 3,092,184
.2 : 3,115,936
.4 : 3,073,394
.4 : 3,096,826
.4 : 3,108,640
.4 : 3,109,494
.4 : 3,109,495
.4 : 3,111,992
.4 : 3,111,993
.7 : 3,082,826
.74 : 3,084,746
.74 : 3,088,523
.74 : 3,089,548
.71 : 3,092,185
.72 : 3,097,700
.74 : 3,110,348
.75 : 3,113,625
151 : 3,099,319
156 : 3,071,194
159 : 3,078,925
: 3,081,826
: 3,085,631
: 3,103,977
: 3,105,557
: 3,112,797
160.1 : 3,074,487
.11 : 3,077,229
.13 : 3,080,001
.11 : 3,095,043
.13 : 3,096,827
.14 : 3,096,828
.12 : 3,097,701
.13 : 3,099,320
.16 : 3,099,321
.12 : 3,101,121
.12 : 3,101,785
.12 : 3,106,963
.13 : 3,106,964
.16 : 3,108,641
.19 : 3,115,938
.25 : 3,077,934
.26 : 3,080,002
.25 : 3,080,927
.21 : 3,087,554
.23 : 3,088,524
.21 : 3,090,445
.25 : 3,095,931
.21 : 3,102,596
160.25 : 3,102,597
.22 : 3,104,721
.25 : 3,107,733
.25 : 3,109,496
.26 : 3,109,497
.2 : 3,115,939
.32 : 3,080,928
.32 : 3,086,595
.31 : 3,091,295
.32 : 3,095,044
.32 : 3,103,249
.45 : 3,092,186
.43 : 3,095,932
.47 : 3,103,978
.46 : 3,109,498
.5 : 3,074,489
.51 : 3,105,558
.58 : 3,106,248
.53 : 3,106,965
.51 : 3,111,172
.6 : 3,073,395
.6 : 3,077,228
167 : 3,085,632
168 : 3,111,173
172 : 3,100,539
: 3,109,499
173 : 3,071,195

Class 171

14 : 3,078,926
: 3,106,249
16 : 3,096,829
58 : 3,103,979
61 : 3,106,250
62 : 3,071,196
63 : 3,082,828
: 3,100,540
: 3,104,722
101 : 3,083,776

Class 172

4 : 3,090,446
5 : 3,111,994
6 : 3,097,702
7 : 3,098,528
: 3,112,798
9 : Re.25,415
: 3,080,003
: 3,083,777
: 3,096,830
: 3,106,966
13 : 3,077,230
15 : 3,086,596
16 : 3,085,633
: 3,093,195
: 3,106,251
18 : 3,078,927
: 3,111,995
38 : 3,095,045
39 : 3,084,747
40 : 3,103,250
42 : 3,074,490
: 3,111,996
43 : 3,097,703
44 : 3,072,198
: 3,101,786
: 3,108,642
: 3,115,940
49 : 3,106,967
: 3,115,190
78 : 3,106,968
86 : 3,072,199
: 3,100,541
94 : 3,087,555
99 : 3,071,197
: 3,080,929
111 : 3,084,748
119 : 3,096,597
123 : 3,071,198
126 : 3,072,200
127 : 3,101,787
128 : 3,107,734
142 : 3,078,928
158 : 3,093,196
160 : 3,100,018
162 : 3,115,191
166 : 3,115,192
177 : 3,115,193
178 : 3,090,447
: 3,090,448
180 : 3,085,634
184 : 3,082,829
197 : 3,106,969
219 : 3,101,788
: 3,101,789
224 : 3,087,556
: 3,106,252
226 : 3,107,735
239 : 3,106,253
244 : 3,111,174
252 : Re.25,439
259 : 3,088,525
265 : 3,098,529
: 3,108,643
268 : 3,084,749
273 : 3,077,935
: 3,106,970
297 : 3,088,526
: 3,092,187
298 : 3,080,930
302 : 3,078,929
307 : 3,099,322
316 : 3,090,449
317 : 3,101,790
328 : 3,082,830
371 : 3,075,587
372 : 3,111,175
379 : 3,110,349
386 : 3,106,971
387 : 3,076,511
390 : 3,103,980
395 : 3,074,491
413 : 3,104,723
421 : 3,077,231
445 : 3,101,791
448 : 3,076,512
450 : 3,077,232
455 : 3,080,931
456 : 3,072,201
: 3,086,598
: 3,091,296
: 3,094,172
457 : 3,107,736
474 : 3,106,254
491 : 3,078,930
: 3,094,173
: 3,095,933
531 : 3,094,174
540 : 3,097,704
546 : 3,091,297
548 : 3,107,737
556 : 3,087,557
: 3,101,122
: 3,101,123
557 : 3,080,932
568 : 3,102,598
: 3,106,255
579 : 3,088,527
580 : 3,091,298
582 : 3,080,933
587 : 3,080,004
591 : 3,098,530
596 : 3,101,792
609 : 3,101,793
656 : 3,091,299
677 : 3,081,827
698 : 3,101,794
699 : 3,085,635
710 : 3,097,705
: 3,098,531
719 : 3,084,750
: 3,098,532
750 : 3,106,256
762 : 3,104,724

Class 173

2 : 3,115,941
15 : 3,105,559
: 3,111,997
: 3,111,176
23 : 3,101,795
27 : 3,113,626
32 : 3,106,257
36 : 3,111,177
43 : 3,113,627
73 : 3,101,796
74 : 3,107,738
95 : 3,108,646
97 : 3,114,423
118 : 3,108,644
127 : 3,096,831
: 3,109,500
136 : 3,095,046
137 : 3,095,047
152 : 3,113,628

Class 174

5 : 3,075,037
: 3,079,457
: 3,097,256
: 3,098,890
10 : 3,100,812
11 : 3,086,069
: 3,096,390
: 3,101,386
: 3,113,172
12 : 3,106,599
14 : 3,083,257
15 : 3,073,885
: 3,082,287
: 3,098,891
: 3,106,600
: 3,111,551
: 3,088,994
102 : 3,073,889
: 3,098,115
: 3,098,893
: 3,115,542
105 : 3,102,160
: 3,105,871
109 : 3,090,825
110 : 3,072,737
: 3,075,040
: 3,087,007
: 3,109,053
112 : 3,105,108
115 : 3,098,116
: 3,106,603
116 : 3,092,685
117 : 3,082,292
: 3,086,071
118 : 3,109,881
120 : 3,077,514
: 3,078,333
: 3,105,872
121 : 3,112,357
124 : 3,103,549
127 : 3,088,995
: 3,102,161
128 : 3,079,460
: 3,091,658
: 3,110,757
135 : 3,087,008
: 3,087,009
: 3,087,984
: 3,102,922
138 : 3,078,334
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: 3,086,072
: 3,099,704
: 3,100,241
: 3,107,273
: 3,113,997
: 3,113,998
140 : 3,110,758
141 : 3,076,863
: 3,076,864
142 : 3,086,073
146 : 3,073,890
: 3,076,865
: 3,080,448
148 : 3,086,074
149 : 3,076,866
151 : 3,077,515
: 3,104,277
: 3,109,882
: 3,113,999
149 : 3,076,866
151 : 3,077,515
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: 3,110,000
: 3,110,001
: 3,110,002
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: 3,110,753
: 3,113,174
: 3,113,996
: 3,114,000
: 3,114,001
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: 3,114,355
: 3,114,356
: 3,113,993
18 : 3,085,128
: 3,096,391
: 3,101,387
19 : 3,082,288
24 : 3,084,208
25 : 3,077,510
: 3,080,446
: 3,094,583
: 3,108,153
26 : 3,098,113
31 : 3,096,392
32 : 3,091,655
34 : 3,099,703
: 3,109,879
35 : 3,073,886
: 3,106,601
: 3,109,050
: 3,109,880
36 : 3,089,915
40 : 3,107,272
: 3,111,552
: 3,111,553
: 3,113,173
: 3,113,994
42 : 3,073,887
: 3,083,258
: 3,105,866
47 : 3,082,289
: 3,098,892
48 : 3,115,539
49 : 3,082,290
50.64 : 3,105,867
52 : 3,081,374
: 3,084,209
: 3,086,070
: 3,087,981
: 3,087,982
: 3,091,656
: 3,100,813
54 : 3,114,792
58 : 3,098,114
59 : 3,094,584
: 3,101,388
: 3,113,995
60 : 3,106,602
65 : 3,073,888
: 3,084,210
: 3,110,753
67 : 3,113,174
: 3,113,996
68 : 3,087,983
: 3,091,657
152 : 3,086,075
: 3,109,054
: 3,109,055
153 : 3,095,470
: 3,097,259
: 3,116,362
156 : 3,101,389
158 : Re.25,341
: 3,071,640
: 3,084,211
: 3,090,826
159 : 3,085,129
160 : 3,095,471
161 : 3,073,891
163 : 3,104,278
166 : 3,098,117
169 : 3,076,867
172 : 3,090,827
178 : 3,098,894
179 : 3,076,053
: 3,081,375
: 3,115,543
182 : 3,076,868
: 3,104,279
: 3,110,759
194 : 3,114,000
211 : 3,110,760

Class 175

1 : 3,100,542
2 : 3,080,005
: 3,083,778
4 : 3,072,202
: 3,101,797
5 : 3,078,931
: 3,110,350
6 : 3,095,048
: 3,098,533
8 : 3,101,798
11 : 3,115,194
14 : 3,093,197
: 3,103,251
17 : 3,115,195
18 : 3,080,006
: 3,093,198
: 3,093,199
: 3,096,832
20 : 3,075,588
44 : 3,088,528
: 3,115,196

Class 175 – Con.

45 : 3,077,233
: 3,100,019
50 : 3,115,197
: 3,115,942
51 : 3,078,932
55 : 3,076,513
: 3,106,258
56 : 3,074,492
: 3,098,833
: 3,105,560
58 : 3,112,799
65 : 3,087,558
67 : 3,081,828
: 3,112,800
68 : 3,111,948
: 3,111,999
69 : 3,094,175
: 3,111,178
72 : 3,102,599
: 3,107,739
73 : 3,098,534
76 : 3,092,188
77 : 3,085,636
: 3,085,637
: 3,092,189
78 : 3,107,740
85 : 3,089,549
: 3,099,323
92 : 3,094,176
93 : 3,077,234
101 : 3,077,936
107 : 3,074,493
: 3,076,514
: 3,077,937
: 3,083,779
: 3,088,529
: 3,112,801
108 : 3,108,645
114 : 3,072,203
122 : 3,107,741
123 : 3,073,396
: 3,080,007
124 : 3,088,530
129 : 3,085,638
133 : 3,080,008
147 : 3,090,450
152 : 3,115,198
: 3,115,199
155 : 3,086,600
165 : 3,089,550
170 : 3,071,199
173 : 3,092,190
201 : 3,073,397
: 3,088,531
207 : 3,071,200
213 : 3,090,451
215 : 3,075,589
219 : 3,078,933
226 : 3,092,191
227 : 3,095,934
230 : 3,072,204
: 3,088,532
: 3,105,561
236 : 3,103,981
238 : 3,113,629
244 : 3,095,049
: 3,104,725
253 : 3,092,192
254 : 3,095,050
258 : 3,097,706
: 3,097,707
260 : 3,074,494
: 3,097,708
268 : 3,105,562
270 : 3,095,051
285 : 3,077,235
: 3,112,802
290 : 3,101,124
295 : 3,075,590
297 : 3,087,559
: 3,088,533
308 : 3,102,600
309 : 3,107,742
314 : 3,087,560
: 3,088,534
315 : 3,082,831
318 : 3,089,551
319 : 3,075,591
323 : 3,085,639
324 : 3,095,052
325 : 3,109,501
329 : Re.25,319
: 3,095,053
: 3,112,803
330 : 3,095,935
: 3,100,543
331 : 3,078,934
: 3,104,726
333 : 3,075,592
: 3,091,300
: 3,100,544
334 : 3,094,177
337 : 3,105,563
339 : 3,099,324
: 3,102,601
340 : Re.25,452
: 3,084,751
: 3,096,834
: 3,113,630
: 3,115,200
371 : 3,096,835
: 3,112,804
372 : 3,086,601
374 : 3,098,535
376 : 3,081,829
383 : 3,075,593
386 : 3,072,205
388 : 3,094,178
393 : 3,111,479
394 : 3,094,179
398 : 3,105,972
400 : 3,089,552
401 : 3,094,180
403 : 3,103,982
404 : 3,084,752
: 3,086,602
407 : 3,077,938
410 : 3,071,201
: 3,080,009
: 3,080,934
: 3,088,535
: 3,096,836
412 : 3,075,594
: 3,099,325
413 : 3,106,973
419 : 3,100,545
422 : 3,101,799

Class 176

3 : 3,116,209
19 : 3,116,210
: 3,116,211
39 : 3,116,212
78 : 3,116,213
84 : 3,116,214

Class 177

1 : 3,081,830
: 3,089,553
: 3,091,301
: 3,093,200
: 3,094,181
: 3,094,182
: 3,101,800
: 3,108,647
: 3,109,502
2 : 3,103,983
3 : 3,085,640
: 3,095,054
: 3,108,648
: 3,113,631
4 : 3,086,603
12 : 3,077,236
: 3,081,831
: 3,097,709
: 3,098,536
: 3,106,259
16 : 3,115,201
24 : 3,109,503
25 : 3,093,201
30 : 3,072,206
37 : 3,100,720
41 : 3,090,452
46 : 3,112,805
52 : 3,083,780
: 3,089,554
53 : 3,073,398
: 3,073,399
: 3,095,055
54 : 3,112,000
56 : 3,073,400
59 : 3,112,806
60 : 3,086,604
62 : 3,096,837
: 3,097,710
63 : 3,073,401
68 : 3,095,056
70 : 3,077,939
: 3,101,801
: 3,104,727
: 3,106,974
71 : 3,072,207
: 3,072,208
73 : 3,109,504
76 : 3,081,832
79 : 3,113,632
80 : 3,071,202
: 3,073,402
: 3,096,838
81 : 3,076,515
: 3,076,516
81 : 3,089,555
86 : 3,089,556
87 : 3,074,495
92 : 3,110,351
96 : 3,093,202
98 : 3,098,537
103 : 3,085,641
107 : 3,103,252
108 : 3,097,711
109 : 3,115,943
116 : 3,107,743
117 : 3,082,832
118 : 3,108,901
120 : 3,075,595
: 3,090,453
: 3,093,203
: 3,112,807
123 : 3,102,603
126 : 3,078,935
: 3,097,712
: 3,097,713
: 3,106,975
127 : 3,082,833
131 : 3,090,454
134 : 3,082,834
: 3,085,642
137 : 3,109,505
141 : 3,078,937
144 : 3,101,802
147 : 3,073,403
: 3,080,935
: 3,081,833
: 3,095,057
149 : 3,091,302
151 : 3,092,193
154 : 3,092,194
156 : 3,096,839
157 : 3,093,204
159 : 3,106,976
163 : 3,092,195
165 : 3,077,940
169 : 3,082,835
170 : 3,092,196
172 : 3,075,596
: 3,075,597
176 : 3,081,834
177 : 3,101,803
178 : 3,074,496
179 : 3,072,209
184 : 3,093,205
: 3,106,977
187 : 3,103,253
190 : 3,105,565
198 : 3,104,728
200 : 3,115,202
208 : 3,091,303
: 3,094,183
: 3,108,649
209 : 3,107,744
: 3,115,944
210 : 3,078,936
: 3,080,936
: 3,084,753
: 3,084,754
: 3,092,197
: 3,097,714
: 3,106,978
: 3,106,979
211 : 3,094,184
: 3,100,546
: 3,103,984
: 3,105,564
212 : 3,092,198
225 : 3,087,561
228 : 3,093,206
229 : 3,081,835
: 3,091,304
230 : 3,077,941
: 3,084,755
233 : 3,107,745
239 : 3,097,966
: 3,101,804
245 : 3,077,237
246 : 3,074,497
: 3,097,715
248 : 3,111,180
255 : 3,074,498
: 3,092,199
261 : 3,112,808

Class 178

2 : 3,087,010
: 3,099,705
3 : 3,078,336
: 3,100,814
: 3,113,176
4 : 3,071,641
5 : 3,112,358
.1 : 3,071,642
.1 : 3,073,892
.1 : 3,073,893
5.1 : 3,078,337
.1 : 3,081,376
.1 : 3,081,377
.1 : 3,081,378
.1 : 3,103,550
.1 : 3,104,280
.1 : 3,106,604
.1 : 3,107,274
.1 : 3,109,883
.1 : 3,116,363
.2 : 3,087,011
.2 : 3,092,686
.2 : 3,096,394
.2 : 3,098,895
.2 : 3,099,706
.2 : 3,100,815
.2 : 3,109,056
.2 : 3,109,884
.2 : 3,110,761
.3 : 3,073,894
.4 : 3,075,041
.5 : 3,076,869
.4 : 3,077,516
.4 : 3,078,338
.4 : 3,078,339
.4 : 3,079,461
.4 : 3,084,212
.4 : 3,086,076
.4 : 3,087,985
.4 : 3,093,704
.4 : 3,093,705
.5 : 3,095,472
.4 : 3,096,395
.4 : 3,096,396
.4 : 3,097,260
.4 : 3,098,118
.4 : 3,098,896
.4 : 3,100,816
.4 : 3,102,923
.4 : 3,103,551
.4 : 3,103,552
.4 : 3,103,553
.4 : 3,105,109
.4 : 3,106,605
.4 : 3,107,275
.4 : 3,109,885
.4 : 3,109,886
.4 : 3,109,887
.4 : 3,112,359
.4 : 3,112,360
.4 : 3,113,177
.4 : 3,114,001
.4 : 3,114,794
.4 : 3,114,795
.4 : 3,114,798
.4 : 3,115,544
.4 : 3,116,364
.6 : 3,071,643
.6 : 3,072,738
.6 : 3,085,130
.6 : 3,093,706
.6 : 3,099,707
.6 : 3,116,365
.8 : 3,073,895
.8 : 3,079,462
.8 : 3,080,449
.8 : 3,091,659
.8 : 3,096,397
.8 : 3,103,554
.8 : 3,113,178
6 : 3,072,739
: 3,073,896
: 3,105,873
: 3,106,606
: 3,110,762
: 3,110,763
.5 : 3,076,054
.5 : 3,089,917
.5 : 3,097,261
.5 : 3,109,057
.6 : 3,071,644
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.6 : 3,071,646
.6 : 3,075,042
.6 : 3,076,055
.6 : 3,081,379
.6 : 3,082,293
.6 : 3,084,213
.6 : 3,084,214
.6 : 3,084,215
.6 : 3,090,828
.6 : 3,091,660
.6 : 3,095,473
.6 : 3,098,119
.6 : 3,099,708
.6 : 3,099,709
.6 : 3,099,710
.6 : 3,102,162
.6 : 3,106,607
.6 : 3,109,058
.6 : 3,109,059
.6 : 3,110,764
.6 : 3,112,361
6.6 : 3,113,179
.7 : 3,078,340
.7 : 3,092,687
.7 : 3,109,888
.7 : 3,109,889
.8 : 3,078,341
.8 : 3,082,294
.8 : 3,087,986
.8 : 3,090,829
.8 : 3,090,830
.8 : 3,090,831
.8 : 3,091,661
.8 : 3,096,398
.8 : 3,097,262
.8 : 3,107,276
.8 : 3,109,890
.8 : 3,111,555
.8 : 3,113,180
.8 : 3,114,002
.8 : 3,114,797
.8 : 3,115,545
7.1 : Re.25,468
.1 : 3,072,740
.1 : 3,083,262
.1 : 3,085,131
.1 : 3,097,263
.1 : 3,100,242
.1 : 3,108,155
.1 : 3,110,765
.1 : 3,111,556
.2 : 3,077,517
.2 : 3,078,342
.2 : 3,086,077
.2 : 3,091,662
.2 : 3,098,120
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.2 : 3,102,924
.2 : 3,109,890
.2 : 3,114,798
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.2 : 3,115,546
.3 : 3,080,450
.3 : 3,081,380
.3 : 3,084,216
.3 : 3,087,012
.3 : 3,090,832
.3 : 3,109,061
.3 : 3,115,547
.5 : 3,072,741
.5 : 3,072,742
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.5 : 3,104,281
.5 : 3,109,062
.5 : 3,109,891
.6 : 3,087,987
.85: 3,078,343
.82: 3,084,217
.82: 3,087,014
.85: 3,095,475
.87: 3,100,817
.8 : 3,104,282
.85: 3,109,063
.9 : 3,086,078
.9 : 3,086,079
.9 : 3,087,013
.9 : 3,098,897
.92: 3,104,283
.9 : 3,105,110
17 : 3,072,743
: 3,084,218
18 : 3,102,926
: 3,112,362
19 : 3,080,451
: 3,089,918
22 : 3,083,263
: 3,105,111
23 : 3,084,219
: 3,093,707
24 : 3,108,156
25 : 3,110,766
26 : 3,073,897
: 3,075,043
: 3,090,833
: 3,109,064
30 : 3,085,132
: 3,099,711
: 3,109,065
50 : 3,105,874
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: 3,114,003
52 : 3,110,767
53.1 : 3,112,363
69 : 3,084,220
: 3,096,400
: 3,106,608
.5 : 3,080,452
.5 : 3,099,712
.5 : 3,102,164
.5 : 3,102,927
.5 : 3,112,364
70 : 3,073,898
: 3,086,080
: 3,110,768
71 : 3,072,744
73 : 3,105,112
88 : 3,078,344
108 : 3,098,898

Class 179

1 : 3,071,647
: 3,071,648
: 3,072,745
: 3,073,899
: 3,073,900
: 3,075,044
: 3,075,045
: 3,076,870
: 3,079,463
: 3,082,295
: 3,083,264
: 3,083,265
: 3,083,266
: 3,084,221
: 3,087,015
: 3,087,016
: 3,087,988
: 3,087,989
: 3,089,716
: 3,090,836
: 3,091,664
: 3,095,479
: 3,096,401
: 3,098,714
: 3,099,715
: 3,099,716
: 3,100,243
: 3,100,819
: 3,100,820
: 3,102,167
: 3,103,555
: 3,103,556
: 3,105,117
: 3,108,158
: 3,109,069
: 3,109,896
: 3,109,897
: 3,111,557
: 3,112,367
: 3,112,368
: 3,112,369
: 3,112,370
: 3,114,004
: 3,116,371
: 3,116,372
: 3,116,373
: 3,116,374
15 : 3,071,651
: 3,072,747
: 3,072,748
: 3,073,902
: 3,073,903
: 3,073,904
: 3,076,057
: 3,079,464
: 3,080,453
: 3,082,296
: 3,083,267
: 3,084,222
: 3,084,223
: 3,086,083
: 3,087,992
: 3,087,993
: 3,087,994
: 3,087,995
: 3,087,996
: 3,088,998
: 3,089,920
: 3,089,921
: 3,090,836
: 3,091,664
: 3,095,479
: 3,096,401
: 3,098,714
: 3,099,715
: 3,099,716
: 3,100,243
: 3,100,819
: 3,100,820
: 3,102,167
: 3,103,555
: 3,103,556
: 3,105,117
: 3,108,158
: 3,109,069
: 3,109,896
: 3,109,897
: 3,111,557
: 3,112,367
: 3,112,368
: 3,112,369
: 3,112,370
: 3,114,004
: 3,116,371
: 3,116,372
: 3,116,373
: 3,116,374
16 : 3,092,691
: 3,111,550
: 3,114,005
17 : 3,073,905
: 3,087,019
: 3,091,666
: 3,100,244
18 : 3,073,906
: 3,073,907
: 3,078,346
: 3,078,347
: 3,079,465
: 3,085,133
: 3,086,084
: 3,087,020
: 3,087,021
: 3,087,022
: 3,087,023
: 3,087,997
: 3,093,708
: 3,096,402
: 3,096,403
: 3,098,125
: 3,099,717
: 3,099,718
: 3,102,168
: 3,105,878
: 3,108,614
: 3,108,615
: 3,107,271
: 3,110,772
: 3,111,559
: 3,111,560
: 3,112,371
: 3,112,372
: 3,112,373
: 3,113,182
: 3,113,183
: 3,113,184
: 3,114,006
: 3,114,007
: 3,115,550
: 3,115,551
: 3,115,552
: 3,116,375

22 : 3,088,999
: 3,101,392
: 3,115,553
26 : 3,102,930
27 : 3,099,719
: 3,101,393
: 3,111,561
.54: 3,086,085
.54: 3,102,931
.54: 3,114,008
28 : 3,080,454
32 : 3,095,480
35 : 3,073,908
37 : 3,103,557
40 : 3,091,667
: 3,094,589
41 : 3,087,998
: 3,105,118
: 3,110,773
42 : 3,087,024
: 3,087,025
: 3,089,000
: 3,096,404
: 3,113,185
51 : 3,075,047
76 : 3,082,297
82 : 3,076,058
: 3,078,348
: 3,101,394
: 3,105,119
: 3,105,120
84 : 3,075,048
: 3,076,059
: 3,087,999
: 3,089,001
: 3,090,838
: 3,103,558
: 3,106,616
86 : 3,071,653
90 : 3,072,749
: 3,073,909
: 3,073,910
: 3,076,872
: 3,078,349
: 3,079,466
: 3,089,002
: 3,089,003
: 3,095,481
: 3,098,899
: 3,100,245
: 3,104,285
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: 3,104,287
: 3,104,288
: 3,105,121
: 3,105,122
: 3,105,123
: 3,105,879
: 3,107,278
: 3,108,159
: 3,109,071
: 3,111,562
91 : 3,090,839
99 : 3,098,900
: 3,101,395
: 3,114,801
100 : 3,073,911
: 3,102,169
.1 : 3,076,873
.1 : 3,077,519
.1 : 3,086,086
.1 : 3,104,289
.2 : 3,071,654
.2 : 3,072,750
.2 : 3,072,751
.2 : 3,072,752
.2 : 3,072,753
.2 : 3,073,912
.2 : 3,073,913
.2 : 3,075,049
.2 : 3,075,050
.2 : 3,075,051
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.2 : 3,078,350
.2 : 3,078,351
.2 : 3,078,352
.2 : 3,079,467
.2 : 3,079,468
.2 : 3,079,469
.2 : 3,079,470
.2 : 3,080,455
.2 : 3,080,456
.2 : 3,081,381
.2 : 3,081,382
.2 : 3,083,268
.2 : 3,083,269
.2 : 3,084,224
.2 : 3,084,225
.2 : 3,084,226
.2 : 3,084,227
.2 : 3,086,087
.2 : 3,086,088
100.2 : 3,086,089
.2 : 3,087,026
.2 : 3,091,668
.2 : 3,091,669
.2 : 3,092,692
.2 : 3,093,709
.2 : 3,095,482
.2 : 3,097,267
.2 : 3,098,126
.2 : 3,102,170
.2 : 3,105,880
.2 : 3,106,617
.2 : 3,107,279
.2 : 3,107,280
.2 : 3,109,898
.2 : 3,114,009
.2 : 3,114,010
.2 : 3,114,011
.3 : 3,108,160
.41: 3,073,914
.41: 3,073,915
.4 : 3,075,052
.41: 3,075,053
.41: 3,075,054
.41: 3,077,521
.41: 3,077,522
.4 : 3,081,383
.41: 3,084,228
.41: 3,087,027
.41: 3,088,000
.41: 3,089,922
.4 : 3,094,590
.41: 3,102,171
.41: 3,108,161
.41: 3,115,554
101 : 3,113,186
107 : 3,072,754
: 3,076,861
: 3,095,483
: 3,098,127
: 3,102,172
: 3,104,290
: 3,106,376
110 : 3,093,710
: 3,100,821
111 : 3,082,298
: 3,084,229
: 3,108,162
113 : 3,105,124
114 : 3,111,563
115 : 3,092,693
: 3,112,374
: 3,116,377
.5 : 3,073,916
.5 : 3,079,471
.5 : 3,088,001
.5 : 3,092,694
.5 : 3,095,484
.5 : 3,097,268
.5 : 3,109,072
.5 : 3,112,375
119 : 3,076,062
: 3,079,472
122 : 3,103,559
146 : 3,072,755
: 3,085,134
: 3,098,128
149 : 3,079,473
156 : 3,087,028
: 3,088,002
: 3,091,670
170 : 3,071,655
: 3,089,004
: 3,105,125
: 3,112,376
: 3,116,378
175 : 3,084,230
: 3,084,231
: 3,084,232
: 3,105,881
.1 : 3,093,711
.1 : 3,113,187
.2 : 3,082,299
.2 : 3,098,901
.2 : 3,099,720
.31: 3,083,300
.31: 3,083,270
.3 : 3,105,882
.3 : 3,105,883
188 : 3,114,802

Class 180

1 : 3,073,407
: 3,073,408
: 3,084,756
: 3,086,605
: 3,095,936
: 3,097,717
: 3,097,716
: 3,097,717
2 : 3,095,937
5 : 3,077,238
6.2 : 3,073,409
6.3 : 3,075,598
.3 : 3,114,424
.5 : 3,100,547
.5 : 3,100,548
.5 : 3,111,181
.5 : 3,112,001
7 : 3,078,938
: 3,078,939
: 3,078,940
: 3,082,836
.1 : 3,072,210
.1 : 3,077,239
.1 : 3,081,837
.1 : 3,084,758
.1 : 3,085,646
.1 : 3,086,608
.1 : 3,088,538
.1 : 3,090,460
.1 : 3,092,202
.1 : 3,099,328
.1 : 3,099,329
.1 : 3,099,330
.1 : 3,100,021
.1 : 3,109,507
.1 : 3,114,427
.1 : 3,114,428
89 : 3,075,604
: 3,075,605
: 3,101,809
90 : 3,088,539
.6 : 3,086,609
.6 : 3,108,651

Class 181

.5 : Re.25,401
.5 : 3,071,203
.5 : 3,072,211
.5 : 3,073,406
.5 : 3,075,606
.5 : 3,075,607
.5 : 3,075,608
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.5 : 3,077,944
.5 : 3,078,947
.5 : 3,080,010
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.5 : 3,082,837
.5 : 3,088,540
.5 : 3,088,541
.5 : 3,089,561
.5 : 3,096,846
.5 : 3,100,022
.5 : 3,100,023
.5 : 3,102,604
.5 : 3,105,568
.5 : 3,106,982
.5 : 3,111,186
23 : 3,073,410
: 3,080,011
e : 3,110,356
: 3,112,005
24 : 3,086,610
: 3,108,652
: 3,109,508
27 : 3,095,940
: 3,100,024
29 : 3,082,838
31 : 3,072,212
: 3,074,503
: 3,076,520
: 3,080,012
: 3,080,013
: 3,082,839
: 3,089,562
: 3,090,461
: 3,090,462
: 3,095,059
: 3,097,720
: 3,101,810
: 3,102,605
: 3,104,729
: 3,104,730
: 3,105,569
: 3,108,653
: 3,108,654
: 3,109,509
: 3,112,006
: 3,113,633
: 3,114,429
: 3,115,207
: 3,115,208
: 3,115,947
32 : 3,072,213
: 3,073,411
: 3,074,504
: 3,093,207
: 3,095,941
: 3,095,942
: 3,107,746
: 3,111,187
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33 : 3,073,412
33 : 3,074,505
: 3,077,945
: 3,077,946
: 3,077,947
: 3,078,948
: 3,080,014
: 3,080,937
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: 3,087,565
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: 3,087,574
: 3,087,575
: 3,087,576
: 3,087,577
: 3,087,578
: 3,090,463
: 3,093,208
: 3,094,188
: 3,095,943
: 3,096,847
: 3,103,254
: 3,103,255
: 3,103,987
: 3,104,731
: 3,106,983
: 3,111,188
: 3,112,810
: 3,113,634
: 3,115,948
35 : 3,109,510
36 : 3,092,204
: 3,094,189
: 3,107,747
: 3,110,357
41 : 3,092,205
42 : 3,113,635
43 : 3,113,636
44 : 3,075,609
45 : 3,114,430
48 : 3,072,214
: 3,104,732
: 3,104,733
: 3,104,734
: 3,104,735
50 : 3,114,431
: 3,115,209
52 : 3,077,240
: 3,080,939
: 3,101,811
: 3,111,190
: 3,115,210
53 : 3,086,611
54 : 3,082,840
: 3,082,841
: 3,103,256
56 : 3,085,647
: 3,105,570
: 3,111,191
57 : Re.25,384
: 3,087,579
: 3,090,464
: 3,106,984
58 : 3,074,506
59 : 3,104,736
: 3,105,571
: 3,110,358
: 3,112,007
: 3,112,008
: 3,114,432
61 : 3,080,940
: 3,087,580
: 3,107,748
: 3,109,511
64 : 3,073,413
65 : 3,076,521
: 3,106,985
: 3,111,192
68 : 3,092,206
70 : 3,095,944

Class 182

2 : 3,072,215
: 3,078,949
: 3,082,842
: 3,085,648
: 3,087,581
: 3,097,721
: 3,100,025
: 3,103,257
: 3,108,655
: 3,108,656
3 : 3,098,539
: 3,099,331
12 : 3,095,060
13 : 3,076,522
14 : 3,095,945
: 3,099,332
: 3,112,009
22 : 3,100,552
: 3,111,193
27 : 3,071,204
28 : 3,075,610
33.6 : 3,072,216
43 : 3,095,946
46 : 3,085,649
48 : 3,088,542
52 : 3,090,465
63 : 3,072,217
: 3,085,650
: 3,110,359
82 : 3,082,843
: 3,114,433
84 : 3,113,637
88 : 3,083,784
89 : 3,083,785
90 : 3,099,333
93 : 3,107,749
103 : 3,081,839
: 3,115,211
106 : 3,106,986
: 3,112,010
108 : 3,115,212
113 : 3,084,759
118 : 3,093,209
119 : 3,108,657
120 : 3,078,950
: 3,109,512
: 3,112,811
126 : 3,083,786
: 3,106,987
127 : 3,074,507
129 : 3,074,508
131 : 3,096,848
134 : 3,075,611
: 3,078,951
: 3,111,194
: 3,112,011
139 : 3,095,947
141 : 3,091,305
: 3,095,061
143 : 3,083,787
146 : 3,071,205
147 : 3,101,127
150 : 3,078,952
152 : 3,071,206
: 3,080,941
: 3,098,540
: 3,105,572
155 : 3,110,360
160 : 3,084,760
163 : 3,078,953
: 3,081,840
: 3,103,258
164 : 3,073,414
178 : 3,084,761
181 : 3,080,015
187 : 3,115,213
196 : 3,075,612
: 3,077,241
: 3,078,954
200 : 3,086,612
201 : 3,089,563
202 : 3,090,466
: 3,102,606
205 : 3,083,788
206 : 3,078,955
211 : 3,088,543
212 : 3,083,789
214 : 3,072,218
: 3,100,026
222*: 3,085,651
: 3,101,128
224 : 3,081,841
225 : 3,078,956
226 : 3,078,957
: 3,103,988
228 : 3,085,652
: 3,092,207
: 3,115,214
230 : 3,112,812

Class 184

1 : 3,071,207
: 3,077,242
: 3,098,541
: 3,109,513
.5 : 3,095,062
.5 : 3,112,012
3 : 3,086,613
5 : 3,109,514
6 : 3,075,613
: 3,075,614
: 3,078,958
: 3,083,790
: 3,084,762
: 3,087,582
6 : 3,094,190
: 3,095,063
: 3,095,948
: 3,096,849
: 3,096,850
: 3,096,851
: 3,100,027
: 3,106,262
: 3,111,195
: 3,112,813
7 : 3,071,208
: 3,074,509
: 3,075,615
: 3,076,523
: 3,076,524
: 3,080,016
: 3,082,844
: 3,085,653
: 3,086,614
15 : 3,073,415
18 : 3,112,013
27 : 3,084,763
: 3,091,306
45 : 3,077,948
55 : 3,071,209
: 3,074,510
: 3,076,525
: 3,076,526
: 3,078,959
: 3,085,654
: 3,086,615
: 3,086,616
: 3,113,638
: 3,115,949
: 3,115,950
56 : 3,086,617
81 : 3,078,960
105 : 3,097,722
: 3,101,812
106 : 3,100,028
: 3,101,129
: 3,106,263

Class 185

27 : 3,077,949
37 : 3,112,814
: 3,115,951
38 : 3,073,416
39 : 3,080,942
40 : 3,080,017
: 3,092,208
: 3,113,639

Class 186

1 : 3,074,511
: 3,075,616
: 3,076,527
: 3,076,528
: 3,077,243
: 3,077,950
: 3,083,791
: 3,088,544
: 3,090,467
: 3,094,191
: 3,102,607
: 3,103,989
: 3,109,515

Class 187

5 : 3,085,655
6 : 3,083,785
8.41: 3,084,764
.49: 3,088,546
.49: 3,098,542
.45: 3,106,988
.41: 3,111,196
.54: 3,078,961
.75: 3,080,018
.71: 3,088,547
9 : Re.25,432
: 3,072,219
: 3,077,951
: 3,077,952
: 3,080,019
: 3,080,943
: 3,084,765
: 3,085,656
: 3,086,618
: 3,093,210
: 3,098,543
: 3,107,750
12 : 3,084,766
20 : 3,101,130
28 : 3,094,192
29 : 3,073,417
: 3,078,962
: 3,080,944
: 3,080,945
: 3,080,946
: 3,105,573

Class 187 – Con.

29 : 3,112,815
31 : 3,075,617
32 : 3,075,618
52 : 3,080,947
: 3,082,845
: 3,092,209
61 : 3,088,548
76 : 3,100,029
: 3,109,516
95 : 3,077,953
: 3,083,792
: 3,087,583
: 3,099,334

Class 188

1 : 3,075,619
: 3,077,244
: 3,082,846
: 3,085,657
: 3,085,658
: 3,087,584
: 3,088,549
: 3,089,564
: 3,091,307
: 3,092,210
: 3,096,852
: 3,098,544
: 3,106,989
: 3,113,640
4 : 3,078,963
: 3,086,619
7 : 3,113,641
18 : 3,071,210
: 3,071,211
: 3,096,853
: 3,115,952
19 : 3,103,259
: 3,103,260
24 : 3,114,434
32 : 3,074,512
: 3,110,361
: 3,113,642
42 : 3,077,245
: 3,085,659
: 3,096,854
: 3,097,723
: 3,106,264
52 : 3,088,550
: 3,110,362
59 : 3,092,211
: 3,092,212
62 : 3,093,211
: 3,107,751
: 3,111,197
: 3,114,435
63 : 3,115,215
65.2 : 3,112,816
.2 : 3,115,216
68 : 3,100,030
69 : 3,074,513
: 3,078,964
: 3,093,212
: 3,110,363
70 : 3,088,551
71 : 3,075,620
72 : 3,072,220
: 3,081,842
: 3,088,552
: 3,088,553
: 3,094,193
: 3,094,194
: 3,095,064
: 3,096,855
: 3,102,608
: 3,106,990
: 3,108,658
: 3,111,198
73 : 3,072,221
: 3,077,246
: 3,077,954
: 3,081,843
: 3,088,554
: 3,089,565
: 3,090,468
: 3,095,949
: 3,100,553
: 3,101,813
: 3,103,990
: 3,109,517
: 3,109,518
: 3,110,364
: 3,110,365
: 3,113,643
: 3,114,436
: 3,115,217
: 3,115,953
75 : 3,086,620
: 3,106,265
76 : 3,098,545
77 : 3,103,991
: 3,115,218
78 : 3,080,948
: 3,081,844
: 3,085,660
: 3,089,566
: 3,091,308
: 3,095,950
: 3,096,856
: 3,096,857
: 3,106,266
: 3,106,991
: 3,108,659
: 3,109,519
: 3,111,199
: 3,114,437
: 3,115,219
: 3,115,954
79.5 : 3,074,514
.5 : 3,077,955
.5 : 3,090,469
.5 : 3,095,065
.5 : 3,103,261
.5 : 3,103,992
.5 : 3,111,200
.5 : 3,114,438
.5 : 3,114,439
.5 : 3,115,955
82.2 : 3,094,195
.7 : 3,096,858
.7 : 3,097,724
.7 : 3,100,031
83 : 3,110,366
86 : 3,086,621
87 : 3,081,845
: 3,106,992
: 3,107,752
88 : 3,076,529
: 3,078,965
: 3,078,966
: 3,086,622
: 3,088,555
: 3,088,556
: 3,098,546
: 3,101,131
: 3,105,574
: 3,106,993
: 3,109,520
: 3,111,201
90 : 3,072,222
: 3,091,309
: 3,101,132
: 3,108,660
91 : 3,073,418
94 : 3,081,846
: 3,081,847
: 3,086,623
: 3,097,725
: 3,107,753
: 3,108,661
96 : 3,074,515
: 3,078,967
: 3,085,661
: 3,103,993
: 3,110,367
97 : 3,095,066
: 3,106,267
100 : 3,113,644
106 : 3,084,767
: 3,093,213
: 3,097,726
110 : 3,090,470
111 : 3,077,247
112 : 3,072,223
: 3,073,419
: 3,077,248
: 3,080,949
: 3,109,521
119 : 3,074,516
152 : 3,106,268
: 3,114,440
153 : 3,093,214
161 : 3,100,554
165 : 3,071,212
170 : 3,095,067
: 3,101,133
171 : 3,074,517
: 3,085,662
: 3,095,068
: 3,115,956
181 : 3,076,530
184 : 3,080,020
196 : 3,085,663
: 3,091,310
: 3,091,311
: 3,096,859
: 3,100,032
: 3,112,014
: 3,113,645
: 3,113,646
: 3,115,220
198 : 3,077,956
203 : 3,101,814
205 : 3,076,531
210 : 3,092,213
: 3,094,196
218 : 3,084,768
: 3,092,214
: 3,105,575
: 3,113,647
219.1 : 3,092,215
222.6 : 3,107,754
229.6 : 3,115,221
243 : 3,077,957
: 3,088,557
264 : 3,072,224
: 3,101,815
: 3,103,994

Class 189

1 : 3,084,769
: 3,095,069
: 3,113,648
.5 : 3,074,518
2 : 3,087,585
: 3,088,558
3 : 3,092,216
: 3,096,860
7 : 3,082,847
11 : 3,091,312
: 3,109,522
: 3,109,523
13 : 3,112,015
15 : 3,071,213
: 3,101,816
.5 : 3,092,217
.5 : 3,095,070
19 : 3,100,555
26 : Re. 25,485
: 3,071,214
: 3,101,134
: 3,110,368
28 : 3,081,848
29 : 3,076,532
: 3,093,215
31.5 : 3,089,567
34 : Re. 25,364
: 3,071,215
: 3,071,216
: 3,071,217
: 3,072,225
: 3,072,226
: 3,072,227
: 3,075,621
: 3,076,533
: 3,077,958
: 3,078,968
: 3,080,021
: 3,080,022
: 3,081,849
: 3,081,850
: 3,081,851
: 3,082,848
: 3,082,849
: 3,082,850
: 3,083,793
: 3,083,794
: 3,083,795
: 3,084,770
: 3,085,664
: 3,086,624
: 3,086,625
: 3,087,586
: 3,092,218
: 3,092,219
: 3,092,220
: 3,093,216
: 3,093,217
: 3,093,218
: 3,093,219
: 3,094,197
: 3,094,198
: 3,096,861
: 3,097,727
: 3,100,556
: 3,101,817
: 3,102,609
: 3,102,610
: 3,102,611
: 3,102,612
: 3,102,613
: 3,107,755
: 3,108,662
: 3,110,369
: 3,110,370
: 3,110,371
: 3,111,202
: 3,111,203
: 3,111,204
: 3,111,205
: 3,115,222
35 : 3,076,534
: 3,077,959
: 3,090,471
: 3,098,547
: 3,100,557
: 3,101,818
: 3,102,614
36 : 3,071,218
36 : 3,072,228
: 3,074,519
: 3,074,520
: 3,075,622
: 3,077,960
: 3,077,961
: 3,083,796
: 3,088,797
: 3,089,626
: 3,089,559
: 3,089,560
: 3,092,221
: 3,093,220
: 3,093,221
: 3,093,222
: 3,093,223
: 3,095,951
: 3,096,862
: 3,097,728
: 3,097,729
: 3,097,730
: 3,100,033
: 3,102,615
: 3,102,616
: 3,104,737
: 3,106,269
: 3,106,994
: 3,110,372
: 3,110,375
: 3,111,206
: 3,112,016
: 3,107,756
.5 : 3,107,757
.5 : 3,115,957
37 : 3,070,845
: 3,078,969
: 3,078,970
: 3,078,971
: 3,088,561
: 3,088,562
: 3,091,313
: 3,099,335
: 3,101,819
: 3,103,262
: 3,106,995
: 3,108,663
: 3,111,207
38 : 3,086,627
39 : 3,115,958
41 : 3,077,249
: 3,092,222
42 : 3,106,270
: 3,108,664
43 : 3,099,336
: 3,083,798
46 : 3,085,665
: 3,086,628
: 3,094,199
: 3,095,952
: 3,103,263
: 3,103,995
: 3,103,996
: 3,104,738
: 3,107,758
: 3,107,759
: 3,111,208
: 3,112,817
: 3,113,649
49 : 3,089,568
50 : 3,094,200
62 : 3,115,223
63 : 3,107,760
64 : 3,076,535
: 3,080,023
: 3,111,209
65 : 3,072,229
: 3,077,250
: 3,080,950
: 3,083,799
: 3,101,820
: 3,105,576
66 : 3,093,224
: 3,101,135
67 : 3,071,219
71 : 3,115,224
75 : 3,077,962
: 3,081,852
: 3,099,337
76 : 3,101,136
82 : 3,072,230
: 3,086,629
: 3,095,953
: 3,103,264
: 3,108,665
: 3,110,374
84 : 3,106,271
85 : 3,073,420
: 3,074,521
: 3,102,617
86 : 3,085,666
88 : 3,073,421
: 3,074,522
: 3,076,536
: 3,077,251
88 : 3,081,853
: 3,089,569
: 3,089,570
: 3,094,201
: 3,103,265
: 3,104,739
: 3,108,666
: 3,115,225
90 : 3,080,024
92 : 3,115,226

Class 190

1 : 3,092,223
8 : 3,092,224
11 : 3,110,375
: 3,112,017
28 : 3,112,018
41 : 3,084,771
43 : 3,104,740
: 3,115,959
48 : 3,080,951
: 3,086,630
: 3,092,225
: 3,103,266
49 : 3,098,568
50 : 3,071,220
51 : 3,110,376
57 : 3,110,377
: 3,115,227
: 3,115,228
: 3,115,229
58 : 3,103,267
: 3,103,268
: 3,107,761
: 3,113,650
: 3,113,651

Class 191

12 : 3,085,135
23 : 3,090,840
32 : 3,071,656
49 : 3,089,005
55 : 3,106,272
69 : 3,114,441

Class 192

.02: 3,072,231
.052 3,073,422
.02: 3,077,963
.092 3,080,025
.02: 3,080,952
.084 3,083,800
.098 3,088,564
.094 3,099,338
.096 3,101,821
.02: 3,105,577
.084 3,105,578
1 : 3,101,822
3 : 3,082,851
: 3,101,823
: 3,104,741
: 3,108,667
: 3,110,378
: 3,111,210
.2 : 3,088,563
.2 : 3,109,524
.5 : 3,083,801
.5 : 3,084,772
.5 : 3,084,773
.5 : 3,089,571
.5 : 3,089,572
.5 : 3,094,202
.5 : 3,104,742
.5 : 3,106,996
4 : 3,071,221
: 3,073,423
: 3,093,225
: 3,101,137
: 3,101,138
: 3,103,997
: 3,106,273
: 3,106,997
: 3,107,762
: 3,108,668
: 3,109,525
98 : 3,112,818
6 : 3,110,379
: 3,113,652
: 3,114,442
8 : 3,080,953
: 3,101,824
: 3,102,618
: 3,102,619
: 3,108,669
: 3,110,380
: 3,110,381
12 : 3,071,222
: 3,077,964
: 3,090,472
13 : 3,080,026
: 3,090,473
13 : 3,097,731
: 3,105,579
14 : 3,113,653
18 : 3,071,223
: 3,077,252
: 3,077,965
: 3,089,573
: 3,101,825
21.5 : 3,074,523
.5 : 3,086,631
22 : 3,092,226
23 : 3,101,826
: 3,101,827
: 3,106,998
26 : 3,080,027
: 3,087,587
27 : 3,108,670
28 : 3,103,269
29 : 3,102,620
30.5 : 3,072,232
.5 : 3,100,558
.5 : 3,102,621
.5 : 3,104,743
.5 : 3,106,274
35 : 3,078,972
37 : 3,099,339
41 : 3,092,227
: 3,107,763
: 3,107,764
43.2 : 3,078,973
.2 : 3,100,559
44 : 3,084,774
45 : 3,072,233
: 3,086,632
: 3,087,588
: 3,087,589
: 3,087,590
: 3,087,591
: 3,095,954
: 3,103,998
: 3,104,744
.1 : 3,075,623
.1 : 3,078,974
.1 : 3,083,802
48 : 3,072,234
: 3,088,565
53 : 3,089,574
: 3,071,224
: 3,078,975
: 3,080,028
: 3,086,633
: 3,089,575
: 3,110,382
56 : 3,080,029
: 3,095,955
: 3,103,999
: 3,107,765
: 3,115,230
58 : 3,071,225
: 3,088,566
: 3,083,803
60 : 3,078,976
61 : 3,085,667
66 : 3,093,226
67 : 3,081,854
69 : 3,095,071
81 : 3,104,745
82 : 3,095,072
: 3,105,580
84 : 3,071,226
: 3,088,567
: 3,093,227
85 : 3,077,253
: 3,090,474
: 3,092,228
: 3,094,203
: 3,104,000
: 3,115,231
86 : 3,098,549
87 : 3,098,550
: 3,106,999
: 3,075,624
89 : 3,093,228
: 3,107,766
: 3,112,819
90 : 3,096,863
91 : 3,083,804
93 : 3,081,855
98 : 3,105,581
99 : 3,072,235
: 3,090,475
: 3,099,340
: 3,106,275
: 3,112,820
101 : 3,071,227
: 3,080,030
: 3,080,031
103 : 3,074,524
: 3,092,229
: 3,102,622
104 : 3,081,856
: 3,091,314
105 : 3,084,775
: 3,091,315
105 : 3,092,230
107 : 3,092,231
109 : 3,084,776
: 3,106,276
110 : 3,071,228
111 : 3,086,634
113 : 3,073,424
: 3,101,139
: 3,104,746
: 3,105,582
125 : 3,077,966
: 3,109,526
: 3,109,527
127 : 3,071,229
: 3,074,525
130 : 3,077,967
131 : 3,103,270
139 : 3,101,828
142 : 3,072,236
144 : 3,084,777
148 : 3,077,968
149 : 3,085,668
150 : 3,091,316
: 3,111,211

Class 193

2 : 3,084,778
: 3,085,669
7 : 3,115,960
12 : 3,101,829
21 : 3,080,032
: 3,104,747
23 : 3,071,230
: 3,080,033
25 : 3,092,232
: 3,102,623
: 3,106,277
: 3,107,767
27 : 3,083,805
29 : 3,074,526
31 : 3,098,551
32 : 3,074,527
33 : 3,095,073
: 3,104,001
: 3,109,528
: 3,110,384
: 3,114,446
10 : 3,071,231
: 3,080,036
: 3,082,852
: 3,092,235
: 3,095,958
: 3,103,271
: 3,104,749
: 3,113,656
15 : 3,082,853
48 : 3,100,035
57 : 3,108,672
65 : 3,076,537
65 : 3,113,657
: 3,115,962
71 : 3,101,140
72 : 3,102,624
80 : 3,077,254
84 : 3,076,538
: 3,110,385
85 : 3,080,037
: 3,087,592
91 : 3,088,570
92 : 3,077,970
: 3,088,571
: 3,106,278
102 : 3,081,858
: 3,096,864

Class 195

2 : 3,086,915
: 3,088,879
: 3,098,014
3 : 3,105,014
6 : 3,076,749
: 3,103,469
16 : 3,112,248
28 : 3,095,357
: 3,111,459
29 : 3,086,916
: 3,099,604
30 : 3,074,854
: 3,076,750
: 3,080,296
: 3,115,442
: 3,116,215
31 : 3,079,304
: 3,100,740
: 3,108,928
36 : 3,078,217
: 3,079,305
: 3,079,306
: 3,079,307
: 3,082,155
: 3,083,144
: 3,088,880
: 3,093,547
.5 : 3,105,015
: 3,108,047
: 3,109,779
: 3,116,216
: 3,116,217
: 3,116,218
37 : 3,093,548
: 3,096,252
51 : 3,071,516
: 3,080,298
: 3,084,106
: 3,086,919
: 3,086,920
: 3,087,864
: 3,090,729
: 3,091,575
: 3,091,576
: 3,094,465
: 3,098,796
: 3,102,080
: 3,112,249
: 3,115,443
: 3,115,444
: 3,116,219
: 3,116,220
62 : 3,096,253
: 3,097,145
63 : 3,095,358
66 : 3,075,886
: 3,081,236
: 3,098,015
: 3,101,302
: 3,104,206
: 3,107,203
68 : 3,102,081
70 : 3,085,945
: 3,086,921
: 3,104,207
: 3,116,221
71 : 3,071,517
78 : 3,071,518
: 3,085,946
: 3,095,359
: 3,097,146
80 : 3,074,855
: 3,085,049
: 3,089,827
: 3,090,730
: 3,092,556
: 3,093,549
: 3,093,550
: 3,104,208
: 3,105,016
: 3,113,077
80 : 3,116,222
81 : 3,095,360
: 3,110,651
82 : 3,105,799
96 : 3,071,519
: 3,073,749
: 3,086,922
: 3,087,865
: 3,093,551
: 3,113,078
101 : 3,072,538
: 3,075,887
: 3,109,780
102 : 3,098,016
103.5 : 3,072,539
.5 : 3,083,145
.5 : 3,089,828
.5 : 3,094,466
.5 : 3,096,254
.5 : 3,099,605
.5 : 3,099,606
.5 : 3,104,209
.5 : 3,107,204
.5 : 3,116,223
113 : 3,080,299
114 : 3,093,552
127 : 3,075,888
129 : 3,088,881
131 : 3,098,797
139 : 3,073,750
: 3,102,082
142 : 3,114,677

Class 196

14.5 : 3,074,856
46 : 3,108,048
114 : 3,080,300
120 : 3,109,781

Class 197

1 : 3,072,238
: 3,100,036
: 3,108,673
.5 : 3,112,821
2 : 3,095,075
6.7 : 3,083,807
.7 : 3,091,318
.7 : 3,091,319
7 : 3,073,427
13 : 3,091,320
16 : 3,077,971
: 3,085,670
: 3,086,635
: 3,086,918
17 : 3,077,255
: 3,103,272
18 : 3,077,256
19 : 3,082,854
27 : 3,073,428
: 3,108,674
36 : 3,101,141
63 : 3,071,232
: 3,080,038
74 : 3,071,233
84 : 3,095,076
: 3,096,865
85 : 3,093,230
97 : 3,095,077
107 : 3,107,771
114 : 3,075,626
123 : 3,095,959
127 : 3,099,343
: 3,100,037
: 3,107,772
: 3,115,963
138 : 3,095,078
150 : 3,099,344
151 : 3,075,627
: 3,094,204
156 : 3,104,750
157 : 3,109,560
172 : 3,080,954
: 3,092,236
: 3,108,675
: 3,110,386
: 3,114,447
175 : 3,087,593
: 3,093,231
: 3,112,020
177 : 3,087,594
: 3,104,002
181 : 3,096,867
183 : 3,095,079
189 : 3,091,321

Class 198

1 : 3,093,232
: 3,104,003
: 3,104,751
7 : 3,102,625
9 : 3,096,868
9 : 3,101,142
10 : 3,095,080
16 : 3,071,234
: 3,074,529
: 3,107,773
19 : 3,080,039
: 3,082,855
: 3,088,572
: 3,092,237
: 3,108,676
20 : 3,073,429
: 3,075,628
: 3,083,808
: 3,085,671
: 3,087,595
: 3,088,573
: 3,093,233
: 3,104,004
21 : 3,088,574
: 3,100,561
: 3,104,005
: 3,108,677
22 : 3,104,752
23 : 3,080,040
24 : 3,071,235
: 3,072,239
: 3,088,575
: 3,095,081
: 3,101,143
: 3,112,021
: 3,115,964
25 : 3,083,809
: 3,088,576
: 3,102,626
: 3,106,279
: 3,108,678
: 3,108,679
: 3,110,387
: 3,113,659
26 : 3,086,636
: 3,105,584
27 : 3,081,859
: 3,081,860
: 3,084,779
28 : 3,073,430
29 : 3,086,637
: 3,089,576
: 3,102,627
30 : 3,072,240
: 3,083,810
: 3,095,082
: 3,095,960
: 3,100,038
: 3,104,753
: 3,106,280
: 3,109,529
31 : 3,077,257
: 3,087,596
: 3,089,577
: 3,102,628
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: 3,108,680
: 3,113,660
32 : 3,071,236
: 3,087,597
: 3,088,577
: 3,107,774
: 3,112,022
33 : 3,074,530
: 3,074,531
: 3,075,629
: 3,080,041
: 3,080,955
: 3,080,956
: 3,080,957
: 3,082,856
: 3,084,780
: 3,084,781
: 3,084,782
: 3,085,672
: 3,086,638
: 3,086,639
: 3,086,640
: 3,088,578
: 3,090,476
: 3,091,323
: 3,096,869
: 3,096,870
: 3,097,732
: 3,097,733
: 3,098,553
: 3,098,554
: 3,100,039
: 3,100,562
: 3,101,831
: 3,101,832
: 3,101,833
: 3,103,273
: 3,105,585
: 3,106,281
: 3,109,530
33 : 3,114,448
: 3,115,232
: 3,115,233
: 3,115,234
: 3,115,235
34 : 3,074,532
: 3,074,533
: 3,080,042
: 3,081,863
: 3,093,234
: 3,096,871
: 3,102,629
: 3,107,775
35 : 3,080,043
: 3,084,783
37 : 3,104,007
38 : 3,084,784
: 3,087,598
: 3,091,324
: 3,100,040
40 : 3,081,861
: 3,104,754
41 : 3,104,008
: 3,107,001
: 3,109,532
43 : 3,110,388
47 : 3,089,578
52 : 3,085,673
53 : 3,083,811
: 3,097,734
54 : 3,115,965
57 : 3,082,857
59 : 3,106,282
64 : 3,077,972
: 3,080,960
: 3,085,674
: 3,094,205
: 3,105,586
66 : 3,074,534
76 : 3,075,630
78 : 3,102,630
79 : 3,105,587
82 : 3,078,979
84 : 3,101,475
89 : 3,107,776
91 : 3,071,237
95 : 3,107,002
103 : 3,084,785
: 3,085,861
: 3,096,875
: 3,110,390
: 3,115,966
104 : 3,083,812
105 : 3,080,958
106 : 3,112,023
107 : 3,080,044
: 3,092,238
: 3,080,959
: 3,082,858
: 3,103,274
110 : 3,110,391
113 : 3,085,675
.120.5 : 3,074,535
.5 : 3,092,239
.5 : 3,096,872
122 : 3,081,862
: 3,098,555
124 : 3,100,563
126 : 3,072,241
: 3,113,661
127 : 3,087,599
: 3,112,024
: 3,115,238
128 : 3,087,600
: 3,090,477
: 3,095,961
: 3,095,962
: 3,110,392
: 3,114,450
129 : 3,093,235
131 : 3,083,813
: 3,086,641
: 3,090,478
: 3,101,834
: 3,106,283
: 3,111,215
134 : 3,088,579
135 : 3,082,859
138 : 3,084,786
145 : 3,083,814
: 3,099,345
: 3,112,822
148 : 3,095,963
158 : 3,076,539
: 3,100,041
: 3,110,393
160 : 3,101,835
162 : 3,101,836
: 3,108,682
165 : 3,100,564
171 : 3,097,735
172 : 3,071,238
174 : 3,091,325
: 3,099,346
: 3,111,216
: 3,111,217
: 3,112,025
175 : 3,089,579
176 : 3,103,275
177 : 3,097,736
: 3,102,631
178 : 3,102,632
179 : 3,077,973
180 : 3,091,326
181 : 3,109,533
182 : 3,100,565
184 : 3,088,580
: 3,095,964
185 : 3,093,236
: 3,096,873
: 3,104,755
188 : 3,071,239
189 : 3,090,479
: 3,094,206
: 3,098,556
: 3,107,777
192 : 3,072,242
: 3,075,631
: 3,075,632
: 3,077,258
: 3,077,974
: 3,078,980
: 3,078,981
: 3,078,982
: 3,082,860
: 3,083,815
: 3,087,601
: 3,089,580
: 3,092,240
: 3,096,874
: 3,097,737
: 3,098,557
: 3,100,042
: 3,101,144
: 3,105,588
: 3,106,284
: 3,106,285
: 3,106,286
: 3,106,287
: 3,107,003
: 3,109,534
: 3,110,394
195 : 3,082,861
: 3,096,875
198 : 3,085,676
: 3,099,347
199 : 3,100,566
201 : 3,089,581
: 3,107,778
202 : 3,075,633
: 3,088,581
: 3,098,558
: 3,105,589
203 : 3,076,540
: 3,101,165
204 : 3,074,536
: 3,104,009
: 3,105,590
: 3,107,004
208 : 3,078,983
: 3,113,662
209 : 3,073,431
: 3,090,480
: 3,094,207
210 : 3,075,634
: 3,088,582
: 3,104,756
211 : 3,085,677
: 3,109,535
212 : 3,071,240
213 : 3,072,243
: 3,077,975
: 3,080,045
: 3,083,816
: 3,092,241
: 3,104,757
: 3,107,005
: 3,107,779
218 : 3,077,259
: 3,086,642
219 : 3,075,635
: 3,084,787
220 : 3,080,961
: 3,087,602
: 3,087,603
: 3,089,582
: 3,097,738
: 3,099,349
: 3,112,823
: 3,115,239
221 : 3,086,643
221 : 3,090,481
224 : 3,100,043
226 : 3,103,276
229 : 3,101,146
230 : 3,101,837

Class 199

23 : 3,074,537
32 : 3,101,838
39 : 3,080,046
44 : 3,110,395
45 : 3,086,644
52 : 3,077,970
: 3,093,237
56 : 3,077,260
61 : 3,071,241
63 : 3,071,242
77 : 3,110,396
79 : 3,109,536

Class 200

1 : 3,071,657
: 3,076,063
: 3,078,353
2 : 3,083,271
: 3,103,560
4 : 3,073,917
5 : 3,071,658
: 3,071,659
: 3,080,457
: 3,086,090
: 3,089,923
: 3,089,924
: 3,091,671
: 3,094,591
: 3,098,902
: 3,100,822
: 3,106,618
: 3,115,555
6 : 3,073,918
: 3,076,874
: 3,078,354
: 3,093,712
: 3,094,592
: 3,114,012
11 : 3,071,660
: 3,072,756
: 3,086,091
: 3,090,841
: 3,098,129
: 3,098,130
: 3,102,173
: 3,110,774
: 3,112,377
14 : 3,093,713
16 : 3,072,757
: 3,097,269
: 3,106,619
: 3,072,758
: 3,076,064
: 3,076,085
: 3,089,925
24 : 3,078,355
: 3,078,356
: 3,110,775
: 3,078,357
28 : 3,076,875
30 : 3,090,842
: 3,104,291
: 3,114,803
: 3,116,379
31 : 3,091,672
: 3,096,405
33 : 3,073,919
: 3,088,003
: 3,102,174
: 3,112,378
34 : 3,080,458
: 3,101,396
35 : 3,075,055
: 3,095,485
37 : 3,071,661
: 3,076,066
38 : 3,075,056
: 3,078,358
: 3,081,384
: 3,082,301
: 3,083,272
: 3,083,273
: 3,085,136
: 3,089,926
: 3,090,843
: 3,091,673
: 3,094,593
: 3,096,406
: 3,096,407
: 3,096,408
: 3,097,270
: 3,098,131
: 3,106,620
: 3,107,281
: 3,109,073
38 : 3,109,074
: 3,110,776
: 3,110,777
: 3,114,013
39 : 3,100,823
42 : 3,102,932
: 3,109,899
: 3,109,900
: 3,114,014
43 : 3,093,714
44 : 3,076,876
: 3,096,409
46 : 3,090,844
: 3,104,292
: 3,112,379
: 3,115,556
: 3,116,380
47 : 3,087,029
: 3,097,271
: 3,100,824
48 : 3,071,662
: 3,079,474
: 3,089,006
: 3,089,927
: 3,099,721
50 : 3,080,459
: 3,086,092
: 3,088,004
: 3,089,928
: 3,098,132
: 3,110,778
: 3,110,779
: 3,112,380
51 : 3,079,475
: 3,092,695
: 3,104,293
.03: 3,082,302
.09: 3,083,274
.07: 3,098,133
.12: 3,077,523
52 : 3,109,075
56 : 3,088,005
61.06: 3,091,674
.05: 3,102,175
.06: 3,115,557
.18: 3,090,845
.18: 3,092,696
.24: 3,072,759
.27: 3,073,920
.24: 3,096,410
.27: 3,114,015
.34: 3,073,921
.3 : 3,076,067
.3 : 3,079,476
.45: 3,072,760
.48: 3,073,922
.41: 3,076,069
.45: 3,083,276
.48: 3,089,007
.45: 3,089,929
.49: 3,097,272
.41: 3,099,722
.46: 3,108,163
.41: 3,111,564
.47: 3,114,804
.52: 3,071,663
.5 : 3,083,275
.52: 3,084,233
.53: 3,092,697
.53: 3,096,411
.5 : 3,110,780
.55: 3,112,381
.53: 3,113,188
.58: 3,115,558
.6 : 3,076,068
.62: 3,091,675
.62: 3,102,176
.89: 3,103,561
.89: 3,105,884
.89: 3,115,559
67 : 3,072,761
: 3,073,923
: 3,076,070
: 3,076,071
: 3,081,385
: 3,082,303
: 3,090,846
: 3,092,698
: 3,093,715
: 3,094,594
: 3,097,273
: 3,097,274
: 3,098,903
: 3,098,904
: 3,098,905
: 3,099,723
: 3,102,177
: 3,105,885
: 3,105,886
: 3,105,887
: 3,106,621
: 3,106,622
: 3,109,901
: 3,110,781

Class 200 – Con.
67 : 3,111,565
: 3,114,016
: 3,114,805
68 : 3,090,847
78 : 3,097,275
: 3,098,134
: 3,110,782
80 : 3,094,595
: 3,098,906
: 3,104,294
: 3,114,017
81.5 : 3,105,888
.6 : 3,099,724
.9 : 3,113,189
82 : Re.25,498
: 3,073,924
: 3,075,057
: 3,077,524
: 3,083,277
: 3,088,006
: 3,089,008
: 3,105,126
: 3,109,076
: 3,110,783
: 3,112,382
: 3,116,381
83 : 3,072,762
: 3,089,009
: 3,090,848
: 3,091,676
: 3,093,716
: 3,097,276
: 3,105,127
: 3,106,623
: 3,109,902
: 3,109,908
: 3,110,784
: 3,113,190
: 3,114,806
: 3,116,382
84 : 3,090,849
: 3,116,383
85 : 3,086,093
86.5 : 3,083,278
87 : Re.25,351
: 3,076,072
: 3,076,073
: 3,076,877
: 3,083,279
: 3,086,094
: 3,086,095
: 3,087,030
: 3,088,007
: 3,089,010
: 3,092,699
: 3,092,700
: 3,092,701
: 3,096,412
: 3,098,135
: 3,098,907
: 3,098,908
: 3,099,725
: 3,099,726
: 3,099,727
: 3,103,562
: 3,104,295
: 3,105,128
: 3,109,077
: 3,109,903
: 3,109,904
: 3,109,905
: 3,109,906
: 3,110,785
: 3,114,018
: 3,114,019
: 3,114,020
: 3,114,807
: 3,114,808
: 3,114,809
: 3,115,560
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88 : 3,073,925
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: 3,110,786
89 : 3,102,933
: 3,114,021
90 : 3,084,234
: 3,115,562
91 : 3,084,235
92 : 3,072,763
92 : 3,079,477
: 3,089,931
: 3,105,129
: 3,113,191
93 : 3,076,878
: 3,100,825
97 : 3,071,664
: 3,106,624
: 3,114,810
98 : 3,076,074
: 3,098,909
: 3,103,564
: 3,106,625
102 : 3,075,059
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: 3,102,934
103 : 3,078,359
: 3,081,387
: 3,091,677
104 : 3,076,075
: 3,076,880
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: 3,080,460
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: 3,089,011
: 3,092,702
: 3,094,596
: 3,099,728
: 3,099,729
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105 : 3,073,928
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107 : 3,080,461
: 3,098,912
109 : 3,072,765
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111 : 3,088,011
112 : 3,085,137
: 3,090,850
: 3,114,811
: 3,116,384
113 : 3,089,932
: 3,090,851
: 3,096,414
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.5 : 3,098,137
.5 : 3,105,889
114 : 3,076,076
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115 : 3,100,246
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.5 : 3,110,788
.5 : 3,116,386
116 : 3,089,933
: 3,104,297
: 3,108,164
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117 : 3,076,078
118 : 3,076,079
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120 : 3,080,463
: 3,102,178
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121 : 3,108,165
: 3,113,193
122 : 3,071,665
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123 : 3,089,012
124 : 3,096,415
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129 : 3,101,398
130 : 3,111,568
131 : 3,089,013
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132 : 3,094,600
135 : 3,116,390
136.5 : 3,083,283
137 : 3,079,480
: 3,098,140
138 : 3,080,465
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: 3,114,812
140 : 3,073,930
: 3,082,306
: 3,089,014
: 3,095,487
: 3,096,419
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144 : 3,071,666
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145 : 3,071,668
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: 3,093,717
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146 : 3,072,766
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: 3,098,915
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147 : 3,082,308
: 3,090,854
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148 : 3,071,671
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: 3,073,931
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: 3,075,060
: 3,077,526
: 3,087,035
: 3,088,013
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150 : 3,071,672
: 3,076,080
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152 : 3,071,673
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152 : 3,089,015
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153 : 3,076,883
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: 3,084,238
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: 3,095,489
: 3,097,281
: 3,104,298
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155 : 3,089,938
156 : 3,073,933
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157 : 3,072,768
158 : 3,102,938
159 : 3,073,934
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: 3,098,141
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160 : 3,072,769
: 3,073,935
161 : 3,104,301
163 : 3,103,569
164 : 3,086,099
: 3,114,817
166 : 3,085,139
: 3,087,038
: 3,087,039
: 3,096,421
: 3,096,422
: 3,099,734
: 3,099,735
: 3,102,939
: 3,104,302
: 3,106,628
: 3,113,196
: 3,114,818
167 : 3,076,081
: 3,077,527
: 3,093,718
: 3,113,197
168 : 3,071,674
: 3,073,936
: 3,075,061
: 3,085,140
: 3,090,855
: 3,091,679
: 3,096,423
: 3,098,142
: 3,101,399
: 3,105,132
: 3,114,024
172 : 3,075,062
: 3,081,390
: 3,099,736
: 3,103,570

Class 202

1 : Re.25,469
9 : 3,076,751
: 3,085,947
19 : 3,090,731
22 : 3,075,889
: 3,094,467
26 : 3,073,751
: 3,077,439
31 : 3,086,923
: 3,101,303
39.5 : 3,075,890
.5 : 3,083,146
.5 : 3,089,829
.5 : 3,098,017
.5 : 3,101,304
.5 : 3,105,017
.5 : 3,105,018
.5 : 3,113,079
.5 : 3,114,678
.5 : 3,116,224
40 : 3,111,460
42 : 3,073,752
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43 : 3,093,553
48 : 3,084,107
: 3,087,867
51 : 3,073,754
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52 : 3,077,441
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: 3,102,083
52 : 3,111,461
53 : 3,105,020
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: 3,111,462
57 : 3,073,755
: 3,084,109
64 : 3,092,557
: 3,099,607
66 : 3,080,302
67 : 3,114,681
68 : Re.25,393
70 : 3,084,110
: 3,113,909
75 : 3,109,782
93 : 3,098,799
105 : 3,073,756
114 : 3,108,930
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139 : 3,102,846
141 : 3,072,540
153 : 3,080,303
158 : 3,083,148
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: 3,115,445
170 : 3,085,948
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173 : 3,096,256
188 : 3,075,891
189 : 3,091,577
190 : 3,103,471
197 : 3,108,049
205 : 3,088,882
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234 : 3,104,210
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236 : 3,090,732
237 : 3,105,021

Class 204

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.5 : 3,081,237
.5 : 3,086,925
.5 : 3,086,926
.5 : 3,114,682
2 : 3,087,869
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4 : 3,092,558
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15 : 3,073,759
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46 : 3,104,212
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61 : 3,078,218
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62 : 3,114,684
64 : 3,071,523
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67 : 3,103,472
68 : 3,072,544
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71 : 3,087,873
72 : 3,086,928
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96 : 3,073,763
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124 : 3,074,861
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128 : 3,102,085
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131 : 3,084,113
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141 : 3,072,546
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164 : 3,099,614
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169 : 3,081,245
171 : 3,073,769
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196 : 3,071,531
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: 3,108,055
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: 3,110,659
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197 : 3,074,876
202 : 3,094,475
206 : 3,113,094
207 : 3,073,773
213 : 3,096,270
216 : 3,094,476
217 : 3,081,253
: 3,102,090
: 3,103,482
: 3,108,941
224 : 3,086,936
: 3,115,454
225 : 3,080,310
: 3,082,164
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228 : 3,111,479
229 : 3,095,365
231 : 3,072,557
237 : 3,076,754
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240 : 3,092,566
242 : 3,103,483
243 : 3,071,532
: 3,090,744
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244 : 3,081,254
245 : 3,098,028
246 : 3,079,324
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247 : 3,085,967
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258 : 3,116,227
266 : 3,116,228
267 : 3,096,271
268 : 3,113,918
279 : 3,088,906
280 : 3,072,558
290 : 3,096,272
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294 : 3,107,212
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297 : 3,108,058
298 : 3,071,533
300 : 3,094,477
301 : 3,073,774
: 3,085,970
: 3,091,583
302 : 3,073,775
: 3,073,776
312 : 3,090,745
328 : 3,079,325
: 3,113,919

Class 205

1 : 3,114,451
2 : 3,083,817
3 : 3,075,636
: 3,107,006
4 : 3,095,083
: 3,096,876
: 3,112,026
16 : 3,080,962
21 : 3,075,637
: 3,111,218
24 : 3,078,984
: 3,081,864
: 3,087,604

Class 206

.4 : 3,102,633
.5 : 3,092,242
.5 : 3,115,967
.6 : 3,104,758
.84: 3,071,243
.82: 3,073,432
.84: 3,075,638
.84: 3,080,963
.82: 3,083,818
.83: 3,095,084
.82: 3,100,567
.81: 3,114,452
1 : 3,088,583
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: 3,091,327
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.7 : 3,077,977
.8 : 3,089,584
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4 : 3,081,865
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7 : 3,074,538
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9 : 3,104,010
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13 : 3,092,243
15.1 : 3,077,978
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16 : 3,082,862
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19 : 3,113,664
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.5 : 3,110,397
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20 : 3,080,047
29 : 3,081,866
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37 : 3,109,538
38 : 3,092,244
41 : 3,081,867
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42 : 3,073,433
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43 : 3,074,540
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44 : 3,072,246
45 : 3,110,398
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.19: 3,088,585
.19: 3,093,240
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.34: 3,082,865
.33: 3,086,646
.33: 3,087,605
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.33: 3,104,011
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.33: 3,114,453
46 : 3,073,435
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: 3,083,822
: 3,083,823
: 3,084,792
: 3,086,647
: 3,087,609
: 3,088,587
: 3,091,329
: 3,097,739
: 3,102,634
: 3,105,592
: 3,107,782
: 3,108,687
56 : 3,114,455
: 3,115,244
: 3,115,245
: 3,115,968
57 : 3,089,586
: 3,090,483
: 3,095,087
: 3,100,569
58 : 3,082,870
59 : 3,078,987
: 3,086,648
: 3,089,587
: 3,089,588
: 3,092,250
: 3,101,845
: 3,101,846
: 3,113,670
: 3,114,456
: 3,115,246
: 3,115,969
60 : 3,073,439
: 3,086,649
: 3,091,330
: 3,100,046
: 3,113,671
62 : 3,077,263
: 3,081,870
: 3,091,331
: 3,094,208
: 3,095,970
: 3,095,971
: 3,102,635
: 3,107,783
: 3,108,688
: 3,109,539
63 : 3,100,047
.2 : 3,072,249
.2 : 3,084,793
.2 : 3,092,251
.2 : 3,092,252
.2 : 3,095,088
.2 : 3,095,972
.2 : 3,107,784
.2 : 3,107,785
.2 : 3,107,786
.2 : 3,112,031
.2 : 3,113,672
.3 : 3,112,825
.5 : 3,094,209
65 : 3,072,250
: 3,073,440
: 3,077,982
: 3,078,988
: 3,078,989
: 3,078,990
: 3,080,050
: 3,080,965
: 3,080,966
: 3,081,871
: 3,083,824
: 3,083,825
: 3,085,682
: 3,085,683
: 3,086,650
: 3,086,651
: 3,087,610
: 3,088,588
: 3,089,589
: 3,093,243
: 3,094,210
: 3,094,211
: 3,096,880
: 3,097,740
: 3,097,741
: 3,101,847
: 3,103,278
: 3,106,289
: 3,108,689
: 3,108,690
: 3,109,540
: 3,111,221
: 3,111,222
: 3,111,223
: 3,112,826
: 3,113,673
: 3,115,247
72 : 3,074,547
: 3,114,457
73 : 3,112,032
78 : 3,076,542
: 3,089,590
: 3,093,244
: 3,099,352
: 3,104,759
: 3,112,827
79 : 3,083,826
: 3,084,794
: 3,099,353
80 : 3,086,652
: 3,090,484
84 : 3,074,548
: 3,076,543
: 3,078,991
: 3,078,992
84 : 3,078,993
: 3,113,674
: 3,113,675
: 3,115,248

Class 207

1 : 3,084,795
2 : 3,113,676
4 : 3,073,441
: 3,095,089
: 3,095,973
10 : 3,072,251
: 3,073,442
: 3,085,684
: 3,088,589
: 3,096,881
: 3,097,742
: 3,110,399
: 3,112,828
: 3,115,249
15 : 3,083,827
: 3,089,591
17 : 3,080,051
: 3,107,787
19 : 3,074,549

Class 208

8 : 3,075,912
: 3,109,803
11 : 3,074,877
: 3,075,913
: 3,093,571
: 3,106,521
: 3,108,059
: 3,112,255
: 3,114,694
14 : 3,095,366
24 : 3,088,907
25 : 3,071,534
: 3,108,942
26 : 3,116,230
27 : 3,089,841
31 : 3,083,154
: 3,105,809
: 3,108,943
33 : 3,093,572
: 3,108,944
: 3,113,920
39 : Re.25,467
: 3,093,573
44 : 3,089,842
: 3,108,060
: 3,116,229
45 : 3,072,559
: 3,079,326
: 3,087,887
46 : 3,114,695
: 3,116,231
48 : 3,090,746
: 3,105,810
55 : 3,071,535
: 3,072,560
57 : 3,092,567
58 : 3,079,327
: 3,089,843
59 : 3,073,777
60 : 3,071,536
: 3,105,811
: 3,108,945
: 3,110,661
61 : 3,098,029
64 : 3,116,232
65 : 3,071,537
: 3,091,584
: 3,111,480
66 : 3,097,155
: 3,114,696
74 : 3,077,447
78 : 3,080,311
79 : 3,111,481
80 : 3,072,561
86 : 3,108,061
88 : 3,081,255
: 3,110,662
89 : 3,085,971
: 3,095,367
: 3,109,804
91 : 3,093,574
: 3,098,814
93 : 3,072,562
: 3,110,663
: 3,115,455
95 : 3,111,482
97 : 3,080,312
98 : 3,085,061
99 : 3,085,972
101 : 3,096,273
108 : 3,080,313
109 : 3,088,908
: 3,099,617
111 : 3,078,221
: 3,098,030

Class 208 – Con.

111 : 3,115,456
112 : 3,099,618
113 : 3,092,568
120 : 3,071,538
: 3,072,563
: 3,082,165
124 : 3,097,156
125 : 3,081,256
127 : 3,074,878
130 : 3,103,485
133 : 3,081,257
135 : 3,071,539
136 : 3,113,921
: 3,114,697
137 : 3,114,698
139 : 3,079,328
: 3,089,844
: 3,089,845
143 : 3,116,233
144 : 3,108,947
153 : 3,113,095
155 : 3,094,478
157 : 3,079,329
159 : 3,114,699
163 : 3,071,540
167 : 3,098,815
176 : 3,074,879
: 3,094,479
179 : 3,109,805
182 : 3,097,157
183 : 3,098,031
188 : 3,071,541
: 3,082,166
189 : 3,108,948
199 : 3,075,914
: 3,091,585
204 : 3,092,569
: 3,097,158
206 : 3,114,700
208 : 3,093,575
: 3,116,234
209 : 3,083,155
210 : 3,072,564
: 3,077,448
: 3,090,747
: 3,091,586
211 : 3,102,853
213 : 3,081,258
: 3,112,256
216 : 3,074,880
: 3,075,915
: 3,076,755
: 3,081,259
: 3,098,032
: 3,112,257
221 : 3,093,576
226 : 3,085,973
227 : 3,098,033
230 : 3,107,213
234 : 3,100,744
236 : 3,072,565
: 3,072,566
240 : 3,090,748
251 : 3,076,756
: 3,077,449
: 3,087,888
: 3,103,486
: 3,105,038
252 : 3,082,167
: 3,095,368
253 : 3,075,916
: 3,098,816
254 : 3,071,542
: 3,094,480
: 3,105,812
: 3,112,258
: 3,114,701
255 : 3,075,917
: 3,094,481
: 3,113,096
: 3,113,097
263 : 3,083,156
264 : 3,078,222
: 3,105,813
: 3,112,259
265 : 3,084,118
274 : 3,108,062
289 : 3,073,778
: 3,080,314
293 : 3,091,587
296 : 3,110,664
304 : 3,072,567
305 : 3,085,974
308 : 3,074,881
: 3,094,482
309 : 3,074,882
310 : 3,094,483
: 3,100,745
313 : 3,085,062
314 : 3,072,568
316 : 3,098,034
321 : 3,084,119
323 : 3,092,570
324 : 3,092,571
341 : 3,096,274
: 3,099,619
: 3,116,235
348 : 3,078,223
: 3,114,702
352 : 3,079,330
354 : 3,108,063

Class 209

1 : 3,076,544
: 3,076,545
2 : 3,076,546
: 3,096,275
: 3,097,159
3 : 3,083,828
: 3,087,611
4 : 3,097,160
: 3,102,854
5 : 3,098,035
: 3,098,369
9 : 3,073,443
10 : 3,111,483
11 : 3,114,703
12 : 3,088,590
: 3,097,161
: 3,099,620
: 3,112,260
20 : 3,076,547
: 3,096,276
: 3,096,277
22 : 3,113,098
26 : 3,116,236
27 : 3,071,246
34 : 3,089,592
35 : 3,110,665
36 : 3,108,949
38 : 3,084,796
42 : 3,103,487
66 : 3,092,572
72 : 3,078,994
: 3,101,147
: 3,101,848
73 : 3,077,983
74 : 3,073,444
: 3,073,445
: 3,075,641
: 3,081,872
: 3,087,612
: 3,087,613
: 3,104,760
: 3,110,400
75 : 3,074,550
: 3,080,052
: 3,085,685
: 3,090,485
: 3,091,332
: 3,094,212
: 3,098,564
: 3,107,788
80 : 3,072,252
81 : 3,073,446
: 3,082,871
: 3,092,253
: 3,106,290
82 : 3,077,264
: 3,080,967
: 3,080,968
: 3,084,797
: 3,085,686
: 3,089,593
: 3,091,333
: 3,100,570
83 : 3,106,291
84 : 3,075,642
87 : 3,104,761
88 : 3,071,247
: 3,076,548
: 3,080,053
: 3,080,054
: 3,088,591
: 3,107,789
90 : 3,080,969
: 3,090,486
: 3,106,292
: 3,115,250
91 : 3,106,293
107 : 3,108,691
110 : 3,105,593
: 3,105,814
: 3,111,224
111.5 : 3,072,253
.5 : 3,074,551
.5 : 3,077,984
.5 : 3,078,995
.5 : 3,089,594
.5 : 3,094,213
.5 : 3,094,214
.5 : 3,095,090
.5 : 3,096,882
.5 : 3,097,743
.5 : 3,097,744
.5 : 3,097,745
111.5 : 3,098,565
.5 : 3,098,566
.5 : 3,107,011
.5 : 3,108,692
.5 : 3,108,693
.5 : 3,108,694
.5 : 3,114,458
.5 : 3,115,970
121 : 3,072,254
: 3,093,245
: 3,095,091
: 3,100,571
: 3,110,401
122 : 3,087,614
124 : 3,077,985
127 : 3,073,447
129 : 3,109,806
134 : 3,087,615
135 : 3,113,099
136 : 3,109,807
139 : 3,090,487
: 3,095,369
: 3,105,039
140 : 3,102,092
144 : 3,077,986
: 3,084,798
: 3,089,595
: 3,098,036
158 : 3,075,643
: 3,077,265
161 : 3,083,829
164 : 3,102,855
166 : 3,072,255
: 3,073,448
: 3,078,996
: 3,078,997
: 3,086,653
: 3,086,654
: 3,094,484
: 3,094,485
: 3,097,162
: 3,098,817
: 3,102,856
: 3,107,214
: 3,107,215
: 3,113,922
: 3,114,704
167 : 3,072,256
: 3,082,872
169 : 3,098,818
172 : 3,101,312
.5 : 3,093,577
211 : 3,091,334
: 3,101,313
221 : 3,087,616
222 : 3,083,830
227 : 3,111,484
238 : 3,080,055
242 : 3,116,237
247 : 3,105,815
: 3,108,064
250 : 3,074,552
: 3,116,238
260 : 3,098,037
263 : 3,080,970
267 : 3,106,522
273 : 3,074,553
: 3,081,873
: 3,083,449
288 : 3,073,449
304 : 3,100,746
308 : 3,102,857
309 : 3,109,808
317 : 3,077,266
319 : 3,087,617
: 3,101,314
325 : 3,106,523
329 : 3,087,618
331 : 3,105,816
332 : 3,101,315
367 : 3,076,549
379 : 3,106,524
388 : 3,113,923
393 : 3,074,554
395 : 3,116,239
403 : 3,092,573
406 : 3,071,248
408 : 3,081,874
409 : 3,100,189
412 : 3,081,875
421 : 3,072,257
455 : 3,073,450
456 : 3,087,619
459 : 3,099,621
466 : 3,080,056
: 3,105,040
: 3,108,950
491 : 3,082,873
503 : 3,075,644

Class 210

6 : 3,103,488
: 3,105,041
17 : 3,112,261
22 : 3,088,909
24 : 3,116,240
30 : 3,078,224
32 : 3,111,485
33 : 3,084,120
35 : 3,101,316
: 3,116,241
46 : 3,087,889
47 : 3,078,225
49 : 3,099,622
52 : 3,101,317
53 : 3,079,331
: 3,087,890
: 3,097,163
57 : 3,106,525
58 : 3,085,975
: 3,110,666
59 : 3,101,318
60 : 3,107,216
62 : 3,080,315
: 3,101,319
: 3,101,320
63 : 3,113,924
70 : 3,116,242
71 : 3,091,335
73 : 3,084,987
: 3,097,164
75 : 3,080,971
77 : 3,077,987
: 3,090,488
78 : 3,116,243
83 : 3,080,057
85 : 3,073,451
86 : 3,077,988
90 : 3,077,267
: 3,080,058
: 3,080,972
: 3,080,973
91 : 3,093,578
: 3,113,100
94 : 3,072,258
: 3,105,042
97 : 3,098,819
98 : 3,077,989
: 3,113,101
106 : 3,100,190
107 : 3,081,876
108 : 3,073,452
: 3,111,486
111 : 3,083,831
: 3,087,620
: 3,091,336
114 : 3,088,592
117 : 3,093,579
126 : 3,080,974
128 : 3,071,249
130 : 3,083,832
: 3,092,574
: 3,109,809
: 3,112,262
133 : 3,095,370
: 3,097,165
134 : 3,080,975
136 : 3,111,487
138 : 3,100,191
: 3,109,810
141 : 3,092,575
144 : 3,080,059
: 3,084,799
: 3,088,593
145 : 3,114,705
146 : 3,092,576
149 : 3,072,259
150 : 3,113,102
151 : 3,101,321
152 : 3,074,555
153 : 3,086,655
159 : 3,093,580
167 : 3,073,453
: 3,099,623
: 3,100,747
169 : 3,078,998
: 3,080,060
: 3,090,489
170 : 3,097,166
172 : 3,108,065
: 3,109,811
173 : 3,091,337
174 : 3,091,338
184 : 3,083,833
188 : 3,106,526
190 : 3,071,250
194 : 3,078,999
195 : 3,074,556
: 3,085,687
197 : 3,075,645
198 : 3,113,103
199 : 3,108,951
207 : 3,104,222
222 : 3,094,486
223 : 3,072,260
: 3,106,527
232 : 3,076,550
: 3,076,551
232 : 3,080,976
: 3,080,977
: 3,084,800
: 3,085,688
: 3,085,689
: 3,091,339
: 3,092,577
: 3,111,488
: 3,111,489
: 3,115,457
237 : 3,088,594
241 : 3,115,458
242 : 3,109,812
243 : 3,073,454
249 : 3,080,061
275 : 3,080,062
: 3,110,667
293 : 3,081,877
299 : 3,074,557
: 3,074,558
: 3,083,834
: 3,090,490
304 : 3,088,595
: 3,092,578
307 : 3,085,690
315 : 3,113,925
321 : 3,074,559
: 3,077,268
: 3,108,066
327 : 3,096,278
330 : 3,074,560
: 3,080,063
331 : 3,107,217
333 : 3,074,561
: 3,082,874
349 : 3,071,251
: 3,091,340
354 : 3,091,340
369 : 3,089,596
370 : 3,092,579
376 : 3,076,552
: 3,087,621
: 3,092,580
380 : 3,108,067
382 : 3,088,596
: 3,102,093
386 : 3,100,192
391 : 3,075,646
: 3,096,279
: 3,113,926
396 : 3,080,064
400 : 3,104,223
401 : 3,075,647
: 3,077,990
: 3,105,817
: 3,116,244
402 : 3,105,043
404 : 3,096,280
409 : 3,087,622
411 : 3,081,878
: 3,112,263
414 : 3,080,065
416 : 3,082,875
444 : 3,093,581
457 : 3,076,553
463 : 3,093,582
477 : 3,079,000
484 : 3,115,459
487 : 3,076,554
: 3,093,583
: 3,096,281
492 : 3,079,001
493 : 3,076,555
: 3,086,656
: 3,087,623
: 3,112,264
496 : 3,106,528
497.1 : 3,104,224
505 : 3,083,157
508 : 3,116,245
510 : 3,092,581
511 : 3,106,529
512 : 3,102,858
: 3,105,044
523 : 3,077,991
: 3,081,879
525 : 3,081,880
528 : 3,084,801
: 3,102,094
532 : 3,072,261
: 3,109,813

Class 211

1.3 : 3,086,657
.5 : 3,092,254
2 : 3,100,048
4 : 3,084,802
10 : 3,092,255
11 : 3,107,012
13 : 3,081,881
: 3,084,803
: 3,088,597
: 3,088,599
: 3,094,215
13 : 3,115,971
34 : 3,079,002
37 : 3,104,013
40 : 3,090,491
: 3,092,256
: 3,106,294
: 3,114,459
41 : 3,115,251
42 : 3,095,974
45 : 3,094,216
: 3,102,636
: 3,103,279
47 : 3,091,341
49 : 3,080,066
: 3,082,876
: 3,092,257
: 3,094,217
: 3,098,567
: 3,099,354
: 3,110,402
: 3,112,033
50 : 3,080,658
51 : 3,094,218
55 : 3,115,252
57 : 3,082,877
60 : 3,071,252
: 3,082,878
: 3,095,092
: 3,098,568
65 : 3,104,762
72 : 3,105,594
73 : 3,090,492
: 3,108,696
74 : 3,091,343
75 : 3,099,355
77 : 3,094,219
86 : 3,079,004
: 3,081,882
: 3,085,691
87 : 3,087,624
88 : 3,088,598
: 3,089,597
: 3,096,883
: 3,113,677
90 : 3,113,678
96 : 3,079,005
103 : 3,087,625
: 3,102,639
105.1 : 3,076,556
.3 : 3,080,979
.3 : 3,103,280
111 : 3,094,220
113 : 3,091,344
: 3,093,246
118 : 3,083,835
: 3,113,679
119.15 : 3,085,692
15 : 3,096,884
123 : 3,104,014
124 : 3,084,804
126 : 3,082,879
: 3,095,093
: 3,097,746
: 3,113,680
128 : 3,102,640
: 3,115,253
132 : 3,099,356
: 3,106,295
: 3,106,296
133 : 3,099,357
134 : 3,083,836
: 3,085,693
: 3,085,694
: 3,114,460
: 3,115,254
147 : 3,072,262
148 : 3,095,975
: 3,101,148
: 3,102,641
: 3,106,297
: 3,112,034
149 : 3,091,345
: 3,093,247
: 3,097,748
: 3,115,972
153 : 3,082,880
: 3,086,659
: 3,086,660
: 3,100,572
: 3,105,595
163 : 3,092,258
166 : 3,088,600
: 3,101,849
171 : 3,072,263
176 : 3,080,067
177 : 3,100,573
: 3,100,574
178 : 3,071,253
178 : 3,076,557
: 3,104,763
180 : 3,075,648
182 : 3,097,747

Class 212

1 : 3,100,575
3 : 3,079,006
: 3,090,493
: 3,095,976
: 3,098,569
: 3,107,790
: 3,110,403
4 : 3,079,007
8 : 3,071,254
: 3,111,225
9 : 3,091,346
11 : 3,074,562
: 3,086,661
13 : 3,081,883
: 3,090,494
: 3,106,298
: 3,110,404
14 : 3,081,884
15 : 3,074,563
: 3,077,992
: 3,102,642
18 : 3,090,495
20 : 3,101,149
21 : 3,084,805
28 : 3,080,981
32 : 3,105,596
34 : 3,087,626
35 : 3,071,255
: 3,090,496
: 3,092,259
: 3,096,886
: 3,109,541
38 : 3,101,150
39 : 3,072,264
: 3,094,221
46 : 3,083,837
: 3,084,806
: 3,106,299
55 : 3,073,455
: 3,076,558
: 3,082,881
: 3,093,248
: 3,093,249
: 3,112,035
56 : 3,076,559
58 : 3,084,807
: 3,095,977
: 3,106,300
59 : 3,072,265
: 3,076,560
: 3,092,260
: 3,092,261
: 3,095,978
: 3,097,749
: 3,104,015
: 3,109,542
: 3,111,226
63 : 3,084,808
: 3,113,681
64 : 3,074,564
66 : 3,073,456
: 3,097,750
: 3,103,281
67 : 3,099,358
74 : 3,083,838
: 3,103,395
87 : 3,083,839
: 3,094,222
94 : 3,079,008
115 : 3,105,597
120 : 3,090,497
128 : 3,103,282
: 3,111,227
129 : 3,104,016
130 : 3,111,228
134 : 3,095,979
144 : 3,073,457
: 3,080,068
: 3,085,695
145 : 3,073,458
: 3,079,009
: 3,087,627
: 3,096,887
: 3,100,049
: 3,104,764

Class 213

8 : 3,095,094
21 : 3,100,050
: 3,108,697
32 : 3,075,649
49 : 3,082,882
57 : 3,102,643
61 : 3,104,017
100 : 3,086,662

112 : 3,071,256
133 : 3,075,650
146 : 3,114,461
152 : 3,097,751
153 : 3,073,459
166 : 3,088,601
.5 : 3,112,831
6 : 3,074,567
: 3,079,014
: 3,080,069
: 3,080,070
: 3,081,888
: 3,085,696
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: 3,088,604
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: 3,092,715
: 3,093,726
: 3,095,500
: 3,101,403
: 3,102,190
: 3,105,139
: 3,113,202
: 3,116,407
118 : 3,089,949
120 : 3,071,679
: 3,109,087
121 : 3,097,292
123 : 3,102,946
124 : 3,095,501
: 3,100,256
: 3,104,313
: 3,112,391
: 3,114,829
125 : 3,072,779
: 3,072,780
: 3,076,889
: 3,084,246
: 3,087,048
: 3,091,685
: 3,099,740
: 3,109,919
: 3,109,920
: 3,109,921
: 3,114,032
: 3,114,830
127 : 3,115,572
128 : 3,101,404
130 : 3,072,781
: 3,076,088
: 3,079,489
: 3,086,634
: 3,087,317
: 3,093,290
: 3,089,022
: 3,093,727
: 3,093,728
: 3,102,947
: 3,103,576
: 3,107,291
: 3,108,179
: 3,108,180
: 3,112,392
: 3,112,393
: 3,116,408
131 : 3,071,680
: 3,108,181
135 : 3,078,362
137 : 3,073,948
: 3,082,318
: 3,097,293
: 3,102,948
: 3,105,140
139 : 3,085,148
145 : 3,097,294
: 3,102,949
146 : 3,078,363
: 3,101,405
: 3,114,033
147 : 3,096,430
149 : 3,075,068
: 3,080,473
: 3,092,716
156 : 3,082,319
156 : 3,114,034
158 : 3,083,291
160 : 3,089,950

Class 220

1 : 3,071,279
: 3,074,583
: 3,100,056
: 3,102,654
: 3,108,704
: 3,109,551
.5 : 3,082,899
.5 : 3,085,707
.5 : 3,086,673
.5 : 3,088,619
.5 : 3,092,282
.5 : 3,107,024
.5 : 3,113,690
.5 : 3,115,982
2.1 : 3,071,280
3 : 3,073,475
: 3,074,584
: 3,074,585
: 3,098,577
: 3,101,860
.2 : 3,083,856
.4 : 3,081,896
.5 : 3,115,265
.8 : 3,112,839
.9 : 3,080,084
.94 : 3,083,857
.9 : 3,088,620
.94 : 3,100,579
.94 : 3,104,774
4 : 3,071,281
: 3,072,280
: 3,073,476
: 3,077,281
: 3,081,897
: 3,096,900
: 3,101,154
: 3,101,155
: 3,107,807
5 : 3,096,993
: 3,098,578
6 : 3,072,281
: 3,087,640
8 : 3,084,825
: 3,114,468
9 : 3,071,282
: 3,074,586
: 3,078,003
: 3,079,026
: 3,079,027
: 3,080,085
: 3,081,898
: 3,085,708
: 3,088,621
: 3,090,517
: 3,093,259
: 3,099,362
: 3,106,307
: 3,108,706
: 3,108,707
: 3,113,691
: 3,114,469
10 : 3,101,861
: 3,112,043
: 3,114,470
14 : 3,078,004
: 3,093,260
: 3,101,862
15 : 3,072,282
: 3,080,086
: 3,082,900
: 3,095,107
: 3,102,655
: 3,104,025
: 3,115,983
16 : 3,092,283
: 3,115,984
17 : 3,082,901
18 : 3,082,902
: 3,088,622
: 3,089,607
: 3,094,237
: 3,096,901
: 3,096,902
: 3,103,292
: 3,107,025
: 3,112,044
19 : 3,091,355
: 3,093,261
20 : 3,078,005
.5 : 3,095,108
21 : 3,092,284
: 3,106,308
: 3,107,026
22 : 3,071,283
: 3,079,028
23 : 3,085,709
: 3,095,109
23.6 : 3,115,266
.8 : 3,107,027
24 : 3,084,826
: 3,086,674
: 3,099,363
: 3,102,656
: 3,105,606
25 : 3,076,576
: 3,084,827
: 3,091,356
: 3,094,238
26 : 3,074,587
: 3,075,668
: 3,079,029
: 3,079,030
: 3,104,775
: 3,106,309
: 3,106,310
27 : 3,079,031
: 3,081,899
: 3,083,858
: 3,097,758
: 3,102,658
30 : 3,082,903
: 3,083,859
31 : 3,072,283
: 3,077,282
: 3,080,087
: 3,086,676
: 3,087,642
: 3,091,357
: 3,113,692
32 : 3,083,860
34 : 3,093,262
: 3,100,580
: 3,079,032
: 3,093,263
.5 : 3,080,088
39 : 3,081,900
: 3,090,518
: 3,098,579
: 3,110,411
40 : 3,076,577
: 3,081,901
: 3,098,580
: 3,102,659
: 3,102,660
41 : 3,071,284
42 : 3,096,903
: 3,105,607
43 : 3,089,608
44 : 3,071,285
: 3,072,284
: 3,072,285
: 3,074,588
: 3,077,283
: 3,080,994
: 3,082,904
: 3,082,905
: 3,083,861
: 3,083,862
: 3,086,677
: 3,094,239
: 3,101,863
: 3,107,808
: 3,110,412
: 3,111,239
: 3,112,045
: 3,112,840
: 3,112,841
: 3,072,286
: 3,074,589
: 3,074,590
.2 : 3,074,591
.4 : 3,076,578
.4 : 3,079,033
94 : 3,077,286
: 3,079,034
: 3,079,035
: 3,081,902
95 : 3,082,906
96 : 3,113,696
97 : 3,079,039
: 3,084,830
: 3,091,360
: 3,091,361
: 3,094,240
: 3,100,582
: 3,106,313
104 : 3,114,472
105 : 3,079,040
: 3,105,608
: 3,107,811
: 3,111,241
112 : 3,086,680
: 3,090,520
113 : 3,083,865
: 3,084,831
: 3,093,265
: 3,096,906
113 : 3,098,583
: 3,101,865
: 3,104,027
115 : 3,115,273
116 : 3,079,041
117 : 3,100,059

Class 221

2 : 3,086,681
: 3,112,046
4 : 3,075,669
6 : 3,082,907
: 3,090,521
7 : 3,089,611
11 : 3,082,908
: 3,082,909
: 3,089,612
12 : 3,098,584
13 : 3,074,593
14 : 3,079,042
15 : 3,081,907
22 : 3,110,414
25 : 3,115,989
31 : 3,078,008
33 : 3,090,522
34 : 3,104,778
35 : 3,106,314
36 : 3,082,910
: 3,090,523
: 3,091,362
: 3,100,583
44 : 3,087,646
46 : 3,071,288
47 : 3,087,647
48 : 3,083,866
52 : 3,095,996
59 : 3,071,289
: 3,071,290
67 : Re.25,321
: 3,107,812
: 3,107,813
: 3,071,291
68 : 3,071,291
: 3,080,092
: 3,107,814
73 : 3,107,814
75 : 3,085,711
76 : 3,075,670
: 3,107,815
77 : 3,088,629
: 3,110,415
80 : 3,109,556
81 : 3,087,648
82 : 3,114,473
86 : 3,104,028
88 : 3,107,816
90 : 3,087,649
92 : 3,108,711
: 3,114,474
: 3,074,594
: 3,101,156
: 3,101,866
: 3,106,315
: 3,110,416
: 3,115,990
103 : 3,114,475
110 : 3,094,241
111 : 3,110,417
113 : 3,096,907
114 : 3,095,114
116 : 3,098,585
: 3,100,060
: 3,107,030
122 : 3,083,867
125 : 3,101,867
: 3,115,274
129 : 3,095,115
131 : 3,100,061
150 : 3,085,712
151 : 3,095,116
: 3,102,662
152 : 3,073,481
: 3,095,117
: 3,095,118
155 : 3,081,908
167 : 3,106,316
171 : 3,085,713
172 : 3,108,712
174 : 3,082,911
175 : 3,073,482
176 : 3,089,613
: 3,096,908
: 3,105,609
180 : 3,095,997
185 : 3,112,843
186 : 3,073,483
189 : 3,092,287
190 : 3,097,759
192 : 3,113,697
197 : 3,108,713
198 : 3,115,991
199 : 3,105,610
200 : 3,104,779
210 : 3,077,287
211 : 3,108,714

213 : 3,082,912
: 3,083,868
: 3,095,998
: 3,108,715
216 : 3,097,760
221 : 3,074,595
223 : 3,071,292
: 3,104,780
225 : 3,101,868
: 3,114,476
227 : 3,101,157
: 3,104,781
231 : 3,103,298
232 : 3,080,998
: 3,093,266
233 : 3,095,999
234 : 3,095,119
236 : 3,104,029
238 : 3,075,671
: 3,109,557
: 3,114,477
241 : 3,094,242
243 : 3,091,363
248 : 3,105,611
251 : 3,089,614
256 : 3,091,364
260 : 3,107,817
263 : 3,099,365
264 : 3,115,992
265 : 3,079,043
266 : 3,080,909
275 : 3,102,663
293 : 3,083,869
295 : 3,101,158
297 : 3,078,009
298 : 3,092,288
303 : 3,088,630
312 : 3,075,672

Class 222

1 : 3,074,596
: 3,080,093
: 3,081,909
: 3,083,870
: 3,085,714
: 3,094,243
: 3,095,120
: 3,096,000
: 3,097,761
: 3,103,299
: 3,107,031
: 3,109,558
: 3,113,698
2 : 3,079,044
: 3,109,559
3 : 3,072,289
: 3,078,010
5 : 3,077,288
: 3,091,365
14 : 3,087,650
16 : 3,087,651
: 3,089,615
: 3,089,616
: 3,089,617
17 : 3,114,478
20 : 3,073,484
: 3,079,045
: 3,097,762
: 3,099,366
: 3,115,275
22 : 3,081,910
23 : 3,072,290
: 3,094,244
: 3,113,699
25 : 3,096,909
: 3,110,418
26 : 3,072,291
: 3,077,289
: 3,081,000
: 3,099,367
: 3,107,032
28 : 3,084,832
30 : 3,092,289
33 : 3,072,292
35 : 3,100,062
36 : 3,091,366
41 : 3,078,011
: 3,083,871
: 3,107,033
42 : 3,083,872
43 : 3,074,597
: 3,094,245
: 3,097,763
: 3,090,524
48 : 3,083,873
: 3,091,367
: 3,108,716
49 : 3,115,276
50 : 3,107,818
52 : 3,079,046
: 3,094,246
: 3,095,121
: 3,115,277
54 : 3,094,247
55 : 3,072,293
: 3,087,652
: 3,097,764
: 3,100,584
: 3,107,819
: 3,110,419
56 : 3,077,290
: 3,091,368
: 3,110,420
: 3,115,278
57 : 3,078,012
: 3,110,421
58 : 3,099,368
: 3,107,820
59 : 3,104,030
60 : 3,089,618
61 : 3,112,844
: 3,115,279
63 : 3,100,585
: 3,109,560
64 : 3,090,525
: 3,114,479
67 : 3,078,013
: 3,083,874
70 : 3,082,913
: 3,085,715
: 3,101,159
: 3,102,664
: 3,107,034
: 3,107,821
74 : 3,072,294
: 3,113,700
76 : 3,072,295
: 3,092,290
77 : 3,091,369
: 3,109,561
78 : 3,105,612
79 : 3,091,370
80 : 3,104,031
: 3,113,701
81 : 3,088,631
: 3,089,619
: 3,105,613
: 3,109,562
82 : 3,079,047
: 3,080,094
: 3,097,765
: 3,105,614
83 : 3,092,291
: 3,110,422
89 : 3,080,095
: 3,089,620
: 3,106,317
: 3,108,717
90 : 3,100,586
: 3,106,318
: 3,114,480
91 : 3,104,032
92 : 3,073,485
93 : 3,085,716
: 3,087,653
94 : 3,100,063
: 3,105,615
95 : 3,083,875
: 3,115,280
99 : 3,081,001
100 : 3,074,598
: 3,088,632
105 : 3,081,002
: 3,081,003
: 3,087,654
: 3,090,526
: 3,100,587
: 3,101,869
107 : 3,081,911
: 3,083,876
: 3,083,877
: 3,101,870
108 : 3,075,673
: 3,079,048
: 3,088,633
109 : 3,085,717
110 : 3,078,014
129 : 3,112,845
.1 : 3,108,718
.2 : 3,105,616
132 : 3,072,296
133 : Re.25,306
135 : 3,071,293
: 3,082,914
: 3,096,001
: 3,097,766
: 3,104,033
: 3,110,423
136 : 3,083,878
138 : 3,114,481
142.5 : 3,096,910
143 : 3,080,096
: 3,083,879
146 : 3,082,915
: 3,083,880
: 3,086,682
146 : 3,095,122
147 : 3,098,586
148 : 3,089,621
: 3,110,424
156 : 3,100,588
158 : 3,088,634
159 : 3,093,267
161 : 3,078,015
: 3,081,004
162 : 3,073,486
166 : 3,100,064
167 : 3,093,268
168 : 3,085,718
.5 : 3,082,916
169 : 3,079,049
170 : 3,091,371
175 : 3,095,123
176 : 3,090,527
: 3,098,587
177 : 3,098,588
: 3,107,822
: 3,113,702
179 : 3,090,528
180 : 3,074,599
: 3,100,065
: 3,100,066
: 3,108,719
181 : 3,072,297
: 3,078,016
: 3,078,017
182 : 3,088,635
: 3,104,034
: 3,107,823
183 : 3,078,018
: 3,086,683
: 3,087,655
: 3,089,622
: 3,096,911
: 3,096,912
: 3,096,913
: 3,101,160
: 3,111,242
: 3,112,048
184 : 3,072,298
: 3,115,281
185 : 3,092,292
: 3,101,871
: 3,104,035
: 3,105,617
189 : 3,080,097
: 3,081,005
: 3,081,912
: 3,095,124
190 : 3,100,067
191 : 3,104,783
: 3,113,703
192 : 3,109,563
193 : 3,074,600
: 3,094,248
: 3,104,784
: 3,111,243
194 : 3,076,580
195 : 3,103,300
196 : 3,109,564
.4 : 3,111,244
197 : 3,101,872
205 : 3,089,623
207 : 3,094,250
: 3,100,068
: 3,104,785
: 3,105,618
: 3,107,824
209 : 3,090,529
: 3,105,619
212 : 3,081,006
213 : 3,088,636
: 3,107,035
235 : 3,101,161
238 : 3,083,881
: 3,099,369
239 : 3,102,665
243 : 3,082,917
246 : 3,072,299
250 : 3,081,913
252 : 3,081,914
: 3,101,873
255 : 3,094,251
: 3,110,425
282 : 3,073,487
309 : 3,075,674
: 3,082,918
: 3,085,719
: 3,096,125
310 : 3,078,019
: 3,103,201
: 3,107,825
312 : 3,086,684
318 : 3,081,007
: 3,106,330
: 3,108,720
: 3,115,282
323 : 3,112,849
325 : 3,080,098
327 : 3,071,294
: 3,075,675
328 : 3,114,482
333 : 3,072,300
: 3,081,915
: 3,093,269
: 3,096,914
: 3,112,049
334 : 3,079,050
: 3,095,126
337 : 3,079,051
340 : 3,104,036
342 : 3,071,295
: 3,072,301
: 3,105,620
360 : 3,093,270
368 : 3,097,767
371 : 3,082,919
373 : 3,102,666
: 3,113,704
385 : 3,071,296
: 3,101,874
386.5 : 3,089,624
.5 : 3,099,370
389 : 3,097,768
: 3,113,705
394 : 3,073,488
: 3,073,489
: 3,074,601
: 3,081,916
: 3,081,917
: 3,081,918
: 3,085,720
: 3,095,127
: 3,096,002
: 3,096,003
: 3,098,589
: 3,101,875
: 3,101,876
: 3,106,321
: 3,107,826
: 3,107,827
: 3,108,721
: 3,109,565
: 3,109,566
: 3,112,846
: 3,114,483
: 3,115,283
396 : 3,081,919
: 3,083,882
397 : 3,074,602
398 : 3,089,625
400.7 : 3,090,530
401 : 3,091,372
406 : 3,104,037
409 : 3,104,038
410 : 3,094,252
: 3,096,004
413 : 3,088,637
: 3,093,271
414 : 3,099,371
416 : 3,081,008
: 3,097,769
420 : 3,091,373
434 : 3,079,052
438 : 3,107,828
442 : 3,072,302
448 : 3,091,374
452 : 3,094,253
453 : 3,073,490
: 3,076,581
455 : 3,074,603
456 : 3,090,532
: 3,115,993
459 : 3,081,009
462 : 3,071,297
463 : 3,108,722
464 : 3,076,582
: 3,109,567
465 : 3,114,484
473 : 3,106,322
478 : 3,088,638
479 : 3,091,375
480 : 3,093,272
: 3,100,589
: 3,115,994
481 : 3,092,293
: 3,104,786
484 : 3,085,721
: 3,089,626
485 : 3,072,303
490 : 3,099,372
: 3,104,787
493 : 3,072,304
: 3,076,583
495 : 3,096,915
498 : 3,105,621
502 : 3,079,053
504 : 3,094,254
505 : 3,110,426
507 : 3,094,255
509 : 3,081,920
: 3,084,833
511 : 3,089,627
512 : 3,081,010
: 3,084,834
514 : 3,095,128
518 : 3,087,656
520 : 3,101,877
525 : 3,081,921
: 3,085,722
: 3,107,829
527 : 3,075,676
: 3,093,273
: 3,099,373
531 : 3,087,657
534 : 3,111,245
536 : 3,094,256
: 3,104,039
541 : 3,076,584
: 3,081,011
: 3,084,835
: 3,093,274
542 : 3,101,878
543 : 3,113,706
545 : 3,090,531
556 : 3,096,005
566 : 3,115,284
567 : 3,083,883
569 : 3,074,604
: 3,102,667

Class 223

1 : 3,097,770
2 : 3,112,847
25 : 3,083,884
30 : 3,086,685
32 : 3,110,427
34 : 3,084,836
35 : 3,090,533
37 : 3,111,246
38 : 3,093,275
39 : 3,103,302
46 : 3,097,771
: 3,097,772
52.1 : 3,086,686
.1 : 3,087,658
57 : 3,080,099
60 : 3,096,006
66 : 3,085,723
: 3,108,723
67 : 3,082,920
68 : 3,075,677
: 3,081,922
: 3,084,837
: 3,096,916
71 : 3,087,659
: 3,091,376
: 3,098,590
72 : 3,113,707
73 : 3,084,838
: 3,115,285
75 : 3,096,007
76 : 3,091,377
77 : 3,072,305
78 : 3,096,008
83 : 3,107,830
: 3,108,724
84 : 3,072,306
85 : 3,085,724
87 : 3,085,725
: 3,096,009
88 : 3,077,291
: 3,087,660
.91 : 3,085,726
: 3,086,687
: 3,115,995
93 : 3,093,276
: 3,109,568
94 : 3,082,921
: 3,101,162
95 : 3,102,668
: 3,102,669
: 3,112,848
96 : 3,073,491
: 3,115,286
98 : 3,071,298
: 3,110,428
: 3,112,050
99 : 3,115,996
104 : 3,107,831
106 : 3,093,277
109 : 3,107,832
118 : 3,088,639

Class 224

1 : 3,081,923
: 3,098,591
: 3,108,725
: 3,114,485
2 : 3,107,833
4 : 3,073,492
: 3,111,247
5 : 3,077,292
: 3,083,885
5 : 3,099,374
: 3,100,590
: 3,115,287
: 3,115,288
6 : 3,096,917
: 3,097,773
7 : 3,072,307
: 3,096,010
: 3,098,592
8 : 3,114,486
25 : 3,106,323
26 : 3,091,378
29 : 3,104,040
: 3,104,041
32 : 3,087,661
: 3,101,163
36 : 3,080,100
42 : 3,094,257
.1 : 3,095,129
.1 : 3,104,042
.1 : 3,109,569
.24 : 3,081,924
.42 : 3,110,429
45 : 3,078,020
: 3,081,012
: 3,083,886
: 3,086,688
: 3,094,258
: 3,097,774
: 3,104,788
: 3,114,487
48 : 3,094,259
: 3,103,303
55 : 3,073,493

Class 225

2 : 3,084,839
: 3,101,164
: 3,112,850
4 : 3,098,593
: 3,103,304
: 3,112,851
6 : 3,103,305
: 3,112,051
19 : 3,082,922
26 : 3,106,324
34 : 3,115,998
39 : 3,114,488
41 : 3,108,726
42 : 3,093,278
43 : 3,087,662
: 3,093,279
: 3,102,670
: 3,102,671
47 : 3,092,294
48 : 3,088,640
: 3,088,641
: 3,096,918
: 3,098,594
49 : 3,079,054
51 : 3,104,043
66 : 3,085,727
: 3,097,775
: 3,109,570
67 : 3,105,622
77 : 3,071,299
89 : 3,085,728
: 3,091,379
93 : 3,111,248
96 : 3,075,678
: 3,093,280
.5 : 3,072,308
.5 : 3,107,834
97 : 3,093,281
: 3,099,375
99 : 3,105,623
100 : 3,074,605
103 : 3,102,672
104 : 3,082,923
: 3,094,260
: 3,112,852

Class 226

3 : 3,096,919
: 3,114,489
7 : 3,093,282
9 : 3,094,261
: 3,105,624
11 : 3,074,606
: 3,097,776
17 : 3,100,069
20 : 3,108,727
21 : 3,078,021
: 3,090,534
22 : 3,098,595
: 3,104,789
23 : 3,073,495
24 : 3,073,496
26 : 3,090,535
28 : 3,102,673
33 : 3,115,999
38 : 3,071,300
39 : 3,097,777
: 3,100,591
41 : 3,083,887
42 : 3,105,625
: 3,112,052
: 3,115,289
43 : 3,088,642
44 : 3,087,663
48 : 3,090,536
49 : 3,081,013
: 3,092,295
: 3,092,296
50 : 3,091,380
62 : 3,074,607
64 : 3,076,585
71 : 3,082,924
74 : 3,073,497
: 3,114,490
75 : 3,114,491
76 : 3,116,000
82 : 3,084,840
83 : 3,089,628
85 : 3,111,249
88 : 3,072,309
89 : 3,112,053
91 : 3,079,055
: 3,081,925
: 3,089,629
: 3,110,430
95 : 3,082,925
: 3,093,283
: 3,097,778
: 3,108,728
: 3,110,431
: 3,112,054
97 : 3,078,022
: 3,087,664
: 3,094,262
: 3,097,779
98 : 3,073,498
101 : 3,076,586
: 3,111,250
105 : 3,111,251
108 : 3,075,679
: 3,095,130
: 3,099,376
: 3,110,432
109 : 3,104,790
113 : 3,084,841
117 : 3,098,596
: 3,112,055
118 : 3,078,023
119 : 3,078,024
120 : 3,073,499
135 : 3,076,587
141 : 3,074,608
147 : 3,081,014
150 : 3,094,263
151 : 3,112,056
157 : 3,075,680
158 : 3,075,681
167 : 3,109,571
168 : 3,071,301
: 3,081,015
171 : 3,100,070
: 3,106,325
172 : 3,103,306
: 3,104,791
173 : 3,085,729
174 : 3,080,101
176 : 3,075,682
: 3,093,284
: 3,100,071
177 : 3,106,326
178 : 3,079,056
179 : 3,107,835
181 : 3,096,920
: 3,113,708
184 : 3,093,285
186 : 3,077,293
187 : 3,111,252
188 : 3,072,310
189 : 3,109,572
190 : 3,087,665
: 3,095,131
191 : 3,071,302
193 : 3,104,792
: 3,106,319
196 : 3,072,311
: 3,107,836
198 : 3,107,036
199 : 3,109,573
: 3,113,709

Class 229

1.5 : 3,074,609
.5 : 3,078,025
.5 : 3,083,888
.5 : 3,085,730
.5 : 3,088,643
.5 : 3,090,537
.5 : 3,095,132

Class 229 – Con.

1.5 : 3,097,780
2.5 : 3,084,842
.5 : 3,088,644
.5 : 3,093,286
.5 : 3,095,133
.5 : 3,098,597
.5 : 3,099,377
.5 : 3,100,592
.5 : 3,100,593
.5 : 3,104,044
.5 : 3,113,710
3.1 : 3,072,312
.1 : 3,085,731
.1 : 3,088,645
.1 : 3,090,538
.1 : 3,093,287
.1 : 3,098,598
.1 : 3,107,837
.5 : 3,076,588
.5 : 3,079,057
4.5 : 3,089,630
.5 : 3,093,288
.5 : 3,106,327
5.5 : 3,099,378
.5 : 3,107,838
.5 : 3,116,001
.6 : 3,081,926
.6 : 3,107,037
6 : 3,077,294
: 3,079,058
: 3,108,729
7 : Re.25,448
: 3,071,303
: 3,074,610
: 3,082,926
: 3,101,879
: 3,106,328
: 3,108,730
8.5 : 3,113,711
9 : 3,074,611
14 : 3,071,304
: 3,072,313
: 3,073,500
: 3,075,683
: 3,078,026
: 3,079,059
: 3,079,060
: 3,079,061
: 3,082,927
: 3,083,889
: 3,086,689
: 3,088,646
: 3,088,647
: 3,095,134
: 3,101,166
: 3,106,329
: 3,106,330
: 3,108,731
: 3,108,732
: 3,112,057
: 3,113,712
15 : 3,087,666
: 3,101,880
: 3,102,674
16 : 3,073,501
: 3,073,502
: 3,079,062
: 3,083,890
: 3,084,843
: 3,089,631
: 3,094,264
: 3,100,072
: 3,100,594
: 3,114,492
17 : Re.25,449
: 3,071,305
: 3,073,503
: 3,074,612
: 3,078,027
: 3,079,063
: 3,081,016
: 3,081,927
: 3,085,732
: 3,085,733
: 3,095,135
: 3,096,011
: 3,096,921
: 3,096,922
: 3,104,793
: 3,107,038
: 3,107,839
: 3,116,002
19 : 3,082,928
20 : 3,071,306
: 3,102,675
22 : 3,084,844
23 : 3,072,314
: 3,085,734
: 3,097,781
: 3,099,379
27 : 3,082,929
27 : 3,086,690
: 3,088,648
: 3,093,289
: 3,099,380
: 3,100,595
: 3,106,331
: 3,111,253
28 : 3,088,649
: 3,088,650
: 3,092,297
: 3,104,794
: 3,107,039
30 : 3,078,028
31 : 3,091,381
: 3,097,782
: 3,108,733
32 : 3,107,040
33 : 3,071,307
: 3,082,930
: 3,105,626
: 3,112,853
: 3,116,003
34 : 3,073,504
: 3,076,589
: 3,093,290
: 3,101,881
: 3,114,493
35 : 3,073,505
: 3,086,691
: 3,088,651
: 3,093,291
36 : 3,112,058
37 : 3,071,308
: 3,082,931
: 3,089,632
: 3,094,265
: 3,094,266
: 3,097,783
: 3,098,599
: 3,098,600
: 3,099,381
: 3,109,574
: 3,110,433
: 3,110,434
: 3,114,494
38 : 3,084,845
: 3,089,633
: 3,114,495
39 : 3,074,613
: 3,081,017
: 3,092,298
: 3,092,299
: 3,101,882
: 3,104,795
: 3,107,041
: 3,112,854
: 3,115,290
: 3,116,004
40 : 3,081,018
: 3,081,928
: 3,090,539
: 3,094,267
: 3,110,435
: 3,116,005
41 : 3,073,506
: 3,095,136
: 3,101,167
: 3,107,042
: 3,115,291
42 : 3,092,300
43 : 3,104,045
: 3,109,575
: 3,110,436
: 3,112,855
44 : 3,078,029
: 3,078,030
: 3,079,064
: 3,090,540
: 3,095,137
: 3,099,382
: 3,100,073
: 3,100,074
: 3,108,734
: 3,111,254
45 : 3,107,840
: 3,115,292
: 3,116,006
: 3,116,007
48 : 3,116,008
49 : 3,089,634
: 3,096,923
51 : 3,075,684
: 3,076,590
: 3,078,031
: 3,085,735
: 3,085,736
: 3,086,692
: 3,090,541
: 3,090,542
: 3,092,301
: 3,093,292
: 3,093,293
51 : 3,097,784
: 3,097,785
: 3,097,786
: 3,098,601
: 3,100,075
: 3,101,883
: 3,101,884
: 3,101,885
: 3,108,735
: 3,109,576
: 3,109,577
: 3,111,255
: 3,113,713
: 3,113,714
: 3,115,293
52 : 3,074,614
: 3,074,615
: 3,076,591
: 3,078,032
: 3,087,667
: 3,092,302
: 3,093,294
: 3,094,268
: 3,096,012
: 3,096,924
: 3,099,383
: 3,101,886
: 3,104,046
: 3,104,796
: 3,105,627
: 3,106,332
: 3,107,841
: 3,112,059
: 3,112,856
: 3,114,496
: 3,115,294
53 : 3,074,616
: 3,087,668
: 3,097,787
: 3,104,797
: 3,113,715
54 : 3,087,669
: 3,100,076
: 3,105,628
55 : 3,074,617
: 3,076,592
: 3,085,737
: 3,096,013
: 3,097,788
56 : 3,088,652
57 : 3,079,065
62 : 3,073,507
: 3,079,066
: 3,085,738
: 3,089,635
: 3,099,384
: 3,101,887
: 3,104,798
: 3,107,842
: 3,108,736
63 : 3,081,929
: 3,093,295
: 3,114,497
64 : 3,077,295
65 : 3,079,067
66 : 3,081,930
: 3,100,596
: 3,104,047
: 3,116,009
68 : 3,073,508
: 3,074,618
: 3,086,694
: 3,088,653
: 3,111,256
: 3,112,858
69 : 3,104,799
70 : 3,104,800
71 : 3,112,859
72 : 3,082,932
: 3,116,010
73 : 3,073,509
: 3,084,846
: 3,086,695
: 3,096,925
: 3,111,257
: 3,113,716
74 : 3,103,307
85 : 3,088,654
86 : 3,094,269
: 3,104,048
87 : 3,096,014
: 3,100,597
: 3,100,598
: 3,106,333
: 3,109,579
87 : 3,112,860
: 3,115,295
.2 : 3,092,304
92.3 : 3,107,043
.3 : 3,111,258
.8 : 3,093,296
9 : 3,112,861

Class 230

1 : 3,098,602
2 : 3,074,619
: 3,088,655
: 3,092,305
4 : 3,093,297
: 3,096,926
6 : 3,102,677
: 3,105,629
: 3,107,843
13 : 3,115,296
15 : 3,082,933
17 : 3,080,103
19 : 3,076,593
21 : 3,084,847
: 3,088,656
22 : 3,101,888
25 : 3,104,801
26 : 3,096,927
30 : 3,071,309
: 3,073,510
31 : 3,105,630
: 3,114,498
38 : 3,075,685
40 : 3,078,033
42 : 3,086,696
44 : 3,081,931
45 : 3,104,802
: 3,116,011
47 : 3,081,019
48 : 3,112,862
56 : 3,072,315
: 3,112,060
58 : 3,075,686
: 3,081,932
: 3,111,259
69 : 3,071,310
: 3,074,620
: 3,074,621
: 3,074,622
: 3,078,034
: 3,080,104
: 3,081,020
: 3,082,934
: 3,084,848
: 3,085,739
: 3,086,697
: 3,088,657
: 3,093,298
: 3,098,155
: 3,098,156
: 3,098,157
: 3,098,158
: 3,098,159
: 3,098,160
: 3,098,161
: 3,098,162
: 3,098,163
: 3,098,164
: 3,098,165
: 3,098,166
: 3,098,167
: 3,098,168
: 3,098,169
: 3,098,170
: 3,098,171
: 3,098,172
: 3,098,173
: 3,098,174
: 3,098,175
: 3,098,176
: 3,098,177
: 3,098,178
: 3,098,179
: 3,098,180
: 3,098,181
: 3,098,182
: 3,098,183
: 3,098,184
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: 3,098,186
: 3,098,187
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: 3,098,189
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: 3,098,194
: 3,098,195
: 3,098,196
: 3,098,197
: 3,098,198
: 3,098,199
: 3,098,200
: 3,098,201
: 3,098,202
: 3,098,203
: 3,098,204
: 3,098,205
: 3,098,206
: 3,098,207
: 3,098,208
: 3,098,209
: 3,098,210
: 3,098,211
: 3,098,212
: 3,098,213
: 3,098,214
: 3,098,215
: 3,098,216
: 3,098,217
: 3,098,218
: 3,098,219
: 3,098,220
: 3,098,221
: 3,098,222
: 3,098,223
: 3,098,224
: 3,098,225
: 3,098,226
: 3,098,227
: 3,098,228
: 3,098,229
: 3,098,230
: 3,098,231
: 3,098,232
117 : 3,102,679
: 3,106,334
: 3,109,582
118 : 3,071,312
120 : 3,075,690
: 3,096,930
: 3,107,046
122 : 3,084,849
: 3,084,850
: 3,110,437
: 3,112,866
124 : 3,101,170
125 : Re.25,365
: Re.25,409
: 3,096,931
127 : 3,071,313
: 3,079,068
: 3,085,741
: 3,093,299
: 3,101,890
128 : 3,104,050
130 : 3,102,680
: 3,105,632
132 : 3,077,296
: 3,090,546
133 : 3,073,512
: 3,092,306
: 3,098,603
134 : 3,077,297
: 3,080,105
: 3,081,021
: 3,091,383
: 3,091,384
: 3,091,385
: 3,095,138
: 3,098,658
: 3,098,659
: 3,108,739
: 3,108,740
139 : 3,105,633
: 3,112,062
141 : 3,083,894
: 3,089,638
: 3,105,634
: 3,112,867
143 : 3,071,314
: 3,073,513
: 3,084,851
: 3,097,359
: 3,101,171
: 3,102,681
144 : 3,087,671
145 : 3,091,386
: 3,103,682
: 3,112,868
147 : 3,081,022
: 3,111,260
149 : 3,107,846
150 : 3,072,316
: 3,074,623
: 3,099,387
152 : 3,096,932
154 : 3,096,932
158 : 3,074,624
: 3,109,580
: 3,112,863
: 3,112,864
172 : 3,082,935
173 : 3,083,895
182 : 3,072,317
183 : 3,081,933
188 : 3,081,934
190 : 3,109,583
205 : 3,073,514
: 3,112,869
206 : 3,072,318
: 3,073,515
: 3,074,625
: 3,080,106
: 3,081,935
: 3,082,936
: 3,092,307
: 3,093,301
: 3,098,604
: 3,104,051
207 : 3,072,319
: 3,082,937
: 3,088,660
: 3,111,261
: 3,116,012
210 : 3,072,320
: 3,098,605
: 3,102,683
: 3,112,870
211 : 3,094,273
215 : 3,107,048
224 : 3,094,274
228 : 3,099,388
229 : 3,081,936
: 3,112,063
231 : 3,112,064
232 : 3,101,891
: 3,109,584
233 : 3,082,938
235 : 3,082,939
: 3,082,940
: 3,089,639
: 3,096,933
252 : 3,071,315
255 : 3,072,321
270 : 3,075,691
: 3,103,308
271 : 3,077,298
: 3,090,548
272 : 3,084,852

Class 232

1 : 3,089,640
: 3,101,892
: 3,108,741
: 3,109,585
4 : 3,096,934
: 3,104,052
5 : 3,095,139
15 : 3,083,896
16 : 3,074,626
: 3,094,275
: 3,107,847
17 : 3,106,335
: 3,107,848
24 : 3,081,023
: 3,099,389
36 : 3,072,322
: 3,081,024
35 : 3,080,107
: 3,084,853
: 3,093,302
: 3,095,140
: 3,102,684
39 : 3,081,025
43.1 : 3,109,586
.2 : 3,075,692
.3 : 3,081,937
.2 : 3,099,390
.4 : 3,110,438
44 : 3,114,499
57 : 3,092,308
.5 : 3,116,013

Class 233

2 : 3,075,693
: 3,081,026
: 3,092,582
: 3,092,583
4 : 3,081,027
7 : 3,096,282
: 3,098,820
14 : 3,080,108
: 3,108,952
: 3,111,490
15 : 3,085,742
: 3,107,218
: 3,108,953
: 3,114,706
: 3,116,246
20 : 3,079,069
: 3,081,028
: 3,085,743
: 3,096,288
21 : 3,103,489
: 3,108,954
22 : 3,079,070
: 3,105,045
: 3,097,167
24 : 3,078,035
: 3,101,322
26 : 3,071,316
: 3,081,029
: 3,090,549
: 3,115,460
27 : 3,108,955
28 : 3,073,516
: 3,080,109
: 3,094,487
: 3,104,225
32 : 3,073,517
: 3,074,627
: 3,092,584
33 : 3,072,323
40 : 3,075,694
45 : 3,095,371
46 : 3,075,695
47 : 3,075,696

Class 234

1 : 3,114,500
3 : 3,092,309
4 : 3,112,065
5 : 3,083,897
: 3,105,635
: 3,106,336
13 : 3,091,387
: 3,113,718
15 : 3,107,049
17 : 3,111,262
23 : 3,106,337
26 : 3,076,594
28 : 3,073,518
32 : 3,101,893
33 : 3,084,854
: 3,098,606
34 : 3,083,898
35 : 3,082,941
: 3,108,742
39 : 3,107,050
42 : 3,101,172
45 : 3,095,141
50 : 3,081,030
: 3,110,439
52 : 3,092,310
54 : 3,090,550
58 : 3,106,338
61 : 3,079,071
79 : 3,071,317
82 : 3,080,110
107 : 3,096,015
108 : 3,093,303
: 3,096,016
115 : 3,073,519
: 3,100,599
: 3,104,053
: 3,108,339
123 : 3,116,501
128 : 3,104,054
129 : 3,112,871
131 : 3,104,804

Class 235

1 : 3,075,697
: 3,100,600
2 : Re.25,431
7 : 3,088,661
: 3,077,299
: 3,091,388
: 3,072,324
11 : 3,107,051
23 : 3,076,595
27 : 3,094,276
50 : 3,094,277
: 3,104,805
53 : 3,083,899
54 : 3,092,311
: 3,095,142
: 3,096,017
: 3,098,607
: 3,108,743
: 3,108,744
55 : 3,102,685
58 : 3,112,872
: 3,071,318
60 : 3,073,520
: 3,082,942
: 3,084,855
: 3,086,700
: 3,093,304
: 3,093,305
: 3,094,278
: 3,095,143
: 3,098,608
: 3,099,391
: 3,100,077
: 3,104,807
: 3,108,745
: 3,110,440
: 3,112,873
: 3,114,502
: 3,079,073
: 3,080,111
: 3,081,938
: 3,089,641
: 3,092,312
: 3,105,636
: 3,106,340
: 3,080,112
: 3,086,701
: 3,092,313
: 3,101,894
: 3,103,309
: 3,104,808
: 3,107,849
: 3,113,719
: Re.25,373
: 3,072,325
: 3,074,628
: 3,083,900
: 3,106,341
61 : 3,071,319
: 3,071,320
: 3,072,326
: 3,072,327
: 3,074,629
: 3,074,630
: 3,076,596

61 : 3,076,597
: 3,077,300
: 3,078,036
: 3,079,074
: 3,079,075
: 3,082,943
: 3,082,944
: 3,082,945
: 3,083,901
: 3,083,902
: 3,085,744
: 3,086,702
: 3,086,703
: 3,086,704
: 3,087,672
: 3,088,662
: 3,088,663
: 3,088,664
: 3,090,551
: 3,090,552
: 3,091,389
: 3,092,314
: 3,093,306
: 3,097,789
: 3,100,601
: 3,104,809
: 3,104,810
: 3,106,342
: 3,107,850
: 3,109,587
: 3,111,263
: 3,112,874
: 3,113,720
: 3,116,014
.1 : 3,072,328
.11 : 3,076,599
.11 : 3,080,113
.11 : 3,081,939
.11 : 3,081,940
.12 : 3,083,904
.11 : 3,084,857
.11 : 3,088,665
.11 : 3,088,666
.11 : 3,093,729
.12 : 3,095,502
.11 : 3,096,431
.12 : 3,096,432
.12 : 3,100,834
.11 : 3,105,895
.11 : 3,109,089
.11 : 3,109,923
.11 : 3,109,924
.11 : 3,109,925
.11 : 3,111,576
.11 : 3,114,035
.12 : 3,114,036
.11 : 3,114,503
.11 : 3,116,409
.5 : 3,086,705
.5 : 3,092,717
.5 : 3,108,182
.5 : 3,113,203
.6 : 3,083,903
.6 : 3,086,706
.6 : 3,091,390
.6 : 3,099,741
.6 : 3,106,635
.6 : 3,109,922
.7 : 3,084,856
.7 : 3,102,191
.7 : 3,102,950
.7 : 3,103,577
.7 : 3,107,292
.8 : 3,110,799
.9 : 3,076,598
.9 : 3,104,314
.9 : 3,109,088
.9 : 3,112,394
62 : 3,072,329
: 3,092,315
: 3,098,609
: 3,104,811
63 : 3,079,076
: 3,090,553
: 3,090,554
: 3,097,790
: 3,100,602
: 3,100,603
: 3,101,895
: 3,104,812
: 3,107,851
: 3,107,852
: 3,110,441
: 3,115,300
69 : 3,114,504
70 : 3,083,905
: 3,112,875
73 : 3,104,055
77 : 3,095,144
78 : 3,108,746
80 : 3,102,686
84 : 3,071,321
: 3,084,858
86 : 3,082,946
88 : 3,071,322
: 3,082,947
: 3,082,948
: 3,109,588
89 : 3,083,906
91 : 3,072,330
: 3,090,555
: 3,092,316
: 3,092,317
: 3,094,279
: 3,095,145
: 3,104,056
92 : 3,073,521
: 3,073,522
: 3,074,631
: 3,075,698
: 3,076,600
: 3,076,601
: 3,080,114
: 3,083,907
: 3,083,908
: 3,083,909
: 3,084,859
: 3,086,707
: 3,097,295
: 3,098,152
: 3,105,141
: 3,109,926
: 3,109,927
: 3,109,928
: 3,112,395
: 3,115,573
: 3,085,745
: 3,093,307
: 3,077,301
: 3,107,853
: 3,079,077
: 3,081,940
: 3,097,791
: 3,104,057
: 3,075,699
: 3,107,854
: 3,092,318
: 3,073,523
: 3,092,319
: 3,095,146
: 3,097,792
: 3,112,066
: 3,071,323
: 3,102,687
: 3,074,632
: 3,074,633
: 3,078,037
: 3,079,078
: 3,096,018
: 3,097,793
: 3,112,067
: 3,115,301
: 3,077,302
: 3,101,896
: 3,076,602
: 3,078,038
: 3,102,688
: 3,104,058
: 3,112,068
: 3,113,721
: 3,107,855
: 3,089,642
: 3,112,069
: 3,080,115
: 3,085,746
: 3,096,019
: 3,072,331
: 3,099,742
: 3,074,634
: 3,075,700
: 3,079,079
: 3,079,080
: 3,081,942
: 3,082,949
: 3,089,643
: 3,093,730
: 3,096,433
: 3,096,434
: 3,103,578
: 3,103,579
: 3,104,315
: 3,105,896
: 3,107,293
: 3,108,183
: 3,109,929
: 3,110,800
: 3,111,577
: 3,079,081
: 3,109,090
: 3,078,039
: 3,083,910
: 3,091,391
: 3,111,578
: 3,113,204
: 3,071,324
: 3,072,332
: 3,076,939
: 3,077,303
: 3,086,708
: 3,092,718
: 3,100,257
: 3,105,142
: 3,111,579
155 : 3,082,950
: 3,084,860
156 : 3,074,635
157 : 3,074,636
: 3,079,082
: 3,088,667
: 3,094,609
: 3,094,610
: 3,105,143
: 3,116,410
159 : Re.25,482
: 3,103,580
: 3,107,856
160 : Re.25,340
: 3,077,304
: 3,081,031
: 3,104,316
161 : 3,087,673
: 3,109,091
164 : 3,074,637
: 3,078,040
: 3,104,317
: 3,109,092
: 3,115,574
: 3,116,411
165 : 3,085,747
: 3,108,636
167 : 3,074,638
168 : 3,072,333
169 : 3,089,644
170 : 3,112,396
: 3,116,412
175 : 3,074,639
: 3,081,032
: 3,084,861
: 3,089,645
: 3,094,611
: 3,098,153
: 3,100,835
: 3,100,836
: 3,100,837
: 3,105,897
: 3,106,637
: 3,111,580
176 : 3,074,640
: 3,075,701
: 3,079,083
: 3,088,668
: 3,094,612
: 3,094,613
: 3,094,614
: 3,100,838
: 3,105,144
: 3,105,898
: 3,106,638
: 3,107,294
: 3,093,732
189 : 3,089,646
192 : 3,072,335
193 : 3,074,642
: 3,079,086
: 3,088,669
: 3,088,670
: 3,092,719
: 3,104,319
: 3,105,145
194 : 3,084,862
: 3,084,863
: 3,088,671
: 3,097,296
: 3,103,582
194 : 3,110,801
195 : 3,092,720
197 : 3,082,952
: 3,087,674
: 3,100,839
: 3,102,951
: 3,103,583
: 3,106,639
: 3,110,802

Class 236

1 : 3,072,336
: 3,084,864
: 3,090,558
: 3,093,308
: 3,096,935
: 3,101,897
: 3,107,856
: 3,112,876
: 3,112,877
9 : 3,074,643
: 3,092,320
10 : 3,076,604
12 : 3,082,953
: 3,087,675
: 3,088,672
: 3,090,559
: 3,091,393
: 3,112,879
: 3,116,015
13 : 3,081,943
: 3,114,505
: 3,116,016
14 : 3,096,020
15 : 3,074,644
: 3,076,605
: 3,081,944
: 3,092,321
: 3,101,898
20 : 3,096,021
: 3,112,880
21 : 3,099,392
32 : 3,072,337
: 3,075,702
: 3,080,118
34 : 3,075,703
: 3,087,676
.5 : 3,092,322
.5 : 3,096,022
35 : 3,106,343
.2 : 3,095,147
38 : 3,076,606
44 : 3,110,442
45 : 3,077,305
: 3,087,677
46 : 3,102,689
47 : 3,100,078
48 : 3,072,338
: 3,089,647
: 3,105,637
49 : 3,073,525
: 3,088,673
56 : 3,096,936
66 : 3,075,704
68 : 3,092,327
: 3,096,937
: 3,112,070
87 : 3,100,079
93 : 3,081,034
: 3,089,648
: 3,094,280
94 : 3,105,638
99 : 3,073,526
: 3,084,865
: 3,091,395
: 3,108,747
: 3,109,589
102 : 3,104,813
: 3,112,881

Class 237

1 : 3,078,043
: 3,079,087
: 3,107,052
2 : 3,082,955
: 3,086,710
: 3,115,302
9 : 3,092,324
10 : 3,115,303
12.3 : 3,072,339
.3 : 3,084,866
.3 : 3,084,867
.3 : 3,092,325
.3 : 3,096,938
50 : 3,089,649
56 : 3,078,044
63 : 3,074,645
: 3,074,646
: 3,080,119
: 3,094,281

Class 238

8 : 3,077,600
: 3,087,678
9 : 3,113,722
10 : 3,074,647
: 3,075,705
14 : 3,096,939
.5 : 3,111,264
24 : 3,088,674
50 : 3,107,053
109 : 3,101,899
119 : 3,092,326
122 : 3,089,650
148 : 3,111,265
151 : 3,100,080
: 3,107,054
152 : 3,080,120
159 : 3,071,325
283 : 3,081,035
284 : 3,104,059
327 : 3,100,081
: 3,102,690
330 : 3,085,748
349 : 3,112,071

Class 239

1 : 3,073,527
4 : 3,103,310
7 : 3,103,311
11 : 3,080,121
15 : 3,075,706
: 3,082,956
: 3,083,911
: 3,085,749
: 3,086,711
: 3,086,712
: 3,093,309
: 3,111,266
17 : 3,081,036
18 : 3,104,814
19 : 3,104,815
20 : 3,071,326
: 3,088,675
23 : 3,101,173
25 : 3,079,088
: 3,101,900
: 3,108,748
27 : 3,101,174
29 : 3,081,945
: 3,113,723
33 : 3,109,590
35 : 3,104,816
47 : 3,091,396
57 : 3,087,679
63 : 3,079,089
: 3,113,724
68 : 3,089,651
77 : 3,092,327
78 : 3,088,676
: 3,097,794
79 : 3,073,528
: 3,112,072
84 : 3,085,750
85 : 3,111,267
87 : 3,093,310
88 : 3,083,912
90 : 3,075,707
: 3,104,817
: 3,115,304
97 : 3,081,037
: 3,095,148
: 3,099,393
: 3,104,818
98 : 3,078,045
102 : 3,081,946
: 3,084,868
337 : 3,084,873
: 3,108,749
106 : 3,104,819
107 : 3,074,648
: 3,109,591
113 : 3,073,529
124 : 3,097,795
126 : 3,078,046
130 : 3,106,344
132 : 3,076,607
: 3,101,901
135 : 3,103,312
136 : 3,086,713
138 : 3,104,820
142 : 3,079,090
: 3,093,311
: 3,099,394
: 3,108,913
: 3,092,328
: 3,101,175
164 : 3,107,055
165 : 3,074,649
: 3,109,592
167 : 3,090,562
168 : 3,073,530
170 : 3,111,268
173 : 3,101,902
179 : 3,104,821
183 : 3,085,751
: 3,091,397
: 3,101,903
185 : 3,093,312
192 : 3,081,038
201 : 3,084,869
203 : 3,083,914
205 : 3,088,677
206 : 3,082,957
: 3,086,714
: 3,090,563
: 3,091,398
: 3,104,822
: 3,107,056
209 : 3,104,060
210 : 3,110,443
212 : 3,071,327
213 : 3,087,680
: 3,094,282
215 : 3,074,650
216 : 3,107,857
221 : 3,079,091
223 : 3,073,531
224 : 3,072,341
: 3,080,122
: 3,095,149
227 : 3,077,306
: 3,092,329
230 : 3,080,123
: 3,081,039
231 : 3,091,399
234 : 3,082,958
236 : 3,093,313
240 : 3,079,092
242 : 3,073,532
: 3,105,639
: 3,115,305
243 : 3,115,306
246 : 3,081,947
261 : 3,091,400
267 : 3,095,150
: 3,095,151
: 3,096,940
: 3,112,882
275 : 3,109,593
276 : 3,091,401
: 3,112,883
278 : 3,100,082
281 : 3,086,715
284 : 3,087,681
304 : 3,074,651
: 3,104,823
305 : 3,084,870
: 3,084,871
308 : 3,085,752
309 : 3,111,269
310 : 3,083,915
314 : 3,079,093
315 : 3,083,916
: 3,091,402
318 : 3,088,679
325 : 3,111,270
329 : 3,082,959
333 : 3,084,872
: 3,086,716
: 3,092,330
336 : 3,107,057
337 : 3,084,873
: 3,085,753
: 3,088,680
: 3,101,904
: 3,104,061
338 : 3,077,307
: 3,104,062
346 : 3,107,058
348 : 3,107,059
350 : 3,092,331
354 : 3,072,342
357 : 3,101,905
366 : 3,106,346
369 : 3,081,948
383 : 3,081,949
: 3,082,960
393 : 3,094,283
394 : 3,081,950
: 3,112,885
399 : 3,073,533
404 : 3,072,343
404 : 3,116,017
405 : 3,078,047
: 3,092,332
: 3,095,153
407 : 3,087,682
: 3,104,824
: 3,104,825
408 : 3,111,271
413 : 3,091,403
: 3,091,404
: 3,107,858
417 : 3,093,314
420 : 3,111,272
422 : 3,073,534
424 : Re.25,447
: 3,084,874
: 3,084,875
: 3,093,315
: 3,096,023
: 3,104,826
425 : 3,072,344
427 : 3,088,681
: 3,110,444
428 : 3,109,594
430 : 3,104,827
431 : 3,104,828
432 : 3,110,445
441 : 3,098,610
445 : 3,093,316
446 : 3,112,073
447 : 3,111,273
450 : 3,080,124
452 : 3,100,083
453 : 3,091,405
: 3,093,317
: 3,105,640
455 : 3,081,951
456 : 3,072,345
: 3,093,318
: 3,102,691
457 : 3,081,040
458 : 3,116,018
463 : 3,100,084
464 : 3,081,952
468 : 3,083,917
: 3,083,918
: 3,107,859
487 : 3,072,346
488 : 3,104,829
490 : 3,075,708
491 : 3,092,333
493 : 3,112,074
505 : 3,106,347
516 : 3,092,334
521 : 3,107,860
523 : 3,085,754
524 : 3,101,176
526 : 3,076,608
532 : 3,081,041
533 : 3,074,652
542 : 3,090,565
: 3,116,019
543 : 3,107,060
548 : 3,104,063
552 : 3,105,641
562 : 3,099,395
565 : 3,085,755
573 : 3,088,682
576 : 3,095,154
577 : 3,107,861
578 : 3,116,020
579 : 3,075,709
: 3,076,609
: 3,090,566
588 : 3,081,953
: 3,116,021
590 : 3,099,396
592 : 3,101,906
598 : 3,082,961

Class 240

1.1 : 3,093,319
.1 : 3,112,886
.2 : 3,096,024
.2 : 3,113,726
.2 : 3,114,506
.3 : 3,071,681
.3 : 3,075,069
.3 : 3,075,070
.3 : 3,077,534
.3 : 3,079,490
.3 : 3,094,284
.3 : 3,096,025
.3 : 3,103,314
.3 : 3,107,862
.3 : 3,109,595
.3 : 3,111,274
.4 : 3,075,071
: 3,107,863
2 : 3,071,682
: 3,072,782
: 3,084,247

Class 240 – Con.

2 : 3,088,021
: 3,097,797
: 3,109,596
: 3,112,887
3 : 3,086,104
: 3,107,864
: 3,116,022
: 3,116,023
.1 : 3,099,397
4 : 3,079,491
: 3,099,398
: 3,116,024
.1 : Re.25,402
.1 : 3,081,397
.2 : 3,104,830
.2 : 3,111,275
6.43 : 3,078,364
.4 : 3,085,149
.4 : 3,087,049
.4 : 3,087,050
.4 : 3,092,335
.4 : 3,096,941
.4 : 3,099,399
41 : 3,106,348
.44 : 3,114,502
7.1 : 3,087,051
.1 : 3,088,022
.1 : 3,089,951
.1 : 3,090,858
.1 : 3,096,026
.1 : 3,102,692
.1 : 3,107,865
.1 : 3,109,597
.1 : 3,114,508
.55 : 3,073,949
.55 : 3,099,400
8.16 : 3,077,535
.18 : 3,091,686
.16 : 3,096,942
.12 : 3,099,401
.12 : 3,113,727
.16 : 3,115,308
.2 : 3,093,320
.2 : 3,093,324
.2 : 3,107,061
.2 : 3,109,598
.2 : 3,114,182
.22 : 3,114,509
.3 : 3,083,292
.3 : 3,100,085
.3 : 3,106,349
.3 : 3,112,888
.3 : 3,115,307
9 : 3,081,398
: 3,086,105
: 3,089,023
: 3,094,285
: 3,113,728
10 : 3,076,890
: 3,096,943
: 3,098,611
: 3,101,907
: 3,111,276
.1 : 3,073,950
.1 : 3,080,474
.1 : 3,083,293
.6 : Re.25,388
.66 : 3,076,891
.66 : 3,079,492
1.65 : 3,084,248
.65 : 3,085,150
.61 : 3,087,052
.65 : 3,097,798
.66 : 3,097,799
.66 : 3,099,402
.66 : 3,111,277
.61 : 3,116,025
11 : 3,078,365
: 3,096,027
.2 : 3,104,064
.2 : 3,104,831
.4 : 3,101,177
20 : 3,112,075
25 : 3,071,683
: 3,072,783
: 3,080,475
: 3,086,106
: 3,089,024
: 3,089,025
: 3,092,336
: 3,093,321
: 3,094,286
: 3,096,028
: 3,096,029
: 3,096,030
: 3,102,693
: 3,104,065
: 3,107,062
41.1 : 3,088,023
.1 : 3,113,729
.25 : 3,107,866
.35 : 3,098,612
41.35 : 3,115,309
.4 : 3,083,294
.55 : 3,082,320
.5 : 3,105,642
44.1 : 3,104,066
.2 : 3,096,031
46.03 : 3,071,684
.31 : 3,085,151
47 : 3,099,403
: 3,112,076
51.11 : 3,075,072
.11 : 3,078,366
.11 : 3,080,476
.11 : 3,085,152
.11 : 3,089,026
.11 : 3,094,287
.11 : 3,094,288
.11 : 3,101,178
.11 : 3,108,750
.11 : 3,108,751
.11 : 3,109,599
.11 : 3,112,890
.12 : 3,112,891
52 : 3,086,107
: 3,095,155
.1 : 3,078,367
.15 : 3,080,477
.1 : 3,088,024
53 : 3,104,832
54 : 3,108,752
57 : 3,089,027
59 : 3,083,295
: 3,106,350
: 3,112,889
61.13 : 3,075,073
.7 : 3,116,026
73 : 3,077,536
: 3,101,908
: 3,110,446
78 : 3,087,053
: 3,088,025
: 3,091,687
: 3,093,322
: 3,093,323
: 3,097,800
: 3,099,404
: 3,104,833
: 3,104,834
: 3,115,310
81 : 3,072,784
: 3,076,892
: 3,077,537
: 3,089,028
: 3,104,067
: 3,115,311
: 3,116,027
102 : 3,087,054
: 3,112,892
103 : 3,100,086
: 3,112,893
106 : 3,096,032
: 3,096,033
: 3,099,405
: 3,113,730
108 : 3,075,074
123 : 3,079,493
128 : 3,108,753
: 3,112,894
146 : 3,113,731
148 : 3,113,732

Class 241

3 : 3,072,347
5 : 3,085,756
11 : 3,077,308
: 3,080,125
14 : 3,074,653
: 3,081,954
: 3,096,034
: 3,103,315
15 : 3,096,944
16 : 3,075,710
: 3,097,801
: 3,104,068
17 : 3,078,048
19 : 3,084,876
22 : 3,090,567
24 : 3,086,717
: 3,086,718
25 : 3,101,909
26 : 3,078,049
: 3,078,050
: 3,085,757
28 : 3,076,610
32 : 3,096,035
: 3,099,406
34 : 3,074,654
: 3,092,337
: 3,092,338
: 3,094,289
: 3,114,510
35 : 3,078,051
36 : 3,081,042
36 : 3,108,754
43 : 3,093,325
46 : 3,071,328
: 3,071,329
: 3,073,535
: 3,076,611
: 3,079,094
: 3,084,877
: 3,093,326
47 : 3,084,878
: 3,099,407
52 : 3,082,962
: 3,093,327
: 3,110,447
53 : 3,071,330
54 : 3,097,802
55 : 3,093,328
68 : 3,113,733
73 : 3,090,568
: 3,112,077
74 : 3,113,734
76 : 3,073,536
: 3,112,078
79 : 3,081,955
: 3,089,652
: 3,100,087
81 : 3,089,653
82 : 3,082,963
83 : 3,104,069
85 : 3,079,095
86 : 3,088,683
88 : 3,074,655
94 : 3,104,835
95 : 3,105,643
97 : 3,116,028
99 : 3,083,919
100 : 3,094,290
.5 : 3,082,964
.5 : 3,089,654
.5 : 3,108,755
102 : 3,107,867
103 : 3,072,348
107 : 3,086,719
114 : 3,083,920
124 : Re.25,475
153 : 3,082,965
169 : 3,096,036
170 : 3,100,088
175 : 3,104,836
182 : 3,110,448
185 : 3,112,081
186 : 3,081,921
187 : 3,099,408
190 : 3,098,613
193 : 3,098,614
197 : 3,104,838
210 : 3,087,683
211 : 3,107,868
: 3,109,600
212 : 3,107,063
216 : 3,080,126
: 3,108,756
218 : 3,075,711
: 3,079,096
221 : 3,077,309
232 : 3,107,869
247 : 3,074,656
251 : 3,102,694
255 : 3,102,695
257 : 3,111,278
: 3,112,079
258 : 3,094,291
: 3,103,316
260 : 3,083,922
: 3,089,655
268 : 3,079,097
275 : 3,074,657
: 3,093,329
: 3,096,037
: 3,105,644
: 3,113,735
280 : 3,077,310
: 3,112,080
283 : 3,081,956
285 : 3,075,712
: 3,103,317
290 : 3,088,684
291 : 3,074,658
: 3,075,713
: 3,110,449
293 : 3,097,803
295 : 3,076,612
296 : 3,104,837
300 : 3,088,685

Class 242

1.1 : 3,072,349
.1 : 3,081,043
.1 : 3,082,966
.1 : 3,099,409
.1 : 3,102,696
.1 : 3,104,070
2 : 3,104,839
2 : 3,111,279
3 : 3,071,331
: 3,101,179
4 : 3,104,840
6 : 3,084,879
: 3,100,089
7 : 3,078,052
: 3,080,127
: 3,087,684
: 3,089,656
: 3,095,156
: 3,098,615
: 3,112,895
9 : 3,078,053
: 3,090,569
: 3,101,180
: 3,102,697
: 3,104,841
: 3,106,351
: 3,106,352
: 3,109,601
76 : 3,076,613
: 3,098,616
: 3,101,910
18 : 3,073,537
: 3,075,714
: 3,075,715
: 3,076,614
: 3,081,044
: 3,090,570
: 3,092,339
: 3,109,602
: 3,110,450
: 3,112,896
: 3,115,312
19 : 3,083,923
: 3,096,945
: 3,097,804
20 : 3,096,720
25 : 3,080,128
: 3,082,967
: 3,086,721
: 3,072,350
27 : 3,074,659
35.5 : 3,077,311
.5 : 3,078,054
.5 : 3,091,406
.5 : 3,092,340
.5 : 3,099,410
.5 : 3,111,280
.6 : 3,074,660
.6 : 3,077,312
.6 : 3,081,045
.6 : 3,096,946
36 : 3,081,046
: 3,092,341
37 : 3,082,968
39 : 3,082,969
43 : 3,086,722
: 3,089,657
: 3,094,292
: 3,097,805
: 3,113,736
: 3,113,737
: 3,113,738
: 3,114,511
2 : 3,073,538
.2 : 3,087,685
.2 : 3,115,313
45 : 3,076,615
: 3,090,571
: 3,093,330
: 3,107,870
: 3,112,897
46.2 : 3,092,342
.5 : 3,099,411
.5 : 3,112,082
.6 : 3,093,331
.6 : 3,093,332
.6 : 3,101,911
47.09 : 3,077,313
.01 : 3,099,412
.08 : 3,106,354
.12 : 3,078,053
.12 : 3,083,924
54 : 3,073,539
: 3,076,616
: 3,077,314
: 3,081,957
: 3,091,407
: 3,093,333
: 3,101,912
: 3,113,739
.4 : 3,112,083
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: 3,092,343
: 3,107,064
: 3,107,871
: 3,110,451
.01 : 3,089,658
.01 : 3,094,293
.01 : 3,106,355
.12 : 3,071,332
55.12 : 3,072,352
.12 : 3,073,540
.12 : 3,074,661
.12 : 3,074,662
.12 : 3,075,716
.13 : 3,075,717
.12 : 3,077,315
.12 : 3,078,056
.12 : 3,078,057
.13 : 3,078,464
.1 : 3,079,098
.12 : 3,079,100
.13 : 3,083,925
.13 : 3,084,880
.12 : 3,085,758
.12 : 3,085,759
.13 : 3,087,686
.19 : 3,088,687
.12 : 3,090,573
.13 : 3,090,574
.12 : 3,091,408
.12 : 3,091,409
.12 : 3,091,410
.12 : 3,092,344
.12 : 3,092,345
.13 : 3,092,346
.12 : 3,093,334
.13 : 3,093,335
.12 : 3,094,038
.11 : 3,098,617
.13 : 3,100,090
.12 : 3,102,698
.14 : 3,102,699
.12 : 3,103,318
.12 : 3,103,071
.11 : 3,104,842
.13 : 3,104,843
.13 : 3,105,645
.13 : 3,105,646
.1 : 3,106,356
.12 : 3,106,357
.12 : 3,107,872
.12 : 3,109,603
.14 : 3,109,604
.13 : 3,111,281
.13 : 3,111,282
.12 : 3,114,512
.12 : 3,114,513
.12 : 3,115,314
.2 : 3,079,099
.2 : 3,086,723
.2 : 3,088,686
.2 : 3,089,659
.2 : 3,116,030
.3 : 3,072,351
.3 : 3,090,572
.3 : 3,101,181
.3 : 3,116,029
.42 : 3,104,844
.53 : 3,073,541
.53 : 3,082,970
.53 : 3,085,760
.53 : 3,086,724
.53 : 3,101,913
56 : 3,076,617
: 3,086,725
: 3,087,687
: 3,087,688
: 3,089,660
: 3,091,411
: 3,091,412
: 3,093,336
: 3,096,947
: 3,106,358
: 3,112,084
: 3,112,085
.1 : 3,113,740
.2 : 3,096,039
.2 : 3,103,319
78 : 3,072,353
.5 : 3,106,359
.8 : 3,083,926
.8 : 3,113,741
57 : 3,081,958
: 3,097,806
.1 : 3,085,761
.1 : 3,088,688
58 : 3,085,762
.2 : 3,071,333
.2 : 3,093,337
.3 : 3,075,718
.3 : 3,098,618
.3 : 3,100,604
.3 : 3,103,320
.3 : 3,106,360
.4 : 3,072,354
.4 : 3,089,661
62 : 3,102,700
64 : 3,081,959
: 3,115,315
65 : 3,075,719
: 3,077,316
: 3,086,726
: 3,094,294
65 : 3,103,321
: 3,116,031
66 : 3,079,101
: 3,090,575
: 3,098,619
: 3,104,072
: 3,104,845
: 3,105,647
: 3,107,873
67.1 : 3,090,576
.1 : 3,096,948
.1 : 3,097,807
.1 : 3,113,742
.2 : 3,084,881
.2 : 3,092,347
.2 : 3,094,295
.2 : 3,104,073
.3 : 3,074,663
.3 : 3,102,701
.4 : 3,095,157
.5 : 3,073,542
.5 : 3,112,086
68 : 3,106,361
: 3,106,862
.2 : 3,097,808
.2 : 3,108,757
.3 : 3,083,927
.3 : 3,099,413
.5 : 3,106,363
.5 : 3,107,874
.6 : 3,083,928
.6 : 3,113,743
71.1 : 3,084,882
.1 : 3,084,883
.1 : 3,104,846
.3 : 3,082,971
.3 : 3,097,809
.4 : 3,107,065
.7 : 3,104,847
.8 : 3,080,129
.8 : 3,081,960
.8 : 3,088,689
.8 : 3,097,810
.8 : 3,099,414
.8 : 3,104,848
72 : 3,075,720
: 3,096,949
: 3,101,914
: 3,104,074
: 3,113,744
.1 : 3,079,102
.1 : 3,085,763
.1 : 3,086,727
.1 : 3,086,728
.1 : 3,093,338
.1 : 3,104,849
.1 : 3,105,648
.1 : 3,107,875
74 : 3,084,884
: 3,092,348
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: 3,096,950
: 3,106,364
: 3,111,283
: 3,111,284
.2 : 3,072,355
.2 : 3,099,415
75.2 : 3,098,620
.2 : 3,111,285
.42 : 3,076,618
.47 : 3,081,961
.43 : 3,101,915
.43 : 3,116,032
.53 : 3,085,764
.5 : 3,089,662
76 : 3,106,365
77 : 3,106,366
.1 : 3,080,130
.3 : 3,108,758
78 : 3,092,350
.1 : 3,081,962
.1 : 3,086,729
.4 : 3,073,543
6 : 3,107,066
.8 : 3,105,649
79 : 3,077,317
: 3,098,621
: 3,108,759
80 : 3,097,811
: 3,100,605
82 : 3,079,103
: 3,093,339
: 3,097,812
: 3,110,452
83 : 3,088,690
: 3,111,286
: 3,113,745
84 : 3,076,619
.1 : 3,077,318
.1 : 3,085,765
.1 : 3,089,663
.2 : 3,074,664
.21 : 3,074,665
.2 : 3,075,721
84.2 : 3,075,722
.21 : 3,077,319
.21 : 3,084,885
.21 : 3,085,766
.2 : 3,092,351
.21 : 3,092,352
.21 : 3,093,340
.21 : 3,094,296
.21 : 3,095,158
.2 : 3,097,813
.2 : 3,105,650
.2 : 3,105,651
.21 : 3,107,876
.2 : 3,108,760
.2 : 3,108,761
.2 : 3,108,762
.21 : 3,114,514
.45 : 3,083,929
.45 : 3,104,850
.44 : 3,111,287
.5 : 3,072,356
.5 : 3,088,691
.8 : 3,078,058
.8 : 3,098,622
85.1 : 3,075,723
.1 : 3,096,040
86.3 : 3,078,059
.5 : 3,072,357
.5 : 3,077,320
.52 : 3,091,414
.5 : 3,098,623
.5 : 3,100,606
.5 : 3,103,322
.5 : 3,107,877
.64 : 3,100,607
.7 : 3,091,413
.7 : 3,098,624
.7 : 3,107,878
95 : 3,099,416
96 : 3,090,577
: 3,095,159
: 3,100,608
: 3,104,076
: 3,105,367
99 : 3,089,664
104 : 3,082,972
106 : 3,085,767
107 : 3,073,544
: 3,075,724
: 3,085,768
: 3,093,341
.1 : 3,100,368
.2 : 3,110,453
.3 : 3,114,515
.4 : 3,100,609
.4 : 3,105,652
.5 : 3,090,578
.5 : 3,093,342
.6 : 3,084,886
110.1 : 3,105,653
.3 : 3,105,654
115 : 3,108,763
117 : 3,080,131
118.3 : 3,076,620
.3 : 3,094,297
.32 : 3,107,067
.3 : 3,107,879
.4 : 3,083,930
.4 : 3,116,033
.61 : Re.25,390
.6 : 3,074,666
.6 : 3,088,692
.62 : 3,099,417
.62 : 3,104,851
.61 : 3,116,034
.7 : 3,079,104
.7 : 3,105,655
.7 : 3,112,898
.8 : 3,093,343
.8 : 3,104,077
125.1 : 3,104,852
128 : 3,073,545
: 3,090,579
: 3,091,415
: 3,101,916
: 3,102,702
: 3,112,899
129 : 3,072,358
: 3,082,973
: 3,107,880
.5 : 3,111,288
.8 : 3,099,418
.8 : 3,109,605
130.2 : 3,105,656
131 : 3,074,667
134 : 3,110,454
137.1 : 3,096,951
147 : 3,099,419
148 : 3,115,316
150 : 3,100,091
153 : 3,072,359
154 : 3,072,360

154 : 3,076,621
: 3,080,132
: 3,087,689
155 : 3,072,361
: 3,080,133
: 3,084,887
: 3,113,746
156 : 3,089,665
157 : 3,080,134
: 3,080,135
: 3,083,931
: 3,114,516
.1 : 3,078,060
.1 : 3,083,932
158.2 : 3,095,160
.4 : 3,093,344
.4 : 3,093,345
.4 : 3,097,815
.4 : 3,100,092
.4 : 3,109,606
159 : 3,095,161
174 : Re.25,477

Class 243

1 : 3,101,182
3 : 3,101,183
16 : 3,082,974
19 : 3,104,078
34 : 3,080,136
35 : 3,072,362
: 3,073,546

Class 244

1 : Re.25,417
: 3,072,363
: 3,079,105
: 3,090,580
: 3,092,353
: 3,093,346
: 3,095,162
: 3,104,079
: 3,104,080
: 3,105,657
: 3,105,658
: 3,107,068
: 3,109,607
: 3,109,608
: 3,110,455
: 3,114,517
: 3,114,518
: 3,116,035
2 : Re.25,468
: 3,072,364
: 3,082,975
: 3,090,581
: 3,112,088
3 : 3,083,933
: 3,085,769
: 3,088,693
: 3,100,093
: 3,102,703
: 3,103,323
: 3,112,900
: 3,113,747
4 : 3,098,625
: 3,107,069
5 : 3,083,934
6 : 3,081,963
7 : 3,073,547
: 3,081,964
: 3,089,666
: 3,096,041
: 3,105,659
: 3,106,369
: 3,107,881
: 3,107,882
: 3,112,901
: 3,116,036
10 : 3,092,354
12 : 3,073,548
: 3,073,549
: 3,075,725
: 3,077,321
: 3,078,061
: 3,080,137
: 3,081,965
: 3,082,976
: 3,083,935
: 3,088,694
: 3,088,695
: 3,089,667
: 3,089,668
: 3,093,347
: 3,095,163
: 3,095,164
: 3,095,165
: 3,096,042
: 3,096,043
: 3,096,044
: 3,096,952
: 3,099,420
: 3,103,324
12 : 3,103,325
: 3,104,853
: 3,109,609
: 3,110,456
: 3,114,519
: 3,115,317
14 : 3,072,365
: 3,073,550
: 3,075,726
: 3,081,048
: 3,081,049
: 3,081,050
: 3,081,051
: 3,088,696
: 3,088,697
: 3,090,582
: 3,090,583
: 3,097,816
: 3,104,081
: 3,107,070
: 3,112,902
: 3,116,039
15 : 3,093,348
: 3,097,817
: 3,107,883
: 3,109,610
17.13 : 3,075,727
.19 : 3,081,052
.13 : 3,081,966
.11 : 3,096,045
.13 : 3,096,046
.19 : 3,096,953
.13 : 3,099,421
.19 : 3,106,370
.13 : 3,116,040
.23 : 3,082,977
.27 : 3,087,690
.25 : 3,100,610
23 : 3,071,334
: 3,072,366
: 3,073,551
: 3,084,888
: 3,085,770
: 3,087,691
: 3,094,298
: 3,096,954
: 3,099,422
: 3,099,423
: 3,100,611
: 3,101,917
: 3,107,071
: 3,108,764
: 3,116,041
26 : 3,096,047
30 : 3,079,106
31 : 3,080,138
: 3,081,967
: 3,096,048
87 : 3,103,326
: 3,107,884
93 : 3,108,765
98 : 3,109,611
99 : 3,109,612
100 : 3,110,457
: 3,116,037
102 : 3,083,937
: 3,086,733
: 3,088,699
: 3,089,672
: 3,102,705
: 3,107,886
: 3,111,292
: 3,091,418
: 3,096,052
104 : 3,075,730
: 3,082,980
: 3,085,771
110 : Re.25,406
: 3,077,323
: 3,079,110
: 3,086,734
: 3,086,735
: 3,089,673
: 3,093,352
: 3,098,629
: 3,100,613
: 3,114,522
113 : 3,098,630
: 3,106,372
: 3,114,523
114 : 3,081,970
: 3,085,772
: 3,086,693
: 3,096,956
115 : 3,075,731
117 : 3,076,625
: 3,100,096
: 3,105,661
: 3,106,373
: 3,113,750
: 3,114,524
119 : 3,073,494
120 : 3,114,525
: 3,114,526
121 : 3,106,374
122 : 3,074,669
: 3,077,324
: 3,077,325
: 3,079,111
: 3,079,112
: 3,083,938
: 3,093,353
: 3,095,170
: 3,096,957
: 3,098,631
: 3,103,331
: 3,105,662
: 3,111,293
: 3,115,320
123 : 3,096,958
130 : 3,074,670
: 3,082,981
: 3,101,920
133 : 3,096,053
134 : 3,094,301
135 : 3,091,419
: 3,096,054
: 3,098,632
: 3,098,633
: 3,100,614
: 3,101,921
: 3,107,072
: 3,108,769
136 : 3,084,890
137 : 3,072,371
: 3,096,055
: 3,113,751
138 : 3,074,671
: 3,081,971
: 3,104,854
: 3,109,615
: 3,112,090
: 3,112,906
139 : 3,084,891
: 3,097,819
: 3,107,887
140 : 3,079,113
141 : 3,087,694
142 : 3,104,855
145 : 3,073,555
: 3,099,426
: 3,104,856
147 : 3,072,372
: 3,087,695
: 3,092,358
: 3,113,752
148 : 3,087,696
149 : 3,087,697
: 3,110,459
150 : 3,112,091
151 : 3,086,736
: 3,088,700
: 3,104,858
: 3,112,907
: 3,115,321
152 : 3,079,114
153 : 3,073,556
: 3,074,672
: 3,074,673
: 3,079,115
: 3,086,737
: 3,086,738
: 3,087,698
: 3,098,634
: 3,100,895
: 3,108,770
: 3,110,460
154 : 3,076,626
: 3,079,116
: 3,092,359
: 3,093,354
: 3,107,888
155 : 3,086,739
: 3,088,701
: 3,091,420
: 3,100,615
: 3,105,663
: 3,116,043

Class 245

2 : 3,087,699
10 : 3,094,302
: 3,100,616

Class 246

3 : 3,075,075
5.5 : 3,079,494
23.5 : 3,112,908
28 : 3,108,771
32 : 3,083,296
33 : 3,079,495
107 : 3,109,616
167 : 3,079,496
169 : 3,076,089
: 3,076,090
: 3,079,497
169 : 3,081,399
: 3,086,108
: 3,090,859
: 3,095,171
: 3,100,097
: 3,108,772
: 3,108,773
177 : 3,072,785
182 : 3,089,029
: 3,091,688
: 3,100,098
: 3,110,461
187 : 3,096,056
240 : 3,110,462
246 : 3,110,463
: 3,111,294
: 3,116,044
249 : 3,086,109
251 : 3,081,400
435 : 3,099,427
465 : 3,096,057

Class 248

1 : 3,115,322
4 : 3,096,058
: 3,096,959
: 3,106,375
: 3,107,073
: 3,107,074
: 3,112,092
5 : 3,073,557
: 3,085,773
: 3,086,971
13 : 3,107,075
14 : 3,107,889
: 3,108,774
20 : 3,090,586
: 3,110,464
: 3,115,323
23 : 3,113,753
24 : 3,093,355
: 3,103,332
27 : 3,090,587
: 3,097,820
: 3,101,922
28 : 3,079,117
33 : 3,077,326
: 3,081,972
39 : 3,085,774
40 : 3,089,674
: 3,094,303
41 : Re.25,387
: 3,091,421
42 : 3,077,327
43 : 3,071,338
44 : 3,082,982
45 : 3,074,674
46 : 3,080,139
48 : 3,073,558
.2 : 3,115,324
49 : 3,075,732
51 : 3,082,983
54 : 3,102,706
56 : 3,092,360
: 3,092,361
: 3,105,664
58 : Re.25,350
: 3,103,333
: 3,112,909
: 3,116,045
61 : 3,084,892
206 : 3,082,988
: 3,085,777
210 : 3,104,859
: 3,108,776
: 3,111,297
211 : 3,094,304
214 : 3,100,100
215 : 3,112,911
216 : 3,090,588
: 3,097,821
222 : 3,101,184
223 : 3,074,679
: 3,112,912
224 : 3,074,680
225 : 3,080,980
: 3,091,423
: 3,094,305
226 : 3,081,057
: 3,088,703
: 3,106,376
: 3,114,530
228 : 3,084,893
229 : 3,096,961
231 : 3,116,046
238 : 3,103,334
239 : 3,078,064
240 : 3,096,885
.4 : 3,073,560
242 : 3,089,675
: 3,101,923
: 3,114,531
243 : 3,087,702
250 : 3,097,822
251 : 3,075,735
262 : 3,104,086
276 : 3,096,962
278 : 3,072,374
: 3,084,894
282 : 3,107,077
284 : 3,073,561
286 : 3,082,989
288 : 3,096,061
289 : 3,096,062
291 : 3,092,362
292 : 3,096,063
308 : 3,082,990
309 : 3,076,627
311 : 3,110,467
313 : 3,084,895
: 3,091,424
: 3,104,860
316 : 3,092,363
: 3,101,185
317 : 3,077,328
318 : 3,081,058
: 3,090,589
323 : 3,096,064
324 : 3,095,174
327 : 3,091,425
343 : 3,072,375
: 3,104,087
346 : 3,090,590
350 : 3,092,364
354 : 3,073,562
: 3,096,065
358 : 3,074,681
: 3,083,939
: 3,107,890
: 3,113,755
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360 : 3,109,619
361 : 3,072,376
: 3,102,708
: 3,105,667
: 3,106,377
: 3,109,620
363 : 3,107,078
371 : 3,088,704
373 : 3,072,377
376 : 3,081,059
378 : 3,101,186
393 : 3,081,973
: 3,091,426
394 : 3,089,676
: 3,105,668
: 3,105,669
397 : 3,115,327
399 : 3,076,628
: 3,085,778
: 3,086,742
: 3,096,066
: 3,100,101
: 3,109,621
400 : 3,075,736
401 : 3,096,963
405 : 3,086,743
406 : 3,086,744
415 : 3,074,682
417 : 3,107,891
420 : 3,079,118
: 3,105,670
: 3,109,622
424 : 3,076,629
425 : 3,096,964
429 : 3,115,328
430 : 3,100,617
: 3,100,618
431 : 3,084,896
436 : 3,096,067
440 : 3,084,897

Class 250

41.9 : 3,072,786
.9 : 3,073,951
.9 : 3,075,076
.9 : 3,076,091
.9 : 3,076,893
.9 : 3,084,249
.9 : 3,086,110
.9 : 3,086,111
.9 : 3,087,055
.9 : 3,087,056
.9 : 3,093,733
.9 : 3,096,435
.9 : 3,096,436
.9 : 3,096,437
.9 : 3,096,438
.9 : 3,105,899
.9 : 3,107,295
.9 : 3,113,207
.9 : 3,115,575
42 : 3,107,296
43 : 3,090,861
.5 : 3,072,787
.5 : 3,075,077
.5 : 3,084,250
.5 : 3,085,153
.5 : 3,088,026
.5 : 3,089,030
.5 : 3,090,862
.5 : 3,090,863
.5 : 3,091,689
.5 : 3,091,690
.5 : 3,095,503
.5 : 3,096,439
.5 : 3,098,154
.5 : 3,100,258
.5 : 3,100,259
.5 : 3,100,840
.5 : 3,100,841
.5 : 3,102,192
.5 : 3,104,320
.5 : 3,105,146
.5 : 3,105,147
.5 : 3,105,900
.5 : 3,108,184
.5 : 3,110,803
.5 : 3,111,581
.5 : 3,115,576
.5 : 3,116,413
.5 : 3,116,414
45 : 3,079,498
49.5 : 3,071,685
.5 : 3,075,078
.5 : 3,076,092
.5 : 3,078,368
.5 : 3,086,112
.5 : 3,086,113
.5 : 3,087,057
.5 : 3,090,864
.5 : 3,094,615
.5 : 3,100,260
.5 : 3,102,193
.5 : 3,102,194
.5 : 3,102,195
.5 : 3,103,584
.5 : 3,104,321
.5 : 3,109,931
.5 : 3,113,208
50 : 3,072,788
51 : 3,071,686
: 3,100,842

Class 250 – Con.

51 : 3,114,038
.5 : 3,072,789
.5 : 3,073,952
.5 : 3,075,079
.5 : 3,079,899
.5 : 3,079,500
.5 : 3,079,501
.5 : 3,086,114
.5 : 3,099,743
.5 : 3,100,261
.5 : 3,102,196
.5 : 3,102,952
.5 : 3,102,953
.5 : 3,105,901
.5 : 3,105,902
.5 : 3,107,297
.5 : 3,108,185
.5 : 3,110,804
.5 : 3,112,398
.5 : 3,113,209
.5 : 3,114,832
.5 : 3,116,415
52 : 3,087,058
3,090,865
: 3,100,843
3,106,640
53 : 3,116,416
55 : 3,086,115
3,087,059
58 : 3,091,691
: 3,115,577
59 : 3,111,582
61.5 : 3,082,321
.5 : 3,082,322
.5 : 3,091,692
.5 : 3,094,616
65 : 3,073,953
3,078,369
3,079,502
3,085,154
3,088,027
3,088,028
3,089,031
3,089,952
: 3,089,953
3,094,619
3,094,620
3,095,504
3,097,297
3,108,186
3,109,093
3,110,805
3,111,583
3,111,584
3,114,833
66 : 3,075,080
: 3,105,903
3,111,585
67 : 3,105,904
70 : 3,092,721
71 : 3,079,503
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3,088,029
3,100,844
: 3,107,298
: 3,108,187
: 3,109,091
3,114,039
3,114,834
3,115,578
.5 Re.25,320
.5 3,073,954
.5 3,076,093
.5 : 3,076,894
.5 : 3,080,478
.5 : 3,080,479
.5 : 3,085,155
.5 : 3,087,060
.5 : 3,088,030
.5 : 3,089,032
.5 : 3,089,954
.5 : 3,089,955
.5 : 3,090,866
.5 : 3,093,734
.5 : 3,098,156
.5 : 3,099,744
.5 : 3,101,407
.5 : 3,101,408
.5 : 3,101,409
.5 : 3,102,954
.5 : 3,102,955
.5 : 3,105,148
.5 : 3,105,149
.5 : 3,114,040
.5 : 3,114,835
.5 : 3,116,417
77 3,092,722
80 3,089,956
83 : 3,073,955
: 3,079,504
3,079,505
3,086,116

83 : 3,089,957
3,092,723
3,093,735
: 3,100,262
: 3,100,263
3,102,197
3,103,585
: 3,105,150
3,107,299
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: 3,073,956
1 : 3,076,895
1 : 3,086,117
.1 : 3,089,958
.1 : 3,099,745
.1 : 3,101,410
.1 : 3,102,198
.1 : 3,113,210
.3 Re.25,353
.3 3,071,687
.3 3,071,688
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.3 : 3,072,790
.3 : 3,072,791
.3 3,073,957
.3 3,073,958
.3 3,075,081
.3 3,076,094
.3 : 3,077,538
.3 3,078,370
.3 3,080,480
.3 3,080,481
.3 3,080,482
.3 3,081,401
.3 3,082,323
.3 3,082,324
.3 3,082,325
.3 3,084,251
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.3 3,084,253
.3 3,086,118
.3 3,087,061
.3 3,087,062
.3 3,090,867
.3 3,091,693
.3 3,091,694
.3 3,092,724
.3 3,093,736
.3 3,093,737
.3 3,094,617
.3 3,094,621
.3 3,094,622
.3 3,094,623
.3 : 3,095,505
.3 3,095,506
.3 3,096,440
.3 3,097,298
.3 3,097,299
.3 3,097,300
.3 3,098,930
.3 3,098,931
.3 3,098,932
.3 : 3,099,746
.3 3,101,411
.3 3,102,199
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.3 3,102,956
.3 : 3,103,586
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.3 : 3,105,905
.3 : 3,105,906
.3 3,106,641
.3 : 3,106,642
.3 3,107,300
.3 3,108,188
.3 3,109,095
.3 : 3,109,096
.3 : 3,109,097
.3 : 3,109,932
.3 : 3,110,806
.3 3,110,807
.3 : 3,110,808
.3 3,112,399
.3 : 3,112,400
.3 3,113,211
.3 : 3,114,837
.3 3,115,579
.3 3,116,418
.6 3,072,792
.6 3,072,793
.6 3,073,959
.6 : 3,078,371
.6 : 3,084,254
.6 3,084,255
.6 3,085,156
.6 3,097,695
.6 : 3,093,738
.6 3,097,301
.6 : 3,103,588
.6 : 3,103,589
.6 : 3,109,098
.6 : 3,110,809
.6 : 3,113,212

83.6 : 3,114,042
84 3,080,483
.5 3,071,690
.5 3,082,326
.5 : 3,084,256
.5 3,084,257
.5 3,104,322
.5 3,112,401
.5 : 3,113,213
85 3,077,539
88 3,084,258
3,089,033
91 3,090,868
93 3,094,618
3,103,590
95 : 3,075,082
3,079,506
100 3,110,810
102 3,103,591
105 3,088,031
3,091,696
3,099,747
: 3,102,957
3,112,402
3,105,151
3,105,152
3,105,808
3,109,100
3,109,933
3,111,841
220 3,082,327
3,086,122
3,093,742
3,096,444
3,100,265
3,102,960
222 3,097,303
223 3,072,797
224 3,103,592
225 3,079,508
226 3,092,727
227 3,086,123
3,086,037
3,104,324
3,110,816
230 3,072,798
3,077,540
199 3,087,065
3,102,201
3,111,587
202 3,073,962
3,084,624
3,105,907
203 3,072,794
3,076,095
3,078,372
3,080,484
3,080,485
3,083,299
3,084,261
3,085,158
3,088,033
3,088,034
3,090,869
3,098,933
3,098,934
3,099,748
3,100,263
3,110,812
206 : 3,087,066
3,110,813
207 : 3,076,896
3,089,959
3,091,697
3,093,740
3,102,202
3,114,044
208 3,097,302
: 3,112,803
209 3,072,795
3,076,897
3,083,300
3,087,067
3,087,068
3,096,441
3,102,203
: 3,107,301
3,108,189
210 3,088,035
3,099,739
211 3,072,796
3,085,159
3,087,069
3,096,442
3,102,959
3,107,302
212 3,092,725
: 3,093,741
213 3,073,963
: 3,075,083
3,078,373
3,081,402
3,084,262

213 3,086,119
3,086,120
3,091,698
3,100,845
: 3,107,303
3,112,404
3,112,405
3,114,045
214 3,089,034
3,104,323
3,110,814
217 3,079,507
3,088,036
3,110,815
218 3,094,625
3,101,414
219 3,086,121
3,090,870
3,091,699
3,092,726
3,096,443
3,100,846
3,101,415
3,102,204
3,105,151
3,105,152
3,105,808
3,106,643
3,109,100
3,109,933
3,111,841
220 3,082,327
3,086,122
3,093,742
3,096,444
3,100,265
3,102,960
222 3,097,303
223 3,072,797
224 3,103,592
225 3,079,508
226 3,092,727
227 3,086,123
3,086,037
3,104,324
3,110,816
230 3,072,798
3,077,540
231 3,082,328
232 3,093,743
233 3,109,101
234 3,085,160
237 3,100,847
3,114,046
239 3,081,403
3,092,728
3,093,744
3,099,750

Class 251

1 3,084,898
3,102,709
3 3,074,683
3,081,060
3,083,940
3,084,899
4 3,095,175
3,103,335
175 3,080,591
6 3,099,429
9 3,100,102
3,102,710
11 3,080,143
12 3,103,336
16 3,107,079
21 3,085,779
25 3,101,924
26 3,075,737
28 3,079,121
29 3,110,468
30 Re.25,338
3,076,680
3,090,592
3,100,103
3,103,337
3,105,671
3,112,094
3,114,532
31 Re.25,471
: 3,072,378
3,107,080
: 3,115,329
35 3,074,684
43 3,104,861
45 3,103,398
3,110,469
46 3,083,941
48 : 3,083,942
54 : 3,084,900
3,098,635
3,102,711
3,108,777

57 : 3,113,756
58 : 3,078,065
3,089,677
: 3,104,862
61 3,078,066
3,082,991
3,083,943
3,084,901
3,085,780
3,103,339
62 3,077,329
3,086,745
3,095,176
3,107,892
3,111,298
3,115,330
63 3,101,187
65 3,071,340
67 3,085,781
77 3,074,685
3,091,427
83 3,086,746
86 3,073,563
3,075,738
3,107,893
88 3,084,902
: 3,103,340
89 3,107,081
5 3,077,330
.5 3,079,122
.5 3,086,747
96 3,071,341
98 3,098,636
112 3,073,564
115 3,103,341
118 3,096,098
3,107,894
119 3,086,748
121 3,078,067
3,080,144
122 3,098,647
123 3,116,047
124 3,085,782
138 3,074,686
141 3,113,757
146 3,099,430
148 3,101,188
149 2 3,078,068
4 3,093,357
6 3,104,088
9 3,087,703
9 3,100,619
9 3,106,378
9 3,106,379
159 3,110,470
170 3,096,965
171 3,071,342
3,072,379
172 3,081,061
3,081,974
3,082,992
3,097,823
3,109,623
3,112,095
173 3,076,631
3,077,331
3,077,332
3,078,069
3,095,177
175 3,071,343
3,081,062
3,085,783
3,100,103
3,108,778
3,111,299
3,085,784
183 3,090,591
187 3,076,632
3,084,903
3,088,705
3,101,189
205 3,086,749
3,096,099
208 : 3,100,620
210 3,071,344
212 3,095,178
214 3,088,706
3,096,070
3,096,966
3,099,431
3,100,621
3,107,082
218 3,084,904
221 3,075,739
3,101,190
229 3,073,565
258 3,090,595
263 : 3,083,944
: 3,104,089
278 : 3,087,704
3,104,090
282 3,094,306
297 3,094,307

297 : 3,094,308
298 : 3,102,712
306 : 3,078,070
3,079,123
3,080,145
3,096,071
3,105,672
3,111,300
309 3,092,365
3,093,358
3,101,191
3,108,779
310 3,080,146
314 3,093,359
315 3,091,428
317 3,079,124
318 3,110,471
324 3,099,432
327 3,089,678
329 3,096,072
3,109,624
331 3,075,740
3,081,063
3,103,342
332.5 3,079,339
3,090,596
3,095,179
334 3,108,780
353 3,109,625
356 3,087,705
3,111,301
358 3,086,750
359 3,107,895
362 3,073,566
3,106,380
363 3,083,945

Class 252

1 3,113,104
2 3,074,883
3,080,316
3,090,749
3,095,372
8 3,106,530
.3 3,076,757
.3 3,102,859
5 3,072,569
.55 3,075,918
.5 3,076,758
.5 3,076,759
.55 3,076,760
.55 3,076,761
.55 3,076,762
.5 3,079,332
.5 3,079,333
.5 3,079,334
.5 3,079,335
.55 3,079,336
.55 3,079,337
.5 3,081,260
.55 3,083,158
.5 3,084,121
.55 3,084,122
.55 3,085,063
.5 3,085,976
.5 3,085,977
.5 3,086,938
.55 3,086,939
.55 3,087,891
.5 3,089,846
.55 3,089,847
.5 3,091,588
.5 3,091,589
.55 3,096,284
.55 3,097,168
.55 3,098,038
.55 3,098,039
.5 3,099,624
.5 3,105,046
.55 3,105,047
.5 3,106,531
.5 3,108,068
.5 3,108,069
.5 3,108,956
.5 3,110,668
.5 3,111,491
.55 3,111,492
.55 3,112,266
.55 3,114,707
.6 3,112,265
8 3,095,373
.9 3,101,323
12 3,079,338
3,105,048
3,114,708
13 3,113,105
15 3,103,490
3,107,219
18 3,078,226
: 3,085,064
3,086,939
: 3,089,848
3,090,750

301.6 : 3,110,680
.6 : 3,111,493
.6 : 3,113,929
303 : 3,102,100
305 : 3,074,891
: 3,074,892
: 3,077,457
: 3,102,101
309 : 3,108,970
311.5 : 3,093,595
.5 : 3,096,292
.5 : 3,097,173
.5 : 3,097,174
.5 : 3,108,971
313 : 3,083,167
3,097,175
: 3,098,044
: 3,105,053
: 3,110,681
: 3,113,112
316 : 3,096,293
317 : 3,103,495
318 : 3,086,944
321 : 3,078,236
3,083,168
324 : 3,085,068
332 : 3,084,124
338 : 3,112,276
341 : 3,098,827
342 : 3,110,682
344 : 3,090,759
354 : 3,071,580
355 : 3,079,348
3,116,257
358 : 3,076,768
3,078,237
3,093,930
3,115,472
359 : 3,088,918
3,093,596
3,109,821
364 : 3,116,258
366 : 3,080,326
3,080,327
372 : 3,086,945
373 : 3,091,593
374 : 3,088,919
3,114,717
376 : 3,081,268
386 : 3,085,069
3,088,920
389 : 3,107,222
3,110,683
3,110,684
142 : 3,083,166
390 : 3,096,294
391 : 3,087,897
392 : 3,113,113
408 : 3,095,382
411 : 3,071,551
412 : 3,108,972
413 : 3,082,176
3,093,597
3,112,277
415 : 3,090,760
416 : 3,087,898
417 : 3,076,769
3,091,594
3,104,227
420 : 3,085,070
3,112,278
426 : 3,092,587
3,113,114
428 : Re.25,400
3,107,223
3,108,081
429 : 3,108,973
3,109,822
3,113,115
3,114,718
430 : 3,084,125
3,094,492
3,114,719
432 : 3,092,588
438 : 3,102,864
3,112,279
439 : 3,078,238
3,116,259
441 : 3,092,589
3,095,383
3,114,707
442 : 3,098,828
3,109,823
3,113,931
448 : 3,096,295
3,114,720
451 : 3,095,384
455 : 3,098,045
3,108,974
465 : 3,074,893
3,104,228
466 : 3,094,493
3,098,829
470 : 3,111,404
477 : Re.25,454

478 : 3,075,925
3,092,590
3,106,535
3,114,721
501 : 3,104,229
3,116,260
511 : 3,083,169
3,111,495
512 : 3,110,685
513 : 3,080,328
514 : 3,116,261
516 : 3,088,921
518 : 3,073,784
3,089,856
3,092,591
519 : 3,073,785
3,116,262
521 : 3,093,598

Class 253

1 : 3,079,126
2 : 3,077,333
3,083,946
3,088,707
3,093,360
3,107,083
3 : 3,101,925
3,108,781
18 : 3,084,905
23 : 3,074,687
24 : 3,084,906
3,110,472
26 : 3,081,975
39 : 3,073,567
3,077,334
3,078,071
3,083,947
3,084,907
3,090,597
3,093,361
3,094,309
3,096,073
3,104,091
3,104,092
3,114,533
.15 : 3,074,688
.15 : 3,091,429
.15 : 3,094,310
.15 : 3,110,473
.15 : 3,111,302
52 : 3,079,127
55 : 3,106,381
3,112,096
59 : 3,071,345
3,075,741
3,075,742
3,089,679
3,094,311
3,099,433
3,100,622
3,107,896
3,112,913
3,116,048
134 3,095,182
3,109,626
3,073,568
3,073,569
3,075,743
3,076,633
3,076,634
3,084,343
3,088,708
3,095,180
3,096,074
3,097,824
3,104,093
3,108,782
3,112,914
3,112,915
78 : 3,071,346
3,072,381
3,074,689
3,074,690
3,075,744
3,079,128
3,101,926
3,107,897
3,112,916
82 : 3,115,331
97 : 3,071,347
137 : 3,091,430

Class 254

2 : 3,073,570
3,080,147
3,081,064
3,091,431
5 : 3,074,691
7 : 3,083,948
8 : 3,084,908
3,086,751
: 3,102,713
.5 : 3,105,673

10.5 : 3,087,706
18 : 3,105,674
29 : 3,073,571
3,077,335
3,079,129
3,081,976
3,090,598
3,094,312
3,096,075
3,099,434
3,115,332
35 : 3,099,435
50.3 : 3,097,825
.3 : Re.25,339
51 : 3,075,745
3,080,148
3,084,909
3,090,599
64 : 3,104,863
67 : 3,105,675
3,108,783
69 : 3,091,432
75 : 3,074,692
77 : 3,084,910
3,101,192
.1 : 3,082,994
.1 : 3,092,371
85 : 3,089,680
3,107,898
86 : 3,073,572
3,081,065
3,086,752
3,093,362
3,106,382
88 : 3,102,714
89 : 3,073,573
3,085,785
3,096,076
3,114,534
92 : 3,074,693
93 : 3,081,066
3,086,753
3,092,366
3,096,077
3,097,826
98 : 3,084,911
3,100,623
100 : 3,085,786
101 : 3,100,624
104 : 3,074,694
3,078,072
3,110,474
105 : 3,095,181
106 : 3,085,787
109 : 3,110,475
110 : 3,108,784
116 : 3,090,600
122 : 3,110,476
126 : 3,096,967
127 : 3,114,535
131.5 : 3,113,758
132 : 3,077,336
3,084,915
3,089,683
3,090,603
3,097,828
3,100,627
3,109,630
3,109,631
3,072,382
3,072,383
3,077,337
3,078,073
3,081,977
3,084,912
3,086,754
3,098,638
3,102,715
3,109,627
3,110,478
3,110,479
3,110,480
72 : 3,074,696
3,081,980
3,088,715
3,091,435
3,094,314
3,096,081
3,104,868
3,113,761
3,086,382
3,090,604
3,095,185
3,073,579
3,109,632
3,081,070
3,084,916
3,091,436
3,081,981
3,085,789
3,106,383
3,071,351
3,092,373
3,080,151
3,075,746
3,109,633
3,100,105

175.7 : 3,116,050
184 : 3,073,574
3,081,067
185 : 3,092,370
186 : 3,071,349
187 : 3,107,899
189 : 3,078,075
190 : 3,072,384
3,079,130
3,079,131
3,081,978
3,097,827
3,098,639
3,103,345
3,105,676
3,112,097
194 : 3,101,928
196 : 3,094,313

Class 256

11 : 3,084,913
12.5 : 3,082,993
13.1 : 3,077,339
3,082,994
.1 : 3,092,371
19 : 3,111,303
21 : 3,104,865
22 : 3,092,372
3,095,184
24 : 3,096,079
3,101,929
25 : 3,072,385
26 : 3,093,363
47 : 3,089,681
57 : 3,080,149
59 : 3,104,866
3,108,786
3,109,629
3,113,760
64 : 3,089,682
65 : 3,071,350
3,076,636
3,083,951
3,085,788
3,107,900
69 : 3,108,787

Class 259

1 : Re.25,324
3,077,340
3,081,979
3,096,080
3,112,098
3,098,830
3,099,628
3,099,629
3,100,750
3,105,054
3,106,536
3,110,687
3,110,688
3,112,280
3,115,474
.1 : 3,088,924
.1 : 3,092,617
.1 : 3,094,494
.2 : 3,085,072
.2 : 3,086,947
.2 : 3,099,630
.2 : 3,100,751
.3 : 3,098,046
.3 : 3,108,082
.3 : 3,109,824
.5 : 3,071,554
.5 : 3,072,581
.5 : 3,072,582
.5 : 3,072,583
.5 : 3,072,584
.5 : 3,073,787
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.5 : 3,078,239
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.5 : 3,079,349
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.5 : 3,080,329
.5 : 3,081,269
.5 : 3,084,126
.5 : 3,084,127
.5 : 3,085,073
.5 : 3,085,983
.5 : 3,085,984
.5 : 3,087,899
.5 : 3,087,900
.5 : 3,087,901
.5 : 3,088,925

104 : 3,071,352
3,075,747
3,090,605
3,091,437
107 : 3,087,709
3,100,628
3,110,481
3,115,333
109 : 3,090,606
110 : 3,115,334
122 : Re.25,490
3,098,640
3,112,917
134 : 3,071,353
3,111,305
144 : 3,076,638
3,088,716
3,107,085
3,109,634
145 : 3,112,099
146 : 3,093,364
147 : 3,096,968
3,107,901
150 : 3,072,387
151 : 3,091,438
3,114,536
153 : 3,116,051
154 : 3,101,931
159 : 3,106,384
161 : 3,112,100
171 : 3,080,152
175 : 3,086,755
3,090,607
176 : 3,081,982
177 : 3,073,580
3,084,917
178 : 3,072,388
3,081,983
3,104,869
180 : 3,078,076
3,106,385

Class 260

2 : 3,071,552
3,071,553
3,073,786
3,082,177
3,085,071
3,086,946
3,088,922
3,088,923
3,095,385
3,096,296
3,098,830
3,099,628
3,099,629
3,100,750
3,105,054
3,106,536
3,110,687
3,110,688
3,112,280
3,115,474
.1 : 3,088,924
.1 : 3,092,617
.1 : 3,094,494
.2 : 3,085,072
.2 : 3,086,947
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.3 : 3,098,046
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.5 : 3,072,582
.5 : 3,072,583
.5 : 3,072,584
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.5 : 3,075,930
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.5 : 3,078,239
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.5 : 3,080,329
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.5 : 3,084,126
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.5 : 3,085,983
.5 : 3,085,984
.5 : 3,087,899
.5 : 3,087,900
.5 : 3,087,901
.5 : 3,088,925

Class 260 – Con.

2.5 : 3,089,857
.5 : 3,090,761
.5 : 3,092,592
.5 : 3,092,593
.5 : 3,092,594
.5 : 3,093,599
.5 : 3,093,600
.5 : 3,094,495
.5 : 3,095,386
.5 : 3,095,387
.5 : 3,097,176
.5 : 3,098,047
.5 : 3,098,048
.5 : 3,098,831
.5 : 3,098,832
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.5 : 3,100,752
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.5 : 3,105,537
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.5 : 3,110,686
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.5 : 3,114,722
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: 3,086,948
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.5 : 3,079,352
.5 : 3,085,074
4 : 3,084,128
: 3,087,902
: 3,095,388
: 3,102,102
5 : 3,093,601
: 3,094,496
6 : 3,095,389
9 : 3,096,297
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.4 : 3,078,241
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23 : Re.25,451
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: 3,114,723
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.7 : 3,080,334
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.4 : 3,073,793
.4 : 3,074,900
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.4 : 3,096,300
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.8 : 3,105,056
.8 : 3,114,725
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.8 : 3,073,794
34.2 : 3,108,984
37 : 3,075,942
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40 : 3,077,463
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: 3,111,500
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.4 : Re.25,395
.4 : 3,073,796
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.8 : 3,102,871
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.6 : 3,082,190
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.95 : 3,098,842
.95 : 3,099,639
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.95 : 3,103,501
.9 : 3,107,230
.9 : 3,107,231
.95 : 3,107,233
.9 : 3,113,124
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.9 : 3,116,267
46.5 : 3,071,561
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: 3,098,879
: 3,101,378
: 3,105,098
: 3,108,140
636 : 3,092,669
637 : 3,076,854
: 3,082,259
: 3,088,982
: 3,096,377
: 3,098,880
: 3,099,692
638 : 3,082,260
: 3,085,114
: 3,087,970
: 3,092,670
: 3,093,691
: 3,095,458
641 : 3,076,036
643 : 3,105,099
644 : 3,094,566
644 : 3,113,975
: 3,115,527
645 : 3,078,317
: 3,085,115
: 3,086,062
: 3,086,063
: 3,087,971
: 3,087,972
: 3,087,973
: 3,092,671
: 3,110,738
: 3,112,346
646 : 3,076,037
: 3,077,502
647 : 3,076,038
: 3,083,237
: 3,109,034
648 : 3,073,869
: 3,080,429
: 3,082,261
: 3,083,238
: 3,090,817
: 3,093,692
: 3,099,693
: 3,110,739
: 3,112,347
649 : 3,076,039
: 3,084,203
650 : 3,075,021
: 3,077,503
: 3,100,232
: 3,113,976
652 : 3,076,044
: 3,088,983
: 3,111,545
: 3,115,528
: 3,076,040
.5 : 3,082,262
.5 : 3,085,116
.5 : 3,090,818
.5 : 3,099,694
.5 : 3,109,035
.5 : 3,112,348
.5 : 3,113,154
.5 : 3,113,155
.5 : 3,113,156
.5 : 3,114,779
653 : 3,071,628
: 3,076,041
: 3,080,430
: 3,080,431
: 3,082,263
: 3,087,974
: 3,087,975
: 3,087,976
: 3,091,648
: 3,091,858
: 3,093,366
: 3,101,933
: 3,101,934
: 3,114,537
: 3,116,852
654 : 3,079,444
: 3,083,239
: 3,085,117
: 3,094,567
: 3,100,233
: 3,110,740
: 3,115,529
655 : 3,076,042
: 3,079,445
: 3,079,446
: 3,079,135
656 : 3,113,158
658 : 3,113,159
659 : 3,113,977
660 : 3,095,459
663 : 3,108,141
664 : 3,076,043
: 3,081,359
: 3,083,240
: 3,083,241
: 3,109,866
665 : 3,082,264
: 3,083,242
: 3,085,118
: 3,085,119
: 3,085,120
: 3,090,819
: 3,095,460
: 3,098,881
: 3,113,160
666 : 3,071,364
: 3,073,872
: 3,076,045
: 3,076,855
: 3,078,256
: 3,080,432
: 3,082,265
666 : 3,085,121
: 3,089,912
: 3,093,693
: 3,096,380
: 3,098,106
: 3,103,540
: 3,104,266
: 3,108,142
: 3,108,143
: 3,108,144
: 3,110,741
: 3,116,338
667 : 3,090,820
: 3,091,649
: 3,116,339
668 : 3,071,629
: 3,071,630
: 3,071,631
: 3,073,873
: 3,078,318
: 3,078,319
: 3,079,447
: 3,082,266
: 3,082,267
: 3,082,268
: 3,088,984
: 3,091,650
: 3,091,651
: 3,091,652
: 3,092,672
: 3,096,381
: 3,109,036
: 3,109,868
: 3,110,742
: 3,110,743
: 3,111,546
: 3,113,978
: 3,113,979
: 3,114,780
: 3,115,530
669 : 3,080,433
: 3,093,694
: 3,093,695
: 3,100,234
: 3,100,807
670 : 3,080,434
: 3,110,744
671 : 3,076,856
: 3,076,857
: 3,079,448
672 : 3,075,022
: 3,101,380
: 3,102,151
: 3,110,745
673 : 3,082,269
: 3,076,046
.5 : 3,076,046
.5 : 3,080,435
.5 : 3,106,590
674 : 3,071,632
: 3,079,449
: 3,082,270
: 3,083,244
: 3,092,673
: 3,096,382
: 3,103,541
: 3,109,039
: 3,109,867
: 3,113,161
: 3,113,982
: 3,114,782
: 3,114,783
: 3,114,784
: 3,116,341
676 : 3,075,023
: 3,080,436
: 3,083,245
: 3,086,065
: 3,096,383
: 3,105,855
: 3,106,591
: 3,113,162
677 : 3,073,874
: 3,075,024
: 3,076,858
: 3,082,271
: 3,085,122
: 3,086,066
: 3,088,985
: 3,094,569
: 3,094,570
: 3,098,107
677 : 3,098,882
: 3,101,381
: 3,102,919
: 3,105,100
: 3,106,592
: 3,113,163
: 3,113,983
: 3,113,984
: 3,116,342
678 : 3,093,696
679 : 3,073,875
: 3,093,697
: 3,105,101
: 3,116,343
: 3,116,344
680 : 3,088,986
: 3,092,674
: 3,096,384
: 3,097,247
: 3,104,269
: 3,105,856
: 3,110,746
: 3,111,547
: 3,113,164
: 3,115,531
681 : 3,105,857
: 3,109,040
.5 : 3,075,025
.5 : 3,080,437
.5 : 3,091,653
.5 : 3,091,654
.5 : 3,094,571
.5 : 3,097,248
.5 : 3,097,249
.5 : 3,105,858
.5 : 3,106,593
682 : 3,082,272
683 : 3,071,633
: 3,082,273
: 3,098,883
: 3,113,980
: 3,113,985
.15 : 3,071,634
.15 : 3,073,876
.15 : 3,075,026
.15 : 3,075,027
.15 : 3,076,047
.15 : 3,083,246
.15 : 3,084,206
.15 : 3,087,978
.15 : 3,087,979
.15 : 3,090,821
.15 : 3,090,822
.15 : 3,092,675
.15 : 3,094,573
.15 : 3,095,461
.15 : 3,098,884
.15 : 3,104,270
.15 : 3,104,271
.15 : 3,108,145
.15 : 3,109,041
.15 : 3,109,869
.15 : 3,112,350
.15 : 3,113,165
.15 : 3,113,166
.15 : 3,113,167
.15 : 3,116,345
.2 : 3,078,320
.2 : 3,114,785
.48 : 3,073,877
.48 : 3,073,878
.49 : 3,078,321
.48 : 3,080,438
.46 : 3,082,274
.46 : 3,083,247
.48 : 3,113,987
.53 : 3,075,028
.53 : 3,076,048
.51 : 3,078,322
.51 : 3,080,439
.58 : 3,105,102
.58 : 3,109,042
.53 : 3,113,988
.67 : 3,077,504
.65 : 3,078,323
.61 : 3,088,987
.66 : 3,092,676
.62 : 3,097,250
.62 : 3,098,108
.68 : 3,105,859
.65 : 3,115,532
.63 : 3,116,346
.74 : 3,071,635
.75 : 3,072,731
.75 : 3,085,123
.7 : 3,087,977
.7 : 3,094,572
.75 : 3,112,351
.9 : 3,084,205
.9 : 3,100,808
.9 : 3,110,747
.9 : 3,113,986
684 : 3,111,548
705 : 3,109,870
749 : 3,115,533
758 : 3,078,334
800 : 3,103,542
815 : 3,100,235

Class 261

16 : 3,074,697
: 3,092,677
: 3,100,809
: 3,105,103
18 : 3,087,710
22 : 3,080,153
: 3,113,168
23 : 3,081,984
: 3,085,790
: 3,086,756
: 3,089,684
: 3,094,574
: 3,103,543
: 3,104,272
: 3,109,043
24 : 3,099,696
: 3,101,382
: 3,101,383
: 3,108,146
: 3,109,872
: 3,114,786
: 3,115,534
26 : 3,116,347
29 : 3,108,147
: 3,110,748
30 : 3,072,389
: 3,080,154
: 3,081,071
: 3,092,678
34 : 3,071,354
: 3,076,839
: 3,086,757
: 3,100,236
: 3,110,749
35 : 3,072,390
: 3,074,698
: 3,085,791
: 3,109,873
36 : 3,078,077
: 3,098,885
: 3,112,352
39 : 3,077,341
: 3,085,792
: 3,107,266
: 3,109,874
41 : 3,078,078
: 3,090,608
: 3,093,698
: 3,102,152
: 3,103,544
42 : 3,081,985
44 : 3,078,079
: 3,086,758
: 3,116,348
64 : 3,089,685
: 3,105,104
65 : 3,081,986
: 3,093,699
66 : 3,096,386
70 : 3,105,860
72 : 3,105,861
: 3,110,750
75 : 3,075,748
: 3,075,749
79 : 3,106,105
83 : 3,074,699
92 : 3,109,875
97 : 3,075,750
: 3,086,759
: 3,099,697
99 : 3,083,952
106 : 3,081,072
109 : 3,078,080
112 : 3,075,751
: 3,081,987
: 3,084,918
: 3,085,793
: 3,109,876
113 : 3,075,752
: 3,079,134
: 3,095,462
114 : 3,080,155
: 3,087,711
: 3,094,575
: 3,103,545
: 3,105,862
115 : 3,100,810
119 : 3,075,753
122 : 3,083,953
130 : 3,095,463
135 : 3,074,700
141 : 3,108,148

Class 262

1 : 3,084,919
1 : 3,084,920
: 3,097,829
: 3,097,830
: 3,098,641
: 3,107,902
: 3,111,306
3 : 3,086,760
: 3,088,717
: 3,096,969
5 : 3,085,794
7 : Re.25,470
: 3,108,788
8 : 3,071,355
9 : 3,074,701
: 3,078,081
: 3,086,761
: 3,086,762
: 3,088,718
: 3,088,719
: 3,094,082
: 3,100,629
: 3,105,677
: 3,110,482
13 : 3,072,391
14 : 3,075,754
15 : 3,100,630
18 : 3,113,762
19 : 3,094,315
: 3,101,932
20 : 3,083,954
: 3,087,712
26 : 3,074,702
: 3,074,703
: 3,077,342
: 3,083,955
: 3,088,720
: 3,091,439
: 3,102,718
: 3,108,789
: 3,109,635
: 3,109,636
27 : 3,075,755
: 3,085,795
: 3,113,763
28 : 3,107,903
30 : 3,091,440
33 : 3,073,582
: 3,087,713
: 3,088,721
: 3,092,374
: 3,093,365
: 3,093,366
: 3,101,933
: 3,101,934
: 3,114,537
: 3,116,852

Class 263

2 : 3,087,714
: 3,096,083
3 : 3,072,392
: 3,086,763
: 3,091,441
: 3,096,970
: 3,097,831
: 3,106,386
4 : 3,074,704
6 : 3,071,356
: 3,076,640
: 3,081,073
: 3,089,686
: 3,089,687
: 3,100,631
: 3,103,346
: 3,115,335
: 3,116,053
7 : 3,079,135
: 3,095,186
: 3,105,678
: 3,112,918
8 : 3,086,764
: 3,100,108
: 3,107,886
10 : 3,113,764
15 : 3,100,107
: 3,107,904
: 3,113,765
19 : 3,073,583
: 3,077,343
: 3,082,995
: 3,084,921
: 3,099,436
: 3,100,632
: 3,101,193
: 3,103,347
: 3,103,790
: 3,109,637
: 3,116,538
21 : 3,097,832
28 : 3,110,483
29 : 3,084,922
: 3,094,316

Class 267

1 : 3,071,365
: 3,072,393
: 3,073,584
: 3,077,344
: 3,080,159
: 3,080,160
: 3,081,991
: 3,081,992
: 3,084,926
: 3,090,609
: 3,090,610
: 3,091,447
: 3,093,367
: 3,095,187
: 3,096,973
: 3,097,838
: 3,098,642
: 3,098,643
: 3,098,644
: 3,101,194
: 3,101,937
: 3,102,721
: 3,102,722
: 3,103,348
: 3,107,905
: 3,109,639
: 3,112,922
: 3,113,767
: 3,114,540
: 3,115,337
: 3,116,056
8 : 3,082,998
: 3,094,084
9 : 3,073,585
: 3,107,906
11 : 3,089,689
: 3,090,611
: 3,097,839
: 3,112,923
19 : 3,080,161
20 : 3,079,137
: 3,111,307
21 : 3,087,716
25 : 3,101,938
30 : 3,089,690
33 : 3,081,993
34 : 3,106,387
35 : 3,087,717
47 : 3,079,138
: 3,079,139
52 : 3,097,840
: 3,103,349
: 3,103,350
: 3,111,308
: 3,111,309
54 : 3,113,768
57 : 3,071,366
: 3,082,999
: 3,096,085
: 3,098,645
: 3,104,095
: 3,104,096
: 3,104,097
.1 : 3,113,769
60 : 3,091,448
: 3,097,841
63 : 3,086,765
64 : 3,073,586
: 3,074,708
: 3,076,643
: 3,077,345
: 3,083,000
: 3,085,796
: 3,088,726
: 3,094,317
: 3,109,638
: 3,110,485
: 3,112,102
. 65 : 3,074,709
: 3,078,085
: 3,078,086
: 3,081,075
: 3,096,974
: 3,100,635
: 3,106,388
: 3,107,907
67 : 3,091,449
71 : 3,110,486
: 3,112,103
: 3,087,718
85 : 3,087,719
86 : 3,091,450
89 : 3,095,188
102 : 3,091,451
: 3,092,376
: 3,095,189
103 : 3,073,587
: 3,096,086
: 3,112,924
107 : 3,071,367
: 3,081,076
: 3,083,001
107 : 3,106,389
110 : 3,078,087
111 : 3,081,077
112 : 3,098,646

Class 268

14 : 3,097,842
34 : 3,084,927
48 : 3,072,394
53 : 3,104,098
65 : 3,087,720
66 : 3,099,438
: 3,114,541
74 : 3,081,078
99 : 3,090,613
105 : 3,098,647
108 : 3,081,994
: 3,085,797
109 : 3,083,958
: 3,114,542
111 : 3,116,057
117 : 3,103,351
121 : 3,092,377
123 : 3,104,870
124 : 3,086,766
126 : 3,072,395
: 3,088,727
: 3,093,368

Class 269

1 : 3,089,691
7 : 3,083,002
8 : 3,079,140
10 : 3,086,767
17 : 3,085,798
20 : 3,078,088
: 3,108,791
21 : 3,084,928
23 : 3,081,079
25 : 3,112,925
28 : 3,095,190
31 : 3,116,058
32 : 3,105,679
38 : 3,108,792
40 : 3,073,588
: 3,088,728
: 3,097,843
: 3,099,439
: 3,101,939
43 : 3,095,191
45 : 3,072,396
: 3,103,352
47 : 3,083,003
48 : 3,075,759
51 : 3,083,004
58 : 3,084,929
68 : 3,091,452
71 : 3,107,908
73 : 3,109,640
75 : 3,112,104
83 : 3,100,636
89 : 3,107,909
90 : 3,073,589
91 : 3,083,005
: 3,090,612
97 : 3,088,729
101 : 3,102,723
110 : 3,083,006
122 : 3,108,793
125 : 3,107,087
139 : 3,094,318
143 : 3,092,378
151 : 3,083,007
152 : 3,076,644
154 : 3,076,645
169 : 3,096,975
182 : 3,079,141
185 : 3,081,995
211 : 3,107,910
215 : 3,071,368
221 : 3,076,646
: 3,093,369
233 : 3,108,794
236 : 3,112,105
239 : 3,084,930
251 : 3,077,346
: 3,080,162
254 : 3,106,390
: 3,109,641
267 : 3,103,353
273 : 3,090,614
296 : 3,112,106
303 : 3,110,487
305 : 3,090,615
309 : 3,093,370
321 : 3,108,795
322 : 3,101,940
323 : 3,089,692
325 : 3,099,440
: 3,113,770
328 : 3,099,441

Class 270

31 : 3,083,008
: 3,094,319
: 3,112,107
52 : 3,094,320
: 3,097,844
.5 : 3,079,142
54 : 3,087,721
: 3,089,693
55 : 3,071,369
58 : 3,076,647
: 3,083,009
: 3,088,730
: 3,103,354
: 3,107,088
: 3,108,796
: 3,108,797
: 3,114,543
61 : 3,089,694
: 3,092,379
: 3,109,642
: 3,113,771
62 : 3,083,010
68 : 3,079,143
: 3,089,695
: 3,094,321
: 3,110,488
: 3,116,059
69 : 3,079,144
: 3,113,772
72 : 3,088,731
79 : 3,086,768
: 3,100,109
: 3,109,643
81 : 3,108,798
83 : 3,074,710
86 : 3,111,310
93 : 3,086,769

Class 271

2 : 3,096,977
3 : 3,090,616
: 3,095,192
: 3,105,680
4 : 3,083,960
5 : 3,074,711
: 3,074,712
: 3,079,145
: 3,079,146
: 3,103,355
7 : 3,071,370
8 : 3,104,871
: 3,107,911
12 : 3,094,322
18 : 3,083,959
22 : 3,110,489
26 : 3,071,371
: 3,083,011
: 3,087,722
: 3,110,490
27 : 3,079,148
: 3,079,149
: 3,086,770
: 3,101,941
: 3,104,099
: 3,106,391
28 : 3,100,110
29 : 3,089,696
: 3,093,371
31 : 3,076,648
: 3,086,771
32 : 3,096,087
: 3,099,442
: 3,105,681
33 : 3,083,961
: 3,094,323
34 : 3,089,697
35 : 3,086,772
36 : 3,083,962
: 3,100,111
41 : 3,097,845
: 3,108,799
42 : 3,095,193
43 : 3,083,963
44 : 3,106,392
45 : 3,111,311
46 : 3,096,978
: 3,098,648
: 3,098,649
51 : 3,073,590
: 3,096,088
52 : 3,084,931
: 3,107,089
53 : 3,071,372
: 3,072,397
: 3,100,112
: 3,108,800
54 : 3,073,591
56 : 3,089,698
57 : 3,071,373
: 3,073,592

Class 271—Con.

57 : 3,098,650
: 3,108,801
58 : 3,107,090
60 : 3,073,593
: 3,080,163
: 3,081,080
61 : 3,104,872
: 3,104,873
: 3,110,491
62 : 3,072,398
: 3,104,100
63 : 3,084,932
64 : 3,074,713
: 3,081,081
: 3,083,012
: 3,096,089
: 3,106,393
: 3,112,926
68 : 3,081,082
: 3,101,942
: 3,109,644
69 : 3,079,150
: 3,087,723
: 3,104,101
71 : 3,075,760
: 3,076,649
: 3,078,089
: 3,079,151
: 3,087,724
: 3,087,725
: 3,092,380
: 3,100,113
74 : 3,081,996
79 : 3,071,374
: 3,095,194
: 3,100,637
86 : 3,083,013
87 : 3,092,381
: 3,111,312
88 : 3,097,846
: 3,107,912
89 : 3,083,014
: 3,092,382

Class 272

1 : 3,073,594
: 3,086,773
: 3,088,732
: 3,091,453
: 3,099,443
: 3,108,802
7 : 3,081,083
8 : 3,071,375
: 3,081,997
: 3,106,394
10 : 3,084,933
: 3,085,799
25 : 3,074,714
27 : 3,081,084
: 3,084,934
29 : 3,078,090
30 : 3,078,091
: 3,107,913
32 : 3,080,164
33 : 3,073,595
: 3,075,761
: 3,084,935
: 3,100,638
: 3,104,102
34 : 3,093,372
: 3,116,060
36 : 3,072,399
: 3,101,943
: 3,104,103
: 3,112,927
39 : 3,075,762
44 : 3,086,774
: 3,090,617
51 : 3,088,733
52 : 3,080,165
: 3,108,356
.5 : 3,075,763
53.2 : 3,090,618
54 : 3,075,764
: 3,089,699
: 3,109,645
55 : 3,078,092
56 : 3,100,114
.5 : 3,083,015
.5 : 3,114,544
57 : 3,074,715
: 3,094,324
: 3,096,979
: 3,108,639
: 3,108,395
: 3,107,914
: 3,115,338
: 3,116,061
58 : 3,072,400
: 3,081,085
58 : 3,112,108
: 3,116,062
59 : 3,075,765
: 3,105,682
: 3,107,091
60 : 3,077,347
: 3,083,964
: 3,114,545
66 : 3,072,401
: 3,083,965
: 3,092,383
: 3,096,980
70.2 : 3,110,492
.3 : 3,098,651
71 : 3,074,716
: 3,112,928
73 : 3,075,766
: 3,076,650
: 3,100,640
: 3,107,915
74 : 3,072,402
: 3,074,717
: 3,104,104
: 3,107,916
: 3,110,493
75 : 3,075,767
: 3,107,092
78 : 3,114,546
79 : 3,101,944
: 3,103,357
: 3,109,646
80 : 3,089,700
81 : 3,115,339
85 : 3,088,734

Class 273

1 : Re.25,474
: 3,074,718
: 3,078,093
: 3,081,998
: 3,081,999
: 3,091,454
: 3,092,384
: 3,095,195
: 3,098,652
: 3,111,313
: 3,112,929
: 3,114,547
: 3,114,548
: 3,115,340
.5 : 3,085,800
.5 : 3,105,683
.5 : 3,108,803
.5 : 3,109,647
11 : 3,084,936
: 3,096,981
: 3,115,341
26 : 3,086,775
: 3,110,494
: 3,111,314
27 : 3,099,444
.1 : 3,096,982
81 : 3,075,768
.2 : 3,102,726
.4 : 3,077,349
.5 : 3,087,729
82 : 3,073,597
: 3,092,386
: 3,098,655
: 3,099,449
: 3,104,105
84 : 3,106,398
85 : 3,074,720
: 3,086,778
: 3,088,737
: 3,105,687
: 3,112,930
: 3,113,776
: 3,103,360
87.4 : 3,072,406
88 : 3,091,459
89 : 3,101,197
90 : 3,111,318
93 : 3,105,688
94 : 3,103,361
95 : 3,073,598
: 3,083,018
: 3,090,621
: 3,091,460
: 3,091,461
: 3,092,387
: 3,104,877
: 3,106,399
: 3,107,094
: 3,110,497
96 : 3,075,769
: 3,078,099
: 3,091,462
: 3,108,807
97 : 3,093,376
98 : 3,087,730
47 : 3,099,445
: 3,106,396
49 : 3,085,801
: 3,086,776
: 3,094,328
: 3,094,329
: 3,099,446
: 3,101,195
: 3,101,945
: 3,105,684
: 3,107,917
: 3,108,806
: 3,109,648
: 3,109,649
: 3,110,496
: 3,111,316
50 : 3,083,966
: 3,113,774
51 : Re.25,496
52 : 3,093,375
: 3,099,447
: 3,102,724
: 3,109,650
53 : 3,079,155
: 3,096,090
54 : 3,076,651
: 3,076,652
: 3,083,967
: 3,091,455
: 3,091,456
: 3,091,457
: 3,091,458
: 3,094,330
: 3,095,196
: 3,098,654
: 3,099,448
: 3,101,196
: 3,105,685
55 : 3,087,726
: 3,104,875
: 3,105,686
: 3,111,317
: 3,114,549
58 : 3,106,397
63 : 3,078,097
: 3,087,727
: 3,089,702
: 3,090,620
: 3,102,725
: 3,113,775
65 : 3,100,641
67 : 3,087,728
68 : 3,103,359
72 : 3,084,938
: 3,104,876
73 : 3,078,098
: 3,083,968
: 3,086,777
74 : 3,079,156
80 : 3,081,087
: 3,083,969
: 3,088,736
.1 : 3,096,982
81 : 3,075,768
.2 : 3,102,726
.4 : 3,077,349
.5 : 3,087,729
82 : 3,073,597
: 3,092,386
: 3,098,655
: 3,099,449
: 3,104,105
84 : 3,106,398
85 : 3,074,720
: 3,086,778
: 3,088,737
: 3,105,687
: 3,112,930
: 3,113,776
: 3,103,360
87.4 : 3,072,406
88 : 3,091,459
89 : 3,101,197
90 : 3,111,318
93 : 3,105,688
94 : 3,103,361
95 : 3,073,598
: 3,083,018
: 3,090,621
: 3,091,460
: 3,091,461
: 3,092,387
: 3,104,877
: 3,106,399
: 3,107,094
: 3,110,497
96 : 3,075,769
: 3,078,099
: 3,091,462
: 3,108,807
97 : 3,093,376
98 : 3,087,730
99 : 3,083,970
101 : 3,071,378
: 3,083,019
: 3,094,331
: 3,108,808
: 3,111,319
: 3,112,109
: 3,115,343
102 : 3,080,166
: 3,095,197
104 : 3,092,388
105 : 3,100,642
: 3,103,362
: 3,107,095
.2 : 3,089,703
106 : 3,089,704
: 3,099,450
: 3,100,116
: 3,114,550
.5 : 3,084,939
.5 : 3,096,091
.5 : 3,106,400
108 : 3,073,599
: 3,091,464
: 3,106,401
109 : 3,075,770
: 3,080,167
: 3,088,739
: 3,093,377
: 3,105,689
: 3,109,651
110 : 3,108,809
113 : 3,101,946
116 : 3,115,344
118 : 3,085,802
119 : 3,087,731
: 3,100,643
120 : 3,073,600
: 3,108,810
123 : 3,098,657
126 : 3,082,003
: 3,088,740
: 3,090,622
127 : 3,110,498
128 : 3,092,389
: 3,102,727
129 : 3,091,465
130 : 3,072,407
: 3,075,771
: 3,081,088
: 3,082,004
: 3,085,803
: 3,104,878
: 3,113,777
133 : 3,074,721
134 : 3,075,772
: 3,083,020
: 3,099,451
: 3,101,947
: 3,104,106
: 3,109,652
: 3,114,551
: 3,115,345
135 : 3,072,408
: 3,092,390
: 3,096,092
: 3,111,320
136 : 3,073,601
: 3,111,321
138 : 3,072,409
: 3,104,107
139 : 3,110,499
: 3,112,931
: 3,113,778
142 : 3,090,623
144 : 3,106,402
148 : 3,113,779
: 3,114,552
149 : 3,107,096
: 3,114,553
151 : 3,102,728
153 : 3,087,732
156 : 3,081,089
157 : 3,107,918
161 : 3,107,097
164 : 3,077,350
165 : 3,095,198
: 3,109,653
167 : 3,079,157
168 : 3,085,804
173 : 3,084,940
176 : 3,081,090
: 3,083,021
: 3,084,941
: 3,104,879
: 3,114,554
176 : 3,114,555
177 : 3,074,722
: 3,086,779
: 3,107,919
178 : 3,114,556
180 : 3,097,849
181 : 3,082,005
183 : 3,101,948
: 3,109,654
: 3,111,322
184 : 3,091,466
185 : 3,072,410
: 3,115,346
186 : 3,071,379
: 3,073,602
: 3,075,773
: 3,081,091
: 3,101,949
: 3,106,403
: 3,107,920
: 3,113,780
: 3,113,781
: 3,113,782
189 : 3,074,723
190 : 3,104,880
192 : 3,104,108
199 : 3,099,452
201 : 3,075,774
: 3,112,932
202 : 3,114,557
203 : 3,112,111
212 : 3,079,158
230 : Re.25,427
: 3,098,658

Class 274

1 : 3,104,109
: 3,104,110
4 : 3,074,724
: 3,091,467
9 : 3,081,092
: 3,082,006
: 3,096,983
: 3,101,950
: 3,105,690
: 3,109,655
10 : 3,071,380
: 3,072,411
: 3,073,603
: 3,073,604
: 3,074,725
: 3,080,168
: 3,081,093
: 3,081,094
: 3,083,022
: 3,083,971
: 3,085,805
: 3,086,780
: 3,090,624
: 3,091,468
: 3,092,391
: 3,093,378
: 3,094,332
: 3,095,199
: 3,096,093
: 3,096,094
: 3,096,095
: 3,097,850
: 3,100,644
: 3,103,363
: 3,107,098
: 3,109,656
: 3,110,500
: 3,116,065
11 : 3,080,169
: 3,095,200
14 : 3,079,159
15 : 3,090,625
17 : 3,075,775
20 : 3,089,705
23 : 3,074,726
: 3,078,100
31 : 3,083,973
32 : 3,096,986
: 3,108,814
36 : 3,083,974
37 : 3,075,779
: 3,101,951
: 3,101,952
: 3,108,811
25 : 3,073,605
26 : 3,095,201
36 : 3,085,806
: 3,088,743
: 3,106,691
37 : 3,113,783
38 : 3,102,729
39 : 3,071,381
: 3,103,364
: 3,105,692
: 3,108,812
42 : 3,079,160
: 3,089,706
42 : 3,090,626
: 3,102,730
: 3,110,501
46 : 3,104,881

Class 275

1 : 3,107,921
2 : 3,076,653
: 3,082,007
3 : 3,104,111
: 3,105,693
4 : 3,075,776
6 : Re.25,503
: 3,076,654
: 3,084,942
: 3,095,202
7 : 3,077,351
: 3,082,008
: 3,102,731
8 : 3,071,382
: 3,073,606
: 3,075,777
: 3,085,807
: 3,094,333
: 3,094,334
: 3,097,851
: 3,097,852
: 3,100,645
: 3,105,694
: 3,109,657
: 3,113,784
12 : 3,096,984
14 : 3,073,607
: 3,074,727

Class 276

8 : 3,071,383

Class 277

1 : 3,081,095
: 3,082,009
: 3,091,469
: 3,093,380
: 3,108,813
2 : 3,072,412
: 3,101,953
3 : 3,071,384
: 3,074,728
: 3,075,778
: 3,085,808
: 3,088,744
: 3,107,099
: 3,109,658
4 : 3,076,655
: 3,081,096
: 3,084,943
5 : 3,092,392
: 3,094,335
8 : 3,072,413
: 3,093,381
9 : 3,101,199
: 3,104,882
11 : 3,112,112
13 : 3,083,972
: 3,097,853
16 : 3,076,656
: 3,082,010
: 3,092,393
23 : 3,081,097
24 : 3,097,854
26 : 3,074,729
: 3,082,011
: 3,084,944
27 : 3,073,608
: 3,079,605
: 3,081,098
: 3,083,382
: 3,086,985
: 3,089,653
: 3,100,646
: 3,108,750
32 : 3,096,985
: 3,108,814
36 : 3,083,974
37 : 3,075,779
: 3,108,815
: 3,114,558
38 : 3,109,659
: 3,109,660
: 3,116,066
39 : 3,086,781
: 3,087,733
: 3,101,954
47 : 3,084,945
: 3,099,454
: 3,103,975
56 : 3,085,809
59 : 3,075,780
: 3,087,734
: 3,087,735
59 : 3,100,647
: 3,100,648
: 3,115,347
64 : 3,101,955
69 : 3,082,012
70 : 3,109,661
73 : 3,091,470
79 : 3,105,695
82 : 3,095,203
83 : 3,075,781
85 : 3,090,627
88 : 3,081,099
92 : 3,086,782
: 3,093,383
: 3,094,336
93 : 3,072,414
: 3,080,170
: 3,101,200
: 3,108,816
94 : 3,071,385
: 3,090,628
: 3,114,559
: 3,114,560
95 : 3,090,629
: 3,112,113
110 : 3,076,657
112 : 3,072,415
: 3,080,171
: 3,091,471
117 : 3,096,096
121 : 3,076,658
: 3,084,946
130 : 3,074,730
136 : 3,108,817
140 : 3,081,100
: 3,081,101
: 3,103,365
141 : 3,080,172
144 : 3,098,659
148 : 3,106,404
152 : 3,114,561
158 : 3,106,405
163 : 3,099,455
166 : 3,099,456
168 : 3,073,609
: 3,081,102
: 3,107,922
170 : 3,103,366
: 3,116,067
171 : 3,090,630
: 3,106,406
174 : 3,090,631
175 : 3,096,987
177 : 3,071,386
178 : 3,109,662
181 : 3,085,810
187 : 3,098,660
188 : 3,094,337
: 3,097,855
: 3,106,407

Class 278

1 : 3,085,811
: 3,090,632
2 : 3,073,610
: 3,076,660
: 3,076,661
: 3,086,783
: 3,102,732
: 3,104,885
: 3,111,326
: 3,111,327
: 3,112,116
4 : 3,072,416
: 3,073,611
: 3,073,612
: 3,076,662
: 3,085,812
: 3,087,736
: 3,087,737
: 3,096,988
: 3,097,856
: 3,097,857
: 3,101,956
5 : 3,081,103

5 : 3,083,024
: 3,090,633
: 3,096,097
9 : 3,087,738
16 : 3,072,417
: 3,077,352
: 3,082,013
19.1 : 3,097,858
23 : 3,089,707
: 3,094,338
41 : 3,107,101
: 3,109,663
: 3,111,328
47 : Re.25,318
48 : 3,096,989
51 : 3,077,353
: 3,088,976
: 3,115,348
66 : 3,100,117
72 : 3,116,068
74 : 3,095,205
76 : 3,091,473
: 3,103,367
91 : 3,112,117
97 : 3,091,474
: 3,097,859
102 : 3,088,745
: 3,111,329
103 : 3,082,014
: 3,100,118
: 3,100,650
106 : 3,082,015
: 3,099,457
: 3,104,886
110 : 3,088,746
113 : 3,097,860
119 : 3,085,813
121 : 3,086,784
122 : 3,083,025
123 : 3,089,708
: 3,096,098

Class 280

1.196 3,074,731
.192 3,075,782
.191 3,079,161
.196 3,086,785
.182 3,096,990
.192 3,111,330
5 : 3,080,173
: 3,081,104
: 3,095,206
.2 : 3,104,112
.22 : 3,104,113
.22 : 3,111,331
6 : 3,083,026
: 3,103,368
: 3,112,118
.1 : 3,083,027
.11 : 3,086,786
.1 : 3,104,114
7.1 : 3,079,162
.17 : 3,081,105
.11 : 3,088,747
.15 : 3,113,785
8 : 3,104,115
11 : 3,084,947
.13 : 3,074,732
.18 : 3,074,733
.13 : 3,083,028
.13 : 3,083,977
.19 : 3,086,787
.13 : 3,095,207
.17 : 3,095,208
.12 : 3,101,957
.13 : 3,104,888
.26 : 3,081,106
.28 : 3,087,739
.2 : 3,104,887
.2 : 3,112,119
.2 : 3,112,120
.35 : Re.25,425
.37 : 3,076,663
.35 : 3,079,163
.35 : 3,079,164
.35 : 3,079,165
.35 : 3,080,174
.37 : 3,085,814
.37 : 3,086,788
.35 : 3,091,475
.37 : 3,093,384
.35 : 3,095,209
.35 : 3,095,210
.35 : 3,100,119
.35 : 3,101,801
.35 : 3,105,696
.35 : 3,107,102
.35 : 3,107,925
.37 : 3,113,786
.3 : 3,114,562
: 3,088,748
: 3,109,664
16 : 3,109,665
18 : 3,104,116
21 : 3,081,107
: 3,097,861
: 3,107,923
24 : 3,073,613
25 : 3,105,697
28.5 : 3,107,924
30 : 3,073,614
: 3,078,101
: 3,100,651
: 3,101,302
: 3,104,889
: 3,109,666
: 3,116,069
31 : 3,090,634
: 3,094,339
: 3,111,332
32.6 : 3,092,394
33.99 : 3,078,102
.99 : 3,084,948
.99 : 3,093,385
.99 : 3,095,211
.99 : 3,112,121
.99 : 3,112,934
34 : 3,104,890
35 : 3,094,340
: 3,101,303
36 : 3,075,783
: 3,082,016
: 3,083,029
: 3,084,949
: 3,092,395
: 3,102,733
: 3,106,408
: 3,110,504
37 : 3,073,615
38 : 3,116,070
39 : 3,106,409
40 : 3,079,166
41 : 3,074,734
: 3,079,167
: 3,100,652
42 : 3,093,386
43 : 3,086,789
: 3,086,790
.12 : 3,072,418
.13 : 3,091,476
.19 : 3,102,734
.24 : 3,096,991
.2 : 3,112,122
46 : 3,091,477
47.19 : 3,076,664
.19 : 3,081,108
.13 : 3,090,635
.12 : 3,093,387
.13 : 3,105,698
.19 : 3,111,333
.24 : 3,071,387
.28 : 3,079,168
.26 : 3,087,740
.34 : 3,083,978
.33 : 3,085,815
.38 : 3,090,636
.31 : 3,096,992
63 : 3,103,369
: 3,108,880
78 : 3,083,979
79.1 : 3,071,388
.1 : 3,071,389
.1 : 3,083,030
.1 : 3,090,637
80 : 3,084,950
: 3,085,816
81 : 3,087,741
: 3,093,388
: 3,096,993
: 3,102,735
: 3,112,935
87 : 3,093,389
: 3,107,103
.65 : 3,089,709
.01 : 3,100,120
.02 : 3,109,667
99 : 3,109,668
91 : 3,075,784
: 3,084,951
92 : 3,090,638
94 : 3,075,785
95 : 3,071,390
: 3,073,616
: 3,080,175
: 3,086,791
: 3,111,334
: 3,112,123
: 3,113,787
96 : 3,074,735
: 3,083,031
: 3,107,925
.1 : 3,074,736
.1 : 3,096,994
.1 : 3,103,370
.2 : 3,073,617
.2 : 3,073,618
96.2 : 3,074,737
.2 : 3,075,786
.2 : 3,075,787
.2 : 3,078,103
.2 : 3,082,017
.2 : 3,083,032
.2 : 3,086,792
.2 : 3,089,458
.2 : 3,104,117
.2 : 3,105,699
.2 : 3,110,505
.2 : 3,115,349
99 : 3,077,354
103 : 3,108,821
104 : 3,079,169
: 3,083,033
: 3,086,793
.5 : 3,071,391
.5 : 3,071,392
.5 : 3,074,738
.5 : 3,080,176
.5 : 3,081,292
.5 : 3,083,980
.5 : 3,096,995
.5 : 3,097,862
.5 : 3,099,459
.5 : 3,099,460
.5 : 3,105,700
.5 : 3,108,822
106 : 3,088,749
: 3,088,750
: 3,092,396
: 3,096,996
: 3,098,656
: 3,100,653
: 3,105,701
: 3,115,350
.5 : 3,087,742
.5 : 3,093,390
.5 : 3,093,391
112 : 3,076,665
: 3,083,981
: 3,083,982
: 3,084,952
: 3,089,710
124 : 3,071,393
: 3,071,394
: 3,073,619
: 3,073,620
: 3,073,621
: 3,074,739
: 3,078,104
: 3,079,170
: 3,079,171
: 3,080,177
: 3,082,018
: 3,083,034
: 3,083,983
: 3,083,984
: 3,085,817
: 3,085,818
: 3,087,743
: 3,092,397
: 3,094,341
: 3,095,212
: 3,095,213
: 3,095,214
: 3,095,661
: 3,102,736
: 3,104,118
: 3,104,119
: 3,111,335
: 3,116,071
125 : 3,096,099
150 : 3,077,355
: 3,083,035
: 3,105,702
: 3,106,410
: 3,106,411
: 3,113,788
: 3,084,953
.5 : 3,089,711
.5 : 3,104,891
152 : 3,086,794
: 3,093,392
154.5 : 3,088,751
.5 : 3,089,712
.5 : 3,091,478
.5 : 3,095,215
.5 : 3,116,072
166 : 3,095,216
179 : 3,076,740
: 3,110,506
202 : 3,078,105
205 : 3,083,036
206 : 3,076,666
: 3,083,037
211 : 3,107,105
: 3,107,926
221 : 3,086,795
: 3,107,927
258 : 3,083,985
261 : 3,096,100
261 : 3,116,073
275 : 3,096,997
276 : 3,083,038
277 : 3,083,039
278 : 3,074,741
: 3,079,172
279 : 3,079,173
281 : 3,075,788
: 3,091,479
287 : 3,106,412
295 : 3,075,789
404 : 3,087,744
: 3,095,217
405 : 3,073,622
: 3,077,356
: 3,096,998
406 : 3,072,419
: 3,093,393
407 : 3,112,936
412 : 3,079,174
: 3,100,654
: 3,112,124
414 : 3,083,986
: 3,102,737
: 3,103,371
415 : 3,093,394
: 3,102,738
: 3,105,703
422 : 3,110,507
423 : 3,081,109
: 3,083,987
: 3,101,958
426 : 3,092,398
432 : 3,073,623
: 3,082,019
: 3,101,959
433 : 3,082,020
434 : 3,079,175
: 3,109,669
438 : 3,073,624
: 3,077,357
: 3,082,021
: 3,091,480
: 3,092,399
443 : 3,105,704
445 : 3,074,742
: 3,097,863
: 3,114,563
460 : 3,078,106
461 : 3,105,705
474 : 3,085,819
: 3,090,639
: 3,097,864
475 : 3,075,790
: 3,104,893
476 : 3,084,954
478 : 3,093,395
: 3,099,462
479 : 3,116,075
480 : 3,091,481
481 : 3,079,176
482 : 3,116,076
491 : 3,105,706
493 : 3,083,040
502 : 3,074,743
: 3,113,789
508 : 3,088,752
512 : 3,114,564
513 : 3,104,894

Class 281

5 : 3,114,565
6 : 3,107,927
8 : 3,096,101
15 : 3,102,739
: 3,116,077
19 : 3,083,988
: 3,092,400
: 3,099,463
: 3,099,464
21 : 3,093,396
25 : 3,108,823
29 : 3,078,107
: 3,088,753
: 3,091,482
: 3,096,102
34 : 3,080,178
36 : 3,099,465
37 : 3,074,744
42 : 3,071,395
44 : 3,074,745
: 3,098,661
: 3,104,895

Class 282

1 : 3,075,791
: 3,107,106
3 : 3,107,928
11.5 : 3,081,110
11.5 : 3,084,955
.5 : 3,092,401
.5 : 3,107,929
.5 : 3,112,125
15 : 3,103,372
22 : 3,081,111
: 3,088,754
: 3,094,342
: 3,112,126
: 3,115,351
25 : 3,111,336
29 : 3,073,625
: 3,084,956

Class 283

1 : 3,110,508
56 : 3,108,824
57 : 3,092,402
66 : 3,081,112

Class 285

1 : 3,097,865
3 : 3,090,640
7 : 3,073,626
: 3,083,041
8 : 3,074,746
: 3,095,218
9 : 3,115,352
14 : 3,089,713
: 3,114,566
: 3,115,353
18 : 3,097,866
: 3,098,662
: 3,104,896
: 3,107,930
: 3,108,825
23 : 3,081,113
24 : 3,096,999
27 : 3,079,177
33 : 3,100,655
39 : 3,105,707
41 : 3,105,708
42 : 3,095,219
43 : 3,098,663
45 : 3,080,179
.5 : 3,112,131
47 : 3,102,740
52 : 3,115,354
55 : 3,098,664
: 3,100,656
58 : 3,101,960
64 : 3,088,755
81 : 3,086,796
: 3,114,567
83 : 3,079,178
86 : 3,092,403
: 3,097,867
: 3,109,673
: 3,108,827
: 3,109,674
: 3,112,127
159 : 3,076,668
161 : 3,083,990
: 3,104,120
162 : 3,101,205
164 : 3,091,484
165 : 3,089,714
166 : 3,104,897
: 3,112,128
173 : 3,093,398
174 : 3,108,826
178 : 3,075,792
179 : 3,076,669
187 : 3,088,758
189 : 3,072,421
: 3,084,958
190 : 3,071,397
: 3,088,759
203 : 3,080,182
212 : 3,106,413
220 : 3,079,180
: 3,101,206
221 : 3,076,670
222 : 3,073,627
226 : 3,096,104
: 3,106,414
: 3,112,129
229 : 3,072,422
230 : 3,100,658
233 : 3,084,959
235 : 3,114,568
236 : 3,104,898
238 : 3,084,960
: 3,112,939
242 : 3,084,961
: 3,086,797
243 : 3,073,628
: 3,087,746
251 : 3,078,109
256 : 3,073,629
260 : 3,100,659
275 : 3,107,107
276 : 3,112,130
277 : 3,076,671
286 : 3,096,105
291 : 3,101,207
321 : 3,100,121
332.3 : 3,080,183
.3 : 3,102,741
.3 : 3,104,121
333 : 3,079,181
: 3,083,043
334 : 3,109,672
: 3,092,404
.5 : 3,112,131
336 : 3,078,110
341 : 3,092,405
: 3,097,870
: 3,107,108
: 3,112,940
342 : 3,074,747
: 3,075,793
: 3,103,373
: 3,108,827
: 3,109,673
343 : 3,079,182
: 3,104,899
347 : 3,074,748
354 : 3,113,792
361 : 3,097,001
363 : 3,098,666
: 3,101,208
368 : 3,085,820
376 : 3,098,667
398 : 3,087,747
403 : 3,101,209

Class 287

1 : 3,073,630
3 : 3,110,509
12 : 3,081,114
14 : 3,082,025
20 : 3,072,423
: 3,073,631
: 3,081,115
: 3,084,962
: 3,084,963
: 3,087,748
: 3,092,406
: 3,097,002
: 3,104,900
125 : 3,105,709
126 : 3,107,111
127 : 3,088,762
: 3,099,470
: 3,102,746
: 3,115,356
129 : 3,088,763
: 3,097,006
: 3,110,510
130 : 3,091,487
: 3,104,901

Class 289

1 : 3,075,794
5 : 3,112,132
11 : 3,101,963
12 : 3,102,747
: 3,108,831
53 : 3,096,106
: 3,097,003
: 3,100,660
: 3,112,941
.5 : 3,084,964
.5 : 3,091,485
54 : 3,071,399
: 3,071,400
: 3,073,633
: 3,082,027
: 3,088,760
: 3,089,716
: 3,092,407
: 3,096,107
: 3,096,108
: 3,096,109
: 3,096,110
: 3,099,468
: 3,104,122
: 3,104,123
: 3,107,932
.1 : 3,085,822
56 : 3,097,004
: 3,098,668
: 3,103,374
58 : 3,072,425
: 3,096,111
: 3,098,669
: 3,102,742
: 3,103,375
: 3,105,710
: 3,107,109
: 3,107,933
: 3,113,793
59 : 3,102,743
60 : 3,081,116
62 : 3,078,111
: 3,108,829
76 : 3,078,112
: 3,094,345
81 : 3,083,991
83 : 3,095,223
85 : 3,089,717
87 : 3,091,486
: 3,095,224
: 3,102,744
: 3,108,830
: 3,113,794
: 3,114,569
90 : 3,073,634
: 3,079,183
: 3,079,184
: 3,086,800
: 3,086,801
: 3,089,718
: 3,090,642
: 3,097,005
: 3,099,469
: 3,103,376
: 3,103,377
91 : 3,072,426
: 3,106,415
92 : 3,107,110
93 : 3,078,113
: 3,102,745
99 : 3,083,044
100 : 3,080,184
: 3,106,416
103 : 3,076,872
104 : 3,080,185
108 : 3,073,635
: 3,088,761
113 : 3,092,408
114 : 3,079,185
: 3,079,186
: 3,101,962
: 3,079,187
116 : 3,079,188
117 : 3,097,871
119 : 3,079,189
: 3,080,186
: 3,083,992
: 3,100,661
: 3,100,662
: 3,113,795
: 3,101,210
: 3,101,111
127 : 3,088,762
: 3,099,470
: 3,102,746
: 3,115,356
129 : 3,088,763
: 3,097,006
: 3,110,510
130 : 3,091,487
: 3,104,901

Class 289 – Con.
12 : 3,108,832
: 3,110,511
17 : 3,073,636
: 3,085,823
: 3,086,802
: 3,098,670
: 3,101,964
: 3,106,417

Class 290
1 : 3,076,096
: 3,077,541
: 3,102,285
: 3,105,153
2 : 3,109,102
3 : 3,079,509
4 : 3,073,964
: 3,076,097
17 : 3,107,304
36 : 3,076,098
: 3,108,190
37 : 3,102,961
40 : 3,098,935
: 3,110,817
: 3,112,406
: 3,116,420
52 : 3,071,691
: 3,072,799

Class 291
2 : 3,093,399
11 : 3,088,764
41 : 3,112,942

Class 292
1 : 3,082,028
: 3,084,965
: 3,093,400
: 3,116,080
3 : 3,077,359
: 3,096,112
5 : 3,094,346
: 3,110,512
: 3,115,357
7 : 3,099,471
11 : 3,088,766
17 : 3,086,803
: 3,103,378
25 : 3,089,719
27 : 3,074,749
36 : 3,104,902
49 : 3,082,029
69 : 3,083,045
76 : 3,083,046
: 3,109,674
: 3,113,796
78 : 3,115,358
87 : 3,104,903
92 : 3,097,007
99 : 3,087,749
109 : 3,109,675
111 : 3,111,338
: 3,112,943
113 : 3,082,030
: 3,105,711
: 3,108,833
128 : 3,112,133
137 : 3,113,797
147 : 3,096,113
150 : 3,107,934
161 : 3,087,750
169 : 3,072,427
: 3,089,720
: 3,095,225
: 3,097,872
: 3,099,472
: 3,105,712
: 3,112,944
170 : 3,090,643
173 : 3,112,945
192 : 3,107,112
201 : 3,073,637
207 : 3,093,401
209 : 3,088,766
212 : 3,116,081
216 : 3,075,795
: 3,081,117
: 3,111,339
221 : 3,095,226
: 3,098,671
223 : 3,112,946
224 : 3,116,082
226 : 3,073,638
: 3,081,118
: 3,110,513
227 : 3,073,639
228 : 3,094,347
: 3,107,113
229 : 3,090,644
229 : 3,111,340
240 : 3,099,473
241 : 3,091,488
244 : 3,095,227
: 3,097,873
251.5 : 3,078,114
.5 : 3,100,663
.5 : 3,100,664
.5 : 3,102,748
.5 : 3,102,749
254 : 3,073,640
: 3,104,904
256.5 : 3,099,474
.67 : 3,077,360
.69 : 3,091,489
.6 : 3,104,905
263 : 3,106,418
264 : 3,087,751
266 : 3,100,122
275 : 3,086,804
280 : 3,104,124
: 3,112,947
322 : 3,110,514
325 : 3,107,935
336.3 : 3,074,750
.3 : 3,075,796
.3 : 3,075,797
.3 : 3,096,114
.3 : 3,104,906
.3 : 3,113,798
346 : 3,097,008
347 : 3,096,115
352 : 3,091,490
357 : 3,101,965
359 : 3,079,189

Class 293
19 : 3,074,751
34 : 3,104,907
48 : 3,073,641
: 3,081,119
62 : 3,110,515
65 : 3,110,516
70 : 3,116,083
85 : 3,096,116

Class 294
1 : 3,092,409
: 3,112,134
2 : 3,072,428
: 3,092,410
: 3,106,419
5.5 : 3,105,713
7 : 3,092,411
15 : 3,075,798
16 : 3,101,211
: 3,112,135
: 3,116,084
19 : 3,072,429
: 3,093,402
: 3,108,834
20 : 3,101,212
: 3,101,966
22 : 3,091,491
26 : 3,085,824
27 : 3,086,805
: 3,112,948
31.2 : 3,073,642
.2 : 3,088,767
.2 : 3,105,714
.2 : 3,113,799
33 : 3,086,806
49 : 3,095,228
50.7 : 3,079,190
.7 : 3,089,721
.7 : 3,098,672
53.5 : 3,074,752
.5 : 3,115,359
54 : 3,104,908
55 : 3,107,936
.5 : 3,094,348
57 : 3,100,665
: 3,107,937
61 : 3,071,401
: 3,105,715
63 : 3,097,009
: 3,098,673
64 : 3,071,402
: 3,071,403
: 3,095,229
: 3,102,750
: 3,110,517
65 : 3,089,722
: 3,089,723
: 3,102,751
.5 : 3,079,191
.5 : 3,089,724
66 : 3,077,361
: 3,092,412
: 3,097,874
67 : 3,078,115
67 : 3,081,120
: 3,086,807
: 3,086,808
: 3,097,875
: 3,101,967
69 : 3,104,125
73 : 3,089,725
: 3,100,666
: 3,107,114
74 : 3,079,192
75 : 3,079,193
: 3,083,993
: 3,086,809
: 3,104,909
77 : 3,084,966
81 : 3,091,492
83 : 3,071,404
: 3,072,430
: 3,073,643
: 3,081,121
: 3,081,122
: 3,101,213
: 3,106,420
: 3,106,421
: 3,107,938
84 : 3,109,676
85 : 3,076,673
86 : 3,084,967
: 3,085,825
: 3,092,413
.29 : 3,081,123
87 : 3,077,362
: 3,081,124
.2 : 3,073,644
.2 : 3,075,799
.2 : 3,097,010
.2 : 3,099,475
88 : 3,071,405
: 3,073,645
: 3,075,800
: 3,089,726
: 3,108,835
.92 : 3,084,968
93 : 3,088,768
: 3,088,769
97 : 3,104,126
99 : 3,115,360
103 : 3,076,674
: 3,100,123
104 : 3,071,406
: 3,074,753
: 3,097,011
: 3,101,968
107 : 3,112,136
110 : 3,092,414
: 3,109,677
111 : 3,082,031
: 3,102,752
112 : 3,099,476
: 3,115,361
115 : 3,094,349
118 : 3,084,969
: 3,089,727

Class 295
1 : 3,101,214
31 : 3,107,115

Class 296
: 3,072,431
: 3,078,116
: 3,082,032
: 3,084,970
: 3,087,752
: 3,094,350
: 3,100,124
: 3,104,127
: 3,113,800
5 : 3,095,230
10 : 3,093,403
: 3,097,012
14 : 3,080,187
20 : 3,088,770
22 : 3,073,646
23 : 3,078,117
: 3,080,188
: 3,083,047
: 3,095,231
: 3,097,013
: 3,097,876
: 3,098,674
: 3,107,116
: 3,115,362
24 : 3,101,969
26 : 3,082,033
: 3,116,085
27 : 3,079,194
: 3,081,125
28 : Re. 25,382
: 3,073,647
: 3,075,801
: 3,078,118
28 : 3,080,189
: 3,080,190
: 3,084,971
: 3,084,972
: 3,091,693
: 3,094,351
: 3,097,877
: 3,097,878
: 3,098,675
: 3,103,379
: 3,103,380
: 3,105,716
: 3,108,836
: 3,110,518
: 3,116,086
29 : 3,075,802
31 : 3,084,973
35 : 3,080,191
: 3,097,879
: 3,105,717
: 3,111,361
: 3,112,950
36 : 3,097,880
37 : 3,081,126
: 3,085,826
: 3,088,771
44 : 3,074,754
: 3,074,755
: 3,076,675
: 3,078,119
: 3,083,048
: 3,086,810
: 3,089,729
: 3,093,404
: 3,094,352
: 3,112,951
.5 : 3,078,120
.5 : 3,083,049
46 : 3,075,803
: 3,093,405
: 3,093,406
47 : 3,100,667
51 : 3,104,910
56 : 3,078,121
65 : 3,071,407
: 3,095,232
66 : 3,097,881
: 3,113,801
: 3,114,570
68 : 3,104,911
84 : 3,081,127
: 3,114,571
91 : 3,089,728
: 3,090,645
: 3,097,882
93 : 3,106,422
: 3,107,939
95 : 3,088,772
: 3,097,014
97 : 3,071,408
: 3,074,756
: 3,085,827
: 3,095,233
: 3,105,718
98 : 3,086,811
102 : 3,101,215
103 : 3,087,753
107 : 3,075,804
: 3,083,994
: 3,090,646
: 3,096,117
117 : 3,116,087
137 : 3,072,432
: 3,075,805
: 3,075,806
: 3,075,807
: 3,078,122
: 3,079,195
: 3,079,196
: 3,091,494
: 3,097,015
: 3,097,883
: 3,112,952

Class 297
1 : 3,099,477
4 : 3,093,407
16 : 3,083,050
18 : 3,112,953
19 : 3,083,051
26 : 3,100,125
28 : 3,099,478
30 : 3,074,757
: 3,086,812
33 : 3,114,572
35 : 3,113,802
36 : 3,099,479
39 : 3,083,995
40 : 3,072,433
45 : 3,071,409
58 : 3,086,813
61 : Re. 25,345
: Re. 25,375
61 : 3,074,758
: 3,102,753
: 3,104,912
63 : 3,107,940
65 : 3,095,234
68 : 3,095,235
75 : 3,083,996
: 3,096,118
: 3,114,573
84 : 3,080,192
: 3,086,814
: 3,103,381
85 : 3,075,808
: 3,086,815
: 3,093,408
: 3,094,353
: 3,096,119
: 3,103,382
: 3,104,128
88 : 3,076,676
: 3,081,128
: 3,101,216
89 : 3,084,974
: 3,086,816
: 3,087,754
: 3,092,415
: 3,092,416
: 3,093,409
: 3,100,126
: 3,100,668
: 3,107,117
: 3,107,118
: 3,115,363
112 : 3,094,354
116 : 3,091,495
: 3,103,383
118 : 3,083,997
120 : 3,084,975
: 3,093,410
: 3,101,970
128 : 3,107,119
129 : 3,094,355
130 : 3,103,384
: 3,115,364
133 : 3,115,365
135 : 3,082,034
: 3,093,411
140 : 3,083,052
142 : 3,073,648
: 3,076,677
153 : 3,083,053
: 3,084,976
: 3,097,884
157 : 3,100,127
: 3,116,088
159 : 3,075,809
: 3,079,197
: 3,080,193
: 3,080,866
: 3,099,480
: 3,099,481
: 3,109,678
: 3,112,954
162 : 3,102,754
170 : 3,105,719
: 3,107,941
174 : 3,082,035
190 : 3,100,128
193 : 3,099,482
: 3,114,574
194 : 3,083,998
195 : 3,071,410
: 3,104,129
203 : 3,116,089
214 : 3,077,363
216 : 3,111,342
: 3,112,955
217 : 3,079,198
: 3,093,412
: 3,116,090
218 : 3,104,913
219 : 3,083,054
: 3,099,483
: 3,112,956
220 : 3,113,803
222 : 3,108,837
229 : 3,102,755
239 : 3,080,194
: 3,084,977
: 3,087,755
: 3,095,236
: 3,096,120
247 : 3,072,434
248 : 3,077,364
: 3,095,237
: 3,114,575
252 : 3,113,804
253 : 3,103,385
254 : 3,094,356
: 3,107,942
258 : 3,072,435
259 : 3,101,971
269 : 3,096,121
270 : 3,075,810
280 : 3,099,484
284 : 3,086,817
: 3,093,413
: 3,106,423
: 3,112,137
285 : 3,071,411
: 3,110,519
286 : 3,083,999
291 : 3,092,417
306 : 3,095,238
: 3,111,343
307 : 3,090,647
: 3,098,676
308 : 3,106,424
312 : 3,080,195
313 : 3,102,756
316 : 3,072,436
318 : 3,074,759
321 : 3,107,120
323 : 3,093,414
325 : 3,116,091
332 : 3,098,677
339 : 3,076,678
340 : 3,087,756
344 : 3,098,678
345 : 3,083,055
349 : 3,086,818
354 : 3,114,576
355 : 3,104,130
359 : 3,075,811
367 : 3,079,199
373 : 3,093,415
: 3,099,485
377 : 3,101,972
378 : 3,097,885
385 : 3,076,679
: 3,096,122
386 : 3,074,760
: 3,091,496
388 : 3,074,761
: 3,100,669
: 3,107,121
: 3,116,092
389 : 3,099,486
391 : 3,071,412
: 3,101,973
396 : 3,073,649
: 3,095,239
: 3,098,978
397 : 3,101,217
398 : 3,090,648
407 : 3,104,914
414 : 3,104,131
416 : 3,074,762
: 3,082,036
: 3,103,386
417 : 3,115,366
: 3,116,093
426 : 3,102,757
: 3,107,122
: 3,107,943
429 : 3,099,487
430 : 3,100,129
434 : 3,087,757
435 : 3,072,437
436 : 3,106,425
439 : 3,097,886
440 : 3,082,037
: 3,104,132
: 3,115,367
445 : 3,084,979
: 3,087,758
: 3,088,773
: 3,114,577
450 : 3,091,497
451 : 3,115,368
452 : 3,081,129
: 3,083,056
: 3,094,357
: 3,107,944
: 3,110,520
: 3,111,344
454 : 3,094,358
455 : 3,081,130
: 3,081,131
: 3,084,980
: 3,101,218
: 3,111,345
456 : 3,071,413
457 : 3,097,016
458 : 3,109,679
460 : 3,086,819
: 3,114,578
461 : 3,082,038
463 : 3,089,730
: 3,099,488

Class 298
1 : 3,080,196
3 : 3,092,618
7 : 3,083,057
8 : 3,075,812
: 3,091,498
8 : 3,094,359
: 3,111,346
11 : 3,083,058
14 : 3,099,489
17 : 3,082,039
: 3,083,059
.6 : 3,101,974
22 : Re. 25,315
: 3,085,828
23 : 3,072,438
: 3,072,439
24 : 3,087,759
27 : 3,088,774
35 : 3,071,414
: 3,076,680

Class 299
2 : 3,072,440
: 3,107,945
: 3,112,957
16 : 3,100,670
: 3,107,123
17 : 3,095,240
19 : 3,071,415
21 : 3,080,197
: 3,086,820
: 3,086,821
: 3,093,416
: 3,104,915
: 3,106,426
: 3,107,124

Class 301
1 : 3,084,080
: 3,092,419
: 3,093,417
: 3,097,887
5 : Re. 25,383
.7 : 3,103,387
9 : 3,073,650
: 3,099,490
: 3,102,758
13 : 3,079,200
: 3,090,649
36 : 3,079,201
: 3,082,040
: 3,086,123
37 : Re. 25,397
: 3,071,416
: 3,078,123
: 3,078,124
: 3,078,125
: 3,081,132
: 3,081,133
: 3,082,041
: 3,083,060
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Class 302
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Class 303
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86 : 3,089,734

Class 305
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18 : 3,111,349
19 : 3,084,981
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35 : 3,107,128
38 : 3,078,128
54 : 3,071,417
: 3,101,221
56 : 3,093,423

Class 306
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33 : 3,090,653

Class 307
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Class 308
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211 : 3,082,047
217 : 3,087,762
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222 : 3,091,501
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Class 309
2 : 3,073,659
: 3,080,201
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9 : 3,091,502
14 : 3,074,769
: 3,075,817
51 : 3,092,427
53 : 3,072,450
54 : 3,079,205
: 3,081,136

Class 310
3 : 3,094,634
4 : 3,075,996
: 3,079,515
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: 3,090,875
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6 : 3,071,702
7 : 3,086,131
8 : 3,090,876
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.5 : 3,110,824
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.9 : 3,102,963
9.1 : 3,082,334
.1 : 3,085,167
.1 : 3,086,132
.1 : 3,093,760
.1 : 3,114,848
.2 : 3,073,975

Class 310—Con.

9.5 : Re.25,413
.5 : 3,072,806
.5 : 3,113,224
.6 : 3,101,421
.7 : 3,097,315
.7 : 3,114,849
11 : 3,072,807
: 3,091,709
12 : 3,094,635
13 : 3,109,113
15 : 3,108,852
: 3,116,428
17 : 3,106,652
21 : 3,080,492
: 3,115,589
22 : 3,098,940
23 : 3,092,740
: 3,105,162
: 3,110,826
25 : 3,085,168
26 : Re.25,433
: 3,072,808
: 3,076,904
: 3,094,636
: 3,099,759
: 3,100,853
: 3,101,422
: 3,102,210
: 3,113,225
27 : 3,075,100
: 3,106,653
28 : 3,093,761
29 : 3,072,809
: 3,075,101
: 3,076,108
: 3,105,163
30 : 3,103,603
36 : 3,086,133
: 3,089,044
37 : 3,079,517
: 3,087,077
: 3,105,915
38 : 3,113,226
39 : 3,075,102
41 : 3,111,596
42 : 3,096,451
43 : 3,095,515
46 : 3,076,905
: 3,096,452
: 3,109,946
49 : 3,077,546
: 3,093,762
: 3,097,316
50 : 3,077,547
51 : 3,114,060
53 : 3,089,045
: 3,089,989
54 : 3,075,103
: 3,075,104
: 3,088,042
: 3,092,741
: 3,097,317
: 3,112,415
55 : 3,110,827
: 3,113,227
57 : 3,075,105
: 3,083,308
: 3,091,710
59 : 3,073,976
60 : 3,075,106
: 3,089,970
: 3,114,061
61 : 3,106,654
64 : 3,075,107
: 3,109,947
: 3,116,429
67 : 3,110,828
68 : 3,080,493
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: 3,091,711
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69 : 3,094,637
70 : 3,106,655
72 : 3,116,431
75 : 3,094,638
76 : 3,088,043
77 : 3,096,453
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78 : 3,082,335
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: 3,103,604
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81 : 3,091,712
83 : 3,082,336
: 3,087,078
: 3,109,950
86 : 3,101,423
87 : 3,072,810
: 3,116,432
90 : 3,112,417
94 : 3,073,977
: 3,076,906
: 3,114,850
95 : 3,084,268
: 3,085,170
: 3,112,418
97 : 3,073,978
: 3,111,597
102 : 3,084,269
103 : 3,107,310
: 3,113,228
104 : 3,080,495
105 : 3,072,811
: 3,076,109
: 3,089,046
: 3,089,971
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: 3,113,229
108 : 3,114,579
111 : 3,071,703
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115 : 3,079,518
126 : 3,075,108
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154 : 3,072,812
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: 3,093,763
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156 : 3,072,813
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157 : 3,083,312
162 : 3,088,044
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163 : Re.25,445
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166 : 3,090,878
178 : 3,096,454
179 : 3,082,337
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183 : 3,084,270
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209 : 3,092,744
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212 : 3,093,764
214 : 3,097,320
217 : 3,099,760
: 3,101,434
218 : 3,108,280
219 : 3,083,314
231 : 3,073,979
232 : 3,091,714
235 : 3,079,520
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236 : 3,073,980
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: 3,087,081
: 3,089,047
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: 3,099,761
247 : 3,080,496
: 3,108,201
248 : 3,075,111
249 : 3,076,908
253 : 3,114,062
254 : 3,081,411
: 3,110,832
256 : 3,100,271
: 3,114,063
258 : 3,081,412
259 : 3,114,064
260 : 3,075,112
: 3,089,048
261 : 3,082,338
: 3,102,966
: 3,112,420
262 : 3,098,941
266 : 3,076,111
: 3,105,164
268 : 3,072,814
: 3,090,880
: 3,091,715
: 3,095,516
268 : 3,096,455
: 3,101,425
: 3,109,114
269 : 3,089,049

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83 : 3,071,423
87 : 3,072,451
90 : 3,074,770
101 : 3,073,660
109 : 3,074,771

Class 312

6 : 3,094,361
7 : 3,089,740
8 : 3,090,661
10 : 3,080,203
: 3,112,966
13 : 3,084,983
14 : 3,100,671
27 : 3,071,424
30 : 3,078,132
31 : 3,084,984
.1 : 3,081,137
33 : 3,085,839
35 : 3,102,761
: 3,115,376
36 : 3,097,899
39 : 3,084,006
: 3,107,957
45 : 3,104,923
50 : 3,112,142
71 : 3,083,067
: 3,091,503
: 3,104,137
72 : 3,113,816
97.1 : 3,102,762
107 : 3,087,764
.1 : 3,107,131
109 : 3,079,206
111 : 3,084,985
: 3,096,130
126 : 3,073,661
: 3,103,396
138 : 3,085,840
140 : 3,085,841
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.3 : 3,112,143
: 3,112,967
184 : 3,114,583
: 3,114,584
194 : 3,079,307
195 : 3,088,785
: 3,104,138
: 3,105,726
197 : 3,084,007
198 : 3,088,786
199 : 3,080,204
: 3,113,817
200 : 3,082,049
: 3,086,830
204 : 3,074,772
: 3,109,685
: 3,110,532
: 3,116,096
205 : 3,071,425
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: 3,085,842
: 3,087,765
212 : 3,087,766
213 : 3,074,773
214 : 3,088,787
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215 : 3,109,686
218 : 3,092,428
222 : 3,101,225
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223 : 3,078,133
: 3,089,741
: 3,089,742
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: 3,105,727
227 : 3,089,743
228 : 3,072,452
229 : 3,089,744
231 : 3,080,205
: 3,091,504
234.1 : 3,102,763
235 : 3,104,139
239 : 3,085,843
240 : 3,087,767
242 : 3,095,249
244 : 3,109,687
245 : 3,104,140
246 : 3,109,688
248 : 3,112,968
255 : 3,093,428
: 3,106,434
257 : 3,075,818
: 3,101,226
263 : 3,087,768
267 : 3,094,362
269 : 3,087,769
270 : 3,087,770
271 : 3,075,819
277 : 3,097,028
278 : 3,085,844
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296 : 3,078,134
297 : 3,076,686
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298 : 3,113,818
300 : 3,101,227
303 : 3,097,029
305 : 3,071,426
306 : 3,104,141
311 : 3,098,685
312 : 3,078,135
315 : 3,079,208
: 3,097,030
317 : 3,072,453
319 : 3,081,138
: 3,084,008
320 : 3,098,686
: 3,107,958
322 : 3,107,959
323 : 3,113,819
324 : 3,089,745
326 : 3,075,820
330 : 3,097,901
: 3,110,534
: 3,112,969
331 : 3,093,429
332 : 3,087,771
333 : 3,092,429
: 3,104,142
338 : 3,108,841
341 : 3,095,250
343 : Re.25,428
: 3,090,662
: 3,094,263
350 : 3,110,535
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351 : 3,081,139
352 : 3,084,009
: 3,101,228

Class 313

1 : 3,084,271
7 : 3,071,704
: 3,094,639
: 3,100,272
: 3,109,115
11.5 : 3,113,232
17 : 3,075,113
21 : 3,098,165
23.1 : 3,115,591
24 : 3,104,338
25 : 3,085,171
: 3,094,640
26 : 3,110,833
29 : 3,086,135
32 : 3,097,381
33 : 3,105,916
34 : 3,089,972
42 : 3,075,114
43 : 3,080,497
: 3,082,339
44 : 3,087,083
47 : 3,086,136
54 : 3,106,657
: 3,110,834
55 : 3,109,951
57 : 3,107,311
60 : 3,081,413
: 3,113,233
63 : 3,071,705
: 3,075,115
: 3,076,112
: 3,093,765
: 3,096,456
: 3,116,433
65 : 3,073,981
: 3,082,340
: 3,108,202
68 : 3,089,050
: 3,090,881
70 : 3,071,706
: 3,082,341
73 : 3,087,084
: 3,088,045
: 3,103,606
74 : 3,099,762
77 : 3,088,046
: 3,098,942
: 3,098,943
: 3,106,658
78 : 3,112,421
82 : 3,085,172
: 3,090,882
: 3,100,273
83 : 3,076,909
84 : 3,071,707
84 : 3,092,745
: 3,102,211
: 3,106,659
85 : 3,092,746
: 3,109,116
86 : 3,095,517
: 3,111,598
89 : 3,115,590
92 : 3,076,910
: 3,087,085
: 3,087,086
: 3,099,763
: 3,102,967
: 3,106,660
: 3,109,117
: 3,114,065
93 : 3,075,116
: 3,092,747
: 3,098,944
: 3,110,835
95 : 3,082,342
: 3,099,764
: 3,112,422
103 : 3,096,457
107 : 3,076,911
108 : 3,071,708
: 3,073,982
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: 3,075,118
: 3,078,382
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: 3,082,344
: 3,089,051
: 3,089,973
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: 3,110,837
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: 3,114,853
: 3,114,854
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: 3,098,945
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.5 : 3,075,119
110 : 3,089,052
113 : 3,082,345
: 3,090,883
: 3,114,855
117 : 3,083,315
135 : 3,076,113
143 : 3,076,912
146 : 3,091,716
152 : 3,078,383
: 3,084,272
: 3,101,426
155 : 3,113,234
156 : 3,097,322
157 : Re.25,440
161 : 3,072,815
: 3,076,114
: 3,079,521
: 3,085,173
165 : 3,073,983
: 3,089,053
174 : 3,093,766
: 3,093,767
: 3,106,661
178 : 3,080,498
: 3,100,274
179 : 3,098,166
180 : 3,082,346
: 3,095,518
181 : 3,086,137
: 3,091,717
185 : 3,076,913
: 3,076,914
: 3,089,054
188 : 3,095,519
: 3,101,427
: 3,111,599
196 : 3,085,174
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204 : 3,109,118
207 : 3,109,952
216 : 3,072,816
217 : 3,105,917
222 : 3,091,718
223 : 3,094,642
230 : 3,084,273
231 : 3,073,984
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232 : 3,098,167
236 : 3,109,953
237 : 3,114,068
241 : 3,096,459
247 : 3,084,274
250 : 3,082,347
: 3,082,348
: 3,111,600
252 : 3,101,428
256 : 3,090,884
257 : 3,105,165
266 : 3,073,985
269 : 3,109,119
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270 : 3,085,175
: 3,092,748
: 3,116,434
271 : 3,082,349
279 : 3,073,986
285 : 3,113,235
310 : 3,105,166
311 : 3,102,968
315 : 3,075,120
318 : 3,082,350
: 3,093,768
329 : 3,109,954
337 : 3,087,082
340 : 3,114,856
346 : 3,076,915
: 3,076,916
: 3,098,168
: 3,113,236
: 3,114,070
350 : 3,092,749
: 3,114,071
357 : 3,080,499

Class 314

5 : 3,095,520
60 : 3,109,120
71 : 3,109,121

Class 315

3 : 3,072,817
: 3,094,643
.5 : Re.25,329
.5 : Re.25,343
.5 : 3,071,709
.5 : 3,076,115
.5 : 3,078,384
.5 : 3,095,521
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.5 : 3,099,765
.5 : 3,099,766
.5 : 3,107,312
.5 : 3,110,839
.5 : 3,114,857
.6 : 3,073,987
.6 : 3,084,275
.6 : 3,089,974
.6 : 3,089,975
.6 : 3,090,885
.6 : 3,090,886
.6 : 3,092,750
.6 : 3,099,767
.6 : 3,114,072
4 : 3,073,988
5.16 : 3,107,313
.21 : 3,076,917
.23 : 3,089,976
.23 : 3,097,323
.35 : 3,076,116
.39 : 3,097,324
.39 : 3,099,768
.39 : 3,104,340
.43 : 3,076,117
.48 : 3,078,385
.41 : 3,091,719
.48 : 3,103,609
.48 : 3,104,341
.51 : 3,104,342
.53 : 3,105,167
.51 : 3,116,435
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131 : 3,099,771
135 : 3,090,893
138 : 3,112,428
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151 : 3,107,314
153 : 3,102,970
158 : 3,092,755
163 : 3,082,352
166 : 3,105,169
168 : 3,075,121
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169 : 3,073,992
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: 3,086,143
: 3,098,173
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171 : 3,102,971
: 3,115,593
174 : 3,098,174
176 : 3,080,502
177 : 3,086,144
180 : 3,089,059
183 : 3,105,170
185 : 3,078,389
187 : 3,080,503
188 : 3,098,947
189 : 3,114,861
197 : 3,078,390
200 : 3,113,241
205 : 3,072,823
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206 : 3,072,824
209 : 3,113,242
218 : 3,099,772
219 : 3,115,594
224 : 3,089,060
240 : 3,075,123
241 : 3,087,091
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248 : 3,107,316
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250 : 3,098,175
257 : 3,099,773
269 : 3,072,825
277 : Re.25,347
: 3,080,504
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278 : 3,072,826
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282 : 3,107,317
330 : 3,087,092

Class 316

9 : 3,084,010
19 : 3,095,251
24 : 3,093,430
25 : 3,102,764
27 : 3,103,397

Class 317

2 : 3,076,124
: 3,079,530
: 3,083,318
: 3,086,145
: 3,095,523
: 3,099,774
: 3,102,972
: 3,106,663
4 : 3,111,605
5 : 3,079,531
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: 3,082,354
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6 : 3,092,756
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9 : 3,114,078
11 : 3,075,124
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12 : 3,080,506
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13 : 3,078,392
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14 : 3,084,308
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15 : 3,073,993
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16 : 3,092,757
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22 : 3,082,355
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27 : 3,092,758
31 : 3,079,532
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33 : 3,098,949
36 : 3,079,533
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47 : 3,110,844
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54 : 3,116,440
58 : 3,105,921
59 : 3,079,534
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74 : 3,112,439
75 : 3,093,772
79 : 3,073,994
80 : 3,075,125
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83 : 3,072,829
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262 : 3,085,184
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Class 318

5 : 3,104,347
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: 3,090,896
: 3,098,957
: 3,105,927
: 3,109,128
21 : 3,091,726
22 : 3,104,349
24 : 3,076,921
: 3,111,613
28 : Re.25,487
: 3,075,132
: 3,077,552
: 3,077,553
: 3,078,399
: 3,078,400
: 3,079,539
: 3,080,511
: 3,080,512
: 3,080,513
: 3,081,422
: 3,082,362
: 3,083,322
: 3,083,323
: 3,083,324
: 3,084,314
: 3,084,315
: 3,086,151
: 3,088,061
: 3,089,068
: 3,089,989
: 3,093,776
: 3,099,777
: 3,100,277
: 3,100,858
: 3,102,217
: 3,105,928
: 3,108,212
: 3,108,213
: 3,109,970
: 3,110,851
: 3,114,869
: 3,114,870
: 3,116,444
29 : 3,080,514
: 3,089,990
: 3,109,129
30 : 3,078,401
: 3,079,540
: 3,082,363
: 3,093,777
: 3,100,859
: 3,109,971
: 3,111,614
31 : 3,093,778
: 3,111,615
: 3,114,089
32 : 3,086,152
41 : 3,102,218
44 : 3,091,727
55 : 3,100,860
: 3,109,972
65 : 3,114,090
71 : 3,086,153
72 : 3,078,402
: 3,109,130
85 : 3,073,997
102 : 3,083,325
: 3,099,778
116 : 3,078,403
: 3,085,185
: 3,109,973
118 : 3,114,091
128 : 3,088,062
: 3,098,185
: 3,100,278
132 : 3,084,316
: 3,095,528
: 3,095,529
: 3,114,092
138 : 3,083,326
: 3,089,069
: 3,090,897
: 3,091,728
: 3,096,467
: 3,098,958
: 3,105,180
: 3,109,131
143 : 3,093,779
144 : 3,089,991
: 3,108,214
145 : 3,077,554
: 3,093,780
: 3,095,530
: 3,102,219
148 : 3,075,133
157 : 3,099,779
161 : 3,088,063
162 : 3,072,833
: 3,072,834
: 3,073,998
: 3,078,404
: 3,079,522
: 3,086,154
: 3,087,101
: 3,093,781
: 3,098,186
: 3,098,187
: 3,099,780
: 3,099,781
: 3,101,435
: 3,101,436
: 3,103,614
: 3,109,974
167 : 3,100,279
170 : 3,086,155
: 3,090,898
: 3,102,222
: 3,113,255
: 3,084,323
: 3,093,789
202 : 3,083,327
: 3,090,899
203 : 3,105,181
207 : 3,076,126
: 3,087,102
: 3,090,900
: 3,086,160
: 3,097,334
: 3,099,783
: 3,100,862
: 3,094,652
: 3,107,323
: 3,109,132

Class 320

1 : 3,078,408
: 3,084,321
: 3,086,158
: 3,088,064
: 3,106,672
: 3,096,473
: 3,096,474
2 : 3,089,070
: 3,089,071
: 3,089,072
: 3,105,929
13 : 3,085,186
21 : 3,089,073
22 : 3,090,904
25 : 3,085,187
31 : 3,098,188
36 : 3,076,127
: 3,102,220
: 3,102,221
16 : 3,074,001
20 : 3,076,134
: 3,113,255
39 : 3,076,128
: 3,086,159
: 3,098,962
: 3,099,782
: 3,105,183
: 3,111,617
: 3,114,095
40 : 3,073,999
: 3,086,160
: 3,097,334
: 3,099,783
46 : 3,100,862
48 : 3,094,652
: 3,107,323
53 : 3,109,132

Class 321

2 : 3,079,525
: 3,088,065
: 3,089,995
: 3,095,533
: 3,109,133
: 3,114,096
4 : 3,109,976
5 : 3,091,729
7 : 3,099,784
8 : 3,076,129
: 3,078,409
: 3,081,424
8 : 3,085,188
: 3,089,074
: 3,098,189
9 : 3,102,976
10 : 3,088,066
11 : 3,087,106
: 3,098,963
: 3,109,134
12 : 3,110,855
14 : 3,110,856
15 : 3,113,256
16 : 3,074,000
: 3,083,328
: 3,091,730
: 3,107,324
18 : 3,071,720
: 3,072,837
: 3,075,135
: 3,076,130
: 3,099,785
: 3,105,184
: 3,113,257
: 3,114,097
: 3,114,098
: 3,116,446
19 : 3,087,107
: 3,095,534
: 3,102,977
20 : 3,099,786
24 : 3,113,258
: 3,113,259
25 : 3,072,838
: 3,076,131
: 3,107,325
26 : 3,083,329
27 : 3,079,526
: 3,084,322
32 : 3,085,189
34 : 3,093,785
38 : 3,102,223
44 : 3,109,977
45 : 3,075,136
: 3,082,369
: 3,085,190
: 3,089,075
: 3,089,076
: 3,089,077
: 3,096,472
: 3,097,335
: 3,099,787
: 3,101,439
: 3,103,616
47 : 3,093,786
: 3,104,352
49 : 3,089,078
: 3,108,216
61 : 3,093,787
69 : 3,076,132
: 3,076,133
: 3,096,473
: 3,096,474
: 3,102,978

Class 322

2 : 3,079,527
: 3,080,515
: 3,089,079
: 3,093,788
: 3,094,653
: 3,107,326
11 : 3,086,161
16 : 3,074,001
20 : 3,076,134
: 3,084,323
: 3,093,789
25 : 3,072,839
: 3,074,002
: 3,074,003
: 3,082,370
: 3,086,162
: 3,089,996
: 3,099,788
: 3,105,185
: 3,105,930
28 : 3,076,922
: 3,077,558
: 3,098,964
: 3,098,965
: 3,105,931
: 3,108,217
: 3,112,434
29 : 3,098,190
32 : 3,084,324
36 : 3,105,186
40 : 3,075,137
47 : 3,102,224
60 : 3,077,559
73 : 3,072,840
: 3,098,966
: 3,106,673
: 3,074,004
79 : 3,098,191
84 : 3,074,005

Class 322 – Con.

87 : 3,109,978
90 : 3,092,767
: 3,105,932
95 : 3,089,997

Class 323

4 : 3,113,260
: 3,114,872
7 : 3,079,541
9 : 3,074,006
: 3,099,789
: 3,112,435
16 : 3,101,440
22 : 3,072,841
: 3,072,842
: 3,074,007
: 3,074,008
: 3,076,135
: 3,076,923
: 3,076,924
: 3,076,925
: 3,078,410
: 3,079,542
: 3,079,543
: 3,080,516
: 3,081,425
: 3,083,330
: 3,086,163
: 3,088,067
: 3,089,080
: 3,089,998
: 3,090,905
: 3,093,790
: 3,094,654
: 3,096,475
: 3,098,192
: 3,099,790
: 3,099,791
: 3,100,863
: 3,101,441
: 3,101,442
: 3,102,225
: 3,102,226
: 3,103,617
: 3,103,618
: 3,104,353
: 3,105,187
: 3,105,188
: 3,105,933
: 3,106,674
: 3,108,218
: 3,109,135
: 3,109,979
: 3,109,980
: 3,109,981
: 3,109,982
: 3,112,436
: 3,114,873
: 3,115,600
: 3,116,447
24 : 3,112,432
25 : 3,114,899
38 : 3,084,325
43.5 : 3,078,411
.5 : 3,086,164
.5 : 3,090,906
.5 : 3,100,864
.5 : 3,100,865
.5 : 3,108,675
.5 : 3,112,438
.5 : 3,113,261
45 : 3,075,138
: 3,079,544
: 3,114,100
: 3,114,874
48 : 3,079,545
49 : 3,083,331
50 : 3,079,546
51 : 3,085,191
: 3,085,192
: 3,089,081
52 : 3,105,189
53 : 3,094,655
54 : 3,081,426
56 : 3,087,108
: 3,089,999
: 3,103,619
: 3,112,439
: 3,112,440
58 : 3,074,009
: 3,079,547
60 : 3,076,136
: 3,094,656
: 3,111,618
61 : 3,094,657
: 3,111,619
64 : 3,076,926
: 3,102,227
66 : 3,074,010
: 3,075,139
: 3,075,140
66 : 3,080,517
: 3,080,518
: 3,083,332
: 3,086,165
: 3,089,082
: 3,090,000
67 : 3,085,193
69 : 3,087,109
: 3,107,327
74 : 3,074,011
: 3,087,110
: 3,101,443
: 3,109,983
75 : 3,076,927
: 3,081,427
: 3,085,194
: 3,109,137
: 3,109,984
: 3,111,620
: 3,113,262
76 : 3,090,907
: 3,111,621
79 : 3,088,166
: 3,090,001
: 3,090,908
: 3,098,195
: 3,114,102
88 : 3,107,328
89 : 3,074,012
: 3,076,137
: 3,083,333
: 3,083,334
: 3,090,909
: 3,092,769
: 3,098,196
: 3,102,229
: 3,110,857
94 : 3,097,336
: 3,098,967
: 3,099,792
: 3,102,230
: 3,109,985
102 : 3,091,731
109 : 3,079,548
123 : 3,108,219
125 : 3,089,083

Class 324

.5 : 3,071,721
.5 : 3,080,519
.5 : 3,081,428
.5 : 3,083,335
.5 : 3,085,195
.5 : 3,085,196
.5 : 3,090,002
.5 : 3,090,003
.5 : 3,091,732
.5 : 3,096,476
.5 : 3,098,197
.5 : 3,099,793
.5 : 3,100,280
.5 : 3,100,866
.5 : 3,103,620
.5 : 3,103,621
.5 : 3,103,622
.5 : 3,103,623
.5 : 3,103,624
.5 : 3,109,138
.5 : 3,109,986
.5 : 3,110,858
.5 : 3,112,441
.5 : 3,113,263
.5 : 3,113,264
.5 : 3,114,103
1 : 3,075,141
: 3,075,142
: 3,076,138
: 3,076,928
: 3,079,549
: 3,079,550
: 3,086,167
: 3,087,111
: 3,096,477
: 3,098,198
: 3,103,625
: 3,103,626
: 3,112,442
: 3,113,265
: 3,114,875
: 3,116,448
: 3,116,449
2 : 3,116,450
4 : 3,105,934
6 : 3,086,168
: 3,090,910
: 3,090,911
: 3,094,658
6 : 3,105,190
: 3,108,220
: 3,112,443
8 : 3,085,197
10 : 3,072,843
: 3,105,191
: 3,115,602
20 : 3,110,859
24 : 3,100,867
28 : 3,105,935
29.4 : 3,116,451
.5 : 3,082,371
30 : 3,075,143
: 3,082,372
: 3,086,169
: 3,095,535
: 3,105,676
32 : 3,093,791
: 3,097,337
33 : Re.25,369
: 3,071,722
: 3,076,139
: 3,085,198
: 3,087,112
: 3,087,113
: 3,093,792
: 3,100,868
: 3,101,444
: 3,109,136
34 : 3,071,723
: 3,075,144
: 3,088,068
: 3,109,139
: 3,114,876
36 : 3,076,929
37 : 3,075,145
: 3,089,084
: 3,091,733
: 3,110,860
40 : 3,100,281
: 3,116,452
43 : 3,076,930
51 : 3,074,013
52 : 3,113,266
54 : 3,071,724
: 3,072,844
: 3,090,912
: 3,093,793
: 3,096,478
: 3,106,677
57 : 3,072,845
: 3,077,560
: 3,077,561
: 3,082,373
: 3,090,913
: 3,102,231
58 : Re.25,396
: 3,098,968
: 3,104,354
: 3,105,936
: 3,107,329
: 3,113,267
.5 : 3,079,551
.5 : 3,079,552
.5 : 3,080,520
.5 : 3,102,232
.5 : 3,103,627
60 : 3,115,603
61 : 3,081,429
: 3,090,004
62 : 3,086,170
63 : 3,098,969
64 : 3,078,412
66 : 3,076,931
68 : 3,078,413
: 3,080,521
: 3,089,085
: 3,090,914
: 3,090,915
70 : 3,079,553
: 3,090,005
: 3,095,536
: 3,098,970
: 3,103,628
: 3,106,678
: 3,108,221
: 3,109,140
: 3,115,604
71 : 3,087,114
: 3,102,979
: 3,104,355
: 3,114,877
73 : 3,078,414
: 3,082,374
: 3,074,014
: 3,076,932
: 3,079,554
: 3,089,086
: 3,096,479
: 3,108,222
: 3,110,861
78 : 3,074,015
78 : 3,107,330
79 : 3,071,725
: 3,071,726
: 3,102,980
: 3,105,192
80 : 3,079,555
81 : 3,082,375
: 3,085,199
82 : 3,105,193
83 : 3,083,336
: 3,096,480
88 : 3,078,415
95 : 3,081,430
: 3,114,104
98 : 3,102,981
99 : 3,072,846
: 3,075,146
: 3,081,431
100 : 3,087,115
105 : 3,112,444
111 : 3,093,794
115 : 3,090,916
123 : 3,109,181
125 : 3,102,233
: 3,114,878
: 3,114,879
: 3,114,880
131 : 3,079,556
139 : 3,101,445
140 : 3,076,933
142 : 3,090,006
146 : 3,094,659
147 : 3,074,016
151 : 3,095,537
152 : 3,076,934
154 : 3,090,007
: 3,111,623
158 : 3,074,017
: 3,076,140
: 3,080,522
: 3,084,326
: 3,094,660

Class 325

2 : 3,106,679
: 3,111,624
4 : 3,092,770
: 3,095,538
6 : 3,113,268
7 : 3,082,376
9 : 3,079,557
: 3,098,971
: 3,085,200
15 : 3,080,523
16 : 3,085,201
: 3,114,105
17 : 3,096,481
18 : 3,087,116
19 : 3,112,445
20 : 3,112,446
24 : 3,092,771
: 3,099,794
: 3,113,269
25 : 3,085,202
: 3,091,734
29 : 3,072,847
30 : 3,099,795
: 3,099,796
: 3,110,862
31 : 3,093,795
: 3,104,356
38 : 3,097,338
: 3,100,869
: 3,103,629
: 3,105,194
: 3,109,142
: 3,109,987
41 : 3,096,482
43 : 3,075,147
44 : 3,071,727
: 3,090,008
45 : 3,084,327
47 : 3,091,735
49 : 3,084,328
: 3,088,069
: 3,088,070
50 : 3,085,203
: 3,088,071
: 3,105,937
55 : 3,086,171
: 3,094,661
: 3,113,270
56 : 3,114,106
65 : 3,083,337
: 3,083,338
: 3,084,329
67 : 3,081,432
: 3,100,870
: 3,101,446
: 3,113,271
104 : 3,102,234
105 : 3,101,447
: 3,105,938
105 : 3,108,223
: 3,110,863
: 3,114,107
112 : 3,102,982
118 : 3,087,117
: 3,112,447
132 : 3,072,848
133 : 3,090,917
134 : 3,074,018
141 : 3,076,935
163 : 3,095,539
: 3,102,235
: 3,112,448
167 : 3,112,452
180 : 3,085,204
187 : 3,080,524
: 3,106,680
303 : 3,077,601
312 : 3,071,728
: 3,076,936
: 3,087,118
: 3,099,797
: 3,103,630
319 : 3,072,849
: 3,077,562
: 3,089,087
: 3,092,772
: 3,094,662
: 3,098,972
: 3,104,357
: 3,110,864
: 3,116,453
320 : 3,109,143
321 : 3,108,224
: 3,114,108
323 : 3,095,540
329 : 3,076,141
330 : 3,100,871
348 : 3,079,558
: 3,090,918
349 : 3,111,625
353 : 3,077,563
355 : 3,091,736
356 : 3,090,919
364 : 3,081,433
: 3,088,072
: 3,094,663
: 3,109,988
370 : 3,092,773
373 : 3,094,664
375 : 3,098,973
391 : 3,116,454
392 : 3,076,142
406 : 3,079,559
410 : 3,109,989
415 : 3,108,225
421 : 3,106,681
438 : 3,083,339
439 : 3,103,631
440 : 3,084,330
445 : 3,092,774
446 : 3,071,729
: 3,072,850
: 3,109,144
448 : 3,098,974
451 : 3,107,331
455 : 3,089,088
461 : 3,092,775
466 : 3,098,975
468 : 3,090,920
474 : 3,092,776
475 : 3,094,665
478 : 3,102,236
479 : 3,090,009
482 : 3,102,237
487 : 3,115,606
491 : 3,114,881
: 3,114,882

Class 328

1 : 3,109,145
: 3,113,272
3 : 3,088,073
5 : 3,071,730
9 : 3,084,284
15 : 3,093,796
16 : 3,085,205
21 : 3,085,206
22 : 3,081,434
: 3,086,172
: 3,112,449
27 : 3,078,416
: 3,102,238
: 3,116,455
31 : 3,076,937
34 : 3,084,285
: 3,105,939
38 : 3,080,525
40 : 3,089,089
: 3,102,239
42 : 3,084,286
: 3,108,226
: 3,116,456
43 : 3,105,195
: 3,108,227
: 3,109,990
44 : 3,114,883
: 3,116,457
45 : 3,078,417
48 : 3,096,483
53 : 3,072,851
55 : 3,089,090
: 3,098,976
58 : 3,071,731
: 3,075,148
59 : 3,082,377
61 : 3,093,797
: 3,097,339
62 : 3,076,143
63 : 3,096,484
: 3,097,340
: 3,107,332
: 3,114,109
65 : 3,090,921
67 : 3,078,418
: 3,088,074
: 3,090,010
135 : 3,089,095
: 3,089,096
: 3,089,340
: 3,094,291
: 3,094,780
: 3,076,147
: 3,076,940
141 : Re.25,436
142 : 3,100,875
162 : 3,074,022
: 3,079,564
: 3,092,781
170 : 3,084,292
178 : 3,109,992

Class 330

2 : 3,072,858
: 3,094,670
3 : 3,114,111
4 : 3,072,859
: 3,074,023
: 3,076,148
: 3,080,527
.5 : 3,111,628
.6 : 3,076,149
.6 : 3,078,419
.6 : 3,092,782
.6 : 3,093,801
.6 : 3,096,485
.7 : 3,085,207
.7 : 3,086,176
.7 : 3,087,119
.7 : 3,090,925
.7 : 3,101,449
.7 : 3,109,166
.8 : 3,090,012
.9 : 3,076,941
.9 : 3,094,671
.9 : 3,094,672
.9 : 3,105,941
.9 : 3,111,629
7 : 3,101,450
8 : 3,085,208
9 : 3,081,435
: 3,088,076
: 3,089,097
10 : 3,079,565
: 3,099,801
: 3,101,451
: 3,101,452
11 : 3,076,150
12 : 3,098,978
: 3,109,147
14 : 3,077,566
: 3,096,486
: 3,102,984
15 : 3,094,673
: 3,105,198
: 3,105,199
16 : 3,102,985
17 : 3,096,487
: 3,099,802
: 3,100,876
: 3,114,112
18 : 3,082,380
: 3,086,177
: 3,089,098
19 : 3,089,091
20 : 3,075,151
: 6,079,566
21 : 3,079,567
: 3,110,868
: 3,110,869
22 : 3,080,528
: 3,101,453
: 3,102,241
23 : 3,072,860
: 3,074,024
24 : 3,075,152
: 3,090,926
: 3,116,459
111 : 3,074,028
: 3,083,341
: 3,101,454
: 3,114,114
112 : 3,116,465
113 : 3,074,029
: 3,074,030
10 : 3,074,033
: 3,075,158
: 3,092,790
: 3,094,677
: 3,095,544
: 3,098,983
: 3,105,207
: 3,113,277
: 3,114,888
11 : 3,071,738
: 3,089,104
: 3,109,998
: 3,114,119
13 : 3,072,865
: 3,072,866
: 3,092,791
14 : 3,086,179
: 3,111,635
: 3,112,461
: 3,112,462
16 : 3,109,999
18 : 3,071,739
21 : 3,100,881
22 : 3,095,545
: 3,098,984
: 3,109,150
24 : 3,106,687
.1 : 3,078,425
.1 : 3,080,536
.1 : 3,090,015
.1 : 3,090,930
.1 : 3,099,805
.1 : 3,100,287
.2 : 3,071,740
.2 : 3,072,867
.2 : 3,075,159
.2 : 3,076,946
.2 : 3,095,546
.2 : 3,095,547
.2 : 3,099,806
.2 : 3,100,288
.2 : 3,101,458
.2 : 3,102,244
.2 : 3,103,639
.2 : 3,105,946
.2 : 3,108,236
.2 : 3,113,278
25 : 3,114,120
28 : 3,087,126
: 3,106,688
29 : 3,114,121
30 : 3,071,741
: 3,080,537
: 3,092,792
: 3,098,304
: 3,098,985
: 3,100,640
: 3,113,279
31 : 3,076,156
: 3,081,439
: 3,081,440
: 3,085,214
: 3,086,180
: 3,092,793
: 3,108,237
: 3,109,151
: 3,109,152
33 : 3,090,016
: 3,101,459
34 : 3,086,181
: 3,087,127
71 : 3,078,426
: 3,080,538
: 3,086,182
: 3,098,205
: 3,098,986
: 3,098,987
: 3,105,208
72 : 3,074,034
: 3,078,427
: 3,086,183
: 3,109,153
73 : 3,074,035
: 3,082,384
: 3,088,082
: 3,089,105
: 3,093,803
: 3,098,206
: 3,104,362
75 : 3,072,868
: 3,094,676
76 : 3,079,571
: 3,095,548
: 3,111,636
: 3,114,889
78 : 3,105,209
79 : 3,076,947
79 : 3,090,017
: 3,106,689
80 : 3,112,463
81 : 3,072,869
: 3,080,539
: 3,080,540
: 3,081,441
: 3,096,494
: 3,096,495
: 3,100,289
: 3,105,210
: 3,105,211
: 3,107,334
: 3,107,335
: 3,108,238
: 3,110,872
82 : 3,082,385
: 3,105,947
83 : 3,076,157
: 3,082,386
: 3,087,128
: 3,090,018
: 3,093,804
: 3,108,239
: 3,108,240
84 : 3,093,805
: 3,095,549
: 3,104,363
95 : 3,077,569
: 3,078,428
: 3,090,019
: 3,090,020
: 3,098,988
: 3,110,001
96 : 3,082,387
97 : 3,076,158
: 3,092,794
98 : 3,072,870
: 3,076,159
: 3,076,948
: 3,084,296
: 3,087,129
: 3,087,130
: 3,090,931
: 3,095,550
: 3,098,207
: 3,099,807
: 3,101,460
: 3,101,461
: 3,110,002
: 3,114,123

Class 334

4 : 3,102,987
6 : 3,110,003
15 : 3,110,004
50 : 3,071,742
: 3,099,808
51 : 3,090,932
64 : 3,098,208
70 : 3,079,572
82 : 3,090,021

Class 336

15 : 3,085,215
30 : 3,083,343
: 3,084,297
: 3,084,298
: 3,092,795
: 3,114,124
: 3,116,468
55 : 3,079,573
60 : 3,086,184
61 : 3,077,570
68 : 3,097,346
70 : 3,084,299
: 3,090,022
: 3,106,690
75 : 3,101,462
83 : 3,078,429
84 : 3,102,245
87 : 3,091,744
: 3,101,463
: 3,105,212
92 : 3,071,743
96 : 3,100,882
100 : 3,102,246
118 : 3,113,280
120 : 3,090,933
129 : 3,090,934
131 : 3,098,989
132 : 3,074,036
133 : 3,087,131
135 : 3,079,574
: 3,082,388
: 3,092,796
: 3,105,213
: 3,105,948
: 3,106,691
140 : 3,078,430
148 : 3,087,132
150 : 3,113,281
165 : 3,111,637
172 : 3,098,990
174 : 3,082,389
176 : 3,102,988
183 : 3,111,638
198 : 3,092,797
199 : 3,074,037
200 : 3,080,541
: 3,089,106
210 : 3,082,390
: 3,082,391
: 3,110,873
: 3,110,874
211 : 3,108,241
212 : 3,071,744
: 3,090,935
213 : 3,074,038
: 3,074,039
: 3,104,364
218 : 3,076,160

Class 338

2 : 3,071,745
: 3,074,040
: 3,078,431
: 3,079,575
: 3,084,300
: 3,089,107
: 3,089,108
: 3,092,798
: 3,094,678
3 : 3,116,469
4 : 3,079,576
5 : 3,075,160
: 3,088,083
: 3,095,551
: 3,100,290
: 3,101,464
6 : 3,086,185
13 : 3,098,991
: 3,108,242
18 : 3,076,949
: 3,080,542
: 3,082,392
: 3,084,301
: 3,104,365
: 3,106,692
21 : 3,096,496
22 : 3,110,875
28 : 3,075,161
: 3,085,216
: 3,103,641
: 3,114,125
32 : 3,090,023
: 3,112,464
: 3,114,122
: 3,115,612
33 : 3,106,693
: 3,106,694
: 3,113,282
34 : 3,092,799
35 : 3,071,746
: 3,105,214
: 3,110,005
39 : 3,098,209
41 : 3,085,217
: 3,089,109
42 : 3,093,806
46 : 3,113,283
51 : 3,074,041
54 : 3,108,243
80 : 3,115,613
83 : 3,096,497
86 : 3,087,133
87 : 3,103,642
97 : 3,102,247
98 : 3,094,680
116 : 3,114,126
128 : 3,101,465
132 : 3,112,465
138 : 3,105,215
140 : 3,111,639
143 : 3,092,800
: 3,099,809
: 3,099,504
144 : 3,108,244
148 : 3,088,084
: 3,100,883
150 : Re.25,412
154 : 3,102,989
157 : 3,076,161
160 : 3,111,640
162 : Re.25,479
: 3,096,498
: 3,099,810
: 3,102,990
163 : 3,085,218
: 3,096,499
167 : 3,076,162
170 : 3,090,024
171 : 3,072,871
172 : 3,082,393
174 : 3,072,872
: 3,099,811
174 : 3,105,216
: 3,105,217
: 3,105,949
: 3,108,245
: 3,115,614
179 : 3,071,747
180 : 3,092,801
: 3,107,336
: 3,116,470
183 : 3,089,110
: 3,090,025
: 3,096,500
: 3,099,812
214 : 3,105,218
: 3,105,219
221 : 3,111,641
224 : 3,100,884
237 : 3,086,186
257 : 3,111,642
260 : 3,089,111
268 : 3,071,748
270 : 3,114,890
273 : 3,080,543
: 3,087,134
: 3,101,466
274 : 3,102,248
: 3,113,284
280 : 3,074,042
: 3,075,162
283 : 3,086,187
: 3,088,085
308 : 3,107,337
314 : 3,071,749
316 : 3,102,249
330 : 3,094,679

Class 339

2 : 3,099,503
: 3,115,377
4 : 3,076,163
: 3,103,398
5 : 3,089,112
: 3,095,252
: 3,097,031
: 3,102,765
: 3,104,143
: 3,105,728
: 3,112,970
: 3,112,971
8 : 3,078,432
: 3,089,113
: 3,107,960
12 : 3,112,972
14 : 3,072,873
: 3,081,442
: 3,112,973
: 3,114,585
101 : 3,073,875
103 : 3,104,145
: 3,107,135
108 : 3,072,876
: 3,072,877
: 3,108,842
109 : 3,075,166
110 : 3,112,976
111 : 3,078,435
112 : 3,102,766
116 : 3,112,148
117 : 3,115,380
122 : 3,094,367
128 : 3,079,581
130 : 3,103,400
: 3,108,843
131 : 3,113,821
143 : 3,078,436
: 3,099,506
148 : 3,074,043
150 : 3,076,952
: 3,088,090
: 3,096,134
154 : 3,111,356
155 : 3,099,507
157 : 3,082,397
164 : 3,078,437
170 : 3,105,730
174 : 3,090,028
: 3,104,924
: 3,074,044
: 3,075,167
: 3,082,398
: 3,086,189
: 3,089,114
: 3,097,036
: 3,101,231
: 3,102,767
: 3,106,435
177 : 3,074,045
: 3,086,190
: 3,089,115
: 3,112,977
180 : 3,075,168
182 : 3,089,116
184 : 3,087,135
49 : 3,086,188
: 3,112,974
50 : 3,111,353
55 : 3,097,903
56 : 3,116,098
59 : Re.25,506
: 3,093,432
: 3,101,229
: 3,101,983
: 3,109,689
60 : 3,076,168
: 3,107,132
: 3,107,133
: 3,109,690
61 : 3,076,950
: 3,084,304
: 3,091,747
62 : 3,078,433
64 : 3,083,346
: 3,094,364
: 3,097,904
65 : 3,082,396
: 3,091,748
69 : 3,101,984
74 : 3,107,962
75 : 3,091,749
: 3,094,365
: 3,097,033
: 3,097,034
: 3,111,354
: 3,111,355
: 3,114,587
88 : 3,083,347
89 : 3,076,169
: 3,091,750
: 3,104,144
: 3,112,975
91 : 3,075,165
: 3,076,951
: 3,101,230
92 : 3,110,538
94 : 3,079,580
: 3,088,089
: 3,092,431
95 : 3,083,348
: 3,093,433
: 3,099,505
96 : 3,107,134
97 : 3,071,750
: 3,094,366
: 3,112,147
98 : 3,083,349
99 : 3,078,434
: 3,097,035
100 : 3,071,751
: 3,083,350
: 3,109,691
101 : 3,072,875
103 : 3,104,145
: 3,107,135
108 : 3,072,876
: 3,072,877
: 3,108,842
109 : 3,075,166
110 : 3,112,976
111 : 3,078,435
112 : 3,102,766
116 : 3,112,148
117 : 3,115,380
122 : 3,094,367
128 : 3,079,581
130 : 3,103,400
: 3,108,843
131 : 3,113,821
143 : 3,078,436
: 3,099,506
148 : 3,074,043
150 : 3,076,952
: 3,088,090
: 3,096,134
154 : 3,111,356
155 : 3,099,507
157 : 3,082,397
164 : 3,078,437
170 : 3,105,730
174 : 3,090,028
: 3,104,924
: 3,074,044
: 3,075,167
: 3,082,398
: 3,086,189
: 3,089,114
: 3,097,036
: 3,101,231
: 3,102,767
: 3,106,435
177 : 3,074,045
: 3,086,190
: 3,089,115
: 3,112,977
180 : 3,075,168
182 : 3,089,116
184 : 3,087,135

Class 339 – Con.

184 : 3,109,692
186 : 3,077,571
: 3,085,221
: 3,096,135
: 3,097,905
188 : 3,098,687
: 3,110,539
191 : 3,107,963
192 : 3,088,091
: 3,101,985
193 : 3,087,136
: 3,099,508
195 : 3,093,434
196 : 3,086,191
198 : Re.25,442
: Re.25,446
: 3,072,879
: 3,078,438
: 3,087,137
: 3,107,136
: 3,116,099
202 : 3,084,305
205 : 3,081,443
: 3,086,192
: 3,107,964
210 : 3,090,936
217 : 3,072,880
: 3,075,169
: 3,076,170
: 3,077,572
: 3,078,439
: 3,079,582
: 3,083,351
: 3,085,222
: 3,090,937
: 3,102,768
: 3,104,925
: 3,107,965
: 3,112,149
: 3,112,978
: 3,115,381
220 : 3,106,436
223 : 3,098,688
226 : 3,116,100
239 : 3,084,306
241 : 3,107,966
245 : 3,097,037
246 : 3,085,223
248 : 3,088,092
251 : 3,107,967
253 : 3,097,906
254 : 3,104,926
255 : 3,090,029
: 3,099,509
: 3,101,986
256 : 3,074,046
: 3,099,510
: 3,104,927
258 : 3,076,171
: 3,076,172
: 3,086,193
: 3,116,101
259 : 3,076,953
: 3,082,399
265 : 3,100,672
272 : 3,072,881
: 3,076,954
: 3,086,194
: 3,113,822
276 : 3,083,435
: 3,096,136
: 3,112,150

Class 340

1 : 3,093,807
: 3,098,992
: 3,105,950
2 : 3,074,047
: 3,093,808
: 3,113,285
: 3,116,471
3 : 3,072,882
: 3,076,173
: 3,084,331
: 3,092,802
: 3,092,803
: 3,094,681
: 3,098,210
: 3,100,885
: 3,102,991
: 3,109,154
: 3,115,615
4 : 3,082,400
: 3,089,117
: 3,108,246
: 3,110,876
5 : 3,071,752
: 3,076,174
: 3,079,583
: 3,087,138
: 3,090,938
5 : 3,098,993
: 3,110,877
: 3,116,472
6 : 3,089,118
: 3,092,804
: 3,113,286
8 : 3,098,211
: 3,108,247
: 3,113,287
9 : 3,090,939
10 : 3,079,584
: 3,100,291
: 3,113,288
11 : 3,082,401
12 : 3,099,813
13 : 3,075,170
15 : 3,075,171
: 3,077,573
: 3,077,574
: 3,086,195
: 3,093,809
: 3,098,212
: 3,100,886
: 3,109,155
.5 : Re.25,377
.5 : 3,075,172
.5 : 3,076,175
.5 : 3,076,176
.5 : 3,076,177
.5 : 3,080,545
.5 : 3,084,332
.5 : 3,092,805
.5 : 3,095,552
.5 : 3,096,501
.5 : 3,099,814
.5 : 3,101,467
.5 : 3,105,220
.5 : 3,108,248
.5 : 3,108,249
.5 : 3,108,250
.5 : 3,109,156
.5 : 3,110,878
16 : 3,074,048
: 3,090,030
: 3,108,251
17 : 3,100,292
: 3,102,250
: 3,103,643
: 3,115,616
18 : 3,076,955
: 3,090,031
: 3,090,940
: 3,093,810
: 3,093,811
: 3,096,502
: 3,102,251
: 3,102,992
: 3,103,644
: 3,112,466
: 3,113,289
: 3,113,290
20 : 3,110,879
21 : 3,103,645
22 : 3,094,682
: 3,114,891
23 : 3,079,585
: 3,105,951
: 3,110,006
: 3,111,643
: 3,113,291
25 : 3,102,993
26 : 3,079,586
: 3,087,139
: 3,091,751
: 3,096,503
: 3,104,366
: 3,113,292
: 3,114,892
: 3,116,473
27 : 3,077,575
: 3,080,546
: 3,089,119
: 3,096,504
28 : 3,114,893
31 : 3,090,941
: 3,104,367
32 : 3,114,127
35 : 3,078,440
: 3,110,880
: 3,110,881
37 : 3,078,441
: 3,106,695
38 : 3,075,173
: 3,086,196
: 3,087,140
: 3,098,213
39 : 3,102,252
: 3,105,952
: 3,110,007
: 3,110,008
: 3,110,009
: 3,105,953
: 3,109,157
40 : 3,072,883
40 : 3,078,442
: 3,079,587
41 : 3,090,032
: 3,105,954
: 3,107,338
43 : 3,076,178
44 : 3,089,120
50 : 3,113,293
51 : 3,105,221
: 3,110,010
: 3,114,128
52 : 3,072,884
: 3,077,576
: 3,110,882
: 3,112,467
54 : 3,088,093
: 3,105,222
56 : 3,110,011
58 : 3,092,806
: 3,093,812
: 3,111,644
65 : 3,074,049
66 : 3,109,158
67 : 3,109,159
69 : 3,096,505
71 : 3,108,252
72 : 3,072,885
74 : 3,110,012
84 : 3,090,033
87 : 3,114,129
100 : 3,110,883
105 : 3,085,224
107 : 3,075,174
136 : 3,094,683
146.1 : 3,075,175
.1 : 3,078,443
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.1 : 3,091,753
.1 : 3,092,807
.1 : 3,098,994
.1 : 3,100,293
.1 : 3,102,253
.1 : 3,102,254
.1 : 3,105,955
.1 : 3,108,253
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.1 : 3,114,130
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.2 : 3,075,176
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.2 : 3,090,942
.2 : 3,092,808
.2 : 3,098,995
.2 : 3,102,255
.2 : 3,102,994
.2 : 3,107,339
.3 : 3,072,886
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.3 : 3,081,444
.3 : 3,085,225
.3 : 3,085,226
.3 : 3,085,227
.3 : 3,087,141
.3 : 3,088,096
.3 : 3,088,097
.3 : 3,089,122
.3 : 3,089,123
.3 : 3,092,809
.3 : 3,096,506
.3 : 3,102,995
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.3 : 3,104,372
.3 : 3,105,956
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.3 : 3,114,132
147 : 3,085,228
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150 : 3,088,098
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151 : 3,098,215
152 : 3,082,402
153 : 3,071,753
154 : 3,106,696
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163 : 3,075,177
: 3,082,403
163 : 3,099,815
: 3,099,816
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: 3,110,013
164 : 3,074,051
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166 : 3,077,578
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167 : 3,088,099
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168 : 3,104,374
: 3,106,697
171 : 3,072,887
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172.5 : 3,072,888
.5 : 3,075,178
.5 : 3,076,179
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.5 : 3,077,580
.5 : 3,079,589
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.5 : 3,080,548
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.5 : 3,081,447
.5 : 3,082,406
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.5 : 3,090,945
.5 : 3,092,810
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.5 : 3,098,217
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173 : 3,072,889
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173.1 : 3,078,445
.1 : 3,082,408
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.1 : 3,093,816
.1 : 3,094,685
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.1 : 3,114,895
.2 : 3,079,591
.2 : 3,082,409
.2 : 3,084,335
.2 : 3,094,686
.2 : 3,100,887
.2 : 3,104,377
.2 : 3,105,225
174 : Re.25,367
: 3,071,754
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: 3,092,813
: 3,093,817
: 3,093,818
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: 3,096,509
: 3,096,510
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182 : 3,077,588
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258 : 3,074,053
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282 : 3,071,761
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293 : 3,085,235
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365 : 3,074,059
366 : 3,071,764
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378 : 3,076,187
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: 3,091,760
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: 3,113,303
381 : 3,107,350
: 3,116,480
384 : 3,072,898
: 3,113,304
392 : 3,076,960
394 : 3,105,233

Class 343

.5 : 3,074,061
: 3,076,188
: 3,078,453
: 3,078,454
: 3,080,555
: 3,083,360
: 3,085,239
: 3,085,240
: 3,085,241
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: 3,072,900
: 3,072,901
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9 : 3,096,515
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: 3,082,418
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: 3,074,062
: 3,088,112
: 3,095,564
: 3,110,025
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: 3,111,666
14 : 3,076,191
: 3,080,558
: 3,108,273
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: 3,111,667
14 : 3,112,481
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16 : 3,072,903
: 3,089,136
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.1 : 3,114,148
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.7 : 3,090,955
.7 : 3,098,227
.7 : 3,103,010
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.7 : 3,110,026
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.7 : 3,114,910
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101 : 3,091,764
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102 : 3,091,765
103 : 3,079,601
: 3,094,696
: 3,099,835
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115 : 3,112,485
117 : 3,106,710
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: 3,076,194
: 3,077,598
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119 : 3,080,559
: 3,097,358
: 3,099,009
178 : 3,104,392
180 : 3,105,236
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225 : 3,087,156
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: 3,085,245
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705 : 3,077,599
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713 : 3,100,893
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721 : 3,108,277
722 : 3,089,140
729 : 3,087,157
742 : 3,096,518
744 : 3,078,462
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753 : 3,099,836
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: 3,111,672
754 : 3,071,768
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771 : 3,078,463
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781 : 3,071,770
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792.5 : 3,101,474
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.5 : 3,108,280
.5 : 3,110,030
.5 : 3,113,316
795 : 3,114,913
802 : Re.25,437
: 3,089,141
: 3,092,835
803 : 3,082,422
: 3,083,363
807 : 3,074,064
815 : 3,086,206
828 : 3,071,771
834 : 3,096,520
843 : 3,083,364
848 : 3,087,159
872 : 3,075,191
881 : 3,102,267
: 3,107,353
895 : 3,102,268
906 : 3,090,960
908 : 3,079,602
911 : 3,089,142
915 : 3,105,969

Class 346

1 : 3,072,906
: 3,072,907
: 3,112,151
8 : 3,072,908
: 3,092,432
17 : 3,097,907
: 3,103,401
18 : 3,104,146
20 : 3,095,253
: 3,101,987
: 3,110,540
23 : 3,075,192
25 : 3,084,986
29 : 3,091,505
32 : 3,095,254
: 3,096,137
33 : 3,072,909
33 : 3,076,966
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: 3,084,011
: 3,085,845
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34 : 3,072,910
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45 : 3,074,065
: 3,081,458
46 : 3,108,844
49 : 3,076,967
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68 : 3,071,772
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72 : 3,104,928
74 : 3,071,773
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: 3,092,434
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110 : 3,102,769
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113 : 3,112,153
114 : 3,115,382
116 : 3,080,561
: 3,104,149
125 : 3,093,436
136 : 3,079,604
: 3,113,823
137 : 3,109,694
138 : 3,089,746
: 3,101,234
139 : 3,074,067
: 3,084,014
: 3,088,788
: 3,104,930
139 : 3,108,845
140 : 3,085,847
: 3,087,772
: 3,102,770

Class 373

18 : 3,115,631

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CLASSIFICATION OF DESIGNS

Class D1

3 : 197,001
12 : 194,304
: 194,342
: 194,657
: 194,737
: 194,829
: 195,394
: 195,756
: 195,936
: 196,421
: 196,703
: 196,957
: 197,206

Class D2

3 : 194,343
: 194,389
: 194,420
: 194,527
: 194,658
: 195,450
: 195,663
: 195,664
: 195,713
: 195,714
: 195,810
: 195,811
: 196,629
: 196,704

Class D3

3 : 196,096
4 : 194,967
: 196,482
9 : 194,659
: 195,020
10 : 195,812
: 196,353
11 : 195,189
13 : 194,305
: 195,079
: 195,813
: 195,814
: 195,937
: 196,166
: 196,483
: 196,899
16 : 195,021
: 195,190
: 195,665
: 195,938
17 : 195,939
: 197,114
19 : 195,666
25 : 196,097
26 : 194,774
: 195,191
: 195,395
: 195,541
: 196,032
: 197,115

Class D4

1 : 195,091
2 : 194,580
: 195,113
: 195,396
: 196,225
: 196,354
3 : 194,306
: 194,307
: 194,344
: 194,528
: 194,775
: 194,830
: 195,192
: 195,297
: 195,326
: 195,451
: 195,452
: 195,815
3 : 196,033
: 196,034
: 196,098
: 196,226
: 196,422
: 196,484
: 196,557
: 196,775
: 196,900
: 197,002
4 : 194,308
: 195,453
: 195,495
: 196,290
: 196,901
5 : 194,776
: 194,777
: 195,080
: 195,327
: 195,397
: 195,617
: 196,167

Class D5

4 : 194,495
: 194,660
: 196,485
: 197,207
5 : 196,558

Class D6

1 : 196,099

Class D7

3 : 194,831
: 194,832
4 : 194,833
: 195,618
: 196,776
5 : 194,778
: 195,496
: 195,542
: 195,715
: 195,757
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: 196,491
: 196,559
: 196,705
7 : 194,309
: 194,310
: 194,345
: 194,346
: 194,739
: 195,163
: 195,454
: 195,497
: 195,543
: 195,667
: 195,716
: 195,758
: 195,816
: 195,817

Class D8

1 : 194,779
: 194,780
: 195,498

Class D9

2 : 194,581
: 194,781
: 195,081
: 195,114
: 195,115
: 195,247
: 195,248
2 : 195,249
: 195,398
: 195,544
: 195,668
: 195,669
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: 195,718
: 195,719
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: 196,961
: 197,047
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: 197,173
: 197,208
6 : 194,347
: 194,449
: 194,450
: 194,862
: 194,904
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: 194,906
: 195,022
: 195,116
: 195,250
: 196,169
: 196,636
: 196,709
: 196,832
: 196,902
: 196,962
: 197,116

Class D10

7 : 194,451
: 194,452
: 196,423
: 197,049
8 : 194,582
: 194,661
: 194,782
: 194,834
: 194,960
: 195,023
: 195,619
: 195,720
: 195,759
: 195,822
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: 195,824
: 195,825
: 195,826
: 196,036
: 196,228
8 : 196,294
: 196,424
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: 196,563
: 196,710
: 196,711
: 196,712
: 196,833
: 196,834
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: 197,052
: 197,209
: 197,210
: 197,211
: 197,212
: 197,213
9 : 195,164
: 195,827
10 : 194,348
11 : 196,713

Class D11

1 : 196,229

Class D12

2 : 194,783
: 194,784
: 195,165
: 195,166
: 195,167
: 195,168
: 195,251
: 195,545
: 195,828
: 196,170
: 196,358
: 196,714
: 196,777

Class D13

1 : 194,311
: 194,312
: 194,390
: 194,391
: 194,421
: 194,453
: 194,454
: 194,529
: 194,583
: 194,584
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4 : 195,831
6 : 194,585
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: 195,026
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7 : 194,313
: 194,392
: 194,835
: 195,082
: 195,504
: 196,040

Class D14

3 : 194,314
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Class D20

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Class D24

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Class D25

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Class D37

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Class D39

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Class D40

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Class D41

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7 : 194,552
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Class D51

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Class D52

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: 195,642
: 195,733
: 195,880
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: 197,140
2 : 194,370
: 194,433
: 194,553
: 194,625
: 194,945
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: 194,950
: 195,096
: 195,097
: 195,139
: 195,140
: 195,276
: 195,353
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: 195,882
: 196,067
: 196,263
: 196,602
: 196,807
: 197,027
: 197,248
3 : 194,406
: 194,757
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: 195,693
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: 195,883
: 196,264
: 196,265
: 196,319
: 196,873
: 196,874
: 196,935
: 195,223 : 195,277
4 : 195,694
6 : 194,371
: 194,434
: 194,435
: 194,481
: 194,554
: 194,626
: 194,707
: 194,758
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: 194,854
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: 195,054
: 195,142
: 195,225
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: 195,432
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: 196,069
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: 196,383
: 196,603
: 196,604
: 196,672
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: 196,808
: 196,875
: 197,249
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7 : 194,372
: 195,143
: 195,695
: 196,673
10 : 194,436
: 194,801
: 195,099
: 195,885
: 196,070
: 196,320
: 196,674
: 196,809
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Class D54

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: 196,321
: 196,322
: 196,675
: 196,676
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: 195,060
: 195,144
: 195,481
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: 196,267
: 194,437
: 196,071
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8 : 196,139
9 : 196,384
10 : 196,810
: 196,072
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11 : 195,647
12 : 194,374
: 194,438
: 195,061
: 195,360
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: 195,588
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: 196,605
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: 196,073
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: 195,590
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Class D55

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: 195,433
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: 195,593
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: 195,891
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Class D56

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: 194,628
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: 196,679
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Class D57

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: 194,709
: 194,994
: 194,995
: 195,100
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: 195,228
: 195,311
: 195,364
: 195,365
: 195,893
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: 195,999
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: 196,270
: 196,452
: 196,531
: 196,532
1 : 196,610
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: 196,681
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Class D58

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: 194,885
: 194,956
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: 194,997
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: 194,999
: 195,062
: 195,063
: 195,064
: 195,101
: 195,147
: 195,181
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: 196,682
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: 197,190
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: 194,711
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: 195,102
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: 195,368
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8 : 194,487
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17 : 195,313
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: 195,701
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Class D64

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Class D65

1 : 194,379
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: 194,570
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: 195,488
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Class D66

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Class D67

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3 : 194,380
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Class D68

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Class D70

1 : 194,857
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1 : 194,444
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1 : 194,646
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Class D78

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Class D79

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Class D80

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8 : 194,573
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21 : 196,768
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11: 2,280
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85: 2,262
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86: 2,328
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CLASS TITLES ARRANGED IN CLASS NUMBER ORDER

Class	Title
	Plants
1	Nailing, Stapling and Clip Clenching
2	Apparel
3	Artificial Body Members
4	Baths, Closets, Sinks and Spittoons
5	Beds
6	Bee Culture
7	Compound Tools
8	Bleaching and Dyeing; Fluid Treatment and Chemical Modification of Textiles and Fibers
9	Boats, Buoys and Aquatic Devices
10	Bolt, Nail, Nut, Rivet and Screw Making
11	Books, Making
12	Boot and Shoe Making
13	Electric Furnaces
14	Bridges
15	Brushing, Scrubbing and General Cleaning
16	Miscellaneous Hardware
17	Butchering
18	Plastics
19	Textiles, Fiber Preparation
20	Wooden Buildings
21	Preserving, Disinfecting and Sterilizing
22	Metal Founding
23	Chemistry
24	Buckles, Buttons, Clasps, Etc.
25	Plastic Block and Earthenware Apparatus
26	Textiles, Cloth Finishing
27	Undertaking
28	Textiles, Manufacturing
29	Metal Working
30	Cutlery
31	Dairy
32	Dentistry
33	Geometrical Instruments
34	Drying and Gas or Vapor Contact With Solids
35	Education
36	Boots, Shoes and Leggings
37	Excavating
38	Textiles, Ironing or Smoothing
39	Gates
40	Card, Picture and Sign Exhibiting
41	No Class*
42	Firearms
43	Fishing, Trapping and Vermin Destroying
44	Fuel and Igniting Devices
45	Furniture
46	Amusement Devices, Toys
47	Plant Husbandry
48	Gas, Heating and Illuminating
49	No Class
50	Building Structures
51	Abrading
52	No Class
53	Package Making
54	Harness
55	Gas Separation
56	Harvesters
57	Textiles, Spinning, Twisting and Twining
58	Horology
59	Chain, Staple and Horseshoe Making
60	Power Plants
61	Hydraulic and Earth Engineering
62	Refrigeration
63	Jewelry
64	Machine Elements, Shafting and Flexible Shaft Couplings
65	Glass Manufacturing
66	Textiles, Knitting
67	Illuminating Burners
68	Textiles, Fluid Treating Apparatus
69	Leather Manufactures
70	Locks
71	Chemistry, Fertilizers
72	No Class
73	Measuring and Testing
74	Machine Elements and Mechanisms
75	Metallurgy
76	Metal Tools and Implements, Making
77	Boring and Drilling
78	Metal Forging and Welding
79	Button Making
80	Metal Rolling
81	Tools
82	Turning
83	Cutting
84	Music
85	Driven, Headed and Screw-Threaded Fastenings
86	Ammunition and Explosive-Charge Making
87	Textiles, Braiding, Netting and Lace Making
88	Optics
89	Ordnance
90	Gear Cutting, Milling and Planing
91	Motors, Expansible Chamber Type**
92	Expansible Chamber Devices**
93	Paper Manufactures
94	Roads and Pavements
95	Photography
96	Photographic Chemistry, Processes and Materials
97	No Class
98	Ventilation
99	Foods and Beverages
100	Presses
101	Printing
102	Ammunition and Explosive Devices
103	Pumps
104	Railways
105	Railway Rolling Stock

*Class abolished during 1963
**Class established during 1963

Class	Title
106	Compositions, Coating or Plastic
107	Bread, Pastry and Confection Making
108	Horizontally Supported Planar Surfaces**
109	Safes, Bank Protection and Related Devices
110	Furnaces
111	Planting
112	Sewing
113	Sheet-Metal Ware, Making
114	Ships
115	Marine Propulsion
116	Signals and Indicators
117	Coating: Processes and Miscellaneous Products
118	Coating Apparatus
119	Animal Husbandry
120	Stationery
121	No Class*
122	Liquid Heaters and Vaporizers
123	Internal-Combustion Engines
124	Mechanical Guns and Projectors
125	Stone Working
126	Stoves and Furnaces
127	Sugar, Starch and Carbohydrates
128	Surgery
129	Paper Files and Binders
130	Threshing
131	Tobacco
132	Toilet
133	Coin Handling
134	Cleaning and Liquid Contact With Solids
135	Tents, Canopies, Umbrellas and Canes
136	Batteries
137	Fluid Handling
138	Pipes and Tubular Conduits
139	Textiles, Weaving
140	Wireworking
141	Fluent Material Handling, With Receiver or Receiver Coacting Means
142	Wood Turning
143	Wood Sawing
144	Woodworking
145	Woodworking Tools
146	Vegetable and Meat Cutters and Comminutors
147	Coopering
148	Metal Treatment
149	Explosive and Thermic Compositions or Charges
150	Cloth, Leather and Rubber Receptacles
151	Nut and Bolt Locks
152	Resilient Tires and Wheels
153	Metal Bending
154	No Class*
155	No Class
156	Adhesive Bonding and Miscellaneous Chemical Manufacture
157	Wheelwright Machines
158	Liquid and Gaseous Fuel Burners
159	Concentrating Evaporators
160	Closures, Partitions and Panels, Flexible and Portable
161	Stock Material and Miscellaneous Articles**
162	Paper Making and Fiber Liberation
163	Needle and Pin Making
164	No Class
165	Heat Exchange
166	Wells
167	Medicines, Poisons and Cosmetics
168	Farriery
169	Fire-Extinguishers
170	Motors, Fluid Current
171	Unearthing Plants or Buried Objects
172	Earth Working
173	Tool Driving or Impacting**
174	Electricity, Conductors and Insulators
175	Boring or Penetrating the Earth
176	Nuclear Reactions and Systems**
177	Weighing Scales
178	Telegraphy
179	Telephony
180	Motor Vehicles
181	Acoustics
182	Fire Escapes, Ladders, Scaffolds
183	No Class
184	Lubrication
185	Motors, Spring, Weight and Animal Powered
186	Store Service
187	Elevators
188	Brakes
189	Metallic Building Structures
190	Baggage
191	Electricity, Transmission to Vehicles
192	Clutches and Power-Stop Control
193	Conveyers, Chutes, Skids, Guides and Ways
194	Check-Controlled Apparatus
195	Chemistry, Fermentation
196	Mineral Oils: Apparatus
197	Typewriting Machines
198	Conveyers, Power-Driven
199	Type Casting
200	Electricity, Circuit Makers and Breakers
201	No Class
202	Distillation
203	No Class
204	Chemistry, Electrical and Wave Energy
205	Metal Drawing
206	Special Receptacles and Packages
207	Plastic Metal Working
208	Mineral Oils: Processes and Products
209	Classifying, Separating and Assorting Solids
210	Liquid Purification or Separation
211	Supports, Racks
212	Traversing Hoists
213	Railway Draft Appliances
214	Material or Article Handling
215	Bottles and Jars
216	No Class
217	Wooden Receptacles
218	Button, Eyelet and Rivet Setting
219	Electric Heating
220	Metallic Receptacles

*Class abolished during 1963
**Class established during 1963

Class	Title
221	Article Dispensing
222	Dispensing
223	Apparel Apparatus
224	Package and Article Carriers
225	Severing by Tearing or Breaking
226	Advancing Material of Indeterminate-Length
227	No Class
228	No Class
229	Paper Receptacles
230	Gas Pumps and Fans
231	Whips and Whip Apparatus
232	Deposit and Collection Receptacles
233	Centrifugal-Bowl Separators
234	Selective Cutting (e.g., Punching)
235	Registers
236	Automatic Temperature and Humidity Regulation
237	Heating Systems
238	Railways, Surface Track
239	Fluid Sprinkling, Spraying and Diffusing
240	Illumination
241	Solid Material Comminution or Disintegration
242	Winding and Reeling
243	Pneumatic Dispatch
244	Aeronautics
245	Wire Fabrics and Structure
246	Railway Switches and Signals
247	No Class
248	Supports
249	No Class
250	Radiant Energy
251	Valves and Valve Actuation
252	Compositions
253	Motors, Fluid
254	Pushing and Pulling Implements
255	No Class
256	Fences
257	No Class
258	Railway Mail Delivery
259	Agitating
260	Chemistry, Carbon Compounds
261	Gas and Liquid Contact Apparatus
262	Mining, Quarrying and Ice Harvesting
263	Heating
264	Plastic and Non-Metallic Article Shaping or Treating: Processes**
265	No Class
266	Metallurgical Apparatus
267	Spring Devices
268	Closure-Operators
269	Work Holders
270	Sheet-Material Associating or Folding
271	Sheet Feeding or Delivering
272	Amusement and Exercising Devices
273	Amusement Devices, Games
274	Sound Recording and Reproducing
275	Scattering-Unloaders
276	Type Setting
277	Joint Packing
278	Land Vehicles, Animal Draft Appliances
279	Chucks or Sockets
280	Land Vehicles
281	Books, Strips and Leaves
282	Manifolding
283	Printed Matter
284	No Class
285	Pipe Joints or Couplings
286	No Class
287	Rod Joints or Couplings
288	No Class
289	Knots and Knot Tying
290	Prime-Mover Dynamo Plants
291	Track Sanders
292	Closure Fasteners
293	Vehicle Fenders
294	Handling, Hand and Hoist-Line Implements
295	Railway Wheels and Axles
296	Land Vehicles, Bodies and Tops
297	Chairs and Seats
298	Land Vehicles, Dumping
299	No Class
300	Brush, Broom and Mop Making
301	Land Vehicles, Wheels and Axles
302	Conveyers, Fluid Current
303	Fluid-Pressure Brake and Analogous Systems
304	No Class
305	Wheel Substitutes for Land Vehicles
306	Tool-Handle Fastenings
307	Electrical Transmission or Interconnection Systems
308	Machine Elements, Bearings and Guides
309	No Class*
310	Electrical Generator or Motor Structure
311	No Class
312	Supports, Cabinet Structures
313	Electric Lamp and Discharge Devices
314	Electric Lamp and Discharge Devices, Consumable Electrodes
315	Electric Lamp and Discharge Devices, Systems
316	Electric Lamp and Discharge Devices, Manufacture and Repair
317	Electricity
318	Electricity, Motive Power Systems
319	No Class
320	Electricity, Battery and Condenser Charging and Discharging
321	Electricity, Conversion Systems
322	Electricity, Single Generator Systems
323	Electricity, Voltage Magnitude and Phase Control Systems
324	Electricity, Measuring and Testing
325	Modulated Carrier Wave Communication Systems
326	No Class
327	No Class
328	Miscellaneous Electron Space Discharge Device Systems
329	Demodulators and Detectors
330	Amplifiers
331	Oscillators

*Class abolished during 1963
**Class established during 1963

Class	Title
332	Modulators
333	Wave Transmission Lines and Networks
334	Tuners
335	No Class
336	Inductor Devices
337	No Class
338	Electrical Resistors
339	Electrical Connectors
340	Communications, Electrical
341	No Class
342	No Class
343	Communications, Radio Wave
344	No Class
345	No Class
346	Recorders
	Designs
	Industrial Arts
	Household, Personal and Fine Arts

CLASS TITLES ARRANGED IN ALPHABETICAL ORDER

Class	Title
51	Abrading
181	Acoustics
156	Adhesive Bonding and Miscellaneous Chemical Manufacture
226	Advancing Material of Indeterminate-Length
244	Aeronautics
259	Agitating
86	Ammunition and Explosive-Charge Making
102	Ammunition and Explosive Devices
330	Amplifiers
272	Amusement and Exercising Devices
273	Amusement Devices, Games
46	Amusement Devices, Toys
119	Animal Husbandry
2	Apparel
223	Apparel Apparatus
221	Article Dispensing
3	Artificial Body Members
236	Automatic Temperature and Humidity Regulation
190	Baggage
4	Baths, Closets, Sinks and Spittoons
136	Batteries
5	Beds
6	Bee Culture
8	Bleaching and Dyeing; Fluid Treatment and Chemical Modification of Textiles and Fibers
9	Boats, Buoys and Aquatic Devices
10	Bolt, Nail, Nut, Rivet and Screw Making
11	Books, Making
281	Books, Strips and Leaves
12	Boot and Shoe Making
36	Boots, Shoes and Leggings
77	Boring and Drilling
175	Boring or Penetrating the Earth
215	Bottles and Jars
188	Brakes
107	Bread, Pastry and Confection Making
14	Bridges
300	Brush, Broom and Mop Making
15	Brushing, Scrubbing and General Cleaning
24	Buckles, Buttons, Clasps, Etc.
50	Building Structures
17	Butchering
218	Button, Eyelet and Rivet Setting
79	Button Making
40	Card, Picture and Sign Exhibiting
233	Centrifugal-Bowl Separators
59	Chain, Staple and Horseshoe Making
297	Chairs and Seats
194	Check-Controlled Apparatus
23	Chemistry
260	Chemistry, Carbon Compounds
204	Chemistry, Electrical and Wave Energy
195	Chemistry, Fermentation
71	Chemistry, Fertilizers
279	Chucks or Sockets
209	Classifying, Separating and Assorting Solids
134	Cleaning and Liquid Contact With Solids
292	Closure Fasteners
268	Closure-Operators
160	Closures, Partitions and Panels, Flexible and Portable
150	Cloth, Leather and Rubber Receptacles
192	Clutches and Power-Stop Control
118	Coating Apparatus
117	Coating: Processes and Miscellaneous Products
133	Coin Handling
340	Communications, Electrical
343	Communications, Radio Wave
252	Compositions
106	Compositions, Coating or Plastic
7	Compound Tools
159	Concentrating Evaporators
193	Conveyers, Chutes, Skids, Guides and Ways
302	Conveyers, Fluid Current
198	Conveyers, Power-Driven
147	Coopering
30	Cutlery
83	Cutting
31	Dairy
329	Demodulators and Detectors
32	Dentistry
232	Deposit and Collection Receptacles
222	Dispensing
202	Distillation
85	Driven, Headed and Screw-Threaded Fastenings
34	Drying and Gas or Vapor Contact With Solids
172	Earth Working

Class	Title
35	Education
13	Electric Furnaces
219	Electric Heating
313	Electric Lamp and Discharge Devices
314	Electric Lamp and Discharge Devices, Consumable Electrodes
316	Electric Lamp and Discharge Devices, Manufacture and Repair
315	Electric Lamp and Discharge Devices, Systems
339	Electrical Connectors
310	Electrical Generator or Motor Structure
338	Electrical Resistors
307	Electrical Transmission or Interconnection Systems
317	Electricity
320	Electricity, Battery and Condenser Charging and Discharging
200	Electricity, Circuit Makers and Breakers
174	Electricity, Conductors and Insulators
321	Electricity, Conversion Systems
324	Electricity, Measuring and Testing
318	Electricity, Motive Power Systems
322	Electricity, Single Generator Systems
191	Electricity, Transmission to Vehicles
323	Electricity, Voltage Magnitude and Phase Control Systems
187	Elevators
37	Excavating
92	Expansible Chamber Devices
149	Explosive and Thermic Compositions or Charges
168	Farriery
256	Fences
182	Fire Escapes, Ladders, Scaffolds
169	Fire-Extinguishers
42	Firearms
43	Fishing, Trapping and Vermin Destroying
141	Fluent Material Handling, With Receiver or Receiver Coacting Means
137	Fluid Handling
303	Fluid-Pressure Brake and Analogous Systems
239	Fluid Sprinkling, Spraying and Diffusing
99	Foods and Beverages
44	Fuel and Igniting Devices
110	Furnaces
45	Furniture
261	Gas and Liquid Contact Apparatus
48	Gas, Heating and Illuminating
230	Gas Pumps and Fans
55	Gas Separation
39	Gates
90	Gear Cutting, Milling and Planing
33	Geometrical Instruments
65	Glass Manufacturing
294	Handling, Hand and Hoist-Line Implements
54	Harness
56	Harvesters
165	Heat Exchange
263	Heating
237	Heating Systems
108	Horizontally Supported Planar Surfaces
58	Horology
61	Hydraulic and Earth Engineering
67	Illuminating Burners
240	Illumination
336	Inductor Devices
123	Internal-Combustion Engines
63	Jewelry
277	Joint Packing
289	Knots and Knot Tying
280	Land Vehicles
278	Land Vehicles, Animal Draft Appliances
296	Land Vehicles, Bodies and Tops
298	Land Vehicles, Dumping
301	Land Vehicles, Wheels and Axles
69	Leather Manufactures
158	Liquid and Gaseous Fuel Burners
122	Liquid Heaters and Vaporizers
210	Liquid Purification or Separation
70	Locks
184	Lubrication
74	Machine Elements and Mechanisms
308	Machine Elements, Bearings and Guides
64	Machine Elements, Shafting and Flexible Shaft Couplings
282	Manifolding
115	Marine Propulsion
214	Material or Article Handling
73	Measuring and Testing
124	Mechanical Guns and Projectors
167	Medicines, Poisons and Cosmetics
153	Metal Bending
205	Metal Drawing
78	Metal Forging and Welding
22	Metal Founding
80	Metal Rolling
76	Metal Tools and Implements, Making
148	Metal Treatment
29	Metal Working
189	Metallic Building Structures
220	Metallic Receptacles
266	Metallurgical Apparatus
75	Metallurgy
196	Mineral Oils: Apparatus
208	Mineral Oils: Processes and Products
262	Mining, Quarrying and Ice Harvesting
328	Miscellaneous Electron Space Discharge Device Systems
16	Miscellaneous Hardware
325	Modulated Carrier Wave Communication Systems
332	Modulators
180	Motor Vehicles
91	Motors, Expansible Chamber Type
253	Motors, Fluid
170	Motors, Fluid Current
185	Motors, Spring, Weight and Animal Powered
84	Music
1	Nailing, Stapling and Clip Clenching
163	Needle and Pin Making
176	Nuclear Reactions and Systems
151	Nut and Bolt Locks

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Class	Title
88	Optics
89	Ordnance
331	Oscillators
224	Package and Article Carriers
53	Package Making
129	Paper Files and Binders
162	Paper Making and Fiber Liberation
93	Paper Manufactures
229	Paper Receptacles
96	Photographic Chemistry, Processes and Materials
95	Photography
285	Pipe Joints or Couplings
138	Pipes and Tubular Conduits
47	Plant Husbandry
111	Planting
	Plants
25	Plastic Block and Earthenware Apparatus
264	Plastic and Non-Metallic Article Shaping or Treating: Processes
207	Plastic Metal Working
18	Plastics
243	Pneumatic Dispatch
60	Power Plants
21	Preserving, Disinfecting and Sterilizing
100	Presses
290	Prime-Mover Dynamo Plants
283	Printed Matter
101	Printing
103	Pumps
254	Pushing and Pulling Implements
250	Radiant Energy
213	Railway Draft Appliances
258	Railway Mail Delivery
105	Railway Rolling Stock
246	Railway Switches and Signals
295	Railway Wheels and Axles
104	Railways
238	Railways, Surface Track
346	Recorders
62	Refrigeration
235	Registers
152	Resilient Tires and Wheels
94	Roads and Pavements
287	Rod Joints or Couplings
109	Safes, Bank Protection and Related Devices
275	Scattering-Unloaders
234	Selective Cutting (e.g., Punching)
225	Severing by Tearing or Breaking
112	Sewing
271	Sheet Feeding or Delivering
270	Sheet-Material Associating or Folding
113	Sheet-Metal Ware, Making
114	Ships
116	Signals and Indicators
241	Solid Material Comminution or Disintegration
274	Sound Recording and Reproducing
206	Special Receptacles and Packages
267	Spring Devices
120	Stationery
161	Stock Material and Miscellaneous Articles
125	Stone Working
186	Store Service
126	Stoves and Furnaces
127	Sugar, Starch and Carbohydrates
248	Supports
312	Supports, Cabinet Structures
211	Supports, Racks
128	Surgery
178	Telegraphy
179	Telephony
135	Tents, Canopies, Umbrellas and Canes
87	Textiles, Braiding, Netting and Lace Making
26	Textiles, Cloth Finishing
19	Textiles, Fiber Preparation
68	Textiles, Fluid Treating Apparatus
38	Textiles, Ironing or Smoothing
66	Textiles, Knitting
28	Textiles, Manufacturing
57	Textiles, Spinning, Twisting and Twining
139	Textiles, Weaving
130	Threshing
131	Tobacco
132	Toilet
173	Tool Driving or Impacting
306	Tool-Handle Fastenings
81	Tools
291	Track Sanders
212	Traversing Hoists
334	Tuners
82	Turning
199	Type Casting
276	Type Setting
197	Typewriting Machines
27	Undertaking
171	Unearthing Plants or Buried Objects
251	Valves and Valve Actuation
146	Vegetable and Meat Cutters and Comminutors
293	Vehicle Fenders
98	Ventilation
333	Wave Transmission Lines and Networks
177	Weighing Scales
166	Wells
305	Wheel Substitutes for Land Vehicles
157	Wheelwright Machines
231	Whips and Whip Apparatus
242	Winding and Reeling
245	Wire Fabrics and Structure
140	Wireworking
143	Wood Sawing
142	Wood Turning
20	Wooden Buildings
217	Wooden Receptacles
144	Woodworking
145	Woodworking Tools
269	Work Holders

Classes Abolished During 1963

Class	Title
154	Laminated Fabrics and Analogous Manufactures
309	Machine Elements, Cylinders and Pistons
121	Motors, Expansible-Chamber Type
41	Ornamentation
311	Supports, Tables

Class	Title

Classes Established During 1963

Class	Title
92	Expansible Chamber Devices
108	Horizontally Supported Planar Surfaces
91	Motors, Expansible Chamber Type
176	Nuclear Reactions and Systems
264	Plastic and Non-Metallic Article Shaping or Treating: Processes
161	Stock Material and Miscellaneous Articles
173	Tool Driving or Impacting

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Sacramento, City Free Library
Sacramento, Document Section, Calif. State Library
San Diego, Public Library
San Francisco, Mechanics Mercantile Library
San Francisco, Public Library Civic Center
San Leandro, Community Library Center
Stanford, Stanford U.
Stockton, Public Library

COLORADO

Boulder, U. of Colorado
Denver, Mary Reed Library, U. of Denver
Denver, Public Library
Fort Collins, State University
Pueblo, McClelland Public Library

CONNECTICUT

Bridgeport, Public Library
Hartford, Connecticut State Library
Hartford, Public Library

*Arranged by subject matter.

CONNECTICUT—Continued

Middletown, Olin Library, Wesleyan U.
New Haven, Yale University
Storrs, Wilbur Cross Library, U. of Connecticut
Waterbury, Silas Bronson Library

DELAWARE

Newark, University of Delaware
Wilmington, Wilmington Inst. Library

FLORIDA

Coral Gables, University of Miami
Gainesville, U. of Florida Libraries
Jacksonville, Public Library
Lakeland, Park Trammell Public Library
Miami, Public Library
Tallahassee, Florida A. & M. U.
Tampa, University of Tampa

GEORGIA

Athens, University of Georgia
Atlanta, Public Library

HAWAII

Honolulu, Library of Hawaii
Honolulu, University of Hawaii

IDAHO

Boise, Idaho State Law Library
Moscow, University of Idaho
Pocatello, Idaho State College

ILLINOIS

Carbondale, Southern Illinois U.
Chicago, John Crerar Library
Chicago, Public Library
Chicago, University of Chicago
Chicago, University of Illinois
Decatur, Public Library
DeKalb, Swen Franklin Parson Library, Northern Illinois University
E. St. Louis, Southern Illinois U.
Evanston, Northwestern University
Galesburg, Public Library
Peoria, Public Library
Rockford, Public Library
Rock Island, Public Library
Springfield, Illinois State Library
Urbana, University of Illinois

INDIANA

Bloomington, Indiana U.
Evansville, Public Library
Fort Wayne, Public Library
Gary, Public Library
Indianapolis, Indiana State Library
Indianapolis, Public Library
La Fayette, Purdue University
Muncie, Ball State Teachers College
Muncie, Public Library
Richmond, Morrison Reeves Library
South Bend, U. of Notre Dame

IOWA

Ames, Iowa State U. of Science and Technology
Des Moines, Iowa State Traveling Library
Des Moines, Public Library
Dubuque, Carnegie Stout Free Public Library
Iowa City, State U. of Iowa
Sioux City, Public Library

KANSAS

Lawrence, University of Kansas
Manhattan, Kansas State University of Agriculture and Applied Science
Topeka, Kansas State Library
Wichita, U. of Wichita

KENTUCKY

Ashland, Public Library
Lexington, U. of Kentucky
Louisville, Louisville Free Public Library
Louisville, U. of Louisville
Pikeville, Pikeville College

LOUISIANA

Baton Rouge, Louisiana State University
Lafayette, University of Southwestern
Lake Charles, McNeese State College
New Orleans, Howard-Tilton Memorial Library, Tulane University
New Orleans, Law Library of Louisiana
New Orleans, Public Library
Ruston, Louisiana Polytechnic Institute
Shreveport, Shreveport Memorial Library

MAINE

Augusta, Maine State Library
Bangor, Public Library
Orono, University of Maine
Portland, Public Library

MARYLAND

Baltimore, Enoch Pratt Free Library
Baltimore, Johns Hopkins University
College Park, U. of Maryland

MASSACHUSETTS

Amherst, U. of Massachusetts
Boston, Public Library
Boston, State Library of Massachusetts
Cambridge, Harvard College
Cambridge, Massachusetts Institute of Technology
Lowell, Lowell Technical Institute
Lynn, Public Library
Medford, Tufts University
New Bedford, Public Library
Wellesley, Wellesley College
Worcester, Free Public Library

MICHIGAN

Ann Arbor, U. of Michigan
Battle Creek, Willard Library
Benton Harbor, Public Library
Detroit, Public Library

MICHIGAN—Continued

Detroit, University of Detroit
Detroit, Wayne State U.
East Lansing, Michigan State U.
Grand Rapids, Public Library
Houghton, Michigan Tech. Library
Kalamazoo, Public Library
Lansing, Michigan State Library
Muskegon, Hackley Public Library
Saginaw, Hoyt Public Library

MINNESOTA

Duluth, Public Library
Minneapolis, Public Library
Minneapolis, U. of Minnesota
Northfield, St. Olaf College
St. Paul, Minnesota State Law Library
St. Paul, Public Library

MISSISSIPPI

Hattiesburg, Mississippi Southern College
Jackson, Mississippi State Library
State College, Mitchell Memorial Library, Miss. State U.
University, U. of Mississippi

MISSOURI

Columbia, U. of Missouri
Kansas City, Public Library
Kansas City, U. of Kansas City
St. Joseph, Public Library
St. Louis, Pius XII Memorial Library, St. Louis U.
St. Louis, Public Library
St. Louis, Washington U.
Rolla, School of Mines & Metallurgy, U. of Missouri

MONTANA

Bozeman, Montana State College

NEBRASKA

Lincoln, Nebraska State Library
Lincoln, University of Nebraska
Omaha, Public Library

NEVADA

Reno, University of Nevada

NEW HAMPSHIRE

Concord, New Hampshire State Library
Durham, U. of New Hampshire

NEW JERSEY

Atlantic City, Free Public Library
Bayonne, Free Public Library
Camden, Free Public Library
Elizabeth, Public Library
Jersey City, Free Public Library
Newark, Public Library
New Brunswick, Free Public Library
New Brunswick, Rutgers University
Princeton, Princeton University
South Orange, Seton Hall University
Trenton, Free Public Library

NEW MEXICO

Albuquerque, U. of New Mexico
Santa Fe, N. Mexico State Law Library

NEW YORK

Albany, New York State Library
Brooklyn, Pratt Institute
Brooklyn, Public Library
Buffalo, Buffalo & Erie Co. Public Library
Farmingdale, Agricultural & Technical Institute, State University Library
Ithaca, Cornell University
Jamaica, Queens Borough Public Library
Jamaica, St. Johns University
New York, Astor Branch Public Library
New York, City College
New York, Columbia University
New York, Lenox Branch Public Library
New York, N.Y. Law Institute
Potsdam, Clarkson College of Technology
Rochester, Edgerton Branch Public Library
Rochester, U. of Rochester
St. Bonaventure, St. Bonaventure College
Syracuse, Syracuse University
Troy, Public Library
Utica, Public Library
Yonkers, Public Library

NORTH CAROLINA

Chapel Hill, University of N.C.
Durham, Duke University
Greensboro, Agricultural & Technical College
Raleigh, D. H. Hill Library, North Carolina State Coll.
Raleigh, N. Carolina State Library
Winston-Salem, Public Library

NORTH DAKOTA

Fargo, N. Dakota State U. of Agriculture & Appl. Sc.
Grand Forks, U. of North Dakota

OHIO

Akron, Public Library
Alliance, Mt. Union College
Athens, Ohio University
Bowling Green, Bowling Green State U.
Cincinnati, Public Library
Cincinnati, U. of Cincinnati
Cleveland, Public Library
Columbus, Ohio State University
Columbus, Public Library
Dayton, Public Library
Marietta, Marietta College
Springfield, Warder Public Library
Toledo, Public Library
Youngstown, Public Library

OKLAHOMA

Ada, East Central State Teachers College
Enid, Public Library
Langston, Langston U.
Norman, U. of Oklahoma
Oklahoma City, Oklahoma State Library

OKLAHOMA—Continued

Stillwater, Oklahoma State U.
Tahlequah, Northeastern State Teachers College
Tulsa, U. of Tulsa

OREGON

Corvallis, Oregon State U.
Eugene, U. of Oregon
Portland, Library Association of Portland
Salem, Oregon State Library

PENNSYLVANIA

Allentown, Muhlenberg College
Bethlehem, Lehigh University
Bradford, Carnegie Public Library
Erie, Public Library
Harrisburg, Pennsylvania State Library
Lancaster, Franklin and Marshall College
Philadelphia, Free Library of Philadelphia
Pittsburgh, Allegheny Regional Branch Library
Pittsburgh, Carnegie Library of Pittsburgh
Pittsburgh, University of Pittsburgh
Reading, Public Library
Scranton, Public Library
University Park, The Pennsylvania State U.
Warren, Warren Library Association
Wilkes-Barre, King's College
Williamsport, James V. Brown Library

PUERTO RICO

Mayaguez, University of Puerto Rico, College of Agri. & Mech. Arts
Rio Piedras, University of Puerto Rico General Library

RHODE ISLAND

Kingston, U. of Rhode Island
Providence, Public Library
Providence, R.I. State Library

SOUTH CAROLINA

Clemson, Clemson College
Columbia, U. of South Carolina McKissick Memorial Library

SOUTH DAKOTA

Brookings, South Dakota State College Lincoln Memorial Library
Vermillion, U. of South Dakota

TENNESSEE

Chattanooga, Public Library
Johnson City, East Tennessee State College
Knoxville, U. of Tennessee
Memphis, Cossitt Reference Library
Nashville, Joint University Libraries
Nashville, Tennessee State Library

TEXAS

Abilene, Hardin Simmons U.
Austin, Texas State Library
Austin, U. of Texas
Beaumont, Lamar State College of Technology
College Station, Agriculture & Mech. College of Texas
Dallas, Public Library
Dallas, Southern Methodist U.
Denton, North Texas State U.
Edinburg, Pan American College
El Paso, Public Library
Fort Worth, Public Library
Fort Worth, Texas Christian U., Mary Couts Burnett Library
Galveston, Rosenberg Library
Houston, Public Library
Kingsville, Texas College of Arts & Industries
Longview, Nicholson Memorial Library
Lubbock, Texas Technological College
San Antonio, Public Library
San Marcos, Southwest Texas State College
Waco, Baylor University

UTAH

Logan, Utah State U. of Agriculture & Applied Science
Provo, Brigham Young U.
Salt Lake City, U. of Utah
Salt Lake City, Utah State Library

VERMONT

Northfield, Norwich University

VIRGINIA

Blacksburg, Virginia Polytechnic Institute
Bridgewater, Bridgewater College
Emory, Emory and Henry College
Norfolk, Public Library
Richmond, Virginia State Library
University, University of Virginia

WASHINGTON

Olympia, Washington State Library
Pullman, Washington State U.
Seattle, Public Library
Seattle, U. of Washington
Spokane, Public Library
Tacoma, Public Library
Walla Walla, Whitman College

WEST VIRGINIA

Athens, Concord College Library
Huntington, Marshall College
Institute, West Virginia State College
Morgantown, West Virginia U.

WISCONSIN

Appleton, Lawrence College
Beloit, Beloit College Libraries
La Crosse, Public Library
Madison, State Historical Society
Madison, U. of Wisconsin
Milwaukee, Public Library
Racine, Public Library
Stevens Point, Wisconsin State College

WYOMING

Cheyenne, Wyoming State Library
Laramie, U. of Wyoming

SUMMARY OF THE NUMBER OF PATENTS ISSUED ANNUALLY, 1836–1963

Year	The number of the first patent issued in each calendar year [1]				The number of patents issued in each calendar year [2]			
	Invention	Reissue	Design	Plant	Invention	Reissue	Design	Plant
1836	1	(3)			103	6		
1837	110	(3)			426	10		
1838	546	1			514	6		
1839	1,106	7			404	13		
1840	1,465	20			458	10		
1841	1,923	30			490	6		
1842	2,413	36			488	13	1	
1843	2,901	49	1		493	11	14	
1844	3,395	60	15		478	7	12	
1845	3,873	67	27		473	11	17	
1846	4,348	78	44		566	13	59	
1847	4,914	91	103		495	14	60	
1848	5,409	105	163		583	23	46	
1849	5,993	128	209		984	30	49	
1850	6,981	158	258		883	26	83	
1851	7,865	184	341		752	25	90	
1852	8,622	209	431		885	20	109	
1853	9,512	229	540		844	29	86	
1854	10,358	258	626		1,755	28	57	
1855	12,117	286	683		1,881	51	70	
1856	14,009	337	753		2,302	83	107	
1857	16,324	420	860		2,674	97	113	
1858	19,010	517	973		3,455	126	102	
1859	22,477	643	1,075		4,160	231	107	
1860	26,642	874	1,183		4,357	232	183	
1861	31,005	1,106	1,366		3,020	147	142	
1862	34,045	1,253	1,508		3,214	116	195	
1863	37,266	1,369	1,703		3,773	227	176	
1864	41,047	1,596	1,879		4,630	248	139	
1865	45,685	1,844	2,018		6,088	296	221	
1866	51,784	2,140	2,239		8,863	290	294	
1867	60,658	2,430	2,533		12,277	400	325	
1868	72,959	2,830	2,858		12,526	420	445	
1869	85,503	3,250	3,304		12,931	534	506	
1870	98,460	3,784	3,810		12,137	439	737	
1871	110,617	4,223	4,547		11,659	464	903	
1872	122,304	4,687	5,452		12,180	529	884	
1873	134,504	5,216	6,336		11,616	501	747	
1874	146,120	5,717	7,083		12,230	483	886	
1875	158,350	6,200	7,969		13,291	631	915	
1876	171,641	6,831	8,884		14,169	621	802	
1877	185,813	7,452	9,686		12,920	568	699	
1878	198,733	8,020	10,385		12,345	509	590	
1879	211,078	8,529	10,975		12,125	488	591	
1880	223,211	9,017	11,567		12,903	506	514	
1881	236,137	9,523	12,082		15,500	471	565	
1882	251,685	9,994	12,647		18,091	271	858	
1883	269,820	10,265	13,508		21,162	167	1,017	
1884	291,016	10,432	14,528		19,118	116	1,150	
1885	310,163	10,548	15,678		23,285	129	769	
1886	333,494	10,677	16,451		21,767	116	594	
1887	355,291	10,793	17,046		20,403	99	948	
1888	375,720	10,892	17,995		19,551	86	832	
1889	395,305	10,978	18,830		23,324	75	723	

See footnotes at end of table.

SUMMARY OF THE NUMBER OF PATENTS ISSUED ANNUALLY, 1836–1963—Continued

Year	The number of the first patent issued in each calendar year [1]				The number of patents issued in each calendar year [2]			
	Invention	Reissue	Design	Plant	Invention	Reissue	Design	Plant
1890	418, 665	11, 053	19, 553		25, 313	84	886	
1891	443, 987	11, 137	20, 439		22, 312	80	835	
1892	466, 315	11, 217	21, 275		22, 647	81	816	
1893	488, 976	11, 298	22, 092		22, 750	99	899	
1894	511, 744	11, 397	22, 994		19, 855	64	927	
1895	531, 619	11, 461	23, 922		20, 856	59	1, 108	
1896	552, 502	11, 520	25, 037		21, 822	61	1, 441	
1897	574, 369	11, 581	26, 482		22, 067	65	1, 620	
1898	596, 467	11, 646	28, 113		20, 377	60	1, 799	
1899	616, 871	11, 706	29, 916		23, 278	92	2, 137	
1900	640, 167	11, 798	32, 055		24, 644	81	1, 754	
1901	664, 827	11, 879	33, 813		25, 546	81	1, 729	
1902	690, 385	11, 960	35, 547		27, 119	110	639	
1903	717, 521	12, 070	36, 187		31, 029	117	536	
1904	748, 567	12, 189	36, 723		30, 258	110	553	
1905	778, 834	12, 299	37, 280		29, 775	129	486	
1906	808, 618	12, 428	37, 766		31, 170	159	620	
1907	839, 799	12, 587	38, 391		35, 859	151	589	
1908	875, 679	12, 738	38, 980		32, 735	168	755	
1909	908, 436	12, 906	39, 737		36, 561	160	679	
1910	945, 010	13, 066	40, 424		35, 141	123	636	
1911	980, 178	13, 189	41, 063		32, 856	157	1, 004	
1912	1, 013, 095	13, 346	42, 073		36, 198	158	1, 341	
1913	1, 049, 326	13, 504	43, 415		33, 917	164	1, 677	
1914	1, 083, 267	13, 668	45, 098		39, 892	190	1, 711	
1915	1, 123, 212	13, 858	46, 813		43, 118	182	1, 538	
1916	1, 166, 419	14, 040	48, 358		43, 892	198	1, 745	
1917	1, 210, 389	14, 238	50, 117		40, 935	179	1, 505	
1918	1, 251, 458	14, 417	51, 629		38, 452	165	1, 206	
1919	1, 290, 027	14, 582	52, 836		36, 797	203	1, 521	
1920	1, 326, 899	14, 785	54, 359		37, 060	233	2, 481	
1921	1, 364, 063	15, 018	56, 844		37, 798	239	3, 265	
1922	1, 401, 948	15, 257	60, 121		38, 369	256	1, 609	
1923	1, 440, 362	15, 513	61, 748		38, 616	226	1, 927	
1924	1, 478, 996	15, 739	63, 675		42, 574	235	2, 670	
1925	1, 521, 590	15, 974	66, 346		46, 432	266	2, 819	
1926	1, 568, 040	16, 240	69, 170		44, 733	275	2, 597	
1927	1, 612, 700	16, 515	71, 772		41, 717	326	2, 387	
1928	1, 654, 521	16, 841	74, 159		42, 357	335	3, 182	
1929	1, 696, 897	17, 176	77, 347		45, 267	374	2, 905	
1930	1, 742, 181	17, 550	80, 254		45, 226	367	2, 710	
1931	1, 787, 424	17, 917	82, 966	1	51, 756	395	2, 935	5
1932	1, 839, 190	18, 312	85, 903	6	53, 458	393	2, 942	46
1933	1, 892, 663	18, 705	88, 847	52	48, 774	333	2, 411	33
1934	1, 941, 449	19, 038	91, 258	85	44, 420	371	2, 919	32
1935	1, 985, 878	19, 409	94, 179	117	40, 618	395	3, 864	45
1936	2, 026, 516	19, 804	98, 045	162	39, 782	422	4, 556	49
1937	2, 066, 309	20, 226	102, 601	211	37, 683	384	5, 136	55
1938	2, 104, 004	20, 610	107, 738	266	38, 061	349	5, 026	41
1939	2, 142, 080	20, 959	112, 765	307	43, 073	352	5, 592	45
1940	2, 185, 170	21, 311	118, 358	352	42, 238	372	6, 145	85
1941	2, 227, 418	21, 683	124, 503	437	41, 109	309	6, 486	62
1942	2, 268, 540	21, 992	130, 989	499	38, 449	250	3, 728	65
1943	2, 307, 007	22, 242	134, 717	564	31, 054	173	2, 228	47
1944	2, 338, 081	22, 415	136, 946	611	28, 053	170	2, 914	38
1945	2, 366, 154	22, 585	139, 862	649	25, 695	121	3, 524	17
1946	2, 391, 856	22, 706	143, 386	666	21, 803	121	2, 778	56
1947	2, 413, 675	22, 827	146, 165	722	20, 139	130	2, 102	52
1948	2, 433, 824	22, 957	148, 267	774	23, 963	111	3, 968	44
1949	2, 457, 797	23, 068	152, 235	818	35, 131	118	4, 450	93

See footnotes at end of table.

SUMMARY OF THE NUMBER OF PATENTS ISSUED ANNUALLY, 1836–1963—Continued

Year	The number of the first patent issued in each calendar year [1]				The number of patents issued in each calendar year [2]			
	Invention	Reissue	Design	Plant	Invention	Reissue	Design	Plant
1950	2, 492, 944	23, 186	156, 686	911	43, 040	129	4, 718	89
1951	2, 536, 016	23, 315	161, 404	1, 001	44, 326	134	4, 163	58
1952	2, 580, 379	23, 449	165, 568	1, 059	43, 616	163	2, 959	101
1953	2, 624, 046	23, 612	168, 527	1, 160	40, 468	151	2, 713	78
1954	2, 664, 562	23, 763	171, 241	1, 238	33, 809	155	2, 536	101
1955	2, 698, 434	23, 918	173, 777	1, 339	30, 432	187	2, 713	103
1956	2, 728, 913	24, 105	176, 490	1, 442	46, 817	158	2, 977	101
1957	2, 775, 762	24, 263	179, 467	1, 543	42, 744	150	2, 362	129
1958	2, 818, 567	24, 413	181, 829	1, 672	48, 330	170	2, 374	120
1959	2, 866, 973	24, 584	184, 204	1, 792	52, 408	177	2, 768	101
1960	2, 919, 443	24, 761	186, 973	1, 893	47, 170	157	2, 543	116
1961	2, 966, 681	24, 918	189, 516	2, 009	48, 368	189	2, 487	108
1962	3, 015, 103	25, 107	192, 004	2, 117	55, 691	202	2, 300	91
1963	3, 070, 801	25, 309	194, 304	2, 208	45, 686	198	2, 695	129
1964	3, 116, 487	25, 507	197, 269	2, 337				

[1] The patent numbering system began with a patent issued on July 13, 1836 under the Patent Act adopted July 4, 1836. Up to this time, a total of 9,957 patents had been issued.

[2] The number of patents issued during a year may be fewer than the number derived by subtracting the number of the first patent issued in one year from the number of the first patent issued in the next year. Some numbers in the series may not be used. This results when an application scheduled to be patented and to which a patent number is assigned is withdrawn for some reason at a time when it is too late to reassign that number.

[3] Not separately numbered until 1838.

LIST OF PATENT, DESIGN, PLANT PATENT, AND REISSUE NUMBERS APPEARING IN THE INDIVIDUAL ISSUES OF THE OFFICIAL GAZETTE FOR 1963

Issue of	Vol.	No.	First Number in Issue			
			Patents	Designs	Plant Patents	Reissues
Jan. 1	786	1	3, 070, 801	194, 304	None	25, 309
Jan. 8		2	3, 071, 775	194, 342	2, 208	25, 317
Jan. 15		3	3, 072, 911	194, 389	2, 217	25, 321
Jan. 22		4	3, 074, 069	194, 420	None	None
Jan. 29		5	3, 075, 195	194, 449	2, 221	25, 324
Feb. 5	787	1	3, 076, 195	194, 495	None	25, 326
Feb. 12		2	3, 076, 970	194, 527	2, 224	None
Feb. 19		3	3, 077, 602	194, 580	2, 227	25, 329
Feb. 26		4	3, 078, 465	194, 657	2, 230	25, 337
Mar. 5	788	1	3, 079, 606	194, 737	2, 232	25, 341
Mar. 12		2	3, 080, 563	194, 774	2, 233	25, 344
Mar. 19		3	3, 081, 459	194, 829	None	25, 351
Mar. 26		4	3, 082, 425	194, 862	2, 243	25, 358
Apr. 2	789	1	3, 083, 367	194, 904	2, 244	25, 363
Apr. 9		2	3, 084, 344	194, 967	2, 247	25, 368
Apr. 16		3	3, 085, 247	195, 020	2, 251	25, 369
Apr. 23		4	3, 086, 207	195, 079	None	25, 372
Apr. 30		5	3, 087, 160	195, 113	2, 254	25, 375
May 7	790	1	3, 088, 114	195, 163	2, 258	25, 378
May 14		2	3, 089, 143	195, 189	None	25, 383
May 21		3	3, 090, 045	195, 247	2, 259	None
May 28		4	3, 090, 961	195, 297	None	25, 389
June 4	791	1	3, 091, 768	195, 326	None	None
June 11		2	3, 092, 837	195, 394	2, 262	25, 393
June 18		3	3, 093, 829	195, 450	None	25, 395
June 25		4	3, 094, 701	195, 495	2, 265	25, 405
July 2	792	1	3, 095, 572	195, 541	None	25, 408
July 9		2	3, 096, 522	195, 617	None	25, 411
July 16		3	3, 097, 360	195, 663	2, 269	25, 415
July 23		4	3, 098, 232	195, 713	None	25, 419
July 30		5	3, 099, 011	195, 756	2, 270	25, 427
Aug. 6	793	1	3, 099, 837	195, 810	2, 271	25, 431
Aug. 13		2	3, 100, 301	195, 936	2, 274	25, 432
Aug. 20		3	3, 100, 896	196, 032	None	None
Aug. 27		4	3, 101, 476	196, 096	2, 275	25, 436
Sept. 3	794	1	3, 102, 270	196, 166	2, 277	25, 439
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